

**IMPACT OF CURRENT SPORT AND RECREATION POLICY IN SOUTH
AFRICA ON THE PROVISION OF SPORT AND RECREATION
OPPORTUNITIES FOR PERSONS WITH DISABILITIES IN
MARGINALISED COMMUNITIES**

A thesis in fulfilment of the requirements for the degree

MA Sport and Recreation Management

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FACULTY OF HUMANITIES

By

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DECLARATION

I, Michelle Joubert, hereby declare that this research for the degree, MA (Human Movement Science), at the University of Pretoria, has not previously been submitted by me for the degree, at this or any other university; that it is my own work in design and execution, and that all materials from published sources contained herein have been duly acknowledged.

.....

Date

.....

Signature

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SUMMARY

Candidate:	Michelle Joubert
Degree:	MA (Sport and Recreation Management)
Title of Dissertation:	Impact of current sport and recreation policy in South Africa on the provision of sport and recreation opportunities for persons with disabilities in marginalised communities
Study leader:	Dr. Engela van der Klashorst

Research has shown that participation in sport and recreation is beneficial in numerous ways. Some of these benefits include physical and health benefits; behavioural and social benefits; cognitive benefits and psychological benefits. However, barriers to physical activity participation for persons with disabilities exist. Sustainable sport and recreation interventions have the potential to address and eliminate various barriers to physical activity participation for persons with disabilities.

Current service provision approaches for persons with disabilities in Tshwane focus on individual treatment of disabilities and excludes most disabled individuals. Expanding individual intervention to community intervention will ensure the inclusion in physical activity participation in marginalised communities such as Mamelodi. A great number of potential participants are excluded from interventions as marginalised communities are at risk of fragmented interventions. The social and environmental context in middle and higher socioeconomic communities allow for participation as opposed to lower socioeconomic communities. South African policies associated with sport and recreation participation for persons with disabilities do not allow for continuous participation in sport and recreation intervention programs as it is inadequate and is not applied in marginalised communities like Mamelodi.

The overall aim of the study was to evaluate sport and recreation service delivery for persons with disabilities in the marginalised community of Mamelodi using a socio ecological approach as a theoretical lens.

This study utilised a qualitative approach to ask the research question: *How can a socio ecological approach to sport and recreation service delivery for persons with*

disabilities in the marginalised community of Mamelodi assist in providing a more comprehensive application of policy?

Results of the study included the limitation of sport and recreation participation opportunities for persons with disabilities present in marginalised communities such as Mamelodi. Despite the described inclusion of persons with disabilities in policies such as the National Sport and Recreation Plan (2012), sport and recreation participation opportunities remain nonexistent.

The conclusion of the study confirmed that policies related to sport and recreation participation for persons with disabilities in South Africa are not implemented on community level despite its existence.

The study concludes by recommending that the lack of sport and recreation service delivery for persons with disabilities can, and should, be addressed through the use of a socio ecological approach.

Key Words: Community; Disability; Impairment; Inclusion; Policy; Sport and Recreation Interventions

OPSOMMING

Kandidaat:	Michelle Joubert
Graad:	MA (Sport-en Rekreasiebestuur)
Titel van Verahandeling:	Impak van huidige sport- en rekreasiebeleid in Suid-Afrika oor die verskaffing van sport- en ontspanningsgeleenthede vir persone met gestremdhede in gemarginaliseerde gemeenskappe
Studieleier:	Dr. Engela van der Klashorst

Navorsing het getoon dat deelname aan sport en rekreasie op talle maniere voordelig is. Van hierdie voordele sluit in fisiese en gesondheidsvoordele; gedrags- en sosiale voordele; kognitiewe voordele en sielkundige voordele. Daar is egter hindernisse vir fisieke aktiwiteit deelname van persone met gestremdhede. Volhoubare sport- en rekreasie intervensies het die potensiaal om verskeie hindernisse vir fisieke aktiwiteitsdeelname vir persone met gestremdhede aan te spreek en uit te skakel.

Huidige diensverskaffingsbenaderings vir persone met gestremdhede in Tshwane fokus op individuele behandeling van gestremdhede en sluit die meeste gestremde individue uit. Uitbreiding van individuele intervensies na gemeenskapsintervensie sal verseker dat insluiting in fisieke aktiwiteit deelname aan gemarginaliseerde gemeenskappe soos Mamelodi beskikbaar word. 'n Groot aantal potensiële deelnemers word van intervensies uitgesluit aangesien gemarginaliseerde gemeenskappe die risiko loop van gefragmenteerde intervensies. Die sosiale en omgewingskonteks in middel- en hoër sosio-ekonomiese gemeenskappe maak voorsiening vir deelname, anders as laer sosio-ekonomiese gemeenskappe. Suid-Afrikaanse beleid wat verband hou met sport- en rekreasie deelname vir persone met gestremdhede, maak nie voorsiening vir deurlopende deelname aan sport- en rekreasie-intervensieprogramme nie, aangesien die beleid onvoldoende is en nie in gemarginaliseerde gemeenskappe soos Mamelodi toegepas word nie.

Die algemene doel van die studie was om sport- en rekreasie dienslewering vir persone met gestremdhede in die gemarginaliseerde gemeenskap van Mamelodi te evalueer deur 'n sosio-ekologiese benadering as teoretiese lens te gebruik.

Hierdie studie het 'n kwalitatiewe benadering aangewend om die volgende navorsingsvraag te vra: *Hoe kan 'n sosio-ekologiese benadering tot sport- en*

rekreasienslewering vir persone met gestremdhede in die gemarginaliseerde gemeenskap van Mamelodi help om 'n meer omvattende toepassing van beleid toe te pas?

Uitslae van die studie sluit in die beperking van sport- en rekreasiendeelname geleenthede vir persone met gestremdhede wat in gemarginaliseerde gemeenskappe soos Mamelodi voorkom. Ten spyte van die omskrywing van persone met gestremdhede in beleide soos die Nasionale Sport- en Rekreasiplan (2012), bly sport- en rekreasiendeelname geleenthede onbestaanbaar.

Die gevolgtrekking van die studie het bevestig dat beleide wat verband hou met sport- en rekreasiendeelname vir persone met gestremdhede in Suid-Afrika nie op gemeenskapvlak geïmplementeer word ten spyte van sy bestaan nie.

Die studie sluit af met die aanbeveling dat die gebrek aan sport- en rekreasienslewering vir persone met gestremdhede moet aangespreek word deur die gebruik van 'n sosio-ekologiese benadering.

Sleutelwoorde: Beleid; Gemeenskap; Gestremdheid; Inkorting; Insluiting; Sport- en Rekreasienslewering

CHAPTER ONE

1. INTRODUCTION, AIM, RESEARCH PROBLEM, AND SUMMARISED METHODOLOGY OF THE STUDY

1.1 INTRODUCTION

*“When you judge someone based on a diagnosis, you miss out on their abilities,
beauty and uniqueness.”*

- (Unknown)

Disability, often defined as an impairment, needs to be understood as a social and political issue rather than merely a medical issue (Oliver, 1998). Disability is regularly portrayed as a problem in body functions and structures, such as significant loss or deviation, as well as intellectual and cognitive dysfunctions (ICF-WHO, 2001), and it is on the basis of this difference that persons with disabilities are excluded.

Society places social restrictions on disabled individuals and set their standards for functional independence (Robertson & Long, 2008). If disabled individuals function ‘below’ standards set by society, they are often portrayed as inferior. Disabled individuals have to survive in a community ‘system’ designed for what is seen as ‘normal’ human beings. Society causes the greatest barriers to inclusion for persons with disabilities. Society, as a whole, tends to disregard the needs of disabled persons. Statistics indicate that over one billion people in the world live with disability (Rasmussen, Wiedemann, Kryger, Koenen, Trimmel & Boersma, 2015).

Persons with disabilities still face considerable challenges despite international policy addressing equal rights and access to different opportunities and services. Many barriers for persons with disabilities exist. One of the greatest barriers to participation and inclusion is access. Buildings, programs and opportunities are inaccessible to disabled persons which contribute to exclusion.

Participation in sport and recreation intervention programs is beneficial to persons with disabilities. Benefits derived from participation in a sport and recreation program include; enhanced quality of life, self-determination, feelings of belonging, various health benefits and improved self-image. The promotion of self-determination should be an important aspect included in an intervention program.

Self-determination is the combination of skills, knowledge, and beliefs that enable a person to engage in goal-directed, self-regulated and autonomous behaviour (Algozzine, Browder, Karvonen, Test & Wood, 2001).

Participation in sport and recreation interventions is strongly influenced by a country's policy. Every country has its own unique policies regarding persons with disabilities. The National Sport and Recreation Plan (NSRP, 2012) put forth by the Department of Sport and Recreation, South Africa, comply with global legislation in theory. The NSRP (2012: 19) points out that it *“paves the way to ensure that as many South Africans as possible have access to sport and recreation, especially those from previously disadvantaged communities.”* The NSRP (2012) therefore indicates a focus on inclusion, accessibility and equitability. In all the activities, as outlined in the NSRP (2012), special emphasis is put on the inclusion, empowerment and promotion of government's priority groups, namely the youth, the aged, women, rural communities and persons with disabilities (NSRP, 2012). However, application of policy in marginalised communities remains fragmented and application on grass root level seems to be lacking.

The impact of legislation on participation opportunities in countries in which policy is implemented, for example, the United States of America's Americans with Disabilities Act (ADA) are visible through the availability of opportunities for disabled persons on both community and national level. The Americans with Disabilities Act, for example, necessitate the inclusion of persons with disabilities in all services and programs provided as well as providing full and equal access to all facilities where services and programs are delivered (Robertson & Long, 2008).

1.2 CLARIFICATION OF TERMINOLOGY

In this study the following concepts need clarification:

Active Recreation:

The NSRP (2012) classifies active recreation as an activity with somewhat flexible rules where one competes against oneself or nature and is physically or mentally beneficial.

Ableism:

Hehir (2002) describes Ableism as societal prejudice against persons with disabilities. Ableism is seen as discrimination in favour of able-bodied persons.

Community:

Defining community can be broken down into the sum of its parts – namely the ideas of geographical propinquity, communities of interest, and forms of common affective union (Blackshaw & Crawford, 2009). A locality or place such as a neighbourhood that includes relational interaction or social ties that draw people together (Duffy & Wong, 1996). In this study, community will refer to a collection of marginalised individuals drawn together by their exclusionary status (Van der Klashorst, 2014).

Disability:

The ICF- World Health Organization (2001) defines disability as activity limitations. It must be severe enough to interfere with activities of daily living (ADL) like eating and dressing, general education, employment, communication and mobility (ICF-WHO, 2001). This study will utilise the term disability as an umbrella term when referring to impairment.

Impairment:

The ICF- World Health Organization (2001) defines impairment as problems in body functions and structures, such as significant loss or deviation. Impairments include intellectual and cognitive dysfunctions (ICF-WHO, 2001). An individual may look or perform differently from the societal or cultural norm, but this deviance is not considered a disability if the person can benefit from general education services, is employed with a sufficient salary to live without agency assistance, and does no harm to individuals or the environment (ICF-WHO, 2001).

Inclusion:

According to Rasmussen *et al.* (2015: 6) “*inclusion is seen as a universal human right embracing all people irrespective of race, gender, (dis)ability, health, socio-economic status, etc. Inclusion means making room for all to be part of society, whether at the level of national law or at a local level for*

example, in terms of how a game is organized or a lesson at school is taught.”

Passive Recreation:

Passive recreation is defined by the NSRP (2012) as an activity done in leisure time; is voluntary in participation; is not rule-bound; it is non-competitive in nature; overlaps with other areas and is done purely for fun and enjoyment.

Policy:

Cairney (2012) defines policy as the sum total of government action, from signals of intent to the final outcomes.

Sport:

The word sport is derived from the Latin etymological root *disportare*, meaning ‘to carry away’ (Blackshaw & Crawford, 2009). The NSRP (2012) defines sport as physical exertion which is rule-bound; has an element of competition; holds external rewards; may be physically and mentally beneficial; has economic benefits; is casual or organised; is facility dependant and contributes to social outcomes.

1.3 PROBLEM STATEMENT AND RESEARCH QUESTION

According to Rasmussen *et al.* (2015) sustainable sport and recreation interventions have the potential to play a vital role in addressing the various barriers to physical activity participation of persons with disabilities in marginalised communities. Research has shown benefits including acquisition and mastering of new skills, developing self-awareness, building sustainable relationships, living an active and healthy lifestyle, active participation in society and psychosocial well being.

Current approaches to service provision for persons with disabilities in Tshwane are aimed at the individual treatment of disabilities; however, this excludes most disabled individuals. The expansion of individual intervention to community intervention will facilitate the inclusion in physical activity of participation in marginalised communities. Marginalised communities are currently at risk of fragmented interventions, thereby excluding a great number of potential participants. Persons with disabilities living in middle and higher socioeconomic communities

have more available opportunities to participate as the social and environmental contexts provide for participation.

Policies in terms of sport and recreation participation for disabilities in South Africa are inadequate as it does not provide for sustained opportunities in marginalised communities. Although the National Sport and Recreation Plan indicates a focus on the strategic objectives to assist with broadening the base of sport and recreation participation in South Africa, application in marginalised communities remains fragmented.

Disability interventions require a holistic approach that reflects both the complexity of disabilities as well as the need for community level interventions. This study proposes a socio ecological approach to disability interventions in Tshwane and asks the question: *How can a socio ecological approach to sport and recreation service delivery for persons with disabilities in the marginalised community of Mamelodi assist in providing a more comprehensive application of policy?*

1.4 AIMS AND OBJECTIVES

The overall aim of this study is to evaluate sport and recreation service delivery for persons with disabilities in the marginalised community of Mamelodi using a socio ecological approach.

The overall aim will be achieved through the following objectives:

- To identify policies relating to disability sport and recreation provision in South Africa;
- To determine actual service delivery in disability centres in the marginalised community of Mamelodi;
- To recommend policy implementation alternatives based on a socio ecological approach.

1.5 THEORETICAL FRAMEWORK

This study will utilise the socio ecological theory as a framework from which to explore sport and recreation policy implementation as a potential impacting factor on the holistic well-being of persons with disabilities in marginalised communities.

Humpel, Owen & Leslie (2002) suggest that regular physical activity is strongly associated with better physical and psychological health outcomes, and the promotion of physical activity is now a high public health priority. To develop relevant policies and effective interventions, it is necessary to identify the factors that can be changed to influence physical activity behaviour (Humpel, Owen & Leslie, 2002). Humpel, Owen & Leslie (2002) classified such factors within seven domains: demographic and biological, psychological, cognitive and emotional, behavioural attributes and skills, social and cultural, physical environmental, and physical activity characteristics (perceived effort and intensity). The physical environment as an influencing factor is one of the least understood influences on physical activity and is a relatively new area of research. Policymakers and program providers are increasingly paying attention to the physical environment within which physical activity takes place. Applications of health behaviour theories to physical activity have identified roles for environmental influences, most often in terms of 'barriers,' 'facilitating conditions,' or 'contextual influences'.

The interactions of environmental, personal and behavioural factors on physical activity are well explained by Bandura's social cognitive theory (1986, cited in Humpel, Owen & Leslie, 2002). For each of the three sets of interacting factors the amount of influence exerted on different individuals, activities and circumstances differ for each factor. Bandura argues that when environmental attributes exercise powerful constraints on behaviour, they emerge as the overriding determinants. When it comes to physical activity, environmental attributes may be predominantly influential. Sallis and Hovell (1990, cited in Humpel, Owen & Leslie, 2002) developed a social cognitive model of physical activity behaviour, emphasising the role of environmental attributes, within a context where multiple determinants interact at several levels. 'Ecological' models of health behaviour provide accounts of the interaction of people with multiple levels of determinants within their physical and sociocultural environments (Humpel, Owen & Leslie, 2002). To capture the complexities of ecological frameworks, behaviour-specific models have been identified. Applied to physical activity, such models aim to provide an integrated account of the complex patterns of possible determinants (Humpel, Owen & Leslie, 2002).

Disability ideology consists of a shared interpretative framework widely used to classify people as able or disabled, identify the origin of disability and recommended how to adapt to it (Coakley & Burnett, 2009). According to Coakley & Burnett

(2009) the dominant ‘disability ideology’ in many cultures today is organised around three major ideas and beliefs: Firstly, people can be classified as able-bodied or disabled (or ‘differently abled,’ to be politically acceptable). Secondly, disability exists when a physical or mental impairment interferes with a person’s ability to function ‘normally’ in everyday life. And lastly, disability creates special needs that are best treated with a medical or technological ‘fix’, the care of experts, and adaptive strategies to deal with the challenge of being impaired or relatively disabled.

Ableism involves the perception that being able-bodied is normal and essential for self-sufficiency as opposed to being disabled, subnormal and incapable of fully participating in physical daily activities. The use of a disability ideology leads to the stigmatisation, patronisation, pathologizing and pitying of those who do not meet particular standards of physical or intellectual ability due to a personal impairment. Social organisation and social marginalization of persons with disabilities are caused by the use of the disability ideology and Ableism perspective and these individuals are often segregated from those assumed to be able-bodied. Coakley and Burnett (2009: 18) emphasize this difference in perception by saying that “*variations across all physical and intellectual abilities are a normal part of human life, but disability ideology and Ableism obscure this fact and prevent us from realistically dealing with ability differences across many different situations.*”

Defining disability as resulting from an interaction between the person with impairments and her or his environment means that barriers to participation are wider than simply those connected with the person’s condition (Rasmussen *et al.* 2015). Various barriers have been identified in research including physical, attitudinal and institutional barriers. The environment can furthermore act as a contributory disabling factor. This may include physical, attitudinal and institutional factors which not only impact on opportunities for participation but also affect how opportunities are perceived by persons with disabilities.

Lack of access to facilities and transportation, poor lighting in public spaces or poor communication all lead to physical barriers for persons with disabilities. Physical barriers not only serves as a hindrance in activities of daily living, but also prevents participation in sport and recreation opportunities. Attitudinal barriers such as ignorance and prejudice surrounding disability that leads to marginalization and stigma can severely undermine the psychosocial well-being of persons with disabilities (Rasmussen *et al.* 2015). Limited opportunities for participation in

physical activity can lead to depression, low self-esteem and feelings of low self-worth. Access to employment, social interaction and education are all affected by these feelings due to the influence it has on the empowerment and efficacy of disabled persons. Institutional barriers such as the lack of provision of services or problems with funding or not applying standards and policies can also affect the opportunities and choices persons with disabilities have to fully participate in society (Rasmussen *et al.* 2015).

Research has led to a greater understanding of disabilities. Technical and economic opportunities are increasing in many parts of the world. International and state law have been put in place to ensure the rights of disabled persons. However, in spite of a great amount of research, persons with disabilities are often among the most marginalised in low resource settings, even though they have the same rights to participate in all spheres of life – in family life, at school, in the workplace or in politics (Rasmussen *et al.* 2015). The United Nations Convention on the Rights of Persons with Disabilities (CRPD) (2008, cited in Rasmussen *et al.* 2015) states that no-one should be limited in their social and economic opportunities.

Some of the greatest challenges persons with disabilities face include lack of access to health services, education and employment. This also includes limited opportunities to live independent lives. Decisions with regards to social activities, education, jobs and other services are made on behalf of persons with disabilities due to legal authority carers may have over disabled persons. This may lead to exclusion and marginalisation. Carers may also take informal charge because they fail to realise the degree of capability the person with a disability might have. Persons with disabilities may feel that they have no power or say over their own lives which may also lead to feelings of incompetence.

Policy in the United States of America such as the Americans with Disabilities Act (ADA), for example, require that private and public organizations include persons with disabilities in all aspects and areas of services provided and amenities offered, and also to provide full and equal access to all services and programs (Robertson & Long, 2008). In South Africa, the strategic focus of the National Sport and Recreation Plan (NSRP, 2012) is to reconstruct and revitalize the delivery of sport and recreation towards building an active and winning nation that equitably improves the lives of all South Africans. The NSRP include 3 core pillars of implementation; active nation, winning nation, and enabling environment (NSRP, 2012). To build an active nation the NSRP (2012) specifically focuses on the following strategic

objectives to assist in broadening the base of sport and recreation in South Africa. Firstly, to improve the health and well-being of the nation by providing mass participation opportunities through active recreation; secondly, to maximize access to sport, recreation and physical education in every school in South Africa; and lastly, to promote participation in sport and recreation by initiating and implementing targeted campaigns.

Long term participant development plans include, among others the physical, mental, emotional, and cognitive development of athletes within the entire sports development continuum, including athletes with a disability (NSRP, 2012). The NSRP (2012: 12) states that *“in all the activities, as outlined in the NSRP, special emphasis is put on the inclusion, empowerment and promotion of government’s priority groups, namely the youth, the aged, women, rural communities and persons with disabilities”* The NSRP outlines core values of accessibility and equitability. Sport and recreation should be freely available to all regardless of economic status, gender race, geographical location, ability, disability or language. Every individual should also have an equal opportunity to make for him/herself the life that he/ she is able and wishes to have, consistent with his or her duties and obligations as a member of society without being hindered in or prevented from doing so by discriminatory practices (NSRP, 2012).

