

ADOLESCENTS' EXPERIENCES OF THE THERAPEUTIC  
EFFECTS OF SPORT PARTICIPATION

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## DECLARATION

I declare that ADOLESCENTS' EXPERIENCE OF THE THERAPEUTIC EFFECTS OF SPORT PARTICIPATION is my own work and that all of the sources that I have used or quoted have been acknowledged by means of complete references.

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(M.R.Southwood)

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Date

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## **ABSTRACT**

This research study is a qualitative research study which examines the experiences of adolescents in Soshanguve who are participating in sport. The aim of the study is to explore the value of sport participation as a therapeutic tool. The problem statement is how adolescents experience the effects of sport participation. The research study was conducted using ethnomethodology which examines how people make sense of their daily lives. The intention was to focus on how the participants interpreted their everyday activities. The absence of symptoms that one would expect from the participants was viewed as an indicator of therapeutic effects of sport participation. There appeared to be an absence of depressive and anxious symptoms, no substance use and sound academic results. Participants also displayed a generally positive outlook on their futures. The conclusion was that sport participation has some benefits for adolescents.

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# CHAPTER 1

## INTRODUCTION

*A sound mind in a sound body is a short but full description of a happy state in this world. He that has these two has little more to wish for; and he that wants either of them will be little the better for anything else.*

*John Locke*

### 1.1 Rationale for the study

Hays (1999, p. xi) stated that “moving our bodies is one way to help move our minds – just as, in turn, our thoughts and feelings can alter the use of our bodies. In the broadest sense of the term, working out allows us to stretch not only our physical but also our mental muscles”. She furthermore notes that physical activity can improve mental endurance and smooth out thoughts. When our minds and bodies are in unison we are connected with ourselves and exercise can allow us to resolve our concerns, crises and conflicts. Working out allows us to work things out.

According to Amosun, Reddy, Kambaren and Omardien (2007) physical activity has amongst others, beneficial effects on musculoskeletal health, several components of cardiovascular health, adiposity in overweight adolescents and blood pressure in mildly hypersensitive adolescents. Physical inactivity is a commonly reported contributing factor to chronic diseases of lifestyle such as diabetes and obesity. As children and adolescents make up about 43% or 20 million of the approximately 46 million people in South Africa, their health is an important issue for our country. Children are the future and if they are unhealthy the prognosis for a healthy population in future is fairly poor. Research (Amosun et al., 2007) found that 37,5% of high school students do not participate in physical activity that would give them any health benefit.

When the African National Congress assumed control of the South African government in 1994 the comprehensive development of young people, particularly those from disadvantaged communities, was identified as one of its top priorities. This initiative formed a crucial part of the Government's Reconstruction and Development Programme (RDP), the National Development Objective and other key governmental initiatives such as Sustainable Development (Mokoena, 2006).

The RDP goes as far as to comment as follows on the issue of youth development:

The problems facing the youth are well known. If we are to develop our human resource potential, then special attention must be paid to the youth. Our human resources policy should be aimed at reversing youth marginalization, empowering youth and allowing them to reach their full potential. Programmes for training, education and job creation will enable our youth to play a full role in the reconstruction and development of our society (Mokoena, 2006).

Focusing on ways to assist the youth in this country seems to be important but understanding what the problems are is equally important. This research study will investigate what effects sport participation can have for the youth of South Africa especially the black adolescents living in the township areas. In doing so it is important to understand the factors that have impacted on the youth of this country and specifically the black youth, referred to as "previously disadvantaged".

### 1.1.1 Apartheid

Colonialisation and the capitalism which followed it resulted in the European settlers to South Africa segregating the black community, racially, socio-economically and owning virtually all the means of production, power and wealth of the country. The basic premise of official racial classification was that of separate and unequal socio-economic development and this determined the important aspects of all South Africans' lives. These related to place of birth, where one lived, where you worked, the nature of the jobs you could hold, where you went to school and the type of school that you could attend, the level of education received, where and with whom one could socialise, whom one could date, have sex with and/or marry, where people could be buried and even where one could worship God (Wright, 2007).

The legal mechanism used by the apartheid government that for the purpose of this study seems to have had the greatest impact is the Group Areas Act of 1950. This act forbade non-white people from residing, working or running businesses or professional practices in any white areas unless they possessed a pass or permit. Practically every metropolitan area, major shopping centres and business districts were situated in a so-called white area and was under white control. This law set aside desirable city properties for whites, while banishing non-whites to the townships. Townships were essentially informal settlement structures which were allowed to form next to the major metropolitan centres so that the black workforce was readily able to get to their places of employment in white areas. These townships had no access to basic municipal amenities.

Thus, while apartheid is officially something of the past there is still not a single sector of the South African society untouched by the ravages of apartheid.

There are whole regions of the country that are suffering as a direct result of the apartheid policies and their subsequent collapse. The former township areas and the independent homelands established by the apartheid government are still struggling to gain access to basic amenities which are considered a right in the major metropolitan areas.

### 1.1.2 The legacy of apartheid

Mokoena (2006) believed that the following key issues were the legacy of the apartheid state:

- Poverty – Millions of black people, particularly in rural areas, and especially women, children, and the elderly, are languishing below the breadline. They often live in constant fear of perpetual hunger and starvation. A significant number of black children are victims of malnutrition and stunted growth. The RDP stated that poverty is the single greatest burden placed on South Africa's people due to apartheid.
- Two economies – Black people own comparatively small to medium sized businesses which are underdeveloped and underinvested and are therefore unable to establish beneficial partnerships with large white owned businesses. While this state of affairs is changing, it is still a significant part of the South African economic landscape in 2012.
- Inadequate skills development – There are a large number of unskilled or semi-skilled black workers, ill-equipped to cope with the rapidly changing demands of the open labour market. This means that excessively high numbers of these workers are unemployed and/or unemployable.
- Low Income – Racially-biased income which favours whites, ranks amongst the most lopsided in the world. While trade unions have been able to correct this in the formal sector they cannot affect the plight of

farm workers and domestic workers who make up the sector most affected by this. Low income is the biggest contributor to poverty and is related to the fact that a sizeable proportion of the most basic of many black people's needs are unmet.

- Poor housing – Underdeveloped black townships and informal settlements with inadequate basic infrastructure and services, sprang up in the 1950s and 1960s on the outskirts of well-resourced towns, cities and white suburbs. The severe lack of adequate housing in urban townships and rural areas exacerbated this problem. Many black people still reside in these townships where the infrastructure is still inadequate.
- Lack of transport – Black people generally have to travel long distances to work and shopping centres. This leads to them incurring excessive travel costs and transport subsidies. Unsafe taxi and rail travel, accompanied by a negative road safety record and the adverse environmental consequences of transport projects, complicate their transport problems. Many people need to travel great distances to their employment and working far away from home also undermines and has destroyed the social and moral fabric of some communities, resulting in the disintegration of family and community life.
- Poor education and training – The fragmented, unequal and undemocratic nature of the previous education and training system, resulted in educational difficulties for blacks. This included a lack of pre-school education, a high dropout rate, and large numbers of illiterate, semi-literate and uneducated black people. The apartheid educational system destroyed the culture of learning in large sections of the country. This led to a virtual breakdown of schooling and conditions of anarchy reigning in the relationships between students, teachers, principals and education authorities. The human potential in this country has therefore been

neglected for many years with devastating consequences for social and economic development.

- Cultural deprivation – The homeland system elicited high levels of cultural deprivation that still exist among some black people today. The high illiteracy rates, lack of an effective educational system and extreme poverty mentioned above have worsened the situation.
- Lack of sporting/recreational facilities – The racially segregated sporting and recreational facilities and activities in South Africa have denied the majority of South Africa's people, especially the youth, the right to facilities that would promote a healthy lifestyle.

Further socio-economic ills identified by Mokoena (2006) as a legacy of apartheid include non-violent crime, xenophobia, and the availability of a large number of illegal fire arms. The forces behind crime and violence have been referred to as super-predators. They are the lost generation of youth who have been born into broken or single parent homes and have not been taught the basic values needed to maintain the social fabric of any successful law-abiding society. Apartheid policies which restricted the political rights of the majority of the population also limited their ability to improve their socio-economic status and these effects are still being felt today. While legal racism no longer exists and democracy has replaced the segregationist doctrines of separate development Mokoena noted that for the poor not much has changed in terms of their socio-economic context.

According to Treitman (2005) the legacy of 350 years of apartheid practice and almost 50 years of apartheid policies has been to create racial differences in socioeconomic position larger than any other nation in the world. Whites who are only about 11 percent of the population enjoy levels of education, occupational status and income similar, and in some instances superior, to those

of industrially developed nations. Whereas secondary education is a social minimum for most whites, it is a maximum for coloureds and blacks except in exceptional circumstances. These fortunate few who have tertiary qualifications receive much the same opportunities and compensation as their white counterparts but for the vast majority, especially black people, even finding work is a problem. Those that do, invariably find semi- or unskilled work and therefore the disparity in income and the benefits associated with it widens further.

Wright (2007) argues that apartheid policies have led to the culture of violence that exists in South African society today. The defensive violence that was required to allow anti-apartheid groups to survive has led to an acceptance of a definition of masculinity that encompasses violence. She argues that this continuation of violence impacts on the elevated AIDS infection rate, leads to the high levels of violent sexual crime, places stress on family structures, and impacts on the poor quality of education in schools besieged by violence. Most of these impact directly on children and adolescents and are due to what they learn is acceptable at home. The argument is put forward that violence was learned during apartheid and has filtered into the system as it was the only communication the apartheid government reacted to.

### 1.1.3 Sport as therapy

Haliimah (2010) researched the effects of extracurricular programmes, including sport on inner-city schools in South Africa. The findings indicated that participation in sport allows for a positive filling of the void in a high school learner's life at a critical stage. This stage is viewed as critical as high school learners are in the adolescent phase and part of this stage is questioning who they are and where they fit into society. Before the extracurricular

programme was introduced, the learners had nothing to keep them occupied after school and they were often looking for something that could fill their time and give them something meaningful to do. Adolescence is an important developmental age especially with regards to an establishment of a more concrete concept of one's self. This is generally the period of time where individuals are questioning who they are and forming a more complete picture of themselves. Bukatko and Daehler (1992) noted that adolescence is a time when individuals engage in new ways of behaving and thinking which involves greater autonomy, independence, and expressions of intimacy with others. Participation in extracurricular activities organised by the inner-city school implies that adolescent learners remain under school supervision for longer during the day. This prevents them from falling prey to inner-city vices such as gang activities, drugs and other delinquent behaviour.

Furthermore, Haliimah (2010) found that sport and cultural activities assist adolescents in managing their own stress. Sport participation allowed adolescents' attention to be diverted from the pressures of academic demands and achievements to an activity that was less mentally strenuous and demanding which reduced the adolescents' anxiety and depression. Sport participation was found by Haliimah to correlate with higher levels of self-esteem, improved race relations, feelings of the adolescents having control over their life and lower delinquency rates among adolescents. Haliimah also found that extracurricular activities greatly enhanced the learning school environment. One of the positive aspects of extracurricular involvement is the development of well-rounded adolescents. Not only do they pick up academic skills but they also obtain so called 'softer skills'. This would include the ability to interact with others in a social setting and to work on competitive interaction and activities unrelated to academic performance. The experience provided by extracurricular activities in general has a positive impact on adolescents' emotional and intellectual, social

and interpersonal development. Adolescents involved in extracurricular activities seem to have better coping skills, and are able to function at a higher level than adolescents who have not been exposed to these experiences. The implication being that they are able to cope with more things and handle more stressful situations better than their contemporaries who are not involved in any extracurricular activities.