1.6 RESEARCH METHODOLOGY SUMMARY

1.6.1 Research Design

The study will adopt a qualitative research design. Qualitative research provides the researcher with an approach to explore and delve into the meaning that individuals or groups assign to a social problem (Creswell, 2009) such as the participation with a disability. Creswell (2013) describes qualitative research as a methodology in which the researcher starts with certain assumptions and a theoretical framework that informs the study of a specific research problem. The purpose of qualitative methodology is to describe and understand, rather than to predict and control (MacDonald, 2012). A proper understanding of policy and the implications of the policy that fuel current practices can only be achieved through the in-depth examination of services provided in marginalised communities. Qualitative research is especially appropriate for this study because it is well suited for the task of representing groups outside the mainstream (Ragin & Amoroso, 2011 cited in Van der Klashorst, 2014).

1.6.2 Research Population

1.6.2.1 Research Sample

This study will include three organizations and institutions based in Mamelodi that provides care to persons with disabilities. Study participants will include managers as well as staff members of the below-mentioned organizations and institutions.

These organizations include:

- Bophelong Centre for the Disabled
- Tshegofatsong Special School
- Alfa and Omega Special Care Centre

1.6.2.2 Sampling Method

This study will utilise purposive sampling in which participants will be chosen on the basis of the specific experience or knowledge or information possessed (Gratton & Jones, 2010). Participants are selected on their knowledge and expertise of disabilities.

1.6.3 Data Collection

Data collection will be done through semi-structured interviews with the managers and staff of the identified disabled facilities in Mamelodi. Data collection will also be done through documentary analysis.

1.6.3.1 Semi-structured interviews

Interviewing is an engaging form of inquiry in which a researcher attempts to elicit information from the respondent through direct questioning (MacDonald, 2012). Individuals develop subjective meanings of their experiences which results in a complex and varied explanation of a social reality (Van der Klashorst, 2014). Interviewing is ideal for the collection of data regarding human perceptions and experiences. The goal of utilising a qualitative research design is to provide an opportunity to understand the complexity of views rather than to narrow meanings to a few categories (Creswell, 2009).

1.6.3.2 Documentary analysis

Documentary sources include policy documentation. The non-reactive nature of documentary sources is useful in researching sensitive issues and providing access to a rich source of data, as it can be categorised as cultural constructions (Clark, Flewitt, Hammersley & Robb, 2014). Documentary sources used in this study are available in the public domain and could, therefore, be consulted without the need to obtain informed consent (Creswell, 2013).

1.6.4 Data Analysis

This study will utilise an objective based data analysis approach. All recorded interviews and documentary sources will be transcribed into rich text format and coded according to the following themes:

- Policies related to disability sport and recreation provision in South Africa.
- Application of policies related to persons with disabilities in organizations and/ or the community.
- Actual service delivery in disability centres in Mamelodi.
- Access to sport and recreation interventions in Mamelodi.
- Policy implementation alternatives based on a socio-ecological approach.

1.7 ETHICAL ASPECTS

Ethical clearance for this study will be obtained through the University of Pretoria's ethical committee. Participation will be voluntary for all participants. Informed consent from all participants will be obtained before any participation takes place. Confidentiality will be maintained throughout this study.

The ethical aspects included in the study are voluntary participation; informed consent; no harm or risks to participants; and privacy.

1.7.1 Voluntary Participation

Participants in the study will not be compelled, coerced or forced to participate. (Mcmillan & Schumacher, 2010; Gratton & Jones, 2010).

1.7.2 Informed Consent

Consent will be obtained by asking participants to sign a letter of informed consent that indicates an understanding of the research and consent to participate (McMillan & Schumacher, 2010; Gratton & Jones, 2010). Participants will be informed of the research aims of this study. All participants will have an opportunity to terminate participation at any time. Full disclosure of any possible risks linked to this study will also be provided to all participants.

1.7.3 No Harm or Risks to Participants

Participants will not be forced to reveal information that may result in embarrassment or danger to home life, school performance, friendships, and the like, as well as direct negative consequences (McMillan & Schumacher, 2010; Cresswell, 2013). This research study will prevent any harm, injury or discomfort to its participants.

1.7.4 Privacy

Privacy of all research participants will be maintained and protected. The researcher will ensure privacy by using confidentiality and the appropriate storing of data (Gratton & Jones, 2010).

1.7.4.1 Confidentiality

No data will be linked to any individual by name. Code names will be made use of for all individual participants. Only the researcher will have access to individual data.

1.7.4.2 Storage of Data

All data linking a participant to a response will be destroyed to ensure the protection of participant identity. Any storage of data will be done in a safe manner. Data will be stored by the Department of Biokinetics, Sport and Leisure Sciences for a period of 15 years.

1.8 CHAPTER CONCLUSION

Chapter One provided an overview of the research problem, methodology as well as an overview of the literature related to the topic. Chapter Two will explore how disabilities are classified and defined.

CHAPTER TWO

2. DISABILITY DEFINED AND CLASSIFIED

2.1 INTRODUCTION

Chapter One provided an introduction and contextualisation of the study. Chapter Two will focus on how disability is defined as well as the classification thereof. It will start by defining disability.

2.2 DISABILITY DEFINED

Disabilities can be defined both from a social and medical perspective. A person is therefore defined by what is perceived to be medically or socially different than to what is seen as normal. Two proposed models that conceptualise disability exist within the study of disabilities: the medical model and social model. A third model, incorporating a medical and social understanding of disabilities, the Biopsychosocial model exists.

2.2.1 Medical understanding of disabilities

Leonardi, Bickenbach, Ustun, Kostanjsek & Chatterji, (2006: 1220) defines disability as *“a state of decreased functioning associated with disease, disorder, injury, or other health conditions, which in the context of one’s environment is experienced as an impairment, activity limitation, or participation restriction.”* Disabilities are often described as impairments. It is however important that a clear distinction between disability and impairment must be made. The WHO (2002) makes this distinction by identifying disability as dysfunctioning at one or more of the following levels: 1) impairments, 2) activity limitations and 3) participation restrictions. *“Disability is an umbrella term for impairments, activity limitations and participation restrictions”* (WHO, 2002: 2).

The WHO (2002: 8) describes the medical model *“as perceiving disability as a feature of the person, directly caused by disease, trauma or other health conditions, which requires medical care provided in the form of individual treatment by professionals.”* Issues regarding disability within this model are addressed from a medical perspective through the use of medical treatment or other interventions.

The International Classification of Functioning, Disability and Health - World Health Organization (ICF-WHO, 2001) provides the following distinction between disability and impairment: a disability can be conceptualised as activity limitation whereas impairment is conceptualised as problems in body functions and structures, such as significant loss or deviation. Impairments include intellectual and cognitive dysfunctions (ICF-WHO, 2001). However, it will only be seen as a disability if it is severe enough to interfere with activities of daily living (ADL) including eating and dressing, general education, employment, communication and mobility (ICF-WHO, 2001). An individual may look or perform differently from the societal or cultural norm, but this deviance is not considered a disability if the person can benefit from general education services, is employed with a sufficient salary to live without agency assistance, and does no harm to individuals or the environment (ICF-WHO, 2001).

2.2.2 Social understanding of disabilities

The social model of disability is described by the WHO (2002: 9) “*as a socially created problem and not an attribute of an individual*” (WHO, 2002: 9). The social model views problems as created by an unaccommodating physical environment which is brought about by attitudes and other features of the social environment (WHO, 2002). To address problems regarding disability a political response is required.

Davis (2013) explains that, in order to understand the disabled body from a social perspective, it is crucial to keep the concept of what is perceived as the norm, or what is referred to as a normal body in mind. Davis (2013) explains the foundation on which definitions of ‘normal’ and ‘disabled’ are often based. According to Davis (2013), most human beings strive to be normal as we live in a world that is based on norms. People rank, and are ranked, on the basis of this conceptual line into categories ranging from sub-normal to above-average. Not deviating from, conforming to or not different from are all ways to describe the term ‘normal.’ A disabled person is seen as different as they deviate from, or do not conform to the norm set by society.

According to Borsay (2004), disability can be viewed as a social construct, where the level of one’s ability in society is dependent on the culture within which the disabled person lives. “*Traditionally, disability was viewed as a personal trouble and a medical condition*” (Borsay, 2004: 3). Any deviation from what is considered as the

norm is seen as a misfortune of a tragic loss (Borsay, 2004). The social model was an alternative to the medical model in that it provided a new way of studying the disability experience. The way ‘normalcy’ is described may give rise to the problems that individuals with disabilities face (Davis, 2013).

Society, according to Davis (2013) seems to have an inherent desire to compare themselves to others. This gives rise to the notion that some concept of a norm must have always been present. The author explicates that “*the idea of a norm is less a condition of human nature than it is a feature of a certain kind of society*” (Davis, 2013: 1). A norm “*implies that the majority of the population must or should somehow be part of the norm*” (Davis, 2013: 3). When a person falls outside a certain societal norm, they are seen as deviant or deviating from the norm. When it comes to disability, persons with disabilities fall outside a societal norm. Therefore, they are perceived as deviants.

Disability was historically perceived differently from the way it is perceived now. Davis (2013) emphasize that the social process of ‘disabling’ came about during the industrialisation period. Attached to this process was a set of practices and discourses linked to late eighteenth and nineteenth-century notions of nationality, race, gender, criminality and sexual orientation.

When used independently, these two models can be viewed as inadequate even though both are partially valid when used separately. Disability is complex in nature. According to the (WHO, 2002: 9) disability presents a dual problem: on the level of an individual’s body as well as on a social level: “*Disability is always an interaction between features of the person and features of the overall context in which the person lives, but some aspects of disability are almost entirely internal to the person, while another aspect is almost entirely external.*”

2.2.3 Biopsychosocial model

A more plausible model would be one that is a combination of the medical and social model. The ICF-WHO is based on the biopsychosocial model, a model that is based on both the medical and social model. Porter and Van Puymbroeck (2007) explain that the term ‘biopsychosocial’ indicates the interaction between the biological aspects with the psychological and social environment of the individual. “*ICF-WHO provides, by this synthesis, a coherent view of different perspectives of health:*

biological, individual and social” (WHO, 2002: 9). Diagram 2.1 represents the model of disability that forms the basis for the ICF-WHO:

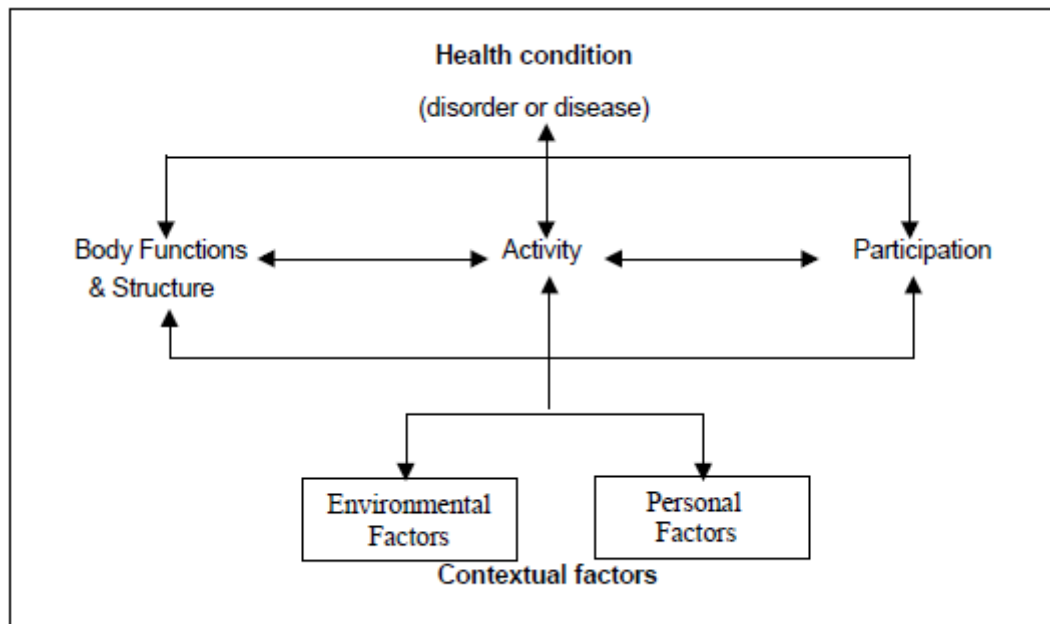


Diagram 2.1 Biopsychosocial Model of disability (WHO, 2002: 9)

As illustrated by the diagram, disability and functioning are outcomes of interactions between health conditions (disorder, disease or injury) and contextual factors (environmental factors and personal factors) (WHO, 2002). The ICF was strongly influenced by the social model as it recognises how the social environment can aggravate a person’s disability if society does not adapt to it. External environmental factors include architectural characteristics, social attitudes, climate, legal and social structures. Internal personal factors include age, gender, coping mechanisms, education, social background, experience and overall behaviour. The diagram demonstrates three levels of human functioning as classified by the ICF-WHO: 1) functioning at the level of body or body part, 2) the whole person and 3) the whole person in a social context (WHO, 2002). The WHO (2002) notes that disability, therefore, involves the dysfunctioning at one or more of the following levels: 1) impairments, 2) activity limitations and 3) participation restrictions (Porter & Van Puymbroeck, 2007).

2.3 TYPES OF DISABILITIES

The word ‘disability’ is a collective noun that is used for a variety of mental and physical disabilities. Disabilities are therefore classified as either a mental or physical disability, however, areas such as sport and education often have a separate

classification that assists in categorisation and participation in that area. Disabilities can further be categorised in terms of extent and permanency (Barron, 2001) as illustrated in Figure 2.1.

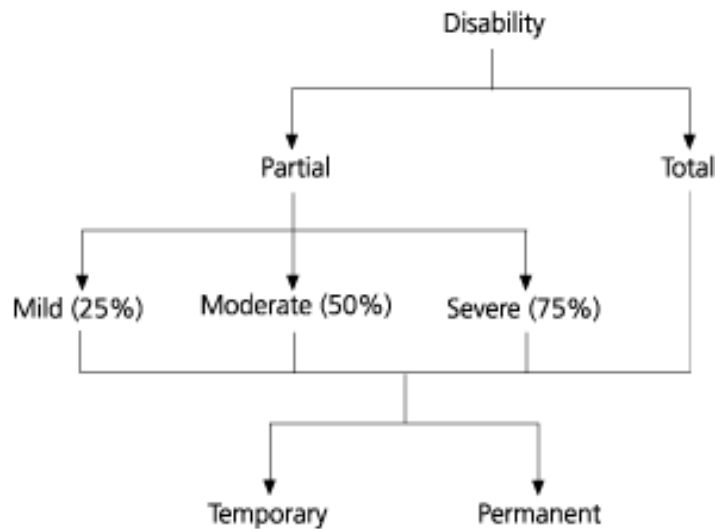


Figure 2. 1 Extent and permanency of disability

2.3.1 Mental disabilities

Mental disabilities include cognitive, emotional and sensory disorders, for example mental retardation, Alzheimer’s disease and mental illness (Durstine, Painter, Franklin, Morgan, Pitetti & Roberts, 2000).

2.3.2 Physical disabilities

Physical disabilities can be the result of a genetic disorder, for example when a person is born without a limb; a traumatic injury to the central nervous system, for example Quadriplegia; or of a medical condition such as a Stroke, Multiple Sclerosis, Spina Bifida and Muscular Dystrophy (Durstine *et al.* 2000; Law, King, King, Kertoy, Hurley, Rosenbaum, Young, & Hanna, 2006). Durstine *et al.* (2000) further include the deaf and hard of hearing as well as persons with a visual impairment under physical disabilities.

2.3.3 Levels of disability

There are five levels of disability namely Quadriplegia (also known as Tetraplegia), Paraplegia, Diplegia, Triplegia and Hemiplegia:

- **Quadriplegia or Tetraplegia** is paralysis in all four limbs, the trunk and may also affect organ functions like respiration, blood pressure and temperature regulation;
- **Paraplegia** includes paralysis of the lower limbs. Involvement of the trunk and organ functions may also be present or affected, depending on the level of damage or the extent of the paralysis;
- **Diplegia** is a paralysis of corresponding parts on both sides of the body that typically affects the legs more severely than the arms;
- **Triplegia** is paralysis of three limbs;
- **Hemiplegia** involves loss of sensation in either the right or the left side of the body.

In some cases, more than one disability or impairment may be prevalent concurrently. Usually, disability and impairment coincide, where an impairment (a problem in body function) is severe enough to interfere with activities of daily living, in which case it becomes a disability. According to Dudzik, Elwan and Metts (2000: 8) “*impairment (caused by a disease or disorder) can result in a disability.*” The authors provide the following example: “*polio (a disease) can cause paralysis (an impairment); this, in turn, can result in limiting a person’s mobility (a disability), which can lead to a person’s inability to secure employment*” (Dudzik, Elwan & Metts, 2000: 8).

2.4 CAUSES OF DISABILITY

The causes of disability are vast. Dudzik, Elwan and Metts (2000) articulate that when looking at causes of disability, one must draw a distinction between direct causes - proximate determinants - of impairment, such as congenital causes; disabling diseases; accidents and injuries; and indirect factors, many of which are linked to poverty.

2.4.1 Direct causes of disability

One of the leading causes of disability is accidents resulting in disabling injuries. Road traffic accidents are the most common resulting in disabling injuries. Another common cause of disabling injuries is work-related accidents (Dudzik, Elwan & Metts, 2000).

2.4.2 Indirect factors contributing or resulting in disability

WHO (1981, cited in Dudzik, Elwan & Metts, 2000) emphasises that the major causes of disabling impairments in developing countries are malnutrition, communicable diseases, low quality of perinatal care, and accidents (including violence). The authors (Dudzik, Elwan & Metts, 2000: 16) further states that “*causes of disability, which may vary greatly within and between countries, are affected by level of development, standards of public health services, age structure, and lifestyle.*”

Disability due to communicable disease, malnutrition and injury is associated with poverty. Communicable diseases like poliomyelitis (commonly known as polio), trachoma, leprosy and measles are more prevalent in developing countries. The spread of these diseases may be due to inadequate sanitation. Malnutrition not only increases susceptibility to other disabling diseases but may also be a direct cause of disability. “*Micronutrient deficiencies can have severe direct consequences; for example, lack of vitamin A can cause eye disorders and even blindness*” (Dudzik, Elwan & Metts, 2000: 17). UNICEF (1998, cited in Dudzik, Elwan & Metts, 2000) also links impaired intellectual development to child malnutrition. Workers from developing countries are required to work in more physically-demanding labour environments, which make them more prone to accidents leading to injuries as opposed to workers from high-income countries. Furthermore, lack of proper, timely health care and rehabilitation services often worsen disease outcomes (Dudzik, Elwan & Metts, 2000). This causes impairments to turn into chronic disabilities.

2.5 ICF-WHO AS CLASSIFICATION

This study will utilise the World Health Organization’s International Classification of Functioning, Disability and Health (ICF-WHO) conceptualisation. This Classification “*provides a consistent and complete conceptualisation of disability*” (ICF-WHO, 2001; WHO, 2006; Ustun *et al.* 2003 as cited in Leonardi *et al.* 2006: 1220).

A cross-culturally applicable classification system was created by the WHO in a pursuit to create standardized terminology and to provide a conceptual framework (Bornman, 2004). “*In the 1980s the ‘International classification of impairment, disability and handicap’ (ICIDH) was developed and widely used, followed by a*

revision of the classification towards the end of the 1990s resulting in the 'International classification of functioning, disability and health' (ICF-WHO) which was formally endorsed in May 2001" (Bornman, 2004: 182). The ICF is now accepted globally and is used in many health-care settings, social services and organisations (Howard, Browning & Lee, 2007).

2.5.1 The purpose of ICF-WHO

The International Classification of Functioning, Disability and Health, known as ICF-WHO, provide a standard language and framework for the description of health and health-related states (WHO, 2002). The ICF-WHO is a multipurpose classification of health and health-related domains and is a valuable tool that could be made use of in different sectors. The ICF-WHO describes an individual's level of capacity (what they can and cannot do in their environment), their level of performance (what they actually do in their environment), as well as changes in body function and structures. Two lists are utilised to classify these domains from body, societal and individual perspectives: a list of body functions and structures, and a list of domains of activity and participation (WHO, 2002). ICF-WHO also lists environmental factors that interact with all these components: *"In ICF-WHO, the term functioning refers to all body functions, activities and participation"* (WHO, 2002: 2).

The ICF-WHO is used as a versatile tool to measure functioning in society regardless of one's disability or impairment. The ICF-WHO serves as framework to organise information (Perenboom & Chorus, 2003). The ICF-WHO is designed to have a much broader area of use than traditional classifications of health and disability (WHO, 2002). The ICF-WHO focuses on health and functioning rather than on disability (WHO, 2002; Perenboom & Chorus, 2003). Previously, disability began where health ended; once you were disabled, you were in a separate category (WHO, 2002). A shift away from this old way of thinking is prevalent. ICF-WHO puts the notions of 'health' and 'disability' in a new light (WHO, 2002). The ICF-WHO acknowledges that disability is not something that happens to only a minority of humanity and that every human being can experience a decrement in health and thereby experience some disability (WHO, 2002). *"ICF-WHO thus 'mainstreams' the experience of disability and recognises it as a universal human experience"* (WHO, 2002: 3). Impact rather than the cause is focused on. This allows all health

conditions to be equally compared using a common metric (the ‘ruler’ for health and disability).

Porter & Van Puymbroeck (2007: 47) explains that the ICF-WHO “*reflects a universal, integrative, and interactive approach to functioning, disability, and health.*” The aim of the ICF-WHO as global model is to provide classifications of health and functioning while at the same time allowing for a holistic approach to well-being (Porter & Van Puymbroeck, 2007). The ICF-WHO aims to provide a common language for the use across different disciplines. The following quotation is an excellent description of what the WHO is trying to attempt: “*A commonly used term, globalization refers to the development of a new global consciousness that is based on changing conceptions of reality*” (Harris & Seid, 2004; Robertson, 1992, cited in Howard, Browning & Lee, 2007). This is illustrated in the ICF-WHO’s four primary aims (Howard, Browning & Lee, 2007). The four aims are as follows:

1. to provide a scientific basis for understanding and studying health and health outcomes;
2. to establish a common language for describing health in order to improve communication at all levels of health and society;
3. to permit comparison of data across countries, health care disciplines, health-related services;
4. to provide a systemic coding scheme for health information systems” (ICF-WHO, 2001: 5 as cited in Howard, Browning & Lee, 2007: 62).

The future application of the ICF-WHO (2001) is presented by Browning, Howard and Lee (2007) as:

1. A statistical tool for the collection and recording of data;
2. A research tool to measure outcomes and quality of life or environmental factors;
3. A clinical tool during assessment or, as assistance in matching treatments with a person’s health condition;
4. A social policy tool when designing grant and compensation systems;
5. An educational tool to raise awareness and facilitate social action to better society and its individuals.

Bornman (2004) emphasises the use of the ICF in intervention as positive as it:

1. Emphasises the strength of individuals with a disability by focusing on the participation of each in their specific environment. It describes comprehensively both the barriers and the facilitators that either restrict or facilitate interaction with others;
2. Assists persons with disabilities to participate more through the provision of interventions that are aimed at enhancing the competencies of the individual this is done by removing the barriers and increasing the facilitators;
3. Focuses on the broader environmental factor of social inclusion that allows for a change in societal attitudes towards disability. It informs and as result change the social environment;
4. Provides a measurement on which the environmental and personal factors that may obstruct participation can be measured. This serves as an indication that can provide information to plan interventions.
5. Determines whether a specific intervention has been effective as it determines the impact of interventions on all three levels: the impact on body function and structure; the impact on activity level; and, the impact on the participation level.

2.5.2 ICF-WHO as International Classification of Functioning, Disability and Health

The International Classification of Functioning, Disability, and Health (ICF-WHO) is a revision of International Classification of Impairment, Disabilities and Handicaps (ICIDH) developed by the World Health Organization (Porter & Van Puymbroeck, 2007). To describe the consequences of health, the WHO created the International Classification of Impairment, Disabilities and Handicaps (ICIDH) in 1980. In 1997 - 1999 the ICIDH was revised and was newly referred to as the International Classification of Functioning, Disability, and Health (ICF-WHO). The ICF-WHO was supported and approved by the 54th World Health Assembly on May 22, 2001 for the purpose of international use.

The ICF-WHO is a global model representing functioning and disability. It has undergone considerable field-testing and cross-cultural development (Leonardi *et al.*

2006). Porter & Van Puymbroeck (2007: 48; WHO, 2001) points out that *“the ICF-WHO has been tested for cultural applicability in over 50 countries at a variety of United Nations-affiliated organizations and was developed by a consensus of 652 people from 18 countries over seven years.”*

The ICIDH was criticised for its strong association with the medical model rather than the social model (Bornman, 2004). It was also criticised for its *“internal inconsistencies and lack of clarity of the terms ‘disablement’ and ‘handicap’”* (Frattali, 1998 as cited in Bornman, 2004: 184). The term ‘handicap’ fell into disuse due to concerns that were raised with regards to the use of the term. Persons with disabilities considered the word ‘handicap’ to have socially imposed negative connotations. Because the ICIDH focused on diagnosis alone, it failed to predict the following: predict service needs, the outcomes of interventions and the level of care needed and provided. *“These factors together with an international focus on the participation and functioning of individuals within a particular community and a sharper look at the environmental factors that restrict or facilitate participation necessitated the revision of the ICIDH”* (Bornman, 2004: 184). McConachie, Clover, Forsyth, Jarvis & Parkinson (2006) highlights that the ICF endorse the principle that participation applies to all people regardless of age and culture. Measuring aspects of participation intended solely for disabled children is therefore not helpful.

The umbrella term ‘functioning’ is used to indicate positive aspects at all three levels of the ICF. The term ‘disability’ is, however, used as umbrella term for the negative aspects. Disability is seen as multi-dimensional phenomenon that results from the impaired interaction between individuals and the environment. Figure 2.2 provides a graphical presentation of the ICF model (also known as the Biopsychosocial model).

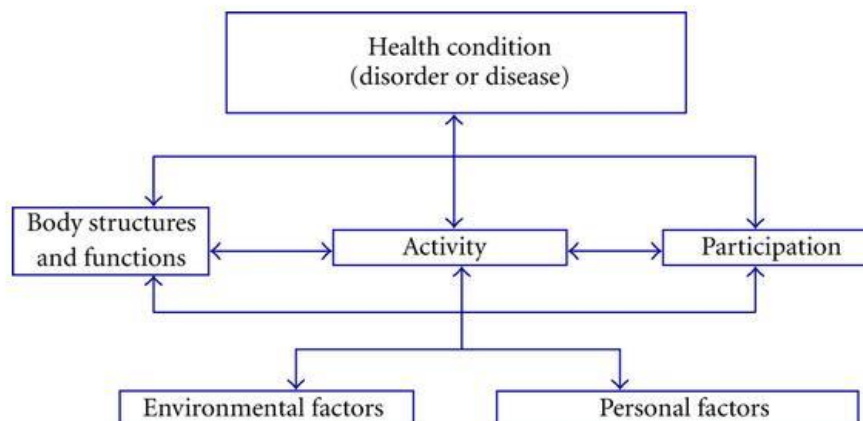


Figure 2. 2 The ICF Model

In this figure, it is clear how the health condition interacts with both the environmental and personal factors to result in either functioning or disability in one or more of the three levels.

The three levels of functioning are further explained in a table by Bornman (2004). According to the ICF functioning, disability and health can be classified on body level, in terms of body functions and structure referring to the physiological and psychological functioning of body systems; the individual level, in terms of the execution of a range of activities or tasks by an individual; and, society level, in terms of a person's participation in a life situation (Howard, Browning & Lee, 2007; Perenboom and Chorus, 2003). McConachie *et al.* (2006) explains how the social model of disability is inherent in the ICF model by using an example: an adolescent boy using a self-propelling may have full independence in a well adapted house but may encounter difficulties outside the house, for example with public transportation and lack of adapted amenities. The boy is therefore excluded not because of his disability, but because of barriers in the social and physical environment.

ICF further highlights the importance of the impact of environmental and personal factors on functioning. According to the Classification system, environmental factors refer to the physical, social and attitudinal environment in which people live. Environmental factors influence a person from outside and include the attitude of the society in which a person lives which is inherently directed by factors such as physical access to buildings and a country's legal system. Environmental factors vary from the exosystem – national policies – to the immediate, microenvironment, for example, access to a wheelchair. Howard, Browning and Lee (2007) highlight the opportunity provided by the ICF to indicate environmental barriers as positive, as it allows health care professionals to identify the strengths that may contribute to the health of an individual. Environmental factors can, however, be classified either as a barrier or a facilitator (Perenboom & Chorus, 2003).

Personal factors include the characteristics of the individual that have an impact on how the disability is experienced. Personal factors include gender, age, additional health conditions, lifestyle, social background, education and past and current experiences of the disability; and characteristics that may potentially impact an individual's experience with disability. Due to the large social and cultural variations associated with personal factors, these factors are not given codes in the ICF model (Howard, Browning & Lee, 2007). Bornman (2004) adds that it also includes

protective factors that can contribute to better developmental outcomes for children from a high-risk background.

2.5.3 Underlying principles of ICF-WHO

The World Health Organisation (2002: 13) identified several underlying principles for ICF-WHO. WHO (2002: 13) state that *“There are general principles that underlay the conception of ICF-WHO as a health classification of functioning and disability and are closely linked to the biopsychosocial model of disability.”* The ICF-WHO principles are crucial and guided the revision process. The ICF-WHO principles include: universality, neutrality and environmental factors.

- **Universality:** This principle states that classification with regards to functioning and disability should be applicable to all persons regardless of their health condition. Thus, the ICF-WHO is about all people and is concerned with all persons’ functioning. The intent is not for it to become a tool for labelling persons with disabilities as a separate group.
- **Neutrality:** Classification should express both positive and negative aspects of each part of functioning and disability. This can be accomplished through ensuring domain names are worded in a neutral language.
- **Environmental factor:** The ICF-WHO includes Contextual Factors, which lists environmental factors, in order to complete the social model of disability. *“These factors range from physical factors such as climate and terrain, to social attitudes, institutions, and laws”* (WHO, 2002: 14). An important aspect for the scientific understanding of the phenomena included under the umbrella terms 'functioning and disability' is the interaction with environmental factors.

2.5.4 Advantages and disadvantages of ICF-WHO as classification framework

2.5.4.1 Advantages

A primary advantage of the ICF-WHO as a tool is that it codes information about individuals’ health *“in a way that integrates their experiences of both the medical and social aspects of their health condition”* (Bornman, 2004: 186). It focuses on human functioning. Disability is described from the perspective of an individual’s life circumstances and how it influences a person’s experience. Bornman (2004: 186)

argues that “*this ensures that the locus of the problem and the focus of intervention are situated not solely within the individuals, but also within their physical, social and attitudinal environments.*” For this reason, the label given to a person with a disability now describes the outcome of the interaction between the individual and their environment. Therefore, it is no longer merely a label given to a person with a disability. Additionally, the ICF-WHO is culturally appropriate, etiologically neutral and covers a person’s whole lifespan. According to Bornman (2004: 186) “*it can thus be used by any individual with a health condition in that it describes the consequences of any such condition, ranging from someone with a minor impairment such as hay fever, through to someone with severe impairments, activity limitations and participation restrictions, e.g. an individual with a dual sensory impairment.*” Bornman (2004: 187) “*the more severe end of the spectrum covers the category of individuals traditionally referred to as ‘disabled’.*” Therefore, the ICF-WHO is not a minority model as it incorporates the basic principles of universalism.

2.5.4.2 Disadvantages

The ICF-WHO framework has certain limitations in spite of it being used universally. “*The ICF-WHO uses a complex coding system that is counterbalanced by its common-sense notion*” (Bornman, 2004: 187). Objectives between professionals differ greatly. Comparing data is, therefore, a great challenge. Bornman (2004: 187) is of the opinion that “*the heterogeneity is exaggerated by the fact that in this context most professionals are mainly concerned with assessment and its associated individual orientation data, without much standardization of procedures.*” “*A lack of appropriate concepts with trans-professional currency has led to communication difficulties, a problem compounded by the ambiguity and confusion in terminology*” (Bornman, 2004: 187).

2.6 CHAPTER CONCLUSION

Chapter Two described the different ways in which disability is defined and discussed the classification thereof according to the ICF-WHO (2002). Following in Chapter Three is a discussion of the various benefits associated with sport and recreation participation for persons with disabilities.

CHAPTER THREE

3. SPORT AND RECREATION PARTICIPATION BENEFITS FOR PERSONS WITH DISABILITIES

3.1 INTRODUCTION

Chapter Two provided an overview of the definition and classification of disabilities. It discussed the ICF-WHO International Classification of Functioning and Disability in detail. This chapter will look at the possible benefits that a person with a disability can derive from participating in sport and recreation interventions.

3.2 BENEFITS DERIVED FROM PARTICIPATION IN SPORT AND RECREATION INTERVENTIONS

The terms ‘physical activity’ and ‘organised activities’ are used interchangeably to describe sport and recreation interventions. The WHO (2001) defines physical activity as any bodily movement produced by skeletal muscles that require energy expenditure. Sport and recreation interventions involve physical activity as it requires bodily movement produced by skeletal muscles that result in energy expenditure. Organised activities are structured activities designed to produce a certain outcome and involve mostly group participation. Sport and recreation interventions are therefore organised activities, as it is structured in such a manner as to produce certain outcomes and is designed to cater for group participation. Sport and recreation interventions may however also involve individual or single participation.

Sport and recreation interventions, through physical activity, have the potential to produce various health benefits for persons with disabilities. It has an impact on all aspects of health and well-being, including physical well-being, cognitive well-being and psychosocial well-being (Rasmussen, Wiedemann, Kryger, Koenen, Trimmel & Boersma, 2015). Sport and recreation interventions should be organised in such a manner as to ensure the production of positive health outcomes.

Participation in organised activities is beneficial as it aids in skill development, long-term mental and physical health as well as social relationships (Simeonsson, Carlson, Huntington, McMillen & Brent, 2001; Law, *et al.* 2006; Specht, King, Brown, Foris, 2002). Physical activity has the ability to prevent and treat various physical and

psychological disorders (Dishman, Washburn & Heath, 2004 as cited in Sallis, Cervero, Ascher, Henderson, Kraft & Kerr, 2006). Rasmussen *et al.* (2015: 55) emphasise the benefits of participation in sport and recreation activities by stating that “*positive physical activity experiences permeate the quality of all aspects of life – improving education, health, psychological and social well-being and lifelong success.*” Sport and recreation participation not only provide participants with immediate benefits but has a positive long-term impact that lasts throughout one’s lifespan (Rasmussen *et al.* 2015).

Inactive lifestyles are a serious public health challenge faced worldwide (Sallis *et al.* 2006). Those at highest risk for inactivity are women, people from lower socioeconomic communities and persons with disabilities (Brownson, Baker, Housemann, Brennan & Bacak, 2001; Rimmer, Riley, Wang, Rauworth & Jurkowski, 2004). In spite of ample evidence indicating the benefits of physical activity, persons with disabilities are far less likely to engage in physical activity than persons without disabilities (Rimmer *et al.* 2004). Persons with disabilities face various barriers as well as facilitators which may directly have an influence on their participation levels (Humpel & Owen, 2002 as cited in Rimmer *et al.* 2004). Physical activity behaviour patterns are also directly related to availability and accessibility of facilities and resources. People are more likely to participate in physical activity if they believe that they have access to facilities and resources (Brownson *et al.* 2001). Access to, and the use of community facilities and resources like walking trails, may be beneficial in promoting physical activity (Brownson *et al.* 2001).

Persons with disabilities may experience secondary complications due to inactivity. These secondary complications include muscle atrophy, orthostatic intolerance, reduced maximal oxygen uptake (V.O₂max), decubitus ulcers, osteoporosis and impaired circulation to the lower extremities leading to eventual thrombus formation (Durstine *et al.* 2000). Additionally, a negative psychological impact through increased depression, a diminished self-efficacy, a greater dependence upon others for daily living and a reduced ability for normal societal interactions may be caused due to physical inactivity (Durstine *et al.* 2000).

Adequate sport and recreation interventions should, therefore, focus on a holistic approach for maintaining and improving physical and mental well-being. It should also be enjoyable, safe, effective and maximise accessibility (Durstine *et al.* 2000).

3.2.1 Physical and health benefits

An ample amount of physical and health benefits exists. Table 3.1 presents a summary of the physical and health benefits associated with physical activity.

Table 3. 1 Physical and health benefits

Cardiovascular impact	<ul style="list-style-type: none"> ● Increased cardiorespiratory fitness (Rasmussen <i>et al.</i> 2015). ● Decreased risk of cardiovascular disease mortality (Durstine <i>et al.</i> 2000; Rasmussen <i>et al.</i> 2015). ● Functional capacity is improved through a decrease in heart rate, blood pressure and perceived exertion during sub-maximal exercise as well as an improved ability to tolerate physical stress (Durstine <i>et al.</i> 2000; Rasmussen <i>et al.</i> 2015). ● Reduces blood pressure in people with hypertension.
Improved circulation	<ul style="list-style-type: none"> ● Increased circulation to the lower extremities preventing thrombus.
Muscle and skeletal improvement	<ul style="list-style-type: none"> ● Maintaining normal muscle strength, joint structure and joint function (Durstine <i>et al.</i> 2000). ● Increased muscular strength and endurance (Buettner, Fitzsimmons & Attav, 2006; Durstine <i>et al.</i> 2000). ● Normal skeletal development during childhood and adolescence. ● Achieving and maintaining peak bone mass (Durstine <i>et al.</i> 2000). ● Maintaining balance through better core muscle strength (Rasmussen <i>et al.</i> 2015).

	<ul style="list-style-type: none"> • Increased flexibility (Buettner <i>et al.</i> 2006; Durstine <i>et al.</i> 2000). • Enhanced bone density (Durstine <i>et al.</i> 2000). • Enhanced and maintenance of healthy joints (Durstine <i>et al.</i> 2000). • Enhanced locomotive ability (Durstine <i>et al.</i> 2000).
Decrease in disease and medical conditions	<ul style="list-style-type: none"> • Reduced risk of developing obesity; improved blood lipid and lipoprotein (Rasmussen et al, 2015). • Reduced risk of developing diabetes (Durstine <i>et al.</i> 2000).
Nervous system	<ul style="list-style-type: none"> • Enhancing the efficiency of the nervous system (Rasmussen <i>et al.</i> 2015).

Physical inactivity due to bed rest and restricted physical activity due to illness or disability has detrimental physiological effects on the health and physical functioning of persons with disabilities (Durstine *et al.* 2000). Participation in physical activity not only improves overall well-being but also delays physical deterioration (Brownson, Boehmer & Luke, 2005). Inactivity leads to a cycle of de-conditioning that results in the impairment of multiple physiological systems as demonstrated in Fig. 3.1. (Painter, 1994, as cited in Durstine *et al.* 2000).

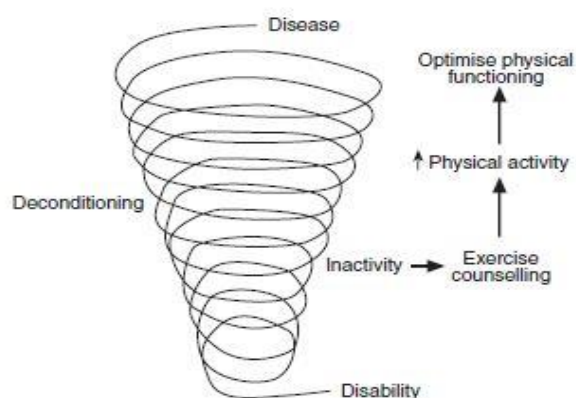


Figure 3. 1 Cycle of de-conditioning with physical inactivity

Fig. 3.1 graphically illustrates how disease results in inactivity and de-conditioning. De-conditioning leads to further inactivity. Physical activity can optimize physical functioning and reduce de-conditioning.

An important consideration is mobility: “*The extent to which limitations to movement exist in physically-challenged individuals determines the ease with which they can perform daily living tasks*” (Durstine *et al.* 2000: 210). For this reason, special attention should be drawn to the ability to maintain mobility. One of the biggest concerns that persons with disabilities face is maintaining or improving their current mobility status. Mobility is limited by disability conditions like traumatic injuries, for example, spinal cord injury, amputation, traumatic brain injury; developmental disabilities, for example, Spina Bifida and cerebral palsy; and, visual impairments. Limited mobility has a negative influence on the extent to which individuals can perform tasks of daily living. Thus, mobility should be improved where possible through the use of physical activity (Rasmussen, *et al.* 2015).

3.2.2 Behavioural and Social benefits

Social interaction is essential for normal development (McConachie *et al.* 2006) and should receive special attention. Sport and recreation interventions provide an individual with the opportunity to socially interact with those around them. Social interaction improves a person’s ability to interact and solve problems with others and creates a sense of belonging which results in social well-being (Rasmussen *et al.* 2015).

Buettner, Fitzsimmons and Atav (2006) listed over 150 studies in their literature review which indicates that the use of recreation had a significant positive effect on behavioural problems. Positive behavioural changes as a result of participation in sport and recreational participation include positive verbalization, increased socialisation and communication (Buettner, Fitzsimmons & Atav, 2006). Buettner, Fitzsimmons & Atav (2006) has identified the effectiveness of recreation interventions. The behavioural and social benefits associated with sport and recreation participation are presented in Table 3.2.

Table 3. 2 Behavioural and social benefits

Independence	<ul style="list-style-type: none"> • Greater independence with regards to activities of daily activities (Chappell & Johannsmeier,
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	<p>2009; Schalock, 2004).</p> <ul style="list-style-type: none"> • Personal growth (Scholl, Smith & Davison, 2005). • Development of autonomy and independence (Shogren, Bradley, Gomez, Yeager, Schalock, Borthwick-Duffy, Buntix, Coulter, Craig, Lachapelle, Luckasson, Reeve, Snell, Spreat, Tassè, Thompson, Verdugo & Wehmeyer, 2009).
Opportunity to increase skills	<ul style="list-style-type: none"> • Increased opportunity to acquire and perform lifelong recreation skills (Scholl, Smith & Davison, 2005).
Social interaction skills	<ul style="list-style-type: none"> • Increased ability for normal societal interactions. • Opportunities to build and enhance social relationships (Specht <i>et al.</i> 2002). • Broadening of social networks (Scholl, Smith & Davidson, 2005). • Building of friendships and a support system (Rasmussen et al, 2015; Schalock, 2004; Scholl, Smith & Davison, 2005 & Specht, King, Brown & Foris, 2002). • Improved social skills (Rasmussen <i>et al.</i> 2015).
Sense of belonging	<ul style="list-style-type: none"> • A sense of belonging to a community or a group (Rasmussen <i>et al.</i> 2015). • Reduced social isolation through social interaction (Scholl, Smith & Davidson, 2005).
Social inclusion and integration	<ul style="list-style-type: none"> • Community integration and submersion; participation in community roles through social inclusion (Schalock, 2004).