Therefore, it is clear that the value of extracurricular activities for the balanced life of adolescents who are willing to manage their time and commitment effectively should not be underestimated. While Haliimah (2010) was referring to extracurricular activities in general her research did include sporting extramural activities and their impact. Extracurricular activities can give learners a sense of pride in their accomplishments. They can also learn that if an activity is worth doing it is worth doing well.

The Lets Play initiative, a corporate social responsibility initiative developed by SuperSport and partners in response to a national need, was introduced into 27 secondary school communities in all nine provinces in South Africa in 2008. An initial or pilot programme ran from August 2008 until July 2009 and included 216 schools and approximately 172 000 learners. The programme was linked to schools' Life Orientation (LO) programme and the following were noted from the pilot programme (Lets Play, 2011):

- Educators that are passionate about getting children active are much more confident during their LO lessons as they now know how to set up fields, to do warm-ups and plan a specific session.
- Learners are more aware of their potential in different sporting codes.
- Educators find it much easier to assess in Learning Area 4 (the learning area related to exercise and movement).

- Learners are learning about team spirit and working together towards the same goal.
- Learners are taking the sport into their community and often practice after hours.
- Learners do not want to miss the LO periods which results in higher school attendance.
- Learners are taking their high levels of energy into the classrooms and participate much better in class.
- Learners that used to be absent from school often are attending school more regularly.
- Through sport, better discipline is instilled in the learners.
- Learners are taking their LO programme more seriously.
- Learners' attitudes have changed – there are signs of improvement in class work and their behaviour.
- Fitness levels have improved.
- The schools where the programme is running are receiving higher enrolment figures.
- About 60% of learners in the schools are taking part in extra-mural activities where it used to be between 35% and 40 %, which means that more children are staying off the streets.
- Learners are trying to improve their nutrition.
- Learners are following instructions much better in class.
- Teams are starting to win games when participating against other schools.
- Stress and depression in learners has reduced.
- Learners with talent are being identified and are being chosen to represent their districts on the sport field.
- Crime perpetrated by adolescents in these communities has decreased, although figures were not provided to substantiate this claim.

Participating in extracurricular activities, and specifically sport participation, appears to improve several aspects of high school learners' performance. While it might be initially felt that the benefits were limited to the obvious aspects of physical fitness and good health it seems that these are not the only benefits and that the benefits include aspects that appear unrelated.

## 1.2. Contextualising the study

### 1.2.1 Soshanguve

Soshanguve is a township situated about 25 kilometres north of Pretoria, South Africa. It was established in 1974 on land scheduled to be included in a Bantustan bordering on Mabopane in Bophuthatswana, to Sotho, Shangaan, Nguni and Venda people. This is also where the name Soshanguve comes from. The bulk of Soshanguve's residents over the years come from a range of the surrounding black townships such as Wallmansthal, Mamelodi, Mabopane, Winterveld and Atteridgeville. Initially Soshanguve was known as Mabopane East but when Mabopane became part of the Bophuthatswana independent state in 1977, Mabopane East became known as Soshanguve and fell under the Northern Transvaal administration. Soshanguve was incorporated into the City of Tshwane Municipality on 5 December 2000. In 2008 Soshanguve had an official population of 600 000 people (Naidoo, 2005).

Since the late 1970's, Soshanguve has been a vast expanse of semi-developed territory with formal housing flanked by informal settlements. Some of these were well established and some less so. It exhibits all of the problems of a peri-urban settlement that has become home to migrants from various South African provinces such as Gauteng, the North West Province and Limpopo (Naidoo, 2005). In the 1990's it was claimed that more than 40% of Soshanguve's

residents were unemployed or underemployed. These figures appeared not to have altered much as Moller (2008) noted much the same levels of unemployment in the area in 2003. Poverty levels in Soshanguve are high and informal sector trading and illicit forms of earning a living are common. Since the formal employment levels are low, only a small number of people have been organised by trade unions (Naidoo, 2005).

Soshanguve is noteworthy due to the historical background of the population as described above. The history of Soshanguve is also relevant as it is an example of a community faced with socio-economic problems which affects the ability of many people in the communities to afford basic services such as electricity. Another argument relates, however, to the idea that generally people from a black African background would not seek help from a psychologist for their social and emotional problems. This is because according to the African culture people would generally look to speak to their ancestors or living dead when there are problems that arise in their lives. Baloyi (2008) argues that psychologists are trained in a Western paradigm and therefore do not understand how traditional African people would approach a personal emotional or social problem. This would also explain why the African conceptions of therapeutic interventions would not include seeing a psychologist for problems.

### 1.2.2 Choice of Football

The sport of choice for this research study is association football also called soccer. The reason for choosing this was that at the turn of the 21st century, the game was played by over 250 million players in over 200 countries, making it the world's most popular sport. Soccer is a sport played by most of the adolescents in Soshanguve who play sport, and soccer was also the sport most easily accessible because the adolescents that were invited to participate in the

study were already actively involved in a soccer club. Soccer is a relevant sport to assess as it is relatively inexpensive to set up and operate. The participants in this research study were playing for Real Sosh Club and were making use of the municipal sport facilities and therefore only needed a ball and shoes to participate in the sport.

### 1.3. Aims and Research Questions

#### 1.3.1 Definitions

For the purposes of this research study the following terms have been defined to ensure that the reader is aware of the specific meaning of each term.

‘Exercise’ can be defined as “organised, focussed physical activity that involves a certain amount of exertion” (Hays, 1999, p. 1). ‘Sport’ is defined by the Concise English Dictionary (Allen, 2004, p. 862) as “an activity or game requiring physical skill and having a set of rules, engaged in either by an individual or as a team for exercise or recreation or as a profession”. The health enhancement model of physical activity (Hays, 1999) regards exercise and sport participation as activities that can enhance the participant’s quality of life. ‘Quality of life’ is a term that is difficult to define as it is subjective and based on individuals’ feelings and needs at a particular time. In general terms, however, it can be regarded as an individual’s general state of well-being. This seems in line with Hays’s (1999) understanding of the term. Various aspects of exercise and sport participation in relation to mental health and how sport may be used as a therapeutic tool to deal with adolescents’ problems will be included in this research study. The terms exercise and sport participation are therefore regarded as interchangeable and are treated as such in this study.

The Concise English dictionary's (Allen, 2004) definition of 'therapeutic' is given as "relating to the treatment of disease or disorders by remedial agents or methods". This study is proposing that sport will be the treatment method employed as therapy. Essentially, the focus of the study will be on the emotional development of adolescents but their cognitive and social development will also be considered. Cognitive development will be assessed by considering their school performance while social development looks at how they interact with other people and their ability to problem solve and manage real world situations.

Although this definition seems to apply a positive result in all therapeutic sessions this may not necessarily be the case. The word "effects" rather than "benefits" has been chosen for the study due to the consideration that there may be positive effects of sport participation but the possibility exists that negative effects may also result.

'Adolescents' are defined by the Concise English Dictionary (Allen, 2004) as somebody in the period of life between puberty and maturity. Although this does not give an actual age determinant this research study has looked at children from age 10 to age 19.

### 1.3.2 Aims of the study

This research study aims to explore the value of sport participation as a therapeutic tool in the following respects:

- Firstly, the research study will seek to ascertain what the issues are that are impacting on the adolescents and it will then consider how sport participation may act as a buffer for these issues and what effect it has on the adolescents' ability to deal with these issues;

- Secondly, it will look to ascertain how sport can be used as a tool to assist adolescents to interact with their peers and with authority figures such as parents, coaches and teachers. This may raise a debate about implementing extramural participation and particularly sport participation for all learners at school level, as it is a potential proactive response to dealing with the issues raised in this chapter that adolescents face.

### 1.3.3 Overview

Chapter two examines the literature relating to sport participation and its effect on individuals who may be experiencing some sort of mental disorder. The focus in this chapter is on the effect of sport participation on adolescents and teenagers who are the focus of this study. Chapter three outlines the research method and provides details on the participants in the research study. Chapter four is a report on the research findings and a discussion on the information gathered. The final chapter provides a summary of the intention of the study and the results obtained.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

Exercise and sport participation seem to play an important part in an individual's physical and emotional development and are often seen as a useful tool for dealing with psychosocial stressors impacting on an individual. Fox (1999) describes how physical activity can be viewed from four different perspectives regarding its direct contribution to solving mental health problems, namely:

- treatment of mental illness and disorders;
- prevention of mental illness and disorders;
- improvement of mental and physical well-being of those with mental illness;
- improvement of mental well-being of the general population.

This research study will focus primarily on the last aspect, namely, the improvement of mental well-being of the general population. In this research study the focus will be on adolescents from the general population rather than individuals with any diagnosed mental illness or disorder.

Haliimah (2010) found that high violence in inner-city schools is directly linked to learners' lack of positive ways to utilise their time when not attending school. Participation in extracurricular activities has a positive impact on adolescents' use of their time after formal school hours are over. Keeping learners away from the streets, gangs, drugs and idleness for a few hours after school reduces the amount of time that negative influences can impact on their young minds.

Extracurricular activities, therefore, seem to assist learners in acquiring skills and attitudes for self-regulation of mind and body.

Participation in structured extracurricular activities has been associated with less depression in 10 to 13 year olds, particularly boys who are active participants. Team sport participation was found to be associated with low levels of loneliness for boys in the study conducted by Poulsen, Ziviani, Cuskelly and Smith (2007). Furthermore, it was noted that team sport offers participants the opportunity for affiliation, supportive networks, turn taking and leadership possibilities.

## 2.2 Adolescent Development

Vogel (2005) notes that one of the characteristics of adolescence is that physical growth accelerates markedly. During this period various changes in the child lead to reproductive maturity. Physical changes occur when the hypothalamus section of the brain activates the pituitary gland to secrete growth and sexual hormones. According to Piaget (cited in Vogel, 2005), adolescents reach the level of formal operations although not all adolescents will reach this phase and some alternate between concrete operational and formal operational thought. Vogel notes, furthermore, that adolescents show a growing ability to think abstractly. They are able to think and reason about concepts such as love and hatred, justice and injustice, capitalism and socialism. Adolescents also understand the relationship between abstract concepts and can substitute symbols for other symbols. Abstract thinking also allows adolescents to examine existing social, political and religious systems and to question the relations between values and behaviour.

Vogel (2005) states that sexuality emerges more strongly during adolescence and this puts pressure on adolescents to accept themselves as either male or female. The identity crisis is viewed as being easier to resolve once gender identity has been established. This also allows adolescents to form intimate relationships with people of the opposite gender. During the adolescent phase occupational identity becomes more defined.

The last important element noted by Vogel (2005) of adolescent development is developing a positive self-concept. This is important for an adolescent's mental well-being but also influences his/her social relationships, progress at school, performance in all areas, and career expectations and success. It impacts on an adolescent's ability to become a socialised member of society. Few things are therefore as important during adolescence as developing an adequate self-concept. Bukatko and Daehler (1992) noted that adolescents undergo a period of intense uncertainty about themselves and their place in society. This identity crisis is considered an inevitable part of separation from the family and the formation of a normal adult personality. Adolescence can therefore be viewed as a unique stage in development when an individual must settle a number of personal issues in order to construct a more mature and integrated sense of self.

The factors that Vogel (2005) identifies as important in developing a positive self-concept includes whether or not parents have a warm, concerned and interested attitude towards their adolescent children. Parents' styles in exercising discipline and authority influences the way in which the adolescent experiences him/herself. Other factors such as family structure, socio-economic status, race and nationality, position in birth order, physical defects and appearance also exercise a considerable influence on the adolescent's forming of a self-concept. Adolescents with a positive self-concept typically have the following attributes:

- responsibility
- honesty, integrity and congruence
- personal growth
- positive attitude
- expression of feelings
- risk taking
- acceptance of praise
- trust in themselves and others.

### 2.3 Psychological Trends

Health24.com (2004) reported on the findings of the South African Society of Psychiatrists which indicated that 10% of the world's population was suffering from a psychiatric disorder and in South Africa this equated to 4,5 to 5 million people. An estimated 20% of children under the age of 18 in South Africa suffer from a mental illness such as depression and anxiety, due to among other things, the levels of violence and family problems that they are experiencing. It is believed that eventually a quarter of the South African population will have suffered from a depressive disorder, sooner or later. Fifty percent of visits to general practitioners are usually due to mental problems such as depression or anxiety. The other human cost of mental illness is that in South Africa about 10 000 people commit suicide annually and most of these are young people with economically active lives.

It is worth noting that only 10% to 15% of people worldwide with mental disorders seek help from therapists (Health24.com, 2004). These results are corroborated by Williams, Herman, Stein, Heeringa and Jackson (2008) who found a 12 month prevalence in 2005 of any DSM-IV/CIDI disorder of 16,5%. 26,2% of these respondents with a disorder were classified as severe cases and

an additional 31,1% as moderately severe cases. Their findings suggest that there is a high level of unmet needs for mental health services in South Africa. Irrespective of the severity of the mental disorder, three out of four adults received no treatment in the year of the interview. In addition to this there are questions that can be raised about the adequacy of the care that is administered. Flisher, Liang, Laubscher and Lombard (cited in Williams et al., 2008) suggested that non-whites receive inferior quality mental health treatment to whites in South Africa.

Williams et al. (2008) recorded the existence of one psychiatrist, eight psychiatric nurses, four psychologists and 20 social workers per 100 000 people in South Africa. These mental health workers are generally more prevalent in the urban areas. Existing public health services are therefore least accessible to the most vulnerable members of the population and are concentrated in psychiatric hospitals. These findings are supported by Lund, Kleintjies, Kakuma and Flisher (2009) who ascertained that 86% of mental health expenditure is allocated to mental hospitals. The 23 mental hospitals in South Africa are in the major urban centres and therefore geographically inaccessible to many members of the population who require their services. Lund et al. felt that economic barriers in the form of transport costs were a greater problem to adequate care than treatment costs. The other concern raised by the Lund et al. study was the lack of care allocated to children and adolescents- **between 1% and 4% of available facilities.**

Hugo, Boschhoff, Traut, Zunga-Dirwayi and Stein (2003) feel that ignorance and stigma still surround mental health in South Africa. Many people with chronic or severe disorders are unaware that they have a diagnosable disorder or that effective treatment is available. A substantial amount of time and money appears to be spent on disorders which the literature ( Beauchemin & Manns,

2008; Hays, 1999; Sund, Larsson & Wichstrom, 2011; Wolff, 2011) intimates could be reasonably easily dealt with by people participating in some form of exercise or sports activity.

## 2.4 Influences and benefits of exercise

### 2.4.1 Applications of sport therapy in general

Wolff (2011) describes several grassroots programmes which involve tens of thousands of participants around the globe where sport is used to tackle the most pressing problems of the developing world. This could be from dealing with AIDS in Africa to violence in Rio de Janeiro. In Rio de Janeiro, for example, rival drug gangs recruit kids as foot soldiers and to sort out differences with gunplay. 'Fight for Peace' is a boxing and martial arts programme in Mare founded by former British light middleweight boxing champion Luke Dowdney. In 2005 this was expanded to include a training and educational centre. While boys and girls can practice boxing, wrestling and the Brazilian martial art *capoeira* on one level of the centre, another level has space for children to learn computer skills, citizenship and conflict resolution.

One of the major successes of the programme was that the children found that they became more controlled which contrasted with the belief that teaching gang members fighting skills would make them more dangerous. They developed a sense of self-confidence and the discipline to not place themselves in situations that were dangerous. The programme is described by Dowdney (Wolff, 2011) as being about rigour and values and finding a way for children to expend energy. One of the successful participants of the programme, Roberto Custodio, qualified as a reserve for the Brazilian 2012 Olympic boxing team (Wolff, 2011).

Wolff (2011) furthermore described the work of Tommy Clark who formulated the idea of using soccer to educate Africans about AIDS. As soccer is such a popular game in Africa it is the natural partner for combating one of Africa's most pressing problems, that of HIV/AIDS. In 2002, he founded 'Grassroot Soccer', an educational programme which currently operates in South Africa, Zambia and Zimbabwe by using soccer. 'Grassroot Soccer' has found that graduates of the programme wait longer to engage in sex, have fewer partners, and are more willing to talk about sex with their peers and relatives. Participants are also more likely to take an HIV test and to remain on anti-retroviral treatment if they are positive. Among the organisation's more effective tools are the voluntary counselling and testing tournaments that it uses to reach men who have HIV/AIDS. 'Grassroot Soccer' hosts tournaments where they offer participants free HIV testing and counselling. This has proved to be a most effective way of getting young men to be tested and educated about HIV/AIDS. An example of how soccer is used in the education of the participants is in one of the drills where a soccer ball stands for sexual partners and a player dribbling two balls is easily chased down by a defender representing the AIDS virus. A player dribbling only one ball is able to evade the defender for much longer making a significant point. The programme is nearly halfway towards its goal of a million youth participants by 2014. This is an example of an effective use of a particular sport to educate and benefit the individual participants.

Hays (1999) explains how exercise can be used as a treatment tool for dealing with various mental and emotional problems that individuals may present. Kirkcaldy, Shephard and Siefen (2007) noted a substantial association between the regular practice of endurance sport and attitudes, personality, scores for physical and psychological well-being and the adoption of a healthy lifestyle. Physical activity was seen as acting, by increasing feelings of mastery and self-

efficacy. Robison and Rogers, and Johnsgard (cited in Hays, 1999) found that there is much evidence to support the notion that exercising makes one feel good and has a health benefit. Hays also found through her work that exercise could be used to effect change on people that present with particular symptoms. For example, exercise has been associated with decreases in depression and anxiety in both normal and clinical populations. This supports work done by Kostrubala (cited in Sachs & Buffone, 1984) who started working with a mixed group of patients using running as a therapeutic approach. The group included individuals diagnosed with schizophrenia, multiple drug abuse, depression and anorexia nervosa. He found that five of the six patients responded favourably to the therapy and nine years later all of the five had maintained their recovery. The exception was a patient with paranoid schizophrenia who experienced severe exacerbation of his symptoms and had to be re-hospitalised. The only other patient involved in the research who experienced any further problems was also suffering from paranoid schizophrenia and sporadically required therapy sessions.

Hays (1999) and Kostrabula (cited in Sachs & Buffone, 1984) have both made very interesting use of exercise in their therapy. Both would take their patients out of the office setting and the therapy would take place while exercising with them. Exercise released chemicals in the body which also seemed to free the patients to start talking about their feelings and emotions. One of the aspects Hays (1999) noticed was that exercise seemed to lend a greater depth of focus in which her patients were often more communicative and disclosing. Exercise therapy, therefore, seems to be a tool of therapy and not a completely different type of therapy. It could be used to assist the therapist in dealing with patients. This appeared to be particularly true of patients who found it difficult to discuss things in the confines of a consulting room but felt freer to talk in the open environment afforded them whilst exercising.

According to the United States Surgeon General and the American College of Sports Medicine (cited in Conroy, 2006), regular physical activity by the youth reduces the long-term risk for disease, such as obesity and cardiovascular related illnesses. The immune system of individuals appears to be strengthened if they are in good physical health. Sport is furthermore seen as a powerful context for the psychosocial development of the youth. Barber, Eccles and Stone (2001) found that participation in grade 10 high school sport activities is an important predictor of later substance use, psychological adjustment, and both educational and occupational outcomes. It seems that participating in pro-social activities, such as sport, in the 10<sup>th</sup> grade leads to lower substance use and higher self-esteem up to eight years later. Participation in sport also correlates with positive educational and occupational outcomes and lower levels of social isolation. Sports participation can increase a participant's social skills and networks and allow them to interact effectively with other people. These social skills and contacts appear to serve one well as you move through school and into the workplace. Eccles and Barber (1999) found that participation in extracurricular activities during the high school years serve as a protective context in terms of academic performance and involvement in risky behaviours. They were clearly able to show that participation in sport has positive academic consequences. Mahoney and Cairns (1997) found that engagement in school extracurricular activities including sporting activities was linked to decreasing rates of early school drop-out for both boys and girls. These results can be summarised as follows: high school athletes report a greater liking of school; are less likely to drop out; get higher grades; are more likely to attend university; are less socially isolated; attain greater occupational success and have greater increases in self-esteem through high school.

#### 2.4.2 Exercise and depression

One of the important aspects of exercise is the proactive way in which it can be used to promote not only physical health but mental health too. McIntyre (2007) believes that exercise, and specifically running, is what allowed her to regain control of her life by assisting her to overcome her depression. Sund, Larsson and Wichstrom (2011) found that low levels of vigorous exercise and high levels of sedentary activities for 12 to 15 year old boys constituted independent risk factors for the development of high levels of depressive symptoms. In other words, boys who were involved in activities that required little physical effort and often involved them sitting still could suffer depressive symptoms. In contrast they were able to ascertain that vigorous exercise has a buffering effect on stress and may also act as a coping strategy that counteracts depression. If an individual was physically stronger it could lead to positive effects on their thought processes and concentration. This could induce more problem solving strategies when confronted with stressful events.

Jerstad, Boutelle, Ness and Stice (2010) found several mechanisms through which physical activity may lessen the risk of depression. First, physical activity could increase monoamines leading to positive affect and therefore reducing the risk of depression. Secondly, physical activity may serve as a distraction to negative affect. This would reduce the risk for maladaptive coping strategies thereby reducing the risk of depression. Thirdly, physical activity improves one's self-esteem which could reduce the risk of depression. Fourthly, it was also noted that depression could result in a reduction of future physical activity. Lastly, they noted that physical activity may provide social connectedness, efficacy and enjoyment which contribute to a lower risk of depression onset.

The American Psychological Association (APA, 2004) conducted a meta-analysis in 1990 in which they statistically summarised eighty studies of the relationship between exercise and depression. They concluded that exercise was

a beneficial antidepressant both immediately and in the long-term. Exercise was most effective in decreasing depression for those most physically and psychologically unhealthy at the start of the exercise programme. Although exercise significantly decreased depression across all age categories in this review, the older the participants were, the greater the decrease in depression when exercising. Furthermore, exercise was an equally effective antidepressant for both genders. The most common form of exercise researched was walking and jogging, but all modes of exercise, anaerobic as well as aerobic seemed to be effective in lessening the effects of depression to some degree. The greater the length of the exercise programme and the larger the total number of exercise sessions the greater the decrease in depression due to exercise.

Individual and group sessions point to the power of exercise in the treatment of clinical depression (Van Raalte & Brewer, 1996). King (2011) stated that exercise is a positive way to start each day as it will lift your spirits dramatically. She found that exercise played a part in reducing anxiety and depression. There is evidence from four epidemiological studies (Fox, 1999) that those who become or remain fit are less likely to suffer clinical depression. Farmer, Locke, Moscicki, Dannenberg, Larson and Radloff (1988) found twice the risk of clinical depression in women who were low in exercise over an eight year period. Little or no recreational physical activity and little or no physical activity apart from recreation were cross-sectionally associated with depressive symptoms in whites and blacks. The findings indicate that physical inactivity may be a risk factor for depressive symptoms.