	<ul style="list-style-type: none"> • Greater social acceptance by peers and others in the community (Favazza, Phillipsen & Kumar, 2000 as cited in Scholl, Smith & Davison, 2005; Scholl, Smith & Davison, 2005).
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3.2.3 Cognitive benefits

Physical activity can also improve cognitive well-being. Rasmussen *et al.* (2015: 57) describe cognitive functions as “*the mental processes such as memory, attention, concentration, understanding language, learning, solving problems and making decisions.*”

Cognitive benefits include:

- Brainpower benefits from physical activity (Rasmussen *et al.* 2015).
- Improves ability to concentrate (Rasmussen *et al.* 2015).
- Cognitive productivity (Schalock, 2004).
- Better concentration (Rasmussen *et al.* 2015).

3.2.4 Psychological benefits

Chappell & Johannsmeier (2009) points out that psychological aspect to sport and recreation interventions are equally as important as the physical component. Table 3.3 summarises the psychological benefits associated with participation in sport and recreation interventions.

Table 3. 3 Psychological benefits

Enhanced mood	<ul style="list-style-type: none"> • Increase in endorphins makes people feel happier and less anxious (Rasmussen <i>et al.</i> 2015). • Decrease in depression (Buettner, Fitzsimmons & Atav, 2006; Durstine <i>et al.</i> 2000). • Decrease in anxiety (Buettner, Fitzsimmons & Atav, 2006) • Decrease in irritability (Buettner,
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	<p>Fitzsimmons & Atav, 2006)</p> <ul style="list-style-type: none"> • Decrease in aggressiveness (Buettner, Fitzsimmons & Atav, 2006) • Reduced stress levels (Schalock, 2004; Specht <i>et al.</i> 2002). • Reduction of feelings of hopelessness (Chappell & Johannsmeier, 2009; Rasmussen <i>et al.</i> 2015).
Increase in sense of well-being	<ul style="list-style-type: none"> • Enhanced psychological well-being through improved health related quality of life (Durstine <i>et al.</i> 2000). • Sense of empowerment (Rasmussen <i>et al.</i> 2015).
Improved concept of self	<ul style="list-style-type: none"> • Improved self-concept (Schalock, 2004; Scholl, McAvoy, Rynders & Smith, 2003; Scholl, Smith & Davidson, 2005; Specht <i>et al.</i> 2002). • Improved self-image (Rasmussen <i>et al.</i> 2015). • Increased self-efficacy. • Improved self esteem (Chappell & Johannsmeier, 2009; Rasmussen <i>et al.</i> 2015; Schalock, 2004; Scholl, McAvoy, Rynders & Smith, 2003; Scholl, Smith & Davison, 2005; Specht <i>et al.</i> 2002). • Increase in sense of self worth (Specht <i>et al.</i> 2002).
Increase in sense of inclusion	<ul style="list-style-type: none"> • Reduced feelings of isolation (Chappell & Johannsmeier, 2009). • Companionship (Specht <i>et al.</i> 2002)

	<ul style="list-style-type: none"> • Feelings of belonging (Specht <i>et al.</i> 2002).
Adjustment to life with a disability	<ul style="list-style-type: none"> • Enhanced adjustment to living with a disability (Specht <i>et al.</i> 2002). • Improved coping skills (Specht <i>et al.</i> 2002).

3.3 CHAPTER CONCLUSION

Chapter Three provided an overview of the benefits associated with sport and recreation participation for persons with disabilities. Participation in sport and recreation provides physical, cognitive, psychological, behavioural and social benefits. Chapter Four will look at a socio ecological theory approach to community disability interventions.

CHAPTER FOUR

4. A SOCIO ECOLOGICAL APPROACH TO COMMUNITY INTERVENTIONS FOR PERSONS WITH DISABILITIES

4.1 INTRODUCTION

Chapter Three provided an overview of how disability is defined in terms of the medical model, the social model and the biopsychosocial model. Types of disabilities were identified and discussed and the two classification models were introduced. Chapter Four will look at how the socio ecological model can be used as an implementation approach for sport and recreation participation opportunities for persons with disabilities.

4.2 SOCIO ECOLOGICAL THEORY: AN OVERVIEW

Bronfenbrenner's ecological theory is used to understand the interaction between people and their environment. Bronfenbrenner (1976) as cited in Algood, Hong, Gourdine and Williams (2011: 1143) explain that "*the ecological theory conceives the environment as an interactive set of systems, which are "nested" within one another*". People function within different systems. A relationship exists between a person and their environment (Onken, Craig, Ridgway, Ralph & Cook, 2007) and interactions and transactions exist between a person and their environment (Onken *et al.* 2007). People are seen as being in a dynamic interaction with their environment (Austin, 1998) and people are thereby not only actively influencing their environment but are influenced by their environments (Austin, 1998).

The socio-ecological theory emphasises that the interdependent interaction between systems is the major influencing factor of how an individual perceives social reality (Bronfenbrenner, 1976 as cited in Algood, Hong, Gourdine & Williams, 2011: 1143). This approach emphasises the impact of the quality and context of an individual's environment on the person's development (Härkönen, 2007). The ecological theory emphasises the need to address problems at multiple levels. The integration of factors within each system as well as across all levels of the bigger system is highlighted with the goal to create a healthy community environment with social support that enables everyone with the opportunity to develop a healthier lifestyle (Brownson *et al.* 2001: Onken *et al.* 2007). Due to its emphasis on the

interaction between systems the ecological theory assists in understanding how a change in one system will impact on other parts of the system and therefore on the system itself (Onken *et al.* 2007).

Human development, from a socio-ecological approach, is examined by focusing on three aspects: an individual's perspective of the environment, the environment surrounding that individual, and, the dynamic interaction between the individual and the environment. Development is therefore defined as an *“ongoing change in the way a person perceives and deals with or adapts to the environment”* (Reifsnider, Gallagher & Forgione, 2005: 217). The ecological environment is illustrated as a set of ‘nested’ structures with each layer or system surrounded by another layer or system (Reifsnider, Gallagher & Forgione, 2005). This network is composed of the micro-, meso-, exo-, and macrosystem (Algood, Hong, Gourdine & Williams, 2011) as illustrated in Figure 5.1. At the innermost level is the microsystem which contains the child or person, parents, family, peers and religious setting. The following systems are the mesosystem, the exosystem and the macrosystem. These systems have a powerful effect on the individual, for example through parenting practices and through how society and culture are structured. Whenever a person moves into a new setting, a mesosystem is formed. An example of a mesosystem can be the school or centre that a person attends or the work environment of a parent (Reifsnider, Gallagher & Forgione, 2005).

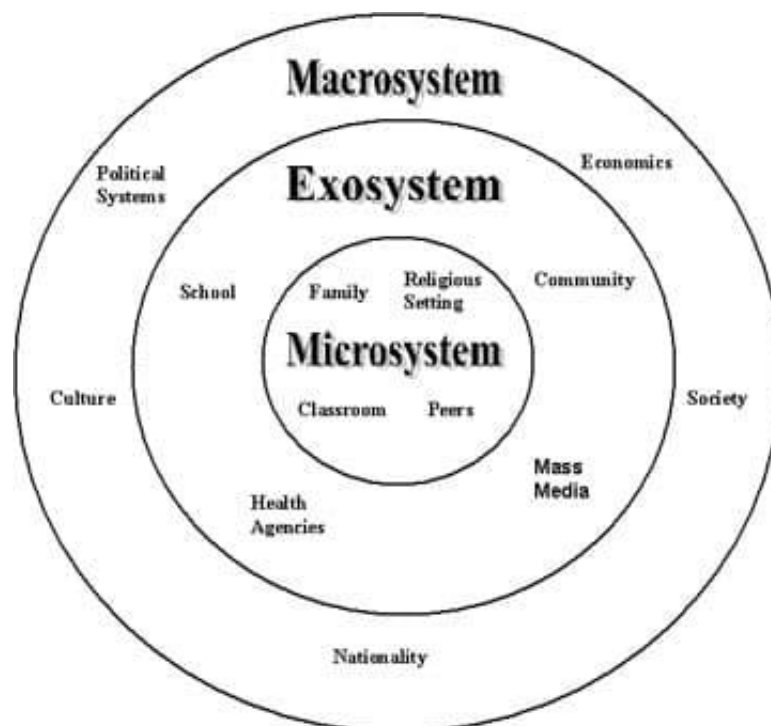


Figure 4. 1 Diagrammatic Illustration of Bronfenbrenner's Socio Ecological Theory

4.2.1 Macrosystem

Bronfenbrenner (1977, cited in Algood, Hong, Gourdine & Williams, 2011: 1144-1145) defines the macrosystem as “*consisting of the micro-, meso-, and exosystems that exist, or may exist at the level of the subculture or the culture as a whole, in conjunction with any belief system or ideology.*” The macro system forms the outer layer of the individual’s environment and refers to the contextual patterns of systems (the microsystem, mesosystem and exosystem) that exist at the level of the culture as a whole. Contextual patterns are influenced by belief systems, ideology, cultural values, customs, laws, and language and impacts on the whole system (Reifsnider, Gallagher & Forgione, 2005). The macro system impacts on the individual by means of policies, rules and norms that have a cascading influence on the other layers, or systems. If it is a belief in a culture, or society, that people with disabilities are ‘inferior’ to normal-abled bodied persons, then that society is less likely to provide resources such as sport and recreation opportunities for people with disabilities. An example of a cultural norm that impacts on persons with disabilities in marginalised communities is the belief that the provision of housing, healthcare and primary care is more important than the provision of sport and recreation opportunities. Even though housing, education and healthcare is important, sport and recreation are also important as it can impact positively on a person with disabilities’ sense of well-being and thereby reduce health costs.

4.2.2 Exosystem

An interaction between two or more settings exist within the exosystem, of which one is the immediate setting (Bronfenbrenner, 1976, 1977 as cited in Algood, Hong, Gourdine & Williams, 2011: 1144). This layer defines the larger social system in which the individual does not function directly. The workplace schedules of family members and community-based family resources are nestled in this system. Other examples include the social network, parent employment and neighbourhood characteristics (Bronfenbrenner, 1976, 1977 as cited in Algood, Hong, Gourdine & Williams, 2011: 1144).

4.2.3 Microsystem

The microsystem refers to the environment in which a person is directly embedded within (Algood *et al.* 2011). The microsystem is the ‘layer’ that is the closest to the

individual and includes the family, school, neighbourhood and immediate environment. It also refers to the interaction between a person and his or her direct environment within which a person function (Algood *et al.* 2011). A direct interpersonal relationship with other persons exists within the microsystem (Algood *et al.* 2011). The most important/ most notable interpersonal/ direct relationship is between the person with a disability and family members. Direct, interpersonal interaction has the greatest influence on an individual.

4.3 APPLYING THE SOCIO ECOLOGICAL THEORY TO DISABILITY INTERVENTIONS IN MARGINALISED COMMUNITIES

With the determination of the World Health Organisation's International Classification of Functioning, Disability and Health known as the ICF classification, attention has been refocused on the impact of environmental factors on the health and participation of people with disabilities (Magasi, Wong, Gray, Baum, Wang & Heinemann, 2015). The importance of a socio ecological approach in the disability realm lies in the fact that it shifts the focus away from recovery solely being the responsibility of the individual to one that makes equally strong demands of the environment (Onken *et al.* 2007). Cook and Burke (2002) reiterate that the environment in which a person with a disability is situated may be socially inaccessible, economically unaccommodating, legally exclusionary and emotionally unsupportive. A socio-ecological approach impact on the nature of solutions from focusing on 'fixing' the individual by removing barriers and creating access to participation opportunities (Onken *et al.* 2007). Bronfenbrenner's theory focuses on how society impacts on a person's development. He proposes that the structure of society influences everything, including whether a person can grow into a fully competent member of society (Härkönen, 2007).

Society has created a negative understanding of the meaning of disability by distorting how people view people with disabilities through social interaction. Devine and Dattilo (2001) suggest that the same process of social interaction can be used to change people's perceptions of disability, for example through how language is used. A wheelchair can be described as restrictive; however, it can be positioned as positive if it reflects the independence that it allows the user. The social construction of disability therefore reflects a lack of social acceptance and inclusion of people with disabilities in society.

4.3.1 Community integration

Persons with disabilities have a long history of being denied the same rights and opportunities as other people in society. The consequence of a history of devaluation and isolation from full participation in society has been put under the spotlight in the last 30 years. Mactavish and Schleien (2000) identified two responses that resulted from the recognition of the rights of people with disabilities. The first response is the principle of normalisation followed by legislative responses which, in combination, have led to significant increases of people with disabilities being integrated into the community, and therefore the exosystem.

More policies and research are needed to redefine and recognise community integration to result in stimulating a sense of community (Cummins & Lau, 2003). The broader environment such as a community also has an influence on an individual with a disability. One of the most important aspects of community influence is community integration of persons with disabilities. A distinction between social and physical integration must be made. Integration into a community is the ability to participate fully in a community (Onken, *et al.* 2007). This is however not always the case. Individuals with disabilities face exclusion due to stigma, negative stereotypes, discrimination, perceptions, prejudice and beliefs held by a community. Limitations individuals with disabilities face are placed on these individuals by their community. Disabled individuals are not always welcomed, accommodated or accepted by society. Persons with disabilities are treated differently than individuals perceived as normal by a community. Persons with disabilities are treated as outsiders due to a community's view that these individuals do not conform to the norm (Cummins & Lau, 2003). This leads to social exclusion. Because of social exclusion, social isolation and loneliness are experienced.

Persons with disabilities often face social exclusion, and because of the experience of exclusion, it is wrongly assumed that all disabled individuals desire full community integration. It is also further assumed that full physical integration into a community is only beneficial for these individuals. This is, however, not the case. Physical integration may have a negative impact on an individual. For physical integration to be beneficial to the level of physical integration that is optimal for the individual in a specific situation must be considered (Cummings & Lau, 2003). Social integration has a more reliable positive influence on a person's well-being (Cumming & Lau, 2003). True social integration into a community is, however, more difficult to achieve than physical integration.

Cummins and Lau (2003) argue that the achievement of a sense of community connectedness should be one of the core goals of service provision. Programs and interventions aiming to increase social inclusion often focus on the physical integration of the person with a disability into the general community. The ability to live amongst others - i.e. positive interdependence – forms a crucial part of integrating persons with a disability. When integration is not successfully achieved dehumanising forms of oppression and violence can occur which includes ‘othering’ and labelling (Onken *et al.* 2007). Cummins and Lau (2003) ask whether physical integration puts the well-being for people with a disability at risk. Physical integration of persons with a disability entails placing the person with a disability in a normal bodied environment, for example at school or at work. Enforced community exposure as a result of changes in policies in the macro system can impact relationships within the exosystem both positively and negatively. If a person with a disability is placed in a social environment which is hostile it may result in additional stress on the person with a disability. It can, however, also have a positive result if it allows a person with participation opportunities that have been previously denied.

A sense of community is not achieved by merely being in the presence of others. A psychological sense of community, defined as the feeling that one is part of a readily available, supportive and dependable structure, is a crucial part of social integrating people with disabilities, and of achieving a sense of community. A sense of community entails a sense of community connectedness, personal interdependency and a sense of belonging. In this sense, it is closely aligned with the sociological concept of social capital (Cummins & Lay, 2003).

Any given person belongs to multiple communities. A family; extended family; school or work; sports clubs; an ethnic group; a cultural group; and various additional communities include the communities of which a person may be part of, but Cummins and Lau (2003) emphasise that one will be the primary community. A person’s primary community provides the values, norms, beliefs and sense of historical continuity. It further impacts on socialisation and psychological development. The general community is targeted in the physical and social integration of a person with a disability (Cummins & Lau, 2003).

Ten aspects of community integration are used in measuring the success of an intervention targeting social inclusion. This includes community involvement, access to medical services, speciality medical and dental services, education services,

employment opportunities, social-, housing- and spiritual needs, and volunteering. Additional variables include the number of activities undertaken within the community; the number of personal relationships; the frequency of access to community resources; the number of leisure activities engaged in outside of the home; and, subjective well-being.

In a study done by Cummins and Lau (2003) the researchers ask the question of what exactly is meant by integration. The geographical location of people within a specific community causes the community members to be more integrated. Members of a geographical community are more likely to share the same churches, shopping centres, sports facilities and services. This does, however, not necessarily mean that the community members are integrated. This example can be used to explain why policies to integrate people with disabilities are often not successful. The socio-ecological theory provides an understanding of how different systems impact on the individual with a disability and provides an understanding of how policies in the macro system should be adapted to allow for the integration of people with disabilities into the community and bigger society.

The socio-economic context of a community plays an important role in determining whether a sense of community can be created through sport and recreation opportunities as facilities and personnel may not be available (Pickett & Pearl, 2001). Communities with a higher income have greater access to sport and recreation facilities such as walking or jogging trails, indoor and outdoor facilities and parks than communities with a lower income (Brownson *et al.* 2001).

4.3.2 Facilitating a sense of community

Physical exposure is a necessary condition to create a sense of community; however, it is not sufficient on its own as it can create a sense of alienation. The physical aspects of community integration interventions are often emphasised. The socio-ecological theory allows for the understanding that it is however only one aspect in creating a sense of community (Cummins & Lau, 2003).

Subjective well-being is linked to social integration and not to physical integration. This necessitates that the action of creating a 'sense of community' should be re-evaluated. Cummins and Lau (2003) suggest the following conceptual building blocks that should be incorporated into any intervention aimed at creating a sense of community:

1. The process of normalisation that involves both physical integration and active participation;
2. The fact that people with disabilities often have smaller social networks than the non-disabled population;
3. The social networks of people with disabilities often consist of other people with disabilities;
4. Well-being is correlated with social connectedness.

A sense of community is enhanced by an active association with selected members of a person's own family and non-family friends with whom a common interest is shared (Cummins & Lau, 2003). For community integration to be successful it must involve a sense of community in a way that makes the person feel that they are part of an available, supportive and dependable social structure. Community integration is therefore subjective, not objective, and cannot be measured or evaluated with objective evaluative measures.

4.3.3 Interaction between the direct and indirect environment

An implicit assumption held by policy makers and service providers is that a more objective integration is beneficial to persons with disabilities. Integration attempts frequently comprise a service goal with no stated upper limit to integration. The higher the duration and frequency of social integration, the more successful the program. This is, however, not the case. Every person will have a limit to the duration and frequency of socially integrated activities that can be participated in. Various factors play a role in the interaction between the direct and indirect environment of the person or child with a disability. These factors include parenting stress, social support and area of residence. Relationships within the socio-ecological system are of importance in the development of the person with a disability. Relationships in the micro and mesosystem are of the utmost importance to the integration of a person into the family and the community.

4.3.3.1 Relationships within the socio ecological system

Social connectedness plays an important role in the life of a person with a disability. Support from others within a social network is a requirement of social integration (Onken *et al.* 2009). Children with a disability require special attention from parents.

This can create parenting challenges and can compromise the relationship and attachment between the parent and the child. Algood, Hong, Gourdine and Williams (2011) highlights that challenges can sometimes result in maltreatment as children with a disability require extra care and are likely to exhibit behavioural problems. Challenges combined with problem behaviour can negatively impact on the bonding between parents and child.

Several research studies (Gore & Janssen, 2007; Rodriguez & Murphy, 1997; Sobsey, 2002 as cited in Algood *et al.* 2011) indicate an increase in neglect and abuse when parents experience high levels of stress: “*parents of children with disabilities are especially vulnerable to emotional, physical and economic stress*” (Algood *et al.* 2011: 1144).

Social support is a crucial protective factor for stressful events. The parent-child relationship is influenced by the availability as well as the quality of the social support network for parents. Poverty can increase parenting stress due to the limited availability of a social support network. Parents with a low-income are less likely to receive social support due to fewer social contacts (Eamon, 2001 as cited in Algood, Hong, Gourdine & Williams, 2011). Parents with limited social support may feel overwhelmed and unable to cope with the required supervision responsibilities (Hibbard & Desch, 2007 as cited in Algood *et al.* 2011). The link between socio-economic status and the treatment of children with disabilities can therefore not be denied (Gourdine, 2011). Families with a disabled child are often impoverished by additional costs and restricted employment opportunities (McConachie *et al.* 2006). Dudzik, Elwan & Metts (2000) agree with other researchers and state that disability and poverty are ‘inextricably linked’ as conditions of poverty increase the risk of becoming disabled whilst disability can lead to the impoverishment of vulnerable groups.

Interventions focused on building the relationship between the child with a disability and the parents have a direct impact on the self-esteem and confidence of the child (Chappell & Johannsmeier, 2009).

The first caring environment that a child with a disability experience is that of the family. It is therefore crucial that family members are involved in all the aspects of rehabilitation. The relationship between family members is important in creating a community-based service for persons with disabilities (Chappell & Johannsmeier, 2009). Families, therefore, play a pivotal role in providing and accessing sport and recreation opportunities for persons with disabilities.

Mactavish and Schleien (2000) refer to the traditional assumption that ‘a family with a child who has a disability is a family with a disability’ and state that this can be overcome with social support in the community. Increased demands for services that affirm the rights of persons with disabilities and their families have resulted in a change in how disabilities are perceived in communities. This is, however, a luxury that does not exist in lower socio-economic and marginalised communities.

Peer support plays an integral role in promoting positive social functioning for persons with a disability. Allowing a person to engage in peer support can be a desired outcome of an individual’s recovery journey that can help to sustain their own recovery. Connecting people with other people in a similar situation addresses the social isolation that people with a disability often experience (Onken *et al.* 2007).

Intentional and unintentional barriers to social integration and can arise within the school and community environment. The relationship between the person with a disability and others within the micro and mesosystem can contribute to either isolation, a lack of understanding but also to social inclusion and integration (Pivik, McComas & Laflamme, 2002).

4.4 FACILITATORS TO PARTICIPATION IN SPORT AND RECREATION

Research on determining why people with disabilities do not participate in sport and recreation opportunities often focus on the individual and not the social situation. This traditional framework of addressing barriers and attempting solutions from an individual perspective assumes that barriers such as a lack of social acceptance are the result of the functional limitations of a disability. The disregard of societal changes in the removal of barriers to increase participation has resulted in the search of a ‘cure’ rather than an increased understanding of how barriers are often socially constructed (Devine & Dattilo, 2001).

Numerous laws and policies are in place to ensure equal treatment of people with disabilities, however, laws and policies cannot overcome prejudice and stereotyping if not implemented correctly (Krahe & Altwasser, 2006). In a study by Pivik, McComas and Laflamme (2002) participants with disabilities were asked to identify facilitators that will facilitate their participation. Research findings focused on three areas: environmental modifications; social and policy changes; and institutional resources. Table 4.1 summarise facilitators identified in the study.

Table 4. 1 Facilitators to participation

<p>Removing environmental barriers</p>	<p>Technological solutions, for example, motion sensors to open doors, flush toilets and activate sinks, keypad entry for opening lockers</p> <p>Basic architectural changes to doors, elevators, washrooms and rooms, removing unnecessary doors, providing a more gradual incline on ramps</p> <p>Larger elevators</p>
<p>Social and policy changes</p>	<p>Being able to talk to peers about disabilities to help others to understand the disability better</p> <p>Special physical education classes and programs that will equalise the playing field by having everyone participate in a wheelchair</p> <p>Providing suggestion boxes at facilities</p> <p>Inclusion of persons with disabilities in the planning of programs and resources</p>
<p>Institutional resources</p>	<p>An increase in available assistance</p> <p>Sport and recreation facilities at institutions</p> <p>Increase in communication methods</p> <p>Increase in information on policies and opportunities</p>

Social acceptance is an important facilitator as it provides an equal status between people with disabilities and people without disabilities. Persons with disabilities are socially accepted when they are treated as equal citizens by others without disabilities. Social acceptance is vital for the reversal of negative stereotypes and social inclusion (Devine & Lashua, 2002).

4.5 A SPORT AND RECREATION INTERVENTION BASED ON SOCIO ECOLOGICAL PRINCIPLES

Sport and recreation activities contain a fun element and create a social environment in which inhibitions and barriers can be overcome. It enables participants to

experience equal-status with disabled persons. The social relationships inherent in sport and recreation activities hold a greater value for participants than merely participating in activities. Social interaction is a crucial element to incorporate into a sport and recreation program. It is through interaction in a program such as a sport and recreation program that individuals come to understand who they are and how they fit in the social environment around them (Devine & Lashua, 2002).

Sport and recreation activities have the potential to accomplish three important objectives: sport and recreation provides the individual with the opportunity to be physically active, which and lead to an improvement in physical health; sport and recreation programs provide the individual with an opportunity to develop psychosocial skills by providing an opportunity to learn important life skills for example coordination, discipline, leadership and self-control; and sport and recreation programs are crucial for the learning and development of motor skill which will serve as a foundation for further participation (Côté, Strachan & Fraser-Thomas, 2008).

MacTavish and Schleien (2000) state that community sport and recreation programs can promote the integration of persons with disabilities into the community. Côté, Strachan and Fraser-Thomas (2008) applied Bronfenbrenner's socio ecological theory to a sport and recreation setting as follows. The first level, or microsystem, is comprised of the individual, participants, a location and a program of activities. The second level – the mesosystem – is based on interrelationships between two or more microsystems that include the individual, for example, the relationship between the individual and the coach. The third level, or exosystem, does not include the individual and is representative of situations that affect the situation containing the individual, for example, the relationship between the coach and an administrator. The last system, the macrosystem, includes cultural and social forces that impact on the rest of the system. These systems are in constant interaction with each other and result in specific developmental processes or outcomes.

Côté, Strachan and Fraser-Thomas (2008) assert that there should be a focus on the person and the context and how the various systems impact on each other in designing a sport and recreation program. The person should be seen as both a producer and product of his or her environment. The person's participation in sport and recreation is impacted on by various internal and external assets. External assets include support, empowerment, boundaries and expectations, and the constructive use of time. Internal assets are a reflection of the individual's values and beliefs and

include a commitment to learning, positive values, social competencies and a positive identity. The assets are described as ‘building blocks’ for human development with the more assets that a person possesses the higher the likelihood that he or she will develop a positive and healthy lifestyle. Sport and recreation have the potential to contribute to a person’s positive development outcomes if delivered within an appropriate framework.

A sport and recreation intervention based on socio-ecological principles must acknowledge the values of intrinsic worth, dignity and strength of individuals. The three spheres of a person with a disability’s life – the personal, interpersonal and external – are included in planning for a socio-ecologically based intervention (King *et al.* 2002). Sport and recreation program delivery must also be cognizant of the appropriate context. Context does not only refer to the person’s physical environment, but also to the individuals within that environment who forms strong bonds with the person with a disability. Table 5.2 provides a summary of eight main features suggested by Côté, Strachan and Fraser-Thomas (2008) that should be present in the context of community programs to facilitate positive development.

Table 4. 2 The eight main features present in a successful community sport and recreation program

Physical and psychological safety	This refers to the existence of safe and healthy facilities and practices that encourage secure and respectful peer interactions. The participant-peer microsystem impacts on a person’s sense of self-worth as well as on a person’s perceived competence and self-evaluation.
Appropriate structure	There must be clear and consistent expectations regarding rule and boundaries. The provision of activities that are properly structured has the potential to develop positive and optimistic participants.
Supportive relationships	A coach can influence a person’s perceived competence, enjoyment and motivation. The coach plays an important role in a person’s psychological, social and physical growth. It is imperative that coaches are trained in the basic principles of positive development in order to promote

	supportive relationships.
Opportunities to belong	Meaningful inclusion, social engagement and cultural competence are important features of a sport and recreation program for persons with disabilities. Experiencing a sense of belonging is important in maintaining a person's motivation and interest in sport and recreation. Healthy and positive relationships can be encouraged by sport and recreation coaches who build a sense of team unity and cohesion.
Positive social norms	Sport and recreation programs have the potential to develop positive values such as fair play, cooperation, assertion, responsibility, empathy and self-control.
Support of efficacy and mattering	Sport and recreation opportunities can play an important role in empowering people with a disability as well as in supporting their autonomy.
Opportunities for skill building	Sport and recreation programs provide people with an opportunity for skill building. It further provides the individual with the opportunity to meet and interact with a variety of different people.
Integration of family, school and community efforts	This feature refers to the melding of a person's environments to increase communication and to decrease conflict and dissonance. The structure and environment of a community play an important role in whether a person stay involved in sport and recreation programs.

A sport and recreation program based on socio-ecological principles should adhere to the following guidelines:

- Services must address the multiple, changing and interconnected needs of persons with disabilities and their social network (King, Tucker, Baldwin, Lowry, Laporta & Martens, 2002);
- A better understanding of families and their recreation as a way to promote integration and increasing the participation of a family member with a disability in home, school and community sport and recreation settings will determine the success of an intervention (Mactavish & Schleien, 2000).
- Social acceptance by peers can be accomplished by introducing an equal participation foundation. The construction of acceptance is an interactive process between two or more people (Devine & Lashua, 2002).
- Motivation to participate is important to ensure that people with disabilities continue participation.
- Adaptations and program modifications as suggested by Durstine *et al.* (2000) will enhance participant interest and enjoyment and include the establishment of short-term goals; the emphasis on variety and enjoyment; the provision of positive reinforcement through periodical evaluations; spouse support of the program; inclusion of a modified recreational game that minimises skills and competition and maximises participant success; the use of progress charts to record fitness achievements; the recognition of individual accomplishments; inclusion of the family and celebrating the uniqueness of individuals.
- Acceptance of adapted recreation and sports skills and program adaptations: in a study by Devine and Lashua (2002) persons with disabilities reported that they feel that their differences are accepted by others when peers without disabilities and staff accepted adapted recreation skills and program adaptations. Participants without disabilities reported that adaptations are seen as ‘just another way to engage in a recreation activity’.
- Sport and recreation programmes must be made available as a regular activity.
- Positive staff attitudes: staff attitudes and behaviours towards people with disabilities strongly impact on the motivation of people with disabilities to participate in sport and recreation programs. A positive attitude is crucial in addressing the issue of social acceptance.

- An emphasis on the capabilities of persons with disabilities will allow for a change in how persons with disabilities are perceived by others in the community (Herbert, 2000).

4.6 CHAPTER CONCLUSION

Chapter Four provided an overview of the socio-ecological theory of Urie Bronfenbrenner. It explored how this theory can be applied to facilitate sport and recreation opportunities for people with disabilities. Chapter Five will provide an in-depth look at the research methodology used in the study.

CHAPTER FIVE

5. RESEARCH METHODOLOGY

5.1 INTRODUCTION

The purpose of this chapter is to describe the research methodology used in this study. Methodology can be described as the overall framework within which research is conducted (Gratton & Jones, 2010). Research methodology can also be described as the procedures used to collect and analyse data (McMillan & Schumacher, 2010; Rajasekar, Philominathan, Chinnathambi, 2013) required to answer the research question posed by the study (Clark *et al.* 2014). Research methodology is a systematic way to solve problems and helps the researcher to collect samples, data and find a solution to a problem (Rajasekar, Philominathan, Chinnathambi, 2013). It is the process used to collect data and information for the purpose of deriving conclusions.

The primary aim of this study was to evaluate sport and recreation service delivery for persons with disabilities in the marginalised community of Mamelodi using a socio ecological approach.

To achieve the overall aim a qualitative approach was used. Data collection was done through semi-structured interviews and document analysis.

The objectives of this study included:

- To identify policies relating to disability sport and recreation provision in South Africa.
- To determine actual service delivery in the marginalised community of Mamelodi.
- To recommend policy implementation alternatives based on a socio ecological approach.

This chapter provides a discussion on the research design, data collection, data analysis and the ethical aspects pertaining to this study. The research design includes the research population, the research sample and sampling method. Data collection will include research instruments.

5.2 RESEARCH DESIGN

Research is the systematic process of collecting and logically analysing data for a specific purpose (McMillan & Schumacher, 2010). Research is finding solutions to social and scientific problems through investigation and objective and systematic analysis (Rajasekar, Philominathan, Chinnathambi, 2013).

Gratton and Jones (2010: 287) describe research design as “*the overall blueprint that guides the researcher in the data collection stages in terms of what data to collect, from whom, and when.*” In essence, the research design creates the foundation of the entire research study. The research design should include the following: the various approaches to be used in solving the research problem; information and sources related to the problem; time frames. The research design is described as types of inquiry that guide procedures in a research design and is often called ‘*strategies of inquiry*’ (Creswell, 2014).

The study adopted a qualitative research design. Qualitative research allows the researcher to explore meanings assigned to social problems (Devine & Lashua, 2002). In a qualitative research approach, certain assumptions are made and a theoretical framework drawn up based on these assumptions. A qualitative approach allows the researcher to better understand and describe social issues rather than to predict and control it. Qualitative research can adequately represent groups outside the mainstream (Ragin & Amoroso, 2011). Qualitative research is therefore well suited to represent persons with disabilities.

The qualitative research design was done in the form of a case study. Creswell (2014: 14) describes case studies as a *design of inquiry found in many fields, especially evaluation, in which the researcher develops an in-depth analysis of case, often a program, event, activity, process or one or more individual.*” Information is collected using different data collection procedures over a period of time. Case studies are bound by activity and time.

This study utilised Disability Inquiry as qualitative approach. Disability Inquiry is utilised in several ways: firstly, it is used as a broader explanation for people’s behaviours and attitudes. Secondly, it is used as orienting lens with which to study gender, class, race and issues inherent in marginalised populations (Creswell, 2014).

According to Mertens (2009, as cited in Creswell, 2014: 65) “*Disability Inquiry addresses understanding this population’s socio cultural perspectives allowing them to take control over their lives rather than a biological understanding of disability.*”

Disability inquiry addresses the true meaning of inclusion of persons with disabilities into society. Disability research has moved from the medical perspective to an environmental response to disability (Mertens, 2003 as cited in Creswell, 2013). *“Now, researchers using a disability interpretive lens focus on disability as a dimension of human difference and not as a defect”* (Creswell, 2013: 33). Due to this focus, disability’s meaning is derived from social construction (i.e. society’s response to disabled individuals).

5.2.1 Research Population

Research population is defined as including all the people within a specific category being investigated (Long, 2007).

5.2.1.1 Research Sample

Cresswell (2009: 178) states that *“the idea behind qualitative research is to purposefully select participants or sites (or documents) that will best help the researcher understand the problem and the research question.”* This study included three organizations and institutions based in Mamelodi that provides care to persons with disabilities. Study participants included managers as well as staff members of the below-mentioned organizations and institutions. These organizations include:

- Bophelong Centre for the Disabled
- Tshegofatsong Special School
- Alfa and Omega Special Care Centre

5.2.1.2 Sampling Method

This study utilised a purposive sampling method. In purposive sampling, participants are chosen based on knowledge, expertise and experience they possess regarding disability and who exhibit characteristics of central importance to the purpose of the investigation are deliberately selected (Devine & Lashua, 2002). This results in “information-rich cases” (Devine & Lashua, 2002).

5.2.2 Data Collection

Data collection involves various interrelated activities that range from the location of research participants, gaining access and establishing rapport, collecting data,

exploring field issues and storing collected data (Creswell, 2013 as cited in Van der Klashorst, 2014).

Data collection will be done through semi-structured interviews and documentary analysis.

5.2.2.1 Semi-structured Interviews

Interviewing is one of the main strategies used in qualitative data collection. This study made use of a semi-structured interview format as it is more flexible in nature as it allows the researcher to formulate new questions during the interview in response to answers given (Clark *et al.* 2014). This allowed for the gathering of more in-depth data. Appointments for semi-structured interviews were made via telephone and in person. Appointments were scheduled at convenient times for each disability centre and semi-structured interviews were conducted at the disability centres. A letter containing the purpose of the study was given to each disability centre in person. Permission letters to conduct the semi-structured interviews were obtained via email from each disability centre prior to conducting the semi-structured interviews. Research participants were briefed on the purpose of the study and signed informed consent forms on the day of the actual interview.

Topics pursued in the semi-structured interview included:

- Benefits of participation in sport and recreation interventions for persons with disabilities.
- Current policies for persons with disabilities.
- Application of policies in Mamelodi.
- Intervention programs available for persons with disabilities within the disability centre.
- Intervention programs available for persons with disabilities in Mamelodi.
- Community support and perceptions of persons with disabilities.
- Family support and perceptions of persons with disabilities.

5.2.2.2 Documentary Analysis

Documentary sources used for analysis have been produced by others independently of the researcher. Documents may involve texts and images, or both, and may be public or private (Clark *et al.* 2014). Documentary sources can take many forms. Existing documentary sources are usually readily available to the researcher

(McMillan & Schumacher, 2010). Documentary sources used for analysis in this study included policy documentation related to disability sport and recreation participation in South Africa.

5.2.3 Data Analysis

Qualitative analysis was done through a manual coding process. Objective based data analysis was utilised in this study. All recorded interviews and documentary sources were transcribed into rich text format and coded according to the following themes:

- Policies related to disability sport and recreation provision in South Africa.
- Application of policies related to persons with disabilities in organizations and/ or the community.
- Actual service delivery in disability centres in Mamelodi.
- Access to sport and recreation interventions in Mamelodi.
- Policy implementation alternatives based on a socio-ecological approach.

5.3 ETHICAL ASPECTS

The researcher has the responsibility to protect all research participants, guard against misconduct and to promote the integrity of research. Ethical clearance for this study was obtained through the University of Pretoria's ethical committee. The ethical aspects included in the study are voluntary participation; informed consent; no harm or risks to participants; and privacy.

5.3.1 Voluntary Participation

All participation was voluntary in nature. No participants were coerced or forced to participate in this study. The researcher made sure that all participants knew that participation is voluntary and that they may stop at any moment during the study.

5.3.2 Informed Consent

Permission letters to conduct the study were given to the researcher by all participating disability centres. A letter explaining the purpose and method of the study was given to each disability centre in person. Research participants were briefed on the purpose of the study on the day of data collection. The researcher made sure that all participants clearly understood that there were no possible risks linked to this study; that the participants will not receive any financial compensation for the study; and that each participant clearly understood their rights.

5.3.3 No Harm or Risks to Participants

The researcher made sure to explain to all participants that there are no risks to participation in the study. Participants were told that they do not have to answer questions that they felt may result in embarrassment or danger to home life, school performance, friendships, and the like, as well as direct negative consequences (Mcmillan & Schumacher, 2010; Cresswell, 2013).

5.3.4 Privacy

Privacy of all research participants was maintained and protected at all times. The researcher ensured privacy by using confidentiality and the appropriate storing of data (Gratton & Jones, 2010).

5.3.4.1 Confidentiality

No data was linked to any individual by name. Only the researcher had access to individual data.

5.3.4.2 Storage of Data

All data linking a participant to a response will be destroyed to ensure the protection of participant identity. Any storage of data will be done in a safe manner. Data will be stored by the Department of Biokinetics, Sport and Leisure Sciences for a period of 15 years.

5.4 CHAPTER CONCLUSION

Chapter Five provided a comprehensive description of the research process utilised in the study. The research methodology, research population, sampling method, data collection method, data analysis method and ethical aspects were specified. The next chapter will offer an interpretation of the analysed data.

CHAPTER SIX

6. RESULTS AND INTERPRETATION

6.1 INTRODUCTION

The previous chapter discussed the research methodology utilised in this study. In this chapter, the results of the study will be presented and interpreted. Results will be presented according to the identified themes and will then be interpreted according to the identified aim and objectives as set out in the first chapter of the study.

Qualitative analysis was done utilising a manual coding process. Data was transcribed into rich text format and coded according to the themes as identified in Chapter Six. Results will first be presented in table format and then be interpreted in the last section of the chapter.

6.2 RESULTS OF OBJECTIVE BASED DATA ANALYSIS

The results of semi-structured interviews and documentary analysis will be presented in the following section. Results will be presented according to the objectives identified in Chapter One.

6.2.1 The identification of policies related to disability sport and recreation provision in South Africa

Policy identification was done as a two-folded process. Policies related to disability sport and recreation in South Africa was identified through documentary analysis. To understand whether policies are known to service providers in the marginalised community of Mamelodi research participants were asked to identify policies related to sport and recreation provision for persons with disabilities.