Paffenberger, Lee and Leung (1994) conducted one of the more in-depth studies on the effects of exercise. They recorded a close relationship between physical activity and reduced depressive symptoms for Harvard alumni men, aged 35 to 77 over a 23 to 27 year period, starting in 1962 or 1966. Incidence rates of

physician diagnosed depression together with suicide rates were examined in relation to antecedent physical activity and other personal characteristics. The findings revealed that those individuals engaged in high activity were at a 28% reduced risk whilst moderate activity was at 17% reduced risk for becoming depressed as compared to those operating at a low level of activity.

Landers (1997) reported that exercise produced large antidepressant effects when the exercise training programme was longer than nine weeks. Furthermore, exercise that was of a longer duration, higher intensity and performed more often in the week produced increased antidepressant effects. Exercise also produced antidepressant results when subjects were classified as medical rehabilitation patients and were classified as moderately/severely depressed compared to mildly/moderately depressed. It is important to note that although exercise decreased depression more than relaxation training or engaging in enjoyable activities did, it did not produce effects that were different from psychotherapy. Walsh (2011) believes that mental health professionals are significantly underestimating the importance of an individual's lifestyle for mental health. He found that exercise has both preventative and therapeutic psychological benefits as it not only reduces the risk of the experience of depression but can also be used as a treatment for sufferers of depression. As a therapeutic benefit it compares favourably with the use of pharmacological treatment and psychotherapy. Aerobic and non-aerobic weight training both seem effective for short term interventions and long-term maintenance of the positive effects of sport participation. Higher intensity workouts appear to be more effective in bringing about change and maintaining the effects of the change that have taken place.

The most powerful antidepressant effect, however, occurred with a combination of exercise and psychotherapy. Mutrie (cited in Fox, 1999) concluded that:

- physical activity is associated with decreased risk of developing clinical depression;
- aerobic and resistance exercises are effective in treating depression;
- the effect of physical activity is of the same magnitude as psychotherapeutic interventions.

### 2.4.3 Exercise and Suicidal Tendencies

Sport may represent a promising protective factor against suicide in the general population but there is evidence for our research study that is especially applicable to adolescents. A study by Taliaferro, Rienzo, Miller, Pigg and Dodd (2008) showed that frequent, vigorous exercise reduced the risk of feelings of hopelessness and suicidality among male adolescents. Physical activity seems to promote emotional well-being including improvements in depressed mood, anxiety and stress, and self-esteem, specifically for male adolescents. Physical activity in the context of team sport may provide even greater protection against adolescent suicide as it could facilitate social support and integration amongst different members of a group. Youth involved in team sports may benefit from the psychosocial advantages that increase the likelihood of their participation. Brosnahan, Steffen, Lytle, Patterson and Boostrom (2004) found that adolescents were significantly less likely to plan suicide if they engaged in frequent, vigorous activity. They found that physical activity had a beneficial effect on feelings of sadness and suicidal behaviours. Their belief was that physical activity could be considered as part of an intervention strategy to improve adolescent psychological as well as physical health.

Brown and Blanton (2002) found that even male university students who reported low levels of activity demonstrated a reduced risk of suicidal behaviour. This seemed to indicate that for males any exercise was beneficial.

In general, sport participation was found to protect against suicidal behaviour for both men and women. Associations were also found between sport participation or selected patterns of physical activity and suicidal behaviour. Thomes and Esperlage (cited in Taliaffero et al., 2008) noted that depressed or suicidal youth may often choose not to participate or engage in physical activity, which indicated both a need to investigate this as an option for assisting them and as an indication that the results could have been affected by a lack of suicidal participants in their research study.

Tomori and Zalar (cited in Taliaffero et al., 2008) found that female adolescents demonstrated a reduced suicide risk if they perceived physical activity as an important determinant of health, and as a beneficial coping behaviour during times of distress. For males, reduced risk of suicide was related to the attitude that exercise represents a healthy activity, as well as to a higher frequency of involvement. Low levels of activity were associated with increased risks of feeling hopeless among females. Exercising and engaging in dangerous dieting behaviour to lose weight was associated with increased suicide risk. Ultimately the findings of Taliaffero et al. (2008) suggested that mechanisms other than physical activity in itself contribute to the protective association between sport and reduced suicidality. These included factors such as social relationships and biological factors.

#### 2.4.4 Effect of exercise on anxiety and stress

Beauchemin and Manns (2008) noted that among the psychological benefits associated with physical activity was a reduction in the symptoms of anxiety and an improvement related to the stress disorders. These results were confirmed by Walsh (2011) who described the therapeutic benefits of exercise by noting that exercise achieved similar results in combating anxiety as pharmacological and psychotherapeutic interventions. Walsh also found that relatively short programmes of one to three months offer significant benefits for reducing anxiety and stress but programmes longer than six months are even more beneficial. Sessions shorter than 30 minutes appear to offer minimal benefits for reducing anxiety and stress.

Fox (1999) found that research into anxiety and stress had taken three approaches: first, looking at the effect of a single bout of exercise on state anxiety; secondly, the effects of engaging in several weeks of an exercise programme focusing on both state and trait anxiety are considered; and thirdly, the effects of single exercise sessions and exercise programmes have been tested on the psychosocial and psycho-physiological reactivity to a subsequent psychological stressor such as a complex mental task or public speaking. Fox has indicated that there is a moderate effect for reductions in anxiety post exercise, with most of the studies he reviewed testing the effects of aerobic forms of exercise such as running. Exercise was found to provide moderate reductions in state and trait anxiety. Fox, furthermore, found that only half of the studies he reviewed showed a benefit from exercise training or increased fitness and the remaining studies showed no changes. Amongst these studies the work of Calfas and Taylor (1994) had found that there were no negative effects of physical activity and that anxiety/stress showed a decrease effect with regard to exercise.

Petruzello, Landers, Hatfield, Kubitz and Salazar (1991) did a meta-analysis of the anxiety-reducing effects of acute and chronic exercise. The results substantiated the claim that exercise is associated with reductions in anxiety, but only for aerobic forms of exercise such as running. For state anxiety, exercise was associated with reduced anxiety but had effects similar to other known anxiety-reducing treatments such as relaxation. Training programmes needed to exceed ten weeks before significant change in trait anxiety occur. Exercise of at least 21 minutes per session appears necessary to achieve noticeable reductions in both state and trait anxiety.

Landers (1997) in his paper on exercise and mental health emphasised many of the points made by Petruzzello et al. (1991). Landers (1997) found that subjects who have initially lower levels of fitness or higher levels of anxiety will benefit most from an exercise programme. Landers believed that exercise produces an anxiety reduction effect similar in magnitude to other commonly employed anxiety treatments such as relaxation training. However, exercise also has other physical benefits, such as on a person's general state of health because it can improve one's fitness and cardiovascular system.

Research by Creed, Dohrenwend and Dohrenwend, and Rabkin and Streuning (cited in Brown & Siegel, 1988) indicate that negative physical health outcomes are linked to the occurrence of major changes in life. These could include changing jobs, changing relationships or moving home. The prevalence of relatively common forms of stress or strain has also been linked to poor physical health. Brown and Siegel indicate that the negative impact of high levels of stress on physical health declined as the amount of time spent in vigorous physical activity increased. They suggested that possible psychological mechanisms for the stress-coping effect included increased feelings of mastery and self-efficacy, with concomitant appraisal of life events as less stressful.

Exercise was viewed as a respite for stressful life situations. In their study group the most common forms of exercise were aerobics, running, calisthenics, swimming and tennis, rather than team activities. It seems that an individual's consideration of what is causing the stress is important as exercise may be an escape from facing one's problems and not necessarily an effective means of dealing with stress. This means that exercise may actually be a distraction from facing an individual's problems rather than an effective form of therapy in coping with anxiety and stress.

## 2.5 Exercise and the self-concept

Meyer, Moore and Viljoen (1997) stated that the concept of 'self' is used in so many different ways that it is not possible to provide a single definition. Rogers (cited in Meyer et al. 1997) used the term to refer to people's view of themselves. Jung, Sullivan, Jordaan and Jordaan (cited in Meyer et al.1997) regarded self-concept as either a synonym for personality or a core aspect thereof. From an African perspective we would define 'self' as an 'us' rather than an 'I'. Mbiti explained the African perspective of 'self' as follows:

Only in terms of other people does the individual become conscious of his being, his duties and his privileges and responsibilities towards himself and his corporate group. The individual can only say I am because we are and since we are therefore I am (Meyer et al., 1997, p 620).

Erikson (cited in Mchunu, 2008) predicted that adolescents who do not develop a strong sense of self will enter adulthood with considerable role confusion or identity diffusion. Erikson saw adolescence as the stage where the adolescent attempts to bring together experiences to discover his/her identity and place in society. Infants and children learn about the world through movement and interaction. Parents should therefore support and enhance their movement and

interaction both for current physical and psychological development and for the pleasure children derive from physical activity. Mchunu (2008) believed that sport programmes for children should take into account a variety of developmental factors including chronological, developmental, cognitive, physical and emotional aspects. She suggested that the primary focus of sport programmes for children from ages 6 to 10 years should be to create an interest in sport in general, have fun, and learn basic physical skills. Sport participation programmes for children aged 11 to 14 years should see an increase in versatility and technical skill, whilst sport programmes for adolescents aged 15 to 18 years should see an increase in training intensity, competition and specialisation. Children who are allowed to participate in sport in the aforementioned developmental manner are given the best opportunity to integrate all that they learn from their sport participation and to develop a strong sense of self. This is due to the sport programme taking cognisance of their developmental levels and allowing them to develop in an age appropriate manner.

Antrobus (2009) found that exercise can encourage the exploration of relationships with others and can lead to a greater understanding of the self. This finding was supported by Green (2010) who wrote that one particularly significant aspect of sport participation related to the formation of self-identity is self-efficacy. Self-efficacy is the person's belief that they can execute a course of action and achieve a desired outcome. Sport is seen to serve a key site for adolescents to become more independent and thus fully establish their identities.

Adolescents who exercise regularly report better psychological well-being, self-perceived health and self-perceived fitness. Sport activity may help to develop an individual's sense of competence, self-determination, autonomy and internal

locus of control. Physical activity also plays an important role in forming adolescents' achievement orientation and competitive attitudes (Piko & Keserztes, 2006). This was supported by Beauchemin and Manns (2008) who found that individuals who lead physically active, healthy lifestyles have decreased symptoms of mental illness and increased feelings of self-worth.

Donaldson and Ronan (2006) found higher levels of participation in formal sport were related to higher levels of perceived behavioural competence. The results relating to self-concept and problem behaviours indicate that participating in sport, particularly those that are organised, may help adolescents gain confidence and acquire competent behaviour. This in turn may make them feel good about themselves in the sense that they view themselves in a positive light. Participating in sport may also provide a socially accepted way to release energy and aggression rather than through negative acting-out behaviour. Most importantly, however, appears to be adolescents' perceptions of athletic competence rather than their actual competence. Regular exercise appears to offer a vehicle for change on an emotional and psychological level through improvements in the way we view our physical selves and this has the potential to generalise to higher self-esteem and a more positive outlook towards oneself. Exercise allows an adolescent to achieve perceived physical successes and this may afford them the opportunity to feel better about their physical self which could translate into a better self-perception on a more general level.

According to Zabriskie, Lundberg and Groff (2005) participation in recreational sport positively influenced the self-perceptions of individuals with disabilities including improved physical self-perceptions, increased confidence to pursue new activities, opportunities to experience their bodies in new ways, and allowed them to redefine their physical capabilities. Involvement in recreational sport positively impacted on their social self-perceptions by expanding these

participants' social interactions and helping them to initiate social interactions in a variety of contexts.

Zaharopoulos and Hodge (1991) found that athletes and non-athletes differ in their level of self-concept. They examined sport participation for 113 secondary school students. The results indicated that athletes differed from non-athletes in their physical ability self-concept but not their global self-concept. These participants were concerned about how their performances rated physically but this appeared to have little impact on their self-concept in its entirety. Sport at secondary school level appeared to be more closely related to physical ability related self-concept. Zaharopoulos and Hodge used a multidimensional view of self-concept as sport participation is more likely to influence particular areas of self-concept, such as perceived physical or sporting competence, rather than global self-concept. Greater participation in sport was found to enhance emotional and behavioural well-being. These adolescents reported significantly lower levels of externalising social problems compared to those engaged in less formal sport participation.

Zaharopoulos and Hodge (1991) found that a positive relationship existed between higher levels of total sport participation and perceived competence. Participants who perceived themselves to be competent at sport reported fewer emotional and behavioural problems compared to those rated by an external observer as athletically competent. Perceptions were found to be more important than actual achievements in terms of negative relationships with behaviour problems. The results of this study suggest that at least at high school level and for participants in interscholastic competitions, sport is more closely related to physical ability self-concept than to other facets of global self-concept. Different types of athletic involvement may have a differential effect on self-concept development but the results do not support the assumption that

sport participation enhances self-concept in general. Rather, it appears that the particular area of self-concept that is more closely associated with sport is positively related to involvement in sport. That component of an individual's self-concept tied into athletic performance and sport participation is the only part of an individual's self-concept affected by sport participation.

Harter and Jackson (1993) found that a positive relationship exists between ability in physical activity and a positive self-concept. Spence, Poon and Mummery (1997) assessed the Canadian Fitness and Lifestyle Research Institute's study on the physical activity status of Canadians and concluded that there is an inconsistent and weak relationship between physical activity and global self-concept. This seems to be in line with theoretical reasoning that suggests that self-esteem is a stable construct and not easily changed by success in a single life domain. Fox (1999) has focused on the physical self, which consists of self-ratings of the body, its appearance, its capabilities and its worth. There is clear evidence that exercise can change people's perceptions of their physical self and identity in a positive way. For some people, particularly those who are initially low in self-esteem, this extends to a more generalised change in the self. While the literature is unclear on this it seems to relate to how an individual would interact with others and seems to lead to a more positive view of oneself. Hays (1999) found that exercise and sport participation led to an increase in a person's self-esteem and a sense of mastery or capability from attempting something and succeeding at it.

## 2.6 Exercise and insomnia

According to Youngstedt (2005) insomnia affects approximately a third of the adult population and it is associated with poor work performance and psychological dysfunction. Youngstedt drew the following conclusions on the effects of a single bout of exercise on the subsequent sleep of good sleepers: exercise had no effect on the time it took to fall asleep; exercise produced small increases in the amount of sleep time and slow-wave sleep and exercise reduced REM and increased the time before its onset. The effect of exercise programmes on the sleep quality of poor sleepers was shown to have a moderate positive effect. The evidence seems to show that exercise in bright light, with emphasis on duration rather than intensity, regardless of fitness levels will improve sleep. This was also regardless of the usual sleep quality of the individual. Exercise appears to be a healthy, safe, inexpensive and simple means of improving sleep.

Epidemiological evidence gathered by the National Commission on Sleep Disorders (Fox, 1999) demonstrates that daylight exercise is the behaviour most closely related to sleep quality. Landers (1997) found that sleep duration, total sleep time, and the amount of high amplitude, slow wave EEG activity would be higher in physically fit individuals than those who are unfit. Furthermore, this was especially so on nights following exercise. Exercise had the biggest impact on sleep when:

- the individuals were female, with low fitness and who were older than average;
- the exercise was longer in duration;
- the exercise was completed earlier in the day.

The advantages of exercise for children suffering from insomnia have not been specifically investigated but it would seem that sleeping well would have other

benefits for children. These benefits would include being more attentive and focused at school and also being able to function at a higher level throughout the day (Landers, 1997).

## 2.7 Sport participation, mental ability and scholastic performance

Wu, Patifex, Raine, Chaddock, Voss, Kramer and Hillman (2011) found that physical activity has a small, positive association with perceptual, cognitive and motor performance and this relationship may be stronger for pre-adolescent children. Higher aerobic fitness was related to more accurate and less variable cognitive performance. Higher fitness levels seem to relate to enhanced brain maturation and functioning. Pre-adolescent and adolescent children who are physically fit appear to have greater grey matter density and therefore greater neural efficiency resulting in better cognitive functioning. Furthermore, it was ascertained that fitness was associated with better response accuracy whereas no differences were observed for response speed. Walsh (2011) was able to see that the cognitive benefits of exercise range from enhancing academic performance in youth, to aiding in stroke recovery, to reducing age-related memory loss and the risk of Alzheimer's and non-Alzheimer's dementia in the elderly. Cognitive benefits are enhanced by more strenuous activity and by combining strength training with aerobics.

Jeziorski (cited in Donaldson & Ronan, 2006) found that participants in sport earned better grades, behaved better in the classroom, had fewer behaviour problems outside the classroom, dropped out of school less frequently, and attended school on a more regular basis with fewer unexcused absences compared to youths who were not participating in sport. There has been some interest in the role of exercise in improving mental agility, particularly in old people but there have been an insufficient number of well documented studies

in younger adults and children to allow any conclusions to be drawn in this regard. Boucher (cited in Fox, 1999) concluded that although fit, older adults display better cognitive functioning than their peers who are not as fit, the evidence from the various experimental studies he reviewed remains equivocal with five intervention studies demonstrating improvements but nine showing no significant changes in cognitive functioning. Etnier, Salazar, Landers, Petruzzello, Han and Nowell (1997) focused on the relationship between fitness and cognitive performance in older adults and showed a weak but significant overall effect.

## 2.8 Physical benefits of exercise

While this research study is not intended to look at the physical benefits associated with exercise and sports participation the following have been noted. Zabriskie, Lundberg and Groff (2005) demonstrated that sport has a positive influence on the physical health of male athletes such as increased muscular strength and endurance, increased cardiovascular health and reduced secondary health conditions. Green (2010) noted a correlation between sport participation and engaging in other healthy lifestyle practices such as eating well and avoiding using illegal substances. However, he noted that sport tends to have little impact upon the general levels of health and fitness amongst children and adolescents. He found that the physical health benefits sport may confer on young people are often overridden by other lifestyle choices. Piko and Keserztes (2006) saw that adolescents engaged in regular physical activity are less likely to smoke, watch television, become overweight and are more likely to eat a healthy diet. Participating in sport, therefore, seems to influence a person's lifestyle choices and these are often formed while you are a child.

There seems to exist a clear relationship between participation in aerobic activity and cardiovascular fitness (Hays, 1999). The fact that a person is partaking in regular exercise seems, however, to be more important to one's mental well-being than the actual physical effects of the exercise. Increased body core temperature through acute exercise has nonetheless been suggested as a trigger of increased relaxation and improved mood. Other areas affected by participation in sport are increased muscle relaxation, cerebral blood flow and neurotransmitter efficiency.

Exercise can provide a medium for taking command over health behaviour and body appearance that may trigger a general sense of autonomy. The social interaction that sport participation can provide may give the social support for improving self-esteem, as noted earlier, and life satisfaction. Hays (1999) suggested that factors associated with the process of exercise rather than the physiological adaptations resulting from regular exercise training are primarily responsible for improvements in immediate and future well-being. These factors would include the biological factors such as cerebral blood flow and increased core temperature and the social interactions involved in sport participation. In other words, exercising itself is a means to an end in empowering an individual in addition to the physical benefits derived from the exercise.

## 2.9 Running as therapy

Noxon (2007) described the work of Gontang who finds problem solving most effective when his clients are running. Gontang has used running as a therapeutic technique with his patients for the past 30 years and believes that people do not need to be clinically depressed to benefit from running. He is of the opinion that many people unknowingly run out their problems on a regular

basis. Numerous studies (Conroy, 2006; Hays, 1999; Jerstad et al., 2010) have shown that exercise stimulates the neurotransmitters serotonin, dopamine, epinephrine, and beta-endorphin all of which elevate mood and reduce depression and anxiety. Gontang's (cited in Noxon, 2007) research is showing what runners have known all along: In this state of mind when they are physically stimulated, they are more likely to disclose thoughts and feelings, whether it is to a training partner or licensed therapist, when they are running. Gontang worked under Tad Kostrubala who coined the term running therapy in 1976. Kostrubala's (cited in Noxon, 2007) research showed that as therapists and patients moved together, anxiety and blocked thoughts gave way. His findings continue to be substantiated and fine-tuned today by Noxon and Gontang amongst others.

Johnsgard (cited in Noxon, 2007) (professor emeritus at San Jose State University), who before his retirement often took counselling sessions on the road) believed that while having exercise partners is helpful, it is not essential. The uplifting power of running is at work even when you are out on your own. "For every bout of exercise you engage in, you get some relief and distraction from your troubles" (Johnsgard cited in Noxon, 2007, p. 1). He showed that 20 to 30 minutes of vigorous exercise provided an individual with five to six hours of lasting effects. These included reducing anxiety, anger, fatigue and other negative emotions.

Runners are at an advantage as the therapeutic benefits of exercise increase with intensity according to Trivedi (cited in Noxon, 2007). Trivedi's research shows that exercising for 30 to 35 minutes, three or four times a week and intensity of moderate to high exercise, is most effective for relieving feelings of sadness and irritability. Kostrubala (cited in Sachs & Buffone, 1984) did research on the benefits of running in a wide range of applications from specific clinical uses in

treating phobias to the general treatment of depression and anxiety. He was able to ascertain that running is an effective therapeutic tool for combating various clinical problems but especially for depression and anxiety.

Sachs and Buffone (1984) believed that multiple interventions directed at more than one area of a patient's functioning are likely to be more effective. This means that exercise should be mixed with more traditional forms of therapy such as discussing the patient's problems or behaviour therapy to get the best results. Shipman (cited in Hays, 1999) described a 12 week programme of long, slow distance running for 45 minutes, four times per week among residential and day patients who were adolescents, in a psychiatric programme. Effects included spontaneous comments from teachers noting improved peer interactions and self-confidence, and greater calmness. An increase in positive parental engagement also occurred as the participants were able to establish better relationships consisting of more interaction with their parents. There was a direct correlation between the amount of running and the reduction in medication. However, when running stopped, a number of the study participants regressed in all of these areas. Running, like medication, must be administered at a particular dosage to produce a therapeutic effect as there is a latency period, after exercise is initiated, before a therapeutic effect is achieved.

Running appears to produce biochemical changes that correspond with psychological changes and the psychological effect of running will subside when one is no longer adhering to it. The two main biological systems affected are plasma  $\beta$ -endorphin, which produces a feeling of euphoria or runner's high and central serotonin (5-hydroxytryptamine (5HT)) as a mood enhancer. While running produces chemical changes that can enhance one's mood, the long term psychological benefits may be felt only if the running is followed up with psychotherapeutic intervention (Hays, 1999).