6.2.1.1. Policies related to disability sport and recreation provision in South Africa

There is a lack of reliable information on the nature and prevalence of disability in South Africa. According to the Integrated National Disability Strategy (1997), the lack of reliable information is due to disability issues being addressed from a health and welfare framework in the past. The partial understanding of persons with disabilities has led to negative attitudes towards persons with disabilities as well as a poor infrastructure for persons with disabilities in underdeveloped and marginalised

areas. There is a magnitude of policies that relate to different aspects of life for persons with disabilities. It is important to understand the premises of the current disability policies in South Africa in order to ascertain whether policies are known and implemented in marginalised communities. Table 6.1 will provide an overview of the most prominent disability policies in South Africa

Table 6. 1 Premises of current disability policies in South Africa

Integrated National Disability Strategy (1997)	
A caring society recognises the rights of persons with disabilities	<i>“The concept of a caring society is strengthened and deepened when we recognise that disabled persons enjoy the same rights as we do and that we have a responsibility towards the promotion of their quality of life”</i>
Changing the way that persons with disabilities are perceived by society	<i>“We must stop seeing disabled persons as objects of pity but as capable individuals who are contributing immensely to the development of society”</i>
Society’s responsibility to provide opportunities for participation	<i>“We [as society in South Africa] must play an active role in working with them [persons with disability] to find joy and happiness and the fulfilment of their aspirations”</i>
Commitment of government to persons with disabilities	<i>“Through the establishment of the Office on the Status of Disabled Persons our government wishes to express its unswerving commitment to the upliftment and improvement of the conditions of those members of our society who are disabled”</i>
Lack of services and opportunities for persons with disabilities	<i>“Despite the large percentage of disabled persons, few services and opportunities exist for persons with disabilities to participate equally in society”</i>

<p>Endorsement of South African government of the ‘United Nations Standard Rules for the Equalisation of Opportunities for Persons with Disabilities’ and the ‘World Program of Action Concerning Disabled Persons’</p>	<p><i>“Both documents call for extensive changes in the environment to accommodate the diverse needs of disabled persons in society. The emphasis is on a fundamental shift in how we view disabled persons in society. The emphasis is on a fundamental shift in how we view disabled persons, away from the individual medical perspective, to the human rights and development of disabled persons”</i></p>
<p>The promotion of a partnership with persons with disabilities</p>	<p><i>“We believe in a partnership with disabled persons. Therefore, the furtherance of our joint objectives can only be met by the involvement of persons with disabilities themselves”</i></p>
<p>Key policy areas</p>	<p><i>“Key policy areas have been identified. These include prevention, health care, rehabilitation, public education, barrier free access, transport, communications, data collection and research, education, employment, human resource development, social welfare and community development, social security, housing and sport and recreation”</i></p>
<p>Protection of the rights of persons with disabilities</p>	<p><i>“The rights of persons with disabilities are protected by the Constitution. Government departments have a responsibility to ensure that...concrete steps are taken to ensure that persons with disabilities are able to access the same fundamental rights and responsibilities as any other South African”</i></p>
<p>Responsibility for the implementation of legislation</p>	<p><i>“To coordinate this activity the Office on the Status of Disabled Persons has been established</i></p>

and policy	<i>in the Office of the Deputy President. The Office on the Status of Disabled Persons will work together with, and parallel to, the various state bodies and departments in order to further the development of a disability friendly environment. It will maintain close links with the NGO sector”</i>
Importance of legislation	<i>The legislative framework is crucial. There is a need to examine the need for new legislation”</i>
Implementation of policy related to persons with disabilities	<i>“...in order to ensure that legislation is effective and policy implemented, research and monitoring are essential”</i>
Transformation requires change at different levels of society	<i>“Transformation must involve practical change at every level of our society”</i>
The impact of poverty on exclusion of persons with disabilities	<i>“...the occurrence of disability in a family often places heavy demands on family morale, thrusting it deeper into poverty”</i>
	<i>“there is an increase in families living at the poverty level as a result of disability”</i>
	<i>“They also live in underdeveloped areas where there is a lack of sanitation, water, electricity, health services, job opportunities and educational and recreational facilities”</i>
	<i>“...large numbers of persons with disabilities live in areas where the infrastructure for the provision of basic services is at its weakest...hence, a relatively low percentage of disabled have access to piped water, electricity and inside toilet facilities”</i>

<p>Exclusion through legislation</p>	<p><i>“Legislation has contributed to the social exclusion of persons with disabilities. First, legislation fails to protect the rights of persons with disabilities and, second, through legislation, barriers are created to prevent persons with disabilities from accessing equal opportunities”</i></p>
	<p><i>“Problems often arise when the law or statute is applied. These include:</i></p> <ul style="list-style-type: none"> <i>• The way regulations governing specific acts are drawn up;</i> <i>• The way acts and/or their regulations are administered;</i> <i>• Inappropriate and/ or ignorant of the law;</i> <i>• Poor monitoring of the law.”</i>
<p>White Paper on the Rights of Persons with Disabilities (2015)</p>	
<p>Promoting the social model to address disability</p>	<p><i>“The social model acknowledges that disability is a social construct and assesses the socio-economic environment and the impact that barriers have on the full participation, inclusion and acceptance of persons with disabilities as part of mainstream society”</i></p>
	<p><i>“...focuses on the abilities of persons with disabilities rather than their differences, that fosters respect for inability and that recognises persons with disabilities as equal citizens with full political, social, economic and human rights”</i></p>
	<p><i>“The social model does not locate the problem within the person with impairment; rather it acknowledges and emphasises barriers in the</i></p>

	<i>environment which disable the person with the impairment aimed at inclusion rather than exclusion of persons with disabilities from mainstream life”</i>
Political rights	<i>“...must guarantee persons with disabilities their political rights, create the opportunities for them to exercise this right on an equal basis with others, and ensure that persons with disabilities are able to fully participate in political and public life, for example though being able to vote and be elected”</i>
Human rights	<p><i>“...a human rights approach provides the necessary framework for action on human development. The focus on human rights brings two important values to development work: Firstly, it provides a framework for policies and programmes, and secondly, it provides the poor with the power to demand accountability to overcome poverty”</i></p> <p><i>“Participation is a basic human right in itself, a precondition or catalyst for the realisation and enjoyment of other human rights, and of fundamental importance in empowering people living in poverty to tackle inequalities and asymmetries of power in society”</i></p>
Social rights	<p><i>“Persons with disabilities must accord equitable social rights as all other people in society because the provision of these rights enables full participation in the life of society. It includes ... sport, recreation...”</i></p> <p><i>“Critical to building social cohesion is enabling persons with disabilities to live in barrier free</i></p>

	<i>environments within their communities”</i>
Economic rights	<p><i>“...economic rights can be accorded to all persons with disabilities applying the social model...”</i></p> <p><i>“Persons with disabilities must be involved in conceptualising, developing, implementing and monitoring economic development policies and programmes”</i></p>
Cultural rights	<i>“Places specific obligations on the state to take measures that will promote, protect and uphold the cultural rights of persons with disabilities”</i>
A rights-based approach to realising the rights of persons with disabilities	<p><i>“A rights-based approach provides a set of performance standards against which governments and other actors can be held accountable for the provision of all human, social and economic rights...this requires that a human rights lens is used in drafting and implementing policies and programmes”</i></p> <p><i>“...the rights based approach includes understanding the linkages and dependencies between social and economic rights and the need for integrated socio-economic development as a whole”</i></p>
Strategic pillars for realising the rights of persons with disabilities	<i>“There are four pillars that inform and guide the mainstreaming agenda for persons with disabilities. These include: Rights pillar; Empowerment pillar; Equality pillar; Results pillar”</i>
Roles and responsibilities in realising the rights of persons with disabilities	<i>“Key stakeholders which need to cooperate in ensuring that the WPRPD is implemented in a coordinated and accountable manner, include</i>

	<i>the Executive Authorities, accounting officers, disability rights coordinating mechanisms, legislatures, inter-governmental and cooperative governance mechanisms, legislatures, institutions promoting democracy and organisations of and for persons with disabilities”</i>
Employment Equity Act 55 of 1998	
Achievement of Equity in the workplace	<i>“This Act seeks to promote and achieve equity in the workplace. This Act specifically prohibits the unfair discrimination of employees on the ground of disability”</i>
National Building Regulations and Building Standards Act 103 of 1977	
Access to buildings	<i>“Persons with disabilities should be able to safely enter the building and be able to safely use all the facilities within it, especially toilets. Furthermore, lifts in buildings must be able to serve the needs of persons with disabilities”</i>
National Education Policy Act 27 of 1996	
Access to education	<i>“This Act’s aim, amongst others, is to ensure that no person is denied the opportunity to receive an education... as a result of physical disability”</i>

Policies related to disability sport and recreation provision provide direction on physical and social access to participation; provision of subsidies that will facilitate participation; an emphasis on inclusion, empowerment and the promotion of priority groups as identified by government; equitable participation opportunities; the provision of an enabling environment; sport as mechanism that facilitate integration

and rehabilitation; training of trainers and coaches; consultation with persons with disabilities; sponsorship and the coordination of sport and recreation.

Table 6. 2 Policies related to disability sport and recreation in South Africa

White Paper on the Rights of Persons with Disabilities (2015)	
Access to facilities	<i>“Ensuring that community services and facilities for the general population are available on an equal basis to persons with disabilities”</i>
Participation in cultural life, recreation, leisure and sport	<i>“...the right of persons with disabilities to take part on an equal basis with others...to participate with others in recreational, leisure and sporting activities”</i>
Provision of subsidies for sport and leisure development for persons with disabilities	<i>“Subsidies and sponsorships for all sport and leisure development must include a disability mainstreaming component”</i>
The National Sport and Recreation Plan (2012)	
Emphasis on inclusion, empowerment and promotion of priority groups	<i>“Special emphasis is put on the inclusion, empowerment and promotion of government’s priority groups, namely ... persons with disabilities”</i>
Accessibility	<i>“Sport is available to all... disability... and other elements of a society’s diversity does not infringe on the opportunity to participate in sport”</i>
Equitability	<i>“Every individual should have an equal opportunity to make ...the life that he/she is able and wishes to have... as a member of society without being hindered in or prevented from doing so by discriminatory practices”</i>
	<i>“we cannot compete with the exclusion of certain parts of our population”</i>
Enabling environment	<i>“South Africa has a serious problem regarding the building, shared utilisation, equitable access... that has</i>

	<i>far reaching consequences...”</i>
Integrated National Disability Strategy (1997)	
Policy objective	<i>“...to develop and extend sporting activities for persons with disabilities in both mainstream and special facilities so that they can participate in sport for both recreational and competitive purposes”</i>
Sport as integration mechanism	<i>“Sport is generally regarded as one of the vital components in the integration of persons with disabilities into society”</i>
Sport as rehabilitation tool	<i>“It is also often a vital component in the successful rehabilitation of persons with disabilities”</i>
Development of physical qualities, self esteem, courage and endurance	<i>“Sport at school level is critical for the development of physical qualities, as well as for the development of self-esteem, courage and endurance. It is therefore vital that sport at school level – both within ordinary and special school – receives urgent attention”</i>
Training of trainers	<i>“The development of trainers/coaches familiar with sport for disabled people is an essential component which needs to be urgently addressed”</i>
Physical facilities	<i>“Existing public sport facilities tend to be largely inaccessible. This includes changing rooms, lockers, showers, toilets and so on”</i>
Consultation with persons with disability	<i>“Community sport centres should be developed in consultation with organisations of disabled people to ensure not only barrier-free access, but also integrated universal design to allow both non-disabled and disabled athletes to use the facilities simultaneously”</i>
Public Education	<i>“...persons with disabilities (especially those living in rural areas), sponsors and sport administrators tend to be largely unaware of the different forms of sport for</i>

	<i>disabled people. This aspect should be targeted in a public education programme”</i>
Sponsorship	<i>“Sport for disabled people should be ‘mainstreamed’ as far as possible to increase sponsorship value...it should be promoted jointly with mainstream events”</i>
Coordination of sport	<i>“There are two major umbrella bodies for sport for disabled people in South Africa: the National Paralympic Committee of South Africa and the Special Olympics South Africa”</i>

6.2.1.2. Policies related to disability sport and recreation provision as identified by service providers in the marginalised community of Mamelodi

Research participants were generally unaware of existing policies pertaining to service delivery and sport and recreation participation for persons with disabilities. In some cases, participants were unaware of what the term policy meant. Table 6.3 illustrates the general awareness of research participants in the marginalised community of Mamelodi.

Table 6. 3 Awareness of policies related to persons with disabilities in relation to sport and recreation

No awareness	<i>“No. I am only aware of our centre and of Alma School”</i>
Selective government support	<i>“Yes, the policy is fine...because the government is supporting him... it is believed that the government is supporting him... Many things are not included.”</i> [Participant does not fully understand the meaning of the word policy.]
Uncertainty	<i>“Policies?”</i> [Participant does not fully understand the meaning of the word policy]

6.2.2 Application of policies related to persons with disabilities in organisation and/ or in the community

Due to a lack of awareness of policies for persons with disabilities, participants were unable to describe the application of policies pertaining to sport and recreation participation for persons with disabilities. One participant expressed that government policies does not apply or affect sport and recreation opportunities for persons with disabilities in Mamelodi: *“Not to our organization. I cannot speak for the community out there”*. Another participant stated that government policies do not translate into better participation opportunities for persons with disabilities in Mamelodi: *“No. In most communities, persons with disabilities are not given opportunities. Everything is given to people who are able. It all depends on which community you come from.”*

6.2.3 Actual service delivery in disability centres in the marginalised community of Mamelodi

To understand actual service delivery in terms of sport and recreation in Mamelodi it was important to find out whether research participants believe sport and recreation participation as beneficial. A variety of benefits associated with sport and recreation participation were identified by participants. Table 6.4 highlights some of the identified benefits.

Table 6. 4 Benefits associated with sport and recreation participation for persons with disabilities

Good self-esteem	<i>“It gives them self-esteem. It boosts them and it gives them something to work for because I don’t believe that a disabled person should just be sitting around doing nothing. There are possibilities for everybody, irrespective of their disabilities.”</i>
Physical exercise	<i>“Just because you just make it exercising...”</i>
Cognitive benefits	<i>“If sometimes the kids is struggling about their mind you must keep her busy...”</i> [provides cognitive stimulation for cognitive benefits.]

The development of a future perspective	<i>"...and then to continue with their life."</i>
Emotional benefits	<i>"And you must show her did you love her or whatever, yes. So that's why participation is so very good for him..."</i>
	<i>"I think it's good for them because they can also do something ... If they play games or they're outside ... it provides satisfaction ..."</i>
Improved muscle function	<i>"If I think about sports and I think of benefits, then I think of muscles that can keep up the job. And this can bring about muscular improvement. "</i>
Social interaction	<i>"And then socializing with other people. There are definitely advantages to it. "</i>
Feelings of achievement	<i>"They think 'we can also produce something...' You have to act as if they can achieve something."</i>
Talent realization	<i>"Some of them will realize their talents....and end up going to the Paralympics." [Participant does not fully understand what the Paralympics is.]</i>
	<i>"Yes. So then they'll be free to do everything that they are talented with."</i>
Muscle improvement	<i>"Stimulation. Like for example, playing with dough, it stimulates their muscles."</i>

	<i>“And the other thing is also, uhm, it also helps their muscles to not worsen their condition. Because...some are stiff. So if we do the activities like mixing any hand cream or any cream with sugar, brown sugar especially, you smear it on their hands or somewhere on their skin. They feel something, like their muscles. It stimulates their muscles...”</i>
Sensory improvement	<i>“And again with the TV, it stimulates their minds and vision and hearing because they will be watching and listening at the same time.”</i>
Feelings of belonging in the community	<i>“...some of the people...they feel not welcome in the community. But if they’re involved in sports...if some people are not disabled, they can go and watch them maybe playing soccer they could feel welcome, people love us.”</i>
	<i>“They can feel part of the community because they can also do something.”</i>
Overall development	<i>“It aids with their development.”</i>
Muscle tone	<i>“Gain muscle tone.”</i>
Self-confidence	<i>“Self-confidence.”</i>
Learn to play	<i>“They need to learn how to play. It is part of their learning. They need to feel textures; they need to play with dough and water.”</i>

Participants seemed unaware and unsure of sport and recreation intervention programs that are available in the community. Participants were aware of programs

that might be available elsewhere in Pretoria, but not in Mamelodi. Table 6.5 summarises the interventions that research participants are aware of.

Table 6. 5 Interventions, programs and workshops for persons with disabilities in Mamelodi

Protective workshops	<p><i>“I do know that there is a protective workshop in Prinshof that is employment solutions. That is the only one that I am aware of. That is a protective workshop. Other than that no, but there is another centre like this one in 24h Avenue called The Moot Daycare Centre for the Disabled...”</i></p>
	<p><i>“If I think of those who have more intellectual capacity, they are intellectually stronger, yes, there are schools that accommodate these children while we are not a school, we are a day-care centre. Yes like Alma school and then sheltered workshops for them where they can make things like trays and that kind of thing.”</i></p>
Not aware of any interventions	<p><i>“Nothing that I know of”</i></p>

When asked about centre-specific sport and recreation activities it came to light that a lack of intervention programmes exist due to a lack of financial resources. Research participants were able to name activities, however could not identify where and when it had taken place. Table 6.6 presents the sport and recreation activities identified by research participants.

Table 6. 6 Centre specific activities and intervention programs

No specific programs	<p><i>“No, we have not got a set program that we work according to. We take it day by day and we try and see what we can teach them, because as you know their attention spans are not very long and the children that are here are basically children that have finished the school, for example ... or else some of them have not been to school”</i></p>
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No programs when a person is out of the system	<i>“They have reached their plateau. In other words they cannot go further so they have fallen out of the system and then they come here and then we try and help them from here to the best of our ability.”</i>
Puzzles	<i>“To play with the puzzles.”</i>
Walking outside	<i>“And sometimes we try to take a walk with him. Like that.”</i>
Physiotherapy	<i>“Yes, there are programs. If I look at the youngest person in my class then physio will go into his day's program. Then to develop optimally within his ability and to prevent him from reaching his plato and then deteriorating. If a person reaches plato then we need to do maintenance exercises to maintain his plato. ”</i>
Pottery	<i>“Yes, and we have activities like pottery ...”</i>
Horse riding	<i>“...horse riding which the children love, and I believe it is essential for all children and persons to ride a horse and have physical contact with the animal, which is good for them.”</i>
	<i>“And then on Friday the horses are coming...”</i>
Painting	<i>“And then we also have painting...”</i>
Playing with dough, sand and water	<i>“...and playing with dough and sand- and water, those types of things. It is essential for persons with disabilities.”</i>

Playing outside	<i>“Sometimes they are going to play outside. “</i>
Swimming	<i>“And the others are going to swim.”</i>
Physical exercise activities	<i>“Like as I said, we use stimulating materials like a roller, uhm a big round ball, uhm and a trampoline and a swing.”</i>
Sport activities	<i>“Basketball...”; “...netball...”; “...soccer...”; “...table tennis...”; “...cricket...”; “...hockey...”</i>

6.2.4 Access to sport and recreations programs in community

Access to sport and recreation programs in the community was described as limited by research participants. Table 6.7 provides an overview of how research participants viewed access to sport and recreation programs in the marginalised community of Mamelodi.

Table 6. 7 Access to sport and recreations programs in Mamelodi

Parents must get involved	<i>“I believe that they could have access to this depending on the parents; if the parents take them. But yes, they do.”</i>
Access available	<i>“Yes.” [participant cannot specify what access entails.]</i> <i>“Yes, they have.” [participant cannot specify what access entails.]</i>
No access	<i>“No, there is not always access.”</i>
Participation is possible with the right equipment	<i>“Yes, they can because they use wheelchairs.”</i>

Various barriers that persons with disabilities face in participating in sport and recreation opportunities according to research participants included a financial and transport barrier.

Table 6. 8 Barriers to support for sport and recreation participation for persons with disabilities

Financial barrier	<i>“But then again, as well, with the financial costs involved, would it be affordable for them to be able to support it.”</i>
Transport barrier	<i>“To transport those people creates a problem and then bring them back to their neighbourhood where they are ... Yes, I think transport is a big problem ... And then there must also be special chairs in a vehicle to do that to drive people.”</i>

6.2.5 Policy implementation alternatives based on a socio-ecological approach

Governmental policies are located on the macro system according to the Socio-ecological theory by Urie Bronfenbrenner (Boon *et al.* 2012) but interact and impact on the exosystem as well as on the microsystem. It has been ascertained in previous sections that, even though there are existing policies developed by government, research participants are not aware of these policies or do not perceive policies as being implemented in the marginalised community of Mamelodi.

Family and community support of persons with disabilities are crucial to enable sport and recreation participation. Table 6.9 provides an overview of how research participants perceived family support of sport and recreation participation.

Table 6. 9 Family support of sport and recreation participation

Parents involve kids with disabilities in programs	<i>“Within the organization I think that they perceive it relatively well. Because we have got some of our parents here that do take their children to the gyms and they do do exercises and things like that”</i>
Family support	<i>“Yes, I think that they would support it.”</i>

Differs from family to family	<i>“Yes some will. Some won’t.”</i>
Parents ought to be supportive	<i>“Our children are good in sports. So I think we as parents should give our children support.”</i>

Participants were uncertain of whether families will participate with disabled family members in Mamelodi. Table 6.10 illustrate the cultural perception of persons with disabilities and how it reflects how families perceive persons with disabilities.

Table 6. 10 Family participation in sport and recreation intervention programs together with their disabled family members

Differs from family to family	<i>“I think it depends on the family. But it can be positive or it can be negative. Like I said, I cannot tell you whether it will be positive. You do not know the family outside the house. And I cannot say if it will be negative. So it can take one way or another.”</i>
	<i>“Ja, some. But some not.”</i>
	<i>“You know, it also varies from person to person. Everyone does not feel the same. But if you go to the framework outside the house to family, then I think there are people who have a dislike of the disabled and there are people who might be involved with this person.”</i>
	<i>“It differs from family to family.”</i>
Will be willing to participate in intervention programs alongside persons with disabilities	<i>“I think so.”</i>

<p>Only some will participate</p>	<p><i>“I don’t think, there’ll be a less percentage because most of the family...they feel ashamed when they are carrying these children on the streets. Because even us, the community that doesn’t have disabled children, we’ll look at that child in a shameless way or thinks about the parents, you know. So, they will participate but there won’t be that large number.”</i></p>
<p>Feelings of shame</p>	<p><i>“I think they feel shame.”</i></p>
<p>Acceptance due to family ties</p>	<p><i>“Oh shame, sometimes you may feel bad but you can’t do anything about it because it is your child. You will feel bad, you know. Because if you expect (pregnant) you will not expect you to get the child who cannot walk, who cannot speak. You see, it would not be nice for you. But the Lord gave you this child. You have to take care of him, it's your child. You cannot do anything about it. I just think a parent can feel bad but he has to take care of that child because it's his child. He also did not know he would get a disabled child. The child also did not ask to be disabled. You may feel bad but you have to be strong for a person with a disability.”</i></p>
<p>Abandonment by parents</p>	<p><i>“Some, they neglect them when they put them at the centre they just leave them there. They won’t come and visit. They won’t even care how is he or she feeling, or how is she doing. They will just dump them there...”</i></p>
<p>Perceive persons with disabilities as useless</p>	<p><i>“If I can add... they do that because they don’t have (faith?) in disabled people. ‘Cause when they look at them they see people who can’t do anything for themselves. They see useless people to them. Yes, that’s how they feel about them.”</i></p>

Support	<p><i>“Some support their children.”</i></p> <p><i>“From the supporting family, you can see by the behaviour of the child or learner. When the teacher and parent combined push (support) the child to do better it will shine through them.”</i></p>
Embarrassment	<p><i>“Some are embarrassed.”</i></p>
Loving	<p><i>“But some are so loving.”</i></p>
Feeling cursed	<p><i>“Some of the parents don’t know how to deal with the situation. They feel somehow cursed.”</i></p>
Do not wish to be associated with their disabled family members	<p><i>“They feel like they do not want to associate themselves with that kid.”</i></p>
Do not wish to take care of their disabled family members	<p><i>The minute they enrolled the kid in the school it is like they say good riddance for bad rubbish. The parents don’t have to sit up with the child all day long. We had a public holiday, and some of the parents were actually disgruntled that we were not going to be open. I am not saying all parents are like that, only some parents. Like I said earlier, the child that is supported by the parent and the teacher will shine.”</i></p>

Research participants were asked whether they feel that they, as caretakers and carers of persons with disabilities receive enough support. They were further asked how they perceive persons with disabilities. Table 6.11 provides an overview of responses by research participants.