Applying any therapeutic intervention indiscriminately to broadly defined problems like depression almost guarantees failure, and the same would apply in the case of running as therapy (Sachs & Buffone, 1984). Hays (1999) drew up general guidelines for additional assessment data before initiating a running programme with a patient. These guidelines include the patient's past physical exercise history, attitudes towards exercise, physical condition, motivation to initiate and maintain an exercise programme, and potential support from family, work and environment. Adolescents, whose clinical problems such as depression or anxiety may not be particularly amenable to traditional forms of verbal psychotherapy, may also respond positively to an organised running programme as a therapeutic approach. Adolescents may struggle with verbal psychotherapy as they are in a particularly vulnerable time of their development and opening up and talking about their feelings to a stranger may be difficult. Running or other exercise may illicit a different response from them.

## 2.10 The effect of sport participation on children and adolescents

Sport experiences can enrich children's emotional development by cultivating capacities for care, self-worth, and strength of will, good judgement, compassion, understanding, love and friendship. According to McComb (cited in Mchunu, 2008, p. 3) "every person is born with athletic capability and every person is predestined to develop that physical potential". Antrobus (2009) in considering adolescents aged between 13 and 19 years of age, provided evidence to show that almost 70% of all young people are not sufficiently participating in sport and physical activity.

Sport is an important method of engaging therapeutically with adolescents who are experiencing emotional difficulties. It is especially useful if they are not

particularly verbal or enthusiastic about working with a therapist. Hays (1999) believed that most adolescents' concerns are about self-esteem or body image – engaging in physical activity may be a means of addressing these concerns. The fact that competing in sport may allow an individual to show mastery over a skill is especially helpful in dealing with self-esteem issues. Sport participation is also a good way for adolescents to get into and remain in physical shape and can thus deal with the issues related to body image. Sport involvement can be a means of connecting or elaborating on issues that may seem too emotionally charged or threatening if approached directly. As mentioned earlier, sport involvement may be an entry point into a conversation with a reticent adolescent as it could allow one to adopt a different method of approaching a problem (Hays, 1999).

Kirkcaldy, Shephard and Siefen (2002) noted that enhanced physical fitness, increased physical performance, decreasing body mass and the promotion of a more favourable body shape and structure will elicit a more favourable response from the adolescent's environment. This has the effect of improving the individual's self-image. Kirkcaldy et al. noted, furthermore, that the social properties related to group sport participation may be the key ingredient contributing to psychological well-being rather than the physical activity per se.

### 2.10.1 Children and sport education

According to Bengoechea et al. (2010) physical activity should be an integral part of the learning process at all grade levels. Schools should provide a sport/exercise environment offering equal opportunities to all learners regardless of their personal and/or social characteristics and circumstances. Enjoyment of physical education may have a protective effect against circumstances and situations that place children at risk of becoming physically

inactive. The teachers and coaches that children are exposed to who will teach them about sport participation appear to be an important factor in their development of a healthy lifestyle. Children who are unfit can often develop low opinions of themselves, dislike activity and develop antisocial attitudes, although this is not necessarily the case (Bengoechea et al. 2010). These attitudes can develop as children are more susceptible to comparisons with their peers and unfavourable comparisons may have significant consequences. Green (2010) noted that children with the lowest sport participation rates at age 16 years are the least likely to maintain or increase and the most likely to reduce their involvement in sport as they age.

#### 2.10.2 Substance abuse

Green (2010) noted several interesting aspects of substance use and abuse in relation to sport participation. He found that the relationship between alcohol, illicit drugs and smoking and sport participation is two-way. Many adolescents who drink alcohol and engage, even sporadically, in illicit drugs such as cannabis, still participate in sport. Smoking cigarettes at age 16 years tends to be negatively associated with sport participation during adolescence. Sport participation and engaging in a healthy lifestyle tends to lead adolescents to abstain from using cigarettes and hard illicit drugs. This is not, however, true for “soft” illicit drugs like cannabis and alcohol consumption. Alcohol continues to be the most frequently consumed drug amongst athletes and habitual exercisers. Team sport participants such as hockey players, soccer players and cricketers are significantly more likely to demonstrate risk-taking behaviour, by using and abusing drugs, than non-sport participants. This includes using/abusing alcohol and cigarettes and seems more prevalent in boys than girls.

Smith and Darling (cited in Hays, 1999) found that extracurricular involvement in general served as a buffer against adolescent substance use. Sport involvement, specifically, served to buffer the impact of both family adversity and individual life stress, meaning that adolescents would be less likely to turn to substances to deal with their stress even when this stress included their families. Sport seemed to act as a means of taking an adolescent's mind off the stressors that were impacting on their life and therefore it seemed to lower the impact that these stressors had on the individual concerned. Haliimah (2010) found that a sound extra-curricular programme in schools created a sense of belonging amongst the learners who participated. This attachment to the school provided a socialisation environment that discourages boredom and therefore also the use and abuse of alcohol and drugs. She believed that schools have a responsibility to see that each learner gets the opportunity to escape from the limitations of the surrounding external environment. Since her research study was based on adolescents attending inner city schools, it meant that she was examining how these adolescents could use sport participation to mentally escape from the restrictions of their inner city environment.

### 2.10.3 Disruptive behaviour

Haliimah (2010) stated that high violence in inner-city secondary schools is directly linked to learners' lack of positive ways to utilise their time when not in school. Participation in extracurricular activities could have a positive impact on their utilisation of time after school. Antrobus (2009) argued that adolescents at greater risk of social exclusion have essentially the same qualities, needs and aspirations as all other adolescents. Given an appropriate balance of autonomy and support, an environment of guidance and advice and the provision of opportunity and experience, these adolescents' potential can be realised. Without it there are, however, significant risks of disengagement, involvement

in substance abuse, antisocial behaviour and involvement in crime. The prospect of early teenage pregnancy and the detrimental impact thereof on mental health and emotional well-being also exists in the absence of an appropriate environment of guidance and support.

Allison, Faith and Franklin (1995) conducted a review and meta-analysis of 42 group and single case studies evaluating antecedent exercise as a means of reducing disruptive behaviours in adolescents. Of the 16 group studies, 12 produced positive results and four produced negative results. The 26 single case studies had 22 positive results, one produced no effect and three produced negative results. In their review they drew up 10 hypotheses as to why antecedent exercise is effective in combating disruptive behaviour in adolescents:

- Physical exercise offers an opportunity to succeed at a task and this success may result in a sense of mastery and improved self-esteem or self-concept. This improvement in self-concept may then result in reduced behavioural problems. Basile (cited in Allison et al., 1995), however, found that changes in one's self-concept seem unlikely to be due primarily to exercise.
- Antecedent exercise led to improvements in behaviour in line with cardiovascular fitness. Participating in exercise caused changes in behaviour in line with the improvements being made in fitness levels.
- Perhaps exercise achieves its aims simply by tiring out the subject. In other words an adolescent's disruptive behaviour was controlled by their being tired out from exercising. If this was the case however, adaptive and maladaptive behaviour would be expected to be equally affected. Antecedent exercise has been shown by Allison et al. (1995) to increase attention span and academic performance. Perhaps disruptive behaviours

require more energy than attentive and academic behaviours and are thus first affected by fatigue.

- Mendell and Macdonald (cited in Allison et al., 1995) proposed the foot-in-the-door approach. They suggested that antecedent exercise may produce brief periods of fatigue that may allow others who interact with persons with behavioural problems to implement more traditional behavioural treatments such as positive reinforcement.
- It is possible that antecedent exercise achieves its effects by elevating endorphin levels and the subject's desire for endorphins is fulfilled by exercise making disruptive responses unnecessary.
- It appears that antecedent exercise achieves its effects by alleviating underlying depression or feelings of anxiety. Among adolescents depression may be manifested by behaviour problems and disruptive behaviours could therefore be symptoms of anxiety disorders.
- Persons with behavioural problems may have unusually low levels of arousal and may use disruptive behaviour to elevate their arousal levels, and therefore interventions that increase arousal levels, such as exercise, may decrease rates of disruptive behaviour.
- Antecedent exercise may be effective as it is topographically similar to the behaviour targeted for reduction. Based on Hill's learning theory (as cited in Allison et al., 1995), repeated, contiguous exhibition of an undesired response produces a conditioned inhibition to the response. This is referred to as negative practice.
- Sensory satiation states that the proprioceptive feedback upon self-injury or stereotypic behaviour may be very similar to the proprioceptive feedback that occurs during exercise. In essence exercise and disruptive behaviour are linked and if one exercises, it reduces the need to participate in disruptive behaviour as that area of stimulation has already

been satisfied. This hypothesis does not, however, account for the ability of antecedent exercise to reduce topographically dissimilar behaviour.

- Initially antecedent exercise can be viewed as aversive. It may, however, become pleasurable due to the endorphinergic effect. This pleasurable response may then inhibit disruptive behaviour by satiating the individual and/or alleviating a dysphoric state.

#### 2.10.4 Parental involvement

Families in general and parents in particular are especially significant in relation to young people's sporting predisposition and tendencies. The desire to participate in sport is acquired during childhood generally through the culture transmitted by the family. Family background appears to make a difference to sport participation into one's early adulthood years. Green (2010) believed that much sport participation appears to be fixed by the age of 16. Furthermore, he noted that parents play a key role in the sport participation of their offspring not least because of the time, money and energy they need to expend to allow their children to participate in sport. Perhaps the most significant role that parents play is in the form of socialising their children into sport participation. This influence can be done passively through the parents modelling exercise attitudes and behaviours. Active influencing involves participating with their children, transporting children to sporting activities, playing a significant role in the children's sporting choices and offering verbal encouragement and positive perceptions of their children's abilities.

Simple passive modelling of sport participation by parents does not appear to be as effective as active participation by the parents alongside their children. Sport specific modelling appeared to be more influential than modelling of general levels of physical activity. Green (2010) hypothesised that modelling may be

more influential in the socialisation of younger children but logistical support in the form of transportation, equipment and sport club membership may be more influential for adolescents. Parents also play an important role in their children's perceptions of their own sporting abilities and competence. Frequent positive comments from parents lead to children reporting higher levels of athletic competence and intrinsic motivation. It is important to note, however, that parents' interest must not lead to over-involvement as this can add to children's anxiety about performing in sport.

Green (2010) also noted the importance of socio-economic status in parental support of sport participation. Middle-class parents would often go to great lengths to ensure that their offspring enjoy a breadth of abilities and advantages. These findings supported results obtained by Baxter-Jones and Maffulli (2003) who noted that middle class parents tended to expose their children to more sports. Children from single-parent families and families in lower socio-economic groups tend not to receive the amount and kind of support for involvement in sport that middle-class children do. However, the family culture of sport participation is able to cut across this effect. Although socio-economic status is an important consideration, family participation and involvement in sport is a more important factor in adolescents' sport participation regardless of socio-economic status.

Parental engagement in children's exercise and sport behaviour can be seen as a double-edged sword. Some of the positive aspects are modelling and developing a balance between physical skills and positive self-attributions (WOWessays.com, 2004). Modelling refers to parents, through their own involvement and actions, showing their children how to participate in sport. Assisting children in acquiring sport skills at a level that provides a challenge without overwhelming them, can result in increased competence and enjoyment.

It is therefore important for parents to be involved in assisting their children to acquire skills and to live and lead healthy lifestyles. Not enough parents monitor their children's activity schedules, expose them to physical activity or act as role models. Conscious enhancement of self-esteem, physical competence and psychological skills training can be part of children's involvement in sport. As children get older the parents' role should change. The best summary of optimal parent-child interaction that combines support, autonomy and role differentiation, modelling, and sport values comes from a child advising his parents about appropriate behaviour in an organised sport setting: "Shut up, sit down, watch the game quietly, and let your kid have fun" (Hays, 1999, p.171).

Cheung and Chow (2010) found that parents play a significant role in modifying adolescents' physical activity. Parental support was seen as an important correlate of physical activity participation and affected self-perception both directly and indirectly. Baxter-Jones and Maffulli (2003) noted that a child's early involvement in sport is dependent on heavy parental support. It appears that a parent's beliefs play a significant role in their children's participation in physical activities.

#### 2.10.5 Socialisation role of sport participation

The term socialisation refers to "the processes through which people are taught and internalise the values, beliefs, expectations, knowledge, skills, habits and practices prevalent to their group and societies" (Green, 2010, p.167). Since childhood and adolescence are especially impressionable phases of life, early attachments to sport can have a profound influence on young people's later life involvement therein. Sporting socialisation tends to involve the transmission and teaching of values and norms that are adopted by children and in this regard parents and family are crucial. O'Donovan (cited in Green, 2010) noted how

the social involvement goals of young people influence their participation in physical education. This is mainly due to their first goals of participation in sport being to socialise and have fun.

Sport tends to make people more social as they generally are unable to exercise in isolation and they need to go either outside or to a gym to engage in it. This leads to individuals expanding their social network. These findings by Green (2010) are supported by the studies of Blumenthal (cited in Hays, 1999) and Berger and Motl (2001) amongst others. Smith and Smoll (1991) also suggest that the sport environment provides socialisation opportunities and can place adaptive demands that are similar to those of other important life settings. Most sporting codes operate to a set of rules and complying with these is an important life skill to acquire in fitting into an ordered society. Further important aspects of sport that relate to the broader societal issues relate to competition, team work and improving one's own abilities to compete. Estrada, Geltand and Hartman (cited in Donaldson & Ronan, 2006) agreed with this and stated that through playing team sport with others, children and adolescents can build cooperative relationships and meet their need to belong. They also learn key cooperation skills as they work together and perform specific team roles. Organised athletic experiences are regarded as potentially important for child and adolescent development as participation is believed to have direct relevance to the development of important behaviours such as cooperation, unselfishness, and attitudes towards achievement, stress management skills, perseverance, risk taking, and the ability to tolerate frustration and delay gratification (Donaldson & Ronan, 2006).

#### 2.10.6 Health and sport participation

Zabriskie et al. (2005) noted that participants in an adaptive skiing and riding programme showed improved overall health leading to an improved quality of life. Hambrecht and Gielen (2005) found evidence that regular exercise improves glycaemic control and prevents the onset of diabetes. Regular exercise also reduced hypertension and hypercholesterolemia. Green (2010) noted that physical activity and fitness can reduce body fatness, lower high blood pressure and increase bone mineral density. It results in the reduction of coronary heart disease, forms of cancer and type II diabetes. Steptoe, Wardle, Fuller, Holte, Justo, Sanderman and Wichstrom (1997) found that regular exercise is consistent with a healthy lifestyle in European adolescents. The fact that exercise, physical activity and physical activity interventions have beneficial effects across several physical and mental outcomes was supported by the research of Penedo and Dahn (2005). Beachemin and Manns (2008) argued that if one had a better understanding of the positive benefits of physical activity, therapists could address primary therapeutic goals with adolescents, but would also be helping to establish a healthy lifestyle trend. Epstein (cited in Hays, 1999) studied obesity after which he encouraged the development of an active lifestyle, not only as a complement to decreased intake of food but also to the maintenance of lowered body weight.

#### 2.10.7 Delinquency and sport participation

Segrave and Hasted (cited in Donaldson & Ronan, 2006) found a negative relationship between sport participation and delinquency. Interestingly the type of sport participation was also relevant. Students who participated in a more highly publicised, physically aggressive team sport such as football, were involved in more seriously antisocial delinquent acts than those who

participated in less publicised and aggressive sports. There is evidence from Faulkner, Adlaf, Irving, Allison, Dwyer and Goodman (2007) to suggest that vigorous physical activity is related to a greater risk of juvenile delinquency for male adolescents. Their results suggest that physical activity is not necessarily the solution for reducing juvenile delinquency. They do, however, maintain that fostering positive youth development through physical activity requires careful planning through developmentally appropriate designs and engagement with adolescents, policy makers, sports organisations, coaches and parents and should be embedded within wider programmes of personal and social development. These results seem to concur with previous research results mentioned below.

Begg, Langley, Moffitt and Marshall (1995) conducted a study which showed that higher levels of sport involvement, with the notable exception of team sport, were associated with a subsequent and significant increase, rather than decrease, in delinquent behaviour. Team sport in the study included Australian Rules football, cricket, netball, baseball, basketball, ice hockey, field hockey, underwater hockey, lacrosse, rugby union, rugby league, touch rugby, soccer, softball, volleyball, water polo and American football. The study was conducted on 1037 adolescents at age 15 years and again at age 18 years. Their study found that females with moderate or high levels of sporting activity were significantly more likely to be delinquent at age 18 years than those with low levels of sporting involvement. No significant association was, however, found between sporting activity and aggressive behaviour, team sport participation and delinquency and team sport participation and aggressive behaviour.

The athletic delinquency hypothesis proposed by Begg et al. (1995) works on the premise that deviancy is the product of an individual's membership of, or contact with certain organisational systems and that some sporting organisations

may be examples of such systems. This is an alternative to the popular deterrence hypothesis which regards participation in sport as a means of reducing aggressive and delinquent behaviour. One such example is a team sport such as soccer which exposes youth to the influence of older delinquents. Delinquent behaviour may also be learnt in sporting activity because of the possibility of cheating in athletic contests. These findings suggest that involvement in physically aggressive sport may in fact increase participation in aggressive acts rather than act as a cathartic discharge for the aggressive impulse. The best predictor of delinquent behaviour at age 18 years, however, was delinquency at age 15 years.

Team sport did not seem to have a positive relationship with delinquency as conventional team sport might not initially appeal to delinquent youth. It seems that delinquents and non-delinquents differ substantially in the type of recreational pursuits they prefer (Begg et al., 1995). Conventional sport which incorporates many aspects of the broader society may appeal to the non-delinquent but to the delinquent, who by definition violates the rules and norms of society, these activities may offer little appeal. The more adventurous, outward bound type activities, which provide alternative coping strategies to problems of identity and personal adjustment, may provide a more attractive and effective means of helping the young delinquent. To deter the young delinquent from continuing to engage in antisocial behaviour probably requires a range of strategies, and it would appear that recreational activities should take into account the specific needs and norms of the delinquent to have any chance of success (Begg et al., 1995). There is clearly a contradiction in the research on the effects of sport on delinquency and it seems that the most important variable may be looking at the type of sport played.

## 2.11 Negative effects of sport participation

### 2.11.1 Dependency

Exercise dependence is a condition in which the practice of moderate or intense exercise becomes a compulsive behaviour. Exercise dependency manifests as a strong desire to perform physical practice in an individual's free time (Sicilia & Gonzalez-Cutre, 2011). Grandi, Clementi, Guidi, Benassi and Tossani (2011) distinguished between primary and secondary exercise dependence. Primary exercise dependence relates to physical activity which is an end in itself. These people are intrinsically motivated to exercise. Secondary exercise dependence corresponds to an associated feature of another underlying disorder such as an eating disorder. Primary exercise dependants are more likely to be careful, passive, insecure and prone to experience high levels of anxiety and depression in coping with stressful events, which exemplify the main feature of harm avoidance. Some individuals may begin to employ exercise as a coping strategy, but over time this strategy ultimately becomes dysfunctional and leads to psychological distress. Exercise dependence may develop by the belief that increased exercise would eliminate anxiety, anger or worries about appearance.

Szabo (cited in Fox, 1999) concluded that exercise dependence exists as a psychopathological disorder but that it is extremely rare. He cautioned that there are a significant number of people with eating disorders, such as anorexia, who use exercise to promote weight loss but these will be distinguished from highly committed exercisers by their motivational profile. Female athletes, particularly in sport where slenderness for performance and aesthetics are required, such as gymnastics, are at a higher risk for developing eating disorders. Similarly those who seek high level athletic performance and/or body building are probably

more likely to take banned substances. Exercise itself has few if any negative effects but can accompany these conditions.

### 2.11.2 Antisocial involvement

According to Endresen and Olweus (2005) participation in power sports among pre-adolescent and adolescent boys may lead to a statistically significant increase or enhancement of antisocial involvement outside the sport situation. Their definition of power sports includes boxing, wrestling, weightlifting and oriental martial arts. Antisocial involvement includes violent and non-violent antisocial behaviour. Violent behaviour could include starting fights, and using weapons such as knives and clubs. Non-violent anti-social behaviour would include vandalism, theft and truancy. The negative effects stemmed both from the practice of power sports and from repeated contact with macho attitudes, norms and ideals with a focus on muscles and physical strength and a belief in the value of toughness. These typically masculine sports engender these so-called macho feelings. The results of this study indicate that the negative effects of power sport participation are likely to apply to normal or average boys and not only to boys with already elevated levels of antisocial involvement. No evidence was found to suggest that power sports might serve a cathartic function and lead to a reduction in violent and antisocial behaviour.

## 2.12 Factors limiting sport participation

### 2.12.1 Facilities

One of the main factors that affect participation in sport is the availability of facilities. In South Africa, children in the townships seem especially disadvantaged in having access to well-maintained sport facilities. Residents of

disadvantaged communities tend to have less access to parks and open spaces than those in wealthier neighbourhoods (Mchunu, 2008). Learner participation in extracurricular activities in South African inner-city secondary schools is essentially dependant on opportunities of participation in extracurricular activities. These inner-city schools tend to have inadequate facilities for learner participation in extracurricular programmes like sport (Haliimah, 2010). While this study related to inner city schools mainly in Pretoria, the problems seen in this study are equally applicable to township schools. Furthermore, she concluded that inadequate physical infrastructure prevents inner city secondary schools from providing a meaningful outdoor extracurricular programme that includes sufficient sport activities. The lack of facilities was exacerbated by a lack of designated personnel for the extracurricular programme which results in overloaded working conditions and too many responsibilities for teachers. Without adequate facilities and people who are able to properly make use of them, children will be unable to participate in sport.

#### 2.12.2 Gender

Gender seems to be a social influence on sport participation (Mchunu, 2008). Females will often participate in sport activities to have fun, stay in shape and to get exercise. Males on the other hand, also want to have fun through participation in sport but often want to do something they are good at and want to improve their physical skills. Keresztes, Piko, Pluhar and Page (2008) noted that sport participation is slightly more common in 10 to 15 year old boys than girls but not significantly so. Girls' sport participation is mostly influenced by social variables from their peers, while boys are more likely than girls to report role model support for sport participation.

### 2.12.3 Socioeconomic status

Socioeconomic status also plays a role in sport participation as people from a higher socioeconomic status are more likely to participate and be exposed to various sports. They are also more likely to be given the time to participate in sport and not be forced into doing other non-sport activities, such as assisting with various family chores or helping the family to earn money (Mchunu 2008). This was confirmed by Green (2010), who found that children from middle class families will generally have greater encouragement from their parents to participate in sport. They will also receive more support both materially and emotionally to participate in sport than children from a lower socio-economic background as their parents have the financial means and time to be actively involved in their children's activities. Further evidence to support this notion was provided by Baxter-Jones et al. (2003).