Table 6. 11 Caretaker support and perceptions of persons with disabilities in their care

<p>Feeling protective of persons with disabilities</p>	<p><i>“I must protect him. Day and night, all the time I must protect him. And I can feel like he’s mine. Me as well, I got a pain sometimes. I know here if you just tell her some ugly language they are take it pain. But don’t try to talk to him ugly a way. Sometimes when you talk with him you, you must talk with him, you must take it with him a jokes like that. To play. To keep her busy.”</i></p>
<p>Supportive</p>	<p><i>“Don’t feel shame. Really, really don’t feel shame. Cause when you feel shame you destroy him all the time. Give her love. (sigh). You know what, take her disabilities like you. It is a person like you, no matter is a disabilities person. But take him like you. Cause of you, you don’t know where I’m going to about my life. Okay, let’s say I go home, when I go home I get in the accident. I am going to be, if whatever, when I get in the accident there are two chances if I am going to arrive again or if I am going to die. So if I am still alive I am going to be disabled... It is the same like that person with disabilities... Yes, is a pain when there is somebody at home with disabilities. But don’t feel ashamed. Give her love. Give her smiling. Take it him out. Anywhere when you go, if sometimes I know, you can’t go with him everywhere, everyday. Sometimes you just leave him at home. But sometimes, take it him out. Yes.”</i></p>
<p>Teachers require support with infrastructure (executing curriculum)</p>	<p><i>“In future, they should consider the learners’ direction. We need support with infrastructure...”</i></p>

The overall perception of the Mamelodi community towards persons with disabilities is slightly negative even though the research participants tried to find some element of ‘positiveness’ in how persons with disabilities are perceived in the marginalised

community of Mamelodi. Table 6.12 illustrate how the community perceive persons with disabilities.

Table 6. 12 Community support and perceptions of persons with disabilities

Community support	<i>“I trust that they would be supportive of them, yes. Yes, I think that they would.”</i>
Feelings of shame	<i>“These people they are feeling shame. Disabilities, they don’t like somebody must be feeling shame about her. You must take it over and you must be free for him, you must be happy for him. You must play with for him and everything. And feel free. Don’t feel shame...ah she can’t walk.”</i>
	<i>“Ja, I think so. There are many people they feeling shame. When I was starting to work here. I was feeling shame the first time. But after I was tell myself it is the way God is do it. It is not us. And God He know. Me, I don’t know nothing. So please God give me a power to work with that persons with disabilities....”</i>
	<i>“They feel shame.”</i>
Mistreating/ abuse of persons with disabilities	<i>“Yes there are other people that take it a risk about their disabilities. Sometimes if that child she’s there alone or she’s there, there are other families. Somebody in the family they are taking a chance to use them [refers to physical abuse]. But that is not a good way. And you go to destroy him...the disabilities person.”</i>
Uncertainty and lack of knowledge	<i>“I think it's something that the community wants to get away from because they do not have knowledge about disabilities and because it's a strange world they do not know understand.”</i>

Uninformed on the abilities of persons with disabilities	<i>“They do not understand disabilities, are misinformed, and do not understand what they are capable of achieving within their abilities”.</i>
Does not wish to be involved	<i>“Family outside the direct household do not always wish to be a part of a person with disability’s life.”</i>
Community becoming more informed of disabilities (better understanding of disabilities)	<i>“The community is becoming more aware of persons with disabilities and how they function.”</i>
Better understanding will lead to more involvement	<i>“If they understand disabilities better they will become more involved in a person with disability’s life.”</i>
Better understanding will lead to support systems for parents of persons with disabilities	<i>“And to get them more involved, I think can provide a support system for these parents who need it a lot. They are stuck in their homes and they cannot even go to church because that child shouts and laughs and bursts out and cries ... One person in my class is very possessive over his mother and when he is with his mother he wants to have all her attention. Most of the persons with disabilities we have here go home. They may go to the shops, sit in the car and wait for his dad to buy the groceries. Our parents really need a support system from the outside and the community.”</i>
Treat them positively	<i>“They treat them positively.”</i>
Feelings of pity	<i>“The community, I think, at first sight they will feel sorry for the persons and think maybe we are (somehow?) abusing them.”</i>
Acceptance	<i>“But then in the end I think they will accept...they are taking them normally like normal people.”</i>

Perceive persons with disabilities as incapable to do anything for themselves	<i>“People in the community believe that persons with disabilities they can’t do anything for themselves, which is wrong.”</i>
May be considerate	<i>“If you are looking at them you can say ‘eish mara, maybe that person is feeling pain’...”</i>
Acceptance of persons with disabilities once they participate in community sports	<i>“...if they are beginning to... into sports in the community, the community will accept and they will no longer feel sorry for them. Cause the more people who feel sorry for the disabled people, those people they become more disabled than they were before, cause they will do everything for them.”</i>
	<i>“...And then if they have something which can include them they will also invite them to the event.”</i>
	<i>“Yes, if uhm, the community or everyone in this world can accept them as they are, just the way as they are, that would be much better. And give them love and support in everything they do, even if they can’t do anything. But if they give them support they will be happy knowing that they are loved, they are cared...”</i>
Undermining persons with disabilities	<i>“They undermine them.”</i>
Excluding them from society	<i>“They place them on the sidelines.”</i>
Rejection	<i>“They can’t even wear a jersey with the school’s emblem, because of the way the community perceives them.”</i>
Judgemental	<i>“There is a lack of understanding from the community.”</i>

	<i>They are judgemental. They see persons with disabilities as different from them. These children feel cast out.”</i>
Understanding will lead to empowerment	<i>“Progress with regards to empowerment of persons with disabilities and understanding from the community will come from knowledge. This should be transferred from educators to parents, and from parents to the wider community. Then it won’t only be parents and teacher who will be able to support persons with disabilities but also the community. How can the community support persons with disabilities if they have no knowledge? Community should be informed.”</i>

Research participants were asked what they believe a sport and recreation intervention program, that include persons with disabilities would accomplish in the community of Mamelodi. As indicated in Table 6.13 participants believed that it will contribute to mutual understanding; acceptance of persons with disabilities within the community; self-respect and an overall feeling of acceptance in the community.

Table 6. 13 Community participation in possible hybrid intervention programs with persons with disabilities

Mutual understanding	<i>“That would be good. It would make both sides (disabled and abled bodied) see that they are the same.”</i>
Acceptance through participation	<i>“If you can introduce more kids to the community it will be much better. Some of our community members they think that they are much better than them. If you introduce a program in school and they can find out that they can play something much better than someone in the community.”</i>

Participation together will lead to self-love and self-respect due to acceptance by community	<i>“Those who are abled-bodied will be exposed to those who are disabled. Persons with disabilities could share about their conditions and how they would like to be helped. When they are understood they can have self-love and self-respect because they are accepted in that situation.”</i>
Feeling accepted	<i>“Persons with disabilities will be seen. They will also feel that they are human.”</i>

6.3 OBJECTIVE BASED INTERPRETATION OF RESULTS

Results were interpreted according to the aims and objectives as stated in Chapter One.

6.3.1 Policies relating to disability sport and recreation provision in South Africa

Analysis of this objective included and focused on policies related to disability sport and recreation provision for persons with disabilities in South Africa. Firstly, analysis started off with the identification of disability policies in South Africa through document analysis (see Table 6.1). The identification of disability policies in South Africa allowed the researcher to determine whether policies are known and understood in marginalised communities. South African disability policies analysed included the Integrated National Disability Strategy (1997); White Paper on the Rights of Persons with Disabilities (2015); Employment Equity Act 55 of 1998; National Building Regulations and Building Standards Act 103 of 1997 and the National Education Policy Act 27 of 1996.

Secondly, policies relating to disability sport and recreation in South Africa were then identified and analysed using documentary analysis (see Table 6.2). These policies included the White Paper on the Rights of Persons with Disabilities (2015); The National Sport and Recreation Plan (2012) and the Integrated National Disability Strategy (1997).

Lastly, policies relating to disability sport and recreation provision in Mamelodi, as identified by the service providers, were then analysed (see Table 6.3). This was

done through the transcription and objective based coding of the semi-structured interviews.

Table 6.1 looked at the premises of current disability in South Africa. The Integrated National Disability Strategy (1997) points out a lack of services and opportunities for persons with disabilities and identifies society and government's responsibility to provide opportunities for participation. The government, therefore, has the responsibility to protect persons with disabilities through the implementation of legislation and policy. The Office on the Status of Disabled Persons has been established to ensure the rights of disabled individuals are protected. Persons with disabilities' rights are also protected by the Constitution. However, a need for new legislation exists. In order to develop adequate policy, the government must work in partnership with persons with disabilities and must ensure the involvement of disabled individuals in policy development. The White Paper on the Rights of Persons with Disabilities (2015) emphasises the promotion of the social model to address disability issues (e.g. barriers to access as a result of the socioeconomic environment) and views disability as a social construct.

Table 6.2 points out the right of persons with disabilities to equal opportunity and access to community services and facilities and the right to equal participation in recreational, leisure and sporting activities. However, this is not a reality for persons with disabilities in marginalised communities such as Mamelodi.

Table 6.3 demonstrated a general unawareness of existing policies pertaining to sport and recreation for persons with disabilities. In some instances, the participants did not understand what the term policy means. Participants were unable to explain application of policies within the community due to the lack of awareness and the lack of understanding what the term policy means.

Even though policies exist, they are not implemented on community level. A lack of recognition of nongovernmental organisations, non-profitable organisations and faith-based organisations in government policies also exist.

6.3.2 Actual service delivery for persons with disabilities in the marginalised community of Mamelodi

When asked to name and discuss benefits associated with sport and recreation participation for persons with disabilities, participants could easily name and describe the benefits (see Table 6.4). However, in spite of their knowledge and

understanding associated with sport and recreation participation benefits, participants were unable to identify any interventions, programs and workshops for persons with disabilities available in Mamelodi.

Participants seemed to be unsure of specific programs running outside of their organizations (see Table 6.5). A participant who provided an example of a Protective workshop running in Mamelodi seemed unsure of their answer. The researcher followed up and cross referenced this through observation. The researcher also frequently visited the centres and community and established that there were no programs running within the community for persons with disabilities. The activities mentioned by participants were activities that they would like to run within the community. These activities included cricket, soccer, tennis, horse riding and athletics.

Participants also pointed out that there are NGOs providing participation opportunities for persons with disabilities but were unable to mention any specific NGOs or programs provided by these NGOs. Activities identified by participants within the organizations included walking, doing puzzles, physiotherapy, pottery, horse riding, painting, playing with dough, swimming, cricket netball, soccer and hockey (see Table 6.6).

During the research study, it came to light that, even though these activities were pointed out within the organizations, that these organizations had limited resources (e.g. financial resources) to conduct these activities. In some cases, these centres did not have enough personnel that could assist in conducting these activities.

It was pointed out that access to participation in intervention programs was only available to those individuals within a disability school or centre. Participants did not believe that there is access available to intervention programs (see Table 6.7). Participants noted that access will be possible if parents and other family members become involved and take their disabled family members to intervention programs. Participants also pointed out that participation would be possible with the right equipment. However, barriers to support for sport and recreation participation, like financial and transport barriers (see Table 6.8) made it impossible for parents and family members to support sport and recreation participation.

6.3.3 Policy implementation alternatives for persons with disabilities based on a socio ecological approach

Family support (see Table 6.9) of sport and recreation participation was positively identified only within one organization. Persons with disabilities were described as abandoned by family members in the other organizations. Family members were said to feel ashamed and embarrassed of their disabled family members (see Table 6.10). When asked whether or not family members would participate in hybrid intervention programs alongside their disabled family members the participants said that it would differ from family to family (see Table 6.10). Participants mostly expressed concern and noted that family members mostly do not wish to care for their disabled family members and that they do not wish to be a part of their lives.

As demonstrated in Chapter Four, family structure and support forms part of Bronfenbrenner's (1989) microsystem as family dynamics have a direct influence on a disabled individual. This direct influence makes family support crucial to enable participation in sport and recreation intervention programs. Most disabled individuals within a disability centre were abandoned by family members, and left at the disability centre because they lack the financial resources to provide for the special needs of a disabled family member. Another reason may be that family members lack the necessary knowledge to care for their disabled family members. Policy addressing the provision of support systems for parents and other family members may be beneficial as it may guide interventions that provide the necessary knowledge and skill to take care of disabled family members.

The caretakers within these disability centres mostly expressed feelings of pity and sadness toward persons with disabilities. The caretakers expressed their responsibility to protect disabled individuals in their care (see Table 6.11). When asked if participants, as caretakers of persons with disabilities, receive enough support they expressed their urgent need for support (e.g. financial support infrastructure).

Disability centres also form part of Bronfenbrenner's (1989) microsystem as most disabled individuals in Mamelodi stay with these centres on a permanent basis, as their family members do not wish to look after them or lack the financial means to do so. Therefore, the context within a disability centre has a direct influence on disabled individuals. Providing disability centres with the necessary resources (financial, education, equipment etc.) is crucial to ensure the proper care of persons with disabilities. Policy addressing the provision of necessary resources to these

disability centres could make the provision of adequate intervention programs within these centres a possibility.

Participants identified community support and perceptions of disabilities as negative (see Table 6.12). They explained that the community mostly feels ashamed of persons with disabilities, and lacks understanding and knowledge regarding disability. Disabled individuals were described as being rejected by the community.

When asked what they believe (hybrid) sport and recreation intervention programs that include both disabled individuals and the community would accomplish, participants believed that it would: foster mutual understanding; lead to acceptance of persons with disabilities; feelings of acceptance by the community.

As demonstrated in Chapter Four, community influence forms part of Bronfenbrenner's (1989) exosystem. Negative community perceptions and support could be seen as a barrier to participation in sport and recreation intervention programs as this leads to the exclusion of persons with disabilities from participation in intervention programs. This issue could be addressed through policies addressing the creation of hybrid programs where disabled individuals could participate alongside members of the community. This will foster mutual understanding and respect.

Further suggestions for policy implementation alternatives would be to:

- Create awareness of policies associated with sport and recreation participation for persons with disabilities.
- The socio ecological approach would be beneficial for persons with disabilities living in centres within the community as stakeholders can be brought together.
- The need to implement policy on community level, therefore transformation must involve practical change at every level of the social system.

6.4 CHAPTER CONCLUSION

In this chapter, the results were presented and followed by an interpretation thereof according to the study's aim and objectives. It was shown in the interpretation that a socio ecological approach to the implementation of the National Sport and Recreation Plan will allow for more sport and recreation opportunities for persons

with disabilities in the marginalised community of Mamelodi. This study will conclude in the following chapter with conclusions and recommendations for further study based on the analysis and interpretation as presented in this chapter.

CHAPTER SEVEN

7. CONCLUSION AND RECOMMENDATIONS

7.1 INTRODUCTION

In Chapter One it was put forward that sport and recreation participation opportunities for persons with disabilities are limited in the marginalised community of Mamelodi. Despite the described inclusion of persons with disabilities in the National Sport and Recreation Plan (2012) sport and recreation participation is not a reality in Mamelodi. It was further postulated that a socio ecological approach may provide an alternative that will allow for more participation opportunities. In this chapter, the conclusions drawn from research results and interpretation will substantiate the use of a socio ecological approach to the provision of sport and recreation opportunities for persons with disabilities in Mamelodi. The research question for this study was formulated as:

How can a socio ecological approach to sport and recreation service delivery for persons with disabilities in the marginalised community of Mamelodi assist in providing a more comprehensive application of policy?

Based upon the abovementioned research question it was postulated that:

- Limited opportunities exist for persons with disabilities to participate in sport and recreation;
- Objectives and planned actions as described in the National Sport and Recreation Plan (2012) is not implemented in Mamelodi;
- A socio ecological approach may assist in the provision of sport and recreation opportunities for persons with disabilities in Mamelodi.

Postulations were confirmed and presented in the interpretation of results. In Chapter One the objectives of the study were formulated as:

- To identify policies relating to disability sport and recreation provision in South Africa;

- To determine actual service delivery in disability centres in the marginalised community of Mamelodi;
- To recommend policy implementation alternatives based on a socio ecological approach.

Conclusions and recommendations will consequently be presented according to the above-stated objectives.

7.2 CONCLUSIONS

7.2.1 Overall Conclusion

Results of the study confirmed that persons with disabilities are excluded from sport and recreation service delivery in the marginalised community of Mamelodi despite the inclusion of persons with disabilities described in the National Sport and Recreation Plan (2012).

7.2.2 Objective specific conclusion

Objective specific conclusions will be presented below according to the stated objectives of the study.

7.2.2.1 Policies relating to disability sport and recreation provision in South Africa

- Even though policies relating to sport and recreation provision exist, it is not implemented in marginalised communities like Mamelodi.
- Participants were not aware of any existing policies pertaining to persons with disabilities' participation in sport and recreation intervention programs.
- Participants could therefore not discuss the application of policies within the community of Mamelodi.
- Some participants did not understand the term policy.

7.2.2.2 Actual service delivery in disability centres in the marginalised community of Mamelodi

- There are no sport and recreation interventions running within the community of Mamelodi.

- Access to participation in intervention programs was only available to those individuals who were staying in a disability centres to an extent. The interventions available within the disability centres were not adequate due to a lack of resources to provide these programs. Interventions provided in the centres were adapted to “make due” with the available resources.
- Access to participation in intervention programs was impossible due to the following reasons:
 - lack of intervention programs running within the community;
 - lack of community support;
 - lack of family support;
 - negative family perceptions;
 - negative community perceptions;
 - a lack of resources like financial resources and transport resources.

7.2.2.3 Policy implementation alternatives based on a socio ecological approach

- Family support was described as negative. Family members felt ashamed of their disabled family members and were described as completely uninvolved in their disabled family members’ lives. This may be due to a lack of knowledge to care for disabled family members as well as a lack of financial resources to provide for the special needs of disabled individuals. This could be addressed through policy providing the necessary support to family members.
- The community mostly rejected persons with disabilities. The community was described as uninformed. This may lead to exclusion to participation in intervention programs. Community perception and support could be addressed through the creation of hybrid intervention programs.
- All stakeholders should be brought together to provide the necessary support for persons with disabilities.
- All stakeholders should be trained or provided with adequate knowledge and education to create the necessary understanding and to become knowledgeable with regards to disabilities. These stakeholders include:

- Community members;
 - Family members;
 - Caretakers;
 - Teachers;
 - NGOs;
 - Government.
- Barriers to access could be addressed through:
 - Creating community understanding through the creation of hybrid sport and recreation intervention programs, where both the community and persons with disabilities participate alongside each other.

7.3 RECOMMENDATIONS

Consistent with the aims of the study the following recommendations regarding the provision of sport and recreation opportunities for persons with disabilities in the marginalised community of Mamelodi are proposed:

- Training of sport and recreation providers. This may include the caretakers of persons with disabilities within disability centres.
- Involvement of multi-sectoral stakeholders.
- Policy addressing the provision of the necessary resources to run adequate intervention programs within disability centres.
- Policy addressing the provision of the necessary resources to eliminate barriers to participation in community intervention programs for those disabled individuals that are not placed in disability centres.
- Creation of hybrid intervention programs that include both disabled individuals, their family members and the community to foster mutual understanding.
- Linking Non-profitable organisations, nongovernmental organisations and faith-based organisations with disability centres to form partnerships to provide participation opportunities in sport and recreation intervention programs.

7.4 IMPLICATIONS FOR FURTHER RESEARCH

The findings of this study raised several questions regarding the provision of sport and recreation opportunities for persons with disabilities in marginalised communities such as Mamelodi. It presented the following opportunities for further research:

- Further research is needed to evaluate the implementation of disability policies and recommendations on the physical environment of sport and recreation facilities in marginalised communities;
- To evaluate the impact of a hybrid of sport and recreation program, in which disabled individuals can compete alongside members of community, on persons with disabilities;
- To determine the necessary family support and resources required to enable the care of persons with disabilities in marginalised communities;
- To evaluate and determine the necessary support and resources that disability centres need to enable the care of persons with disabilities in marginalised communities;
- To determine the training requirements needed that will enable current carers in disability centres to be active providers of sport and recreation programs.

7.5 FINAL STUDY CONCLUSION

This study endeavoured to evaluate sport and recreation service delivery according to the National Sport and Recreation Plan (NSRP, 2012) for persons with disabilities in the marginalised community of Mamelodi using a socio ecological approach. Sport and recreation intervention participation opportunities for persons with disabilities do not exist, despite the description thereof in the National Sport and Recreation Plan (NSRP, 2012). A lack of sport and recreation intervention programs exist as policies addressing sport and recreation participation for persons with disabilities are not applied in marginalised communities like Mamelodi. The lack of sport and recreation service delivery for persons with disabilities can, and should, therefore be addressed through the use of a socio ecological approach.

REFERENCES

- ALGOOD, C.L.; HONG, J.S.; GOURDINE, R.M. & WILLIAMS, A.B. (2011). Maltreatment of children with developmental disabilities: An ecological systems analysis. *Children and Youth Services Review*, 33(7): 1142-1148.
- ALGOZINE, B.; BROWDER, D.; KARVONEN, M; TEST, D.W. & WOOD, W.M. (2001). Effects of Interventions to Promote Self-Determination for Individuals with Disabilities. *Review of Educational Research*, 71(2): 219-277.
- BANDURA, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ, US: Prentice-Hall.
- BARRON, B.A. (2001). Disability Certifications in Adult Workers: A Practical Approach. *American Family Physician*, 64(9): 1579-1587.
- BARRON, K. (2001). Autonomy in Everyday Life, for Whom? *Journal Disability & Society*, 16(3): 431-447.
- AUSTIN, D.R. (1998). The Health Protection/ Health Promotion Model. *Therapeutic Recreation Journal*: 109-117.
- BLACKSHAW, T. & CRAWFORD, G. (2009). *The SAGE Dictionary of Leisure Studies*. Los Angeles, London, New Delhi and Singapore: SAGE.
- BOON, H.J.; COTTRELL, A.; KING, D.; STEVENSON, R.B. & MILLAR, J. (2012). Bronfenbrenner's bioecological theory for modelling community resilience to natural disasters. *Natural Hazards*, 60(2): 381-408.
- BORNMAN, J. (2004). The World Health Organisation's terminology and classification: application to severe disability. *Disability and Rehabilitation*, 26(3): 182-188.
- BORSAY, A. (2004). *Disability and Social Policy in Britain since 1750: a History of Exclusion*. Basingstoke: Palgrave.
- BRONFENBRENNER, U. (1976). The experimental ecology of education. *Educational Researcher*, 5: 5-15.
- BRONFENBRENNER, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 32: 513-531.

- BRONFENBRENNER, U. (1989). Ecological systems theory. *Annual Child Development*, 6:187–249
- BROWNSON, R.C.; BAKER, E.A.; HOUSEMANN, R.A.; BRENNAN, L.K. & BACAK, S.J. (2001). Environmental and Policy Determinants of Physical Activity in the United States. *American Journal of Public Health*, 91(2): 1995-2003.
- BROWNSON, R.C.; BOEHMER, T.K. & LUKE, D.A. (2004). Declining Rates of Physical Activity in the United States: What are the Contributors? *Annual Review of Public Health*, 26: 421-443.
- BUETTNER, L.L.; FITZSIMMONS, S. & ATAV, A.S. (2006). Predicting Outcomes of Therapeutic Recreation Interventions for Older Adults with Dementia and Behavioural Symptoms. *Therapeutic Recreation Journal*, 40(1): 33-47.
- CAIRNEY, P. (2012). *Understanding Public Policy: Theories and Issues*. Basingstoke: Palgrave.
- CARROLL, A.; FORLIN, C. & JOBLING, A. (2003). The Impact of Teacher Training in Special Education on the Attitudes of Australian Preservice General Educators towards People with Disabilities. *Teacher Education Quarterly*: 65-79.
- CHAPPELL, P. & JOHANNSMEIERS, C. (2009). The impact of community-based rehabilitation as implemented by community rehabilitation facilitators on people with disabilities, their families and communities within South Africa. *Disability and Rehabilitation*, 31(1): 7-13.
- CHARD, D.J.; VAUGHN, S. & TYLER, B.J. (2002). A Synthesis of Research on Effective Interventions for Building Reading Fluency with Elementary Students with Learning Disabilities. *Journal of Learning Disabilities*, 35(5): 386-406.
- CIEZA, A.; BROCKOW, T.; EWERT, T.; AMMAN, E.; KOLLERITS, B.; CHATTERJI, S.; USTUN, T.B. & STUCKI, G. (2002). Linking Health-Status Measurement to the International Classification of Functioning, Disability and Health. *Journal of Rehabilitation Medicine*, 34: 205-210.
- CLARK, A.; FLEWITT, R.; HAMMERSLEY, M. & ROBB, M. (2014). *Understanding research with children and young people*. SAGE: London.
- COAKLEY, J. & BURNETT, C. (2009). *Sports in Society: Issues and Controversies*. Pretoria: Van Schaik.

- COOK, J.A. & BURKE, J. (2002). Public policy and employment of people with disabilities: exploring new paradigms. *Disability, Public Policy, and Employment*, 20(6): 541-557.
- COOPER, S.A.; SMILEY, E.; MORRISON, J.; WILLIAMSON, A. & ALLAN, L. (2007). Mental ill-health in adults with intellectual disabilities: prevalence and associated factors. *British Journal of Psychiatry*, 190: 27-35.
- COOVADIA, H.; JEWKES, R.; BARRON, P.; SANDERS, D. & MCINTYRE, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. *Lancet*, 374: 817-834.
- CORRIGAN, P.W.; RIVER, L.P.; LUNDIN, R.K.; PENN, D.L.; UPHOFF-WASOWSKI, K.; CAMPION, J.; MATHISEN, J.; GAGNON, C.; BERGMAN, M.; GOLDSTEIN, H. & KUBIAK, M.A. (2001). Three Strategies for Changing Attributions about Severe Mental Illness. *Schizophrenia Bulletin*, 27(2): 187-195.
- CÔTÉ, J.; STRACHAN, L. & FRASER-THOMAS, J. (2008). Participation, personal development and performance through youth sport. *Positive youth development through sport*: 34-45.
- CRESWELL, J.W. (2009). *Research Design. Qualitative, Quantitative, and Mixed-Method Approaches (3rd Edition)*. California: SAGE.
- CRESWELL, J.W. (2013). *Qualitative Inquiry and Research Design. Choosing Among Five Approaches (3rd Edition)*. California: SAGE.
- CRESWELL, J.W. (2014). *Research Design. Qualitative, Quantitative, and Mixed-Method Approaches (4th Edition)*. California: SAGE.
- CUMMINS R.A & LAU, A.L.D. (2003). Community Integration or Community Exposure? A Review and Discussion in Relation to People with an Intellectual Disability. *Journal of Applied Research in Intellectual Disabilities*, 16: 145-157.
- DATTILO, J.; GAST, D.L.; LOY, D.P. & MALLEY S. (2000). Use of Single-Subject Research Designs in Therapeutic Recreation. *Therapeutic Recreation Journal*: 253-270.
- DAVIS, L.J. (2013). *The Disability Studies Reader (4th Edition)*. London and New York: Routledge.

- DEVINE, M.A. & DATTILO, J. (2001). Social Acceptance and Leisure Lifestyles of People with Disabilities. *Therapeutic Recreation Journal*, 34(4): 306-322.
- DEVINE, M.A. & LASHUA, B. (2002). Constructing Social Acceptance in Inclusive Leisure Contexts: The Role of Individuals with Disabilities. *Therapeutic Recreation Journal*, 36(1): 65-83.
- DHAMI, M.K.; HOFFRAGE, U. & HERTWIG, R. (2004). The Role of Representative Design in an Ecological Approach to Cognition. *Psychological Bulletin*, 130(6): 959-988.
- DISHMAN, R.K.; WASHBURN, R.A. & HEATH G.W. (2004). *Physical Activity Epidemiology*. Champaign IL: Human Kinetics
- DUFFY, K.G. & WONG, F.Y. (1996). *Community Psychology*. Allyn & Bacon: Massachusetts, USA.
- DUDZIK, P.; ELWAN, A. & METTS, R. (2000). Disability Policies, Statistics, and Strategies in Latin America and the Caribbean: A Review. Retrieved on 15 January, 2015 from [https://www.google.co.za/search?q=DUDZIK%2C+P.%3B+ELWAN%2C+A.+%26+METTS%2C+R.+\(2000\).&oq=DUDZIK%2C+P.%3B+ELWAN%2C+A.+%26+METTS%2C+R.+\(2000\).&aqs=chrome..69i57.230j0j7&sourceid=chrome&ie=UTF-8](https://www.google.co.za/search?q=DUDZIK%2C+P.%3B+ELWAN%2C+A.+%26+METTS%2C+R.+(2000).&oq=DUDZIK%2C+P.%3B+ELWAN%2C+A.+%26+METTS%2C+R.+(2000).&aqs=chrome..69i57.230j0j7&sourceid=chrome&ie=UTF-8)
- DURSTINE, L.J.; PAINTER, P.; FRANKLIN, B.A.; MORGAN, D.; PITETTI, K.H. & ROBERTS, S.O. (2000). Physical Activity for the Chronically Ill and Disabled. *Sport Medicine*, 30(3): 207-219.
- EAMON, M. K. (2001). The effects of poverty on children's socioemotional development: An ecological systems analysis. *Social Work*, 46: 256–266.
- EKSTROM AHL, L.; JOHANSSON, E.; GRANAT, T. & BROGREN CARLBERG, E. (2005). Functional therapy for children with cerebral palsy: an ecological approach. *Developmental Medicine & Child Neurology*, 47: 613-619.
- FAVAZZA, P. C, PHILLIPSEN. L. & KUMAR, P. (2000). Measuring and promoting acceptance of young children with disabilities. *Exceptional Children*, 66(4): 491-508.
- FRATTALI, C.M. (1998). *Outcome measurement: definitions, dimensions and perspectives*. New York: Thieme.

- GORE, M. & JANNSEN, K. (2007). What educators need to know about abused children with disabilities. *Preventing School Failure*, 52: 49–55.
- GRATTON, C. & JONES, I. (2010). *Research Methods for Sport Studies (2nd Edition)*. London and New York: Routledge.
- HÄRKÖNEN, U. (2005). The Bronfenbrenner ecological systems theory of human development. *Children*, 44: 45 – 57.
- HARRIS, R.L & SEID, M.J. (2004). Globalization and Health in the New Millennium. *Perspectives on Global Development and Technology*, 3(1): 1-46.
- HEHIR, T. (2002). Eliminating Ableism in Education. *Harvard Educational Review*, 72(1): 1-33.
- HERBERT, J.T. (2000). Therapeutic Adventure Staff Attitudes and Preferences for Working with Persons with Disabilities. *Therapeutic Recreation Journal*: 211-226.
- HIBBARD, R. A., & DESCH, L. W. (2007). Maltreatment of children with disabilities. *Paediatrics*, 119: 1018–1025.
- HOWARD, D.; BROWNING, C. & LEE, Y. (2007). The International Classification of Functioning, Disability, and Health: Therapeutic Recreation Code Sets and Salient Diagnostic Core Sets. *Therapeutic Recreation Journal*, 41(1): 61-81.
- HUGHES, B. (2002). Bauman's Strangers: Impairment and the invalidation of disabled people in modern and postmodern cultures. *Disability and Society*, 17(5): 571-584.
- HUMPEL, N.; OWEN, N. & LESLIE, E. (2002). Environmental Factors Associated with Adults' Participation in Physical Activity. *American Journal of Preventative Medicine*, 22(3): 188-199.
- HVINDEN, B. (2003). The Uncertain Convergence of Disability Policies in Western Europe. *Social Policy and Administration*, 37(6): 609-624.
- JONGBLOED, L. (2003). Disability Policy in Canada. *Journal of Disability Policy Studies*, 13(4): 203-209.
- KING, G.; TUCKER, M.A.; BALDWIN, P.; LOWRY, K.; LAPORTA, J. & MARTENS, L. (2002). A Life Needs Model of Paediatric Service Delivery: Services

to Support Community Participation and Quality of Life for Children and Youth with Disabilities. *Physical & Occupational Therapy in Paediatrics*, 22(2): 53-77.

KRAHE, B. & ALTWASSER, C. (2006). Changing Negative Attitudes Towards Persons with Physical Disabilities: An Experimental Intervention. *Journal of Community & Applied Social Psychology*, 16: 59-69.

LAW, M.; KING, G.; KING, S.; KERTOY, M.; HURLEY, P.; ROSENBAUM, P.; YOUNG, N. & HANNA, S. (2006). Patterns of participation in recreational and leisure activities among children with complex physical disabilities. *Developmental Medicine & Child Neurology*, 48: 337-342.

LEONARDI, M.; BICKENBACH, J.; USTUN, T.B.; KOSTANJSEK, N. & CHATTERJI, S. (2006). The definition of disability: what is in a name? *The Lancet*, 368: 1219-1221.

LLEWELLYN, A. & HOGAN, K. (2000). The Use and Abuse of Models of Disability. *Disability & Society*, 15(1): 157-165.

LONG, J. (2007). *Researching Leisure, Sport and Tourism*. SAGE: London.

MACDONALD, D. (2012). Understanding participatory action research: a qualitative research methodology option. *Canadian Journal of Action Research*, 13(2): 34-50.

MACTAVISH, J.B. & SCHLEIEN, S.J. (2000). Exploring Family Recreation Activities in Families that Include Children with Developmental Disabilities. *Therapeutic Recreation Journal*: 132-153.

MAGASI, S.; WONG, A.; GRAY, D.B.; HAMMEL, J.; BAUM, C.; WAND, C.C. & HEINEMANN, A.W. (2015). Theoretical foundations for the measurement of environmental factors and their impact on participation among people with disabilities. *Archives of physical medicine and rehabilitation*, 96(4): 569-577.

McCONACHIE, H.; CLOVER, A.F.; FORSYTH, R.J.; JARVIS, S.N. & PARKINSON, K.N. (2006). Participation of disabled children: how should it be characterised and measured? *Disability and Society*, 28(18): 1157-1164.

MCMILLAN, J. & SCHUMACHER, S. (2010). *Research in Education: Evidence-based Inquiry*. New Jersey: Pearson.

- MERTENS, B.J.A. (2003). Microarrays, pattern recognition and exploratory data analysis. *Statistics in Medicine*, 22(11): 1879-1899.
- MERTENS, D.M. (2009). Transformative Research and Evaluation. *The Canadian Journal of Program Evaluation*, 23(2): 265-267.
- OLIVER, M.J. (1998). Theories in health care and research: Theories of disability in health practice and research. *British Medical Journal*, 317: 1446-1449.
- ONKEN, S.J.; CRAIG, C.M.; RIDGWAY, P.; RALPH, R.O. & COOK, J.A. (2007). An Analysis of the Definitions and Elements of Recovery: A Review of the Literature. *Psychiatric Rehabilitation Journal*, 31(1): 9-22.
- PAINTER, P. (1994). The importance of exercise training in rehabilitation of patients with end stage renal disease. *American Journal of Kidney Disease*, 24: 2-9.
- PERENBOOM, R.J.M. & CHORUS, A.M.J. (2003). Measuring participation according to the International Classification of Functioning, Disability and Health (ICF). *Disability and Rehabilitation*, 25(11-12): 577-587.
- PICKETT, K.E. & PEARL, M. (2001). Multilevel analyses of neighbourhood socioeconomic context and health outcomes: a critical review. *Journal of Epidemiol Community Health*, 55: 111-122.
- PIVIK, J.; McCOMAS, J. & LAFLAMME, M. (2002). Barriers and Facilitators to Inclusive Education. *Exceptional Children*, 69(1): 97-107.
- PORTER, H.R. & VAN PUymbROECK, M. (2007). Utilization of the International Classification of Functioning, Disability, and Health Within Therapeutic Recreation Practice. *Therapeutic Recreation Journal*, 41(1): 47-60.
- RAGIN, C.C. & AMOROSO, L.M. (2011). *Constructing social research*. California: SAGE.
- RAJASEKAR, S.; PHILOMINATHAN, P. & CHINNATHAMBI, V. (2013). Research Methodology. Retrieved on 17 December, 2016 from <https://www.google.co.za/search?q=rajasekar%40cnld.bdu.ac.in&oq=rajasekar%40cnld.bdu.ac.in&aqs=chrome..69i57j69i58.716j0j4&sourceid=chrome&ie=UTF-8>
- RASMUSSEN, T.J.; WIEDEMANN, N.; KRYGER, L.S.; KOENEN, K.; TRIMMEL, J. & BOERSMA, M. (2015). *Different. Just like you: A psychosocial approach promoting the inclusion of persons with disabilities (1st Edition)*.

Denmark: International Federation of Red Cross and Red Crescent Societies Reference Centre for Psychosocial Support (PS Centre).

REIFSNIDER, E.; GALLAGHER, M. & FORGIONE, B. (2005). Using Ecological Models in Research on Health Disparities. *Journal of Professional Nursing*, 21(4): 216-222.

RIMMER, J.H.; RILEY, B.; WANG, E.; RAUWORTH, A. & JURKOWSKI, J. (2004). Physical Activity Participation Among Persons with Disabilities. *American Journal of Preventative Medicine*, 26(5): 419-425.

ROBERTSON, R. (1992). Globalization: Social theory and global culture. London, UK: Sage.

ROBERTSON, T. & LONG, T. (eds.) (2008). *Foundations of Therapeutic Recreation*. United States of America: Human Kinetics.

RODRIGUEZ, C. M. & MURPHY, L. (1997). Parenting stress and abuse potential in mothers of children with developmental disabilities. *Child Maltreatment*, 2: 245–251.

SALLIS, J.F.; CERVERO, R.B.; ASCHER, W.; HENDERSON, K.A.; KRAFT, M.K. & KERR, J. (2006). AN ECOLOGICAL APPROACH TO CREATING ACTIVE LIVING COMMUNITIES. *Annual Reviews Public Health*, 27: 297-322.

SALLIS, J.F. & HOVELL, M.F. (1990). *Determinants of exercise behaviour*. Baltimore: Williams & Wilkins.

SCHALOCK, R.L. (2004). The Emerging Disability Paradigm and Its Implications for Policy and Practice. *Journal of Disability Policy Studies*, 14(4): 204-215.

SCHOLL, K.G.; MCAVOY, L.H.; RYDNER, J.E. & SMITH, J.G. (2003). The Influence of an Inclusive Outdoor Recreation Experience on Families that Have a Child With a Disability. *Therapeutic Recreation Journal*, 37(1): 38-57.

SCHOLL, K.G.; SMITH, J.G. & DAVISON, A. (2005). Agency Readiness to Provide Inclusive Recreation and After-School Services for Children with Disabilities. *Therapeutic Recreation Journal*, 39(1): 47-62.

SHOGREN, K.A.; BRADLEY, V.J.; GOMEZ, S.C.; YEAGER, M.H.; SCHALOCK, R.L.; BORTHWICK-DUFFY, S.; BUNTINX, W.H.E.; COULTER, D.L.; CRAIG, E.P.M.C.; LACHAPELLE, Y.; LUCKASSON, R.A.; REEVE, A.

SNELL, M.E.; SPREAT, S.; TASSE, M.J.; THOMPSON, J.R.; VERDUGO, M.A. & WEHMEYER, M.L. (2009). Perspectives: Public Policy and the Enhancement of Desired Outcomes for Persons with Intellectual Disability. *Intellectual and Developmental Disabilities*, 47(4): 307-319.

SIMEONSSON, R.J.; CARLSON, D.; HUNTINGTON, G.S.; MCMILLEN, J.S. & BRENT, J.L. (2001). Students with disabilities: a national survey of participation in school activities. *Journal Disability and Rehabilitation*, 23(2):49-63.

SPECHT, J.; KING, G.; BROWN, E. & FORIS, C. (2002). The Importance of Leisure in the Lives of Persons with Congenital Physical Disabilities. *American Journal of Occupational Therapy*, 56:436-445.

SRSA (2012). National Sport and Recreation Plan (NSRP). Retrieved on 5 January, 2015 from <http://www.srsa.gov.za/pebble.asp?relid=1227>

United Nations (2015). The Universal Declaration of Human Rights. Retrieved on 28 July, 2015 from <http://www.un.org/en/documents/udhr/>

United Nations Human Rights (2008). United Nations Convention on the Rights of Persons with Disabilities (CRPD). Retrieved on 28 July, 2015 from www.ohchr.org/Documents/Publications/AdvocacyTool_en.pdf

United States Department of Justice (2015). Americans with Disabilities Act (ADA). Retrieved on 28 July, 2015 from <http://www.ada.gov/>

USTUN, T.B.; CHATTERJI, S.; BICKENBACH, J.; KOSTANJSEK, N. & SCHNEIDER, M. (2003). The international classification of functioning, disability, and health: a new tool for understanding disability and health. *Disability Rehabilitation*, 25: 565–571.

VAN DER KLASHORST, E. (2014). Deconstructing the roles and expectations of change agents using sport and recreation in a South African context. Unpublished DPhil dissertation. Pretoria: University of Pretoria.

World Health Organization (WHO) (2002). Towards a Common Language for Functioning, Disability and Health (ICF). Retrieved on 20 January, 2015 from <https://www.google.co.za/search?safe=off&source=hp&ei=VrM2Wr7AFIL9UJbZs5AM&q=Towards+a+Common+Language+for+Functioning%2C+Disability+and+Health+ICF&oq=Towards+a+Common+Language+for+Functioning%2C+Disability+a>

[nd+Health+ICF&gs_l=psy-ab.3..0.1110.1110.0.1858.2.1.0.0.0.0.456.456.4-1.1.0....0...1.1.64.psy-ab..1.1.454.0...0.m7ikTXO0Ho8](http://www.who.int/classifications/icf/en/)

World Health Organization (WHO) (2001). International Classification of Functioning, Disability, and Health (ICF). Retrieved on 20 June, 2015 from <http://www.who.int/classifications/icf/en/>