### 2.12.4 Role models

A further factor that may limit sport participation is that of role models. If one's parents participated in sport, it makes it more likely that you would also want to participate. Parents who are supportive, both financially and emotionally, will aid the individual's participation in sport (Mchunu, 2008). According to Cohen, Taylor, Zonta, Vestal and Schuster (2007) the lack of sport personalities available to disadvantaged youth may be due to a lower demand from or a lack of interest, or other obligations, or living in a neighbourhood where staying after school to participate in sport may not have been possible. The means to engage in physical activity are more likely to be inadequate and unpredictable for individuals living in low-income neighbourhoods and this pattern appears to hold for schools as well. Communities with the lowest availability of extracurricular sport facilities may also be less likely to have other opportunities

such as the ability to attend sporting functions to see their heroes in action. Children living in these neighbourhoods are less likely to have access to their heroes and there are fewer individuals from their area who are visibly achieving success.

#### 2.12.5 Motivation

The main psychological factor limiting sport participation appears to be motivation (Mchuna, 2008). Mchunu drew a distinction between intrinsic and extrinsic motivation. This distinction is normally based on three main criteria. First, the purpose of the activity needs to be considered. Intrinsically motivated activities are undertaken for their own sake, whereas extrinsically motivated tasks get undertaken for some perceived instrumental benefit. Secondly, intrinsically motivated people tend to seek experiential rewards, while those who are extrinsically motivated want social and/or objective rewards. Lastly, intrinsically motivated people tend to experience less pressure than extrinsically motivated people when competing, as they are largely concerned with the experience of the participation itself (Mchuna, 2008). In school, children may be extrinsically motivated to participate in sport as it is a requirement of the school programme. A successful sport programme is one that can make a person intrinsically motivated to participate in sport, in other words they will participate because they want to.

#### 2.13 Conclusion

Sport is important for adolescents, not only because it promotes a healthy lifestyle and has long-term physical benefits, but it may also provide a relatively simple coping mechanism for adolescents who are experiencing mental and emotional turmoil. Hays (1999) found evidence that suggests that exercise as a

psychological treatment is as effective as any other psychological treatments, such as psychotherapy or pharmacological interventions. Exercise will work with certain people with certain types of problems under certain therapeutic conditions. Participation in sport seems to be a therapeutic tool than should be used in conjunction with other therapeutic instruments, such as strategic interventions and narrative therapy, to achieve the greatest success. Ideally exercise should be moderate to highly intense of at least 20 minutes duration and should last for at least 10 weeks to be of value as a therapeutic tool. While this study will not argue that sport participation is a panacea that will solve all adolescents' and indeed society's ills, it will be argued that participating in sport has benefits for the individual participants and by association for the communities that these individuals reside in.

## RESEARCH DESIGN AND METHODOLOGY

### 3.1 Introduction

The literature review conducted in Chapter 2 noted the various aspects where sport participation appeared to play a significant psycho therapeutic role. With this in mind this research study set out to answer the following questions:

- What are the factors impacting on the adolescents' emotional and psychological well-being in their environment?
- What are the benefits that the adolescents feel they derive from participating in sport?
- What effect does sport participation appear to have on adolescents' emotional and mental well-being?

As the topic at hand was quite subjective in nature it was felt that making use of a qualitative research paradigm would best serve the needs and provide the necessary access to information. This chapter will discuss the rationale for using qualitative research as well as the sampling method, data collection method and means used to analyse and interpret the data collected. As we were dealing with minor children the ethical considerations in using them in this research study are also discussed.

### 3.2 Qualitative Research

According to Mack, Woodson, MacQueen, Guest and Namey (2005), qualitative research seeks to understand a given research problem or topic from the perspectives of the local population it involves. Qualitative research is especially effective in obtaining culturally specific information about the values, opinions, behaviours, and social contexts of particular populations. Qualitative

research can provide textual descriptions of how people experience a specific research question. It can provide the human side of the study where issues that are not specifically looked at in the study can be brought to light.

The main qualitative method used in this study was ethnomethodology. Ethnomethodology examines how people make sense of their everyday lives and Potter (1996) felt that this method seeks to identify and understand the manner in which people analyse behaviours and construct their own personal opinions. The emphasis in this type of research is on process over product. A researcher would look at how people interpret the everyday activities they participate in. The method employed by ethnomethodologists would primarily be by way of interviews and looking at the normal everyday occurrences that subjects would experience.

### 3.3 Research Participants

Using the qualitative approach the key aspect in research participation is gaining access to relevant evidence about the phenomenon. For the purposes of this research study it was important to have access to adolescents who were involved in a sport programme and were exposed to various environmental stressors which could reasonably be expected to impact on the emotional and psychological well-being. The sample was therefore a convenience sample as access to the members of the Real Sosh football club situated in Soshanguve township in the northern part of the Tshwane Metro could be arranged. The evidence gathered from the research participants was focused evidence as all participants were involved in the soccer club and were therefore participating in sport. A group of participants from the same area who were not participating in any sport was not used in this research study. The evidence obtained from this

study was primary evidence as it was obtained from the people directly involved with the sport and who were directly affected by their environment.

The participants for this study were adolescents drawn from the Real Sosh football club. Access to these specific adolescents was provided by their soccer coach who the researcher had come into contact with in the course of his studies for the masters' degree. The specific participants in the study were drawn from this group and were interviewed based on their returning the informed consent form signed by their legal guardian.

### 3.4 Data collection

The gathering of data in this study was done by means of a semi-structured interview. The researcher was identified as a researcher and although he was accepted by the members of the sample he was clearly an outsider who was there to gather data. The researcher remained an active observer by asking questions and reminding the participants that he was there to obtain information. All evidence for the study was obtained by the researcher alone. The procedure followed in the research was to hand out consent forms to all of the research participants. At subsequent coaching sessions adolescents who returned with consent forms were interviewed.

#### 3.4.1 Interviews

Interviews were conducted with nine subjects using a semi-structured format. The reason for using a semi-structured interview was the belief that there was basic information relevant to all the participants which needed to be gathered. Being able to then assess the participant's responses and ask questions relevant to each participant's individual experiences was the reason for the semi-structured approach. Seven of the participants were adolescents and the other

two were coaches involved with the group. Basic background information about the participants was gathered and then the focus of the interview was on three main aspects:

- What were the adolescent's experiences of living in Soshanguve? This was fairly subjective as the majority of participants had never lived anywhere else and so this was their norm.
- What were the participants' experiences relating to their participation in soccer?
- What was the impact they believed participating in soccer had on their lives?

As these experiences were expected to differ, the information supplied by the participants would inform further enquiry.

#### 3.4.2 Interview schedule

See Annexure 2

#### 3.4.3 Recording and managing of data

All interviews were recorded next to the soccer fields used by Real Sosh FC in Soshanguve. The interviews were recorded on an Olympus VN-5500PC digital voice recorder and then downloaded to a laptop computer. Transcription of the recordings was undertaken by hand by the researcher.

### 3.5 Data analysis and interpretation

To analyse the information obtained from the participants the researcher decided to apply thematic analysis to their stories. Thematic analysis is a method for identifying, analysing and reporting patterns or themes within data.

It minimally organises and describes data set in rich detail (Braun & Clark, 2006). Aronson (1994) states that thematic analysis involves identifying all data that relates to a set of classified patterns. All of the information that fits under a specific pattern is identified and placed with the corresponding pattern. The next step involves combining and cataloguing related patterns into sub-themes. These can be defined as conservation topics, words, recurring activities, meanings, feelings, or folk sayings and proverbs. Themes derived from informants' stories are pieced together to form a comprehensive picture of their collective experience.

Boyatzis (1998) regarded thematic analysis as a process of encoding qualitative information. The researcher should develop codes, words or phrases that serve as labels for sections of data. He believes that thematic analysis is flexible and, based on the research and the process of analysis, what researchers do with the themes once they uncover them, may differ.

According to Braun and Clark (2006), thematic analysis is widely used but there is no clear agreement over what it is or how one would go about using it. In conducting thematic analysis they developed the following questions:

### 3.5.1 What would count as a theme?

A theme is a pattern that emerges within a particular data set. Ideally what would constitute a theme is the prevalence of the particular instance occurring across the data set. Flexibility in one's analysis appears to be paramount as prevalence is not the only criterion. The amount of detail in a participant's response should also be considered, as well as how important or key the theme is to the overall research question.

3.5.2 Should one have a rich account of the data set, or a detailed account of one particular aspect?

It is important to determine the type of analysis you want to do, and the claims you want to make, in relation to your data set. Sometimes it may be pertinent to focus on one specific area and do a detailed analysis of the information gleaned from that. In other instances it may be better to do a more general analysis, albeit in slightly less detail. This may be especially prudent when one is analysing information that has not been researched before.

In this research study because of the type of questions that would be asked and answered, it is believed that the rich account of the data set would be more appropriate.

3.5.3 Inductive versus theoretical thematic analysis

In inductive reasoning one examines the information gathered and analyses what the test participants provide. It could be described as a bottom-up type of analysis as you make use of the information gathered as your main source of information. This can be contrasted with theoretical analysis where one attempts to answer the questions one has posed and looks at ways to get the participants to answer the questions. This is more of a top-down approach in that the theory is being used to guide the respondents to answer the questions. While it is believed that it is important to not lose sight of what the participants are bringing to this study, it will also be attempting to answer the theoretical questions posed.

### 3.5.4 The choice of thematic analysis

The researcher is analysing the data using this method because it is believed that thematic analysis offers several useful features. Thematic analysis is a useful way of grouping the data obtained from each individual respondent. It allows the researcher to be aware of similarities and differences in peoples' lived experiences. When doing an in-depth qualitative study with a relatively small number of participants, thematic analysis can be an especially useful tool. If certain themes emerge in one's analysis of the data the likelihood exists that these themes could be extrapolated to the population at large. It would certainly lead credence to the need to further explore these themes, especially in the community from which the participants were drawn.

Thematic analysis is also a method that relies on drawing rich data from the research participants. If this is effectively done it allows the researcher to find out what issues are impacting on a community and perhaps how interventions can impact on those issues. Thematic analysis has been used as it is believed by the researcher that it will provide the richest analysis of the data obtained from the participants and that it will allow one to make assumptions about the population at large.

### 3.6 Trustworthiness

Trustworthiness relates to the validity of the results obtained by a qualitative study. Shenton (2004) discusses four criteria he believes should be considered by a qualitative researcher in the quest to make their study trustworthy. These are credibility, transferability, dependability and confirmability.

### 3.6.1 Credibility

Shenton (2004) described this as the ability of the findings to be a fair reflection of reality. He believed that the following provisions should be made to ensure credibility:

- a) the adoption of research methods that are well established;
- b) the development of an early familiarity with the culture of participating organisations before the first data collection interviews takes place;
- c) random sampling of individuals to provide information. Although random sampling provides the greatest assurance that those selected are representative of the larger population it can lead to a sample group of quiet, uncooperative or inarticulate participants;
- d) triangulation involves the use of different methods in the data collection. This compensates for any individual limitations and exploits the respective benefits of various methods. Another form of triangulation is using a wide range of participants;
- e) the employment of tactics to ensure that the participants are as honest as possible in supplying information;
- f) iterative questioning is a specific ploy to uncover deliberate lies by the participants;
- g) negative case analysis involves refining the hypothesis until it addresses all cases within the data;
- h) frequent debriefing sessions;
- i) peer scrutiny of the research project;
- j) the researcher's reflective commentary;
- k) background qualifications and experience of the investigator should be noted;
- l) allow the participants to check what has been written and if it is an accurate reflection of what they said; and

- m) a thorough examination of previous research findings should be completed.

The current study fulfilled most of these criteria although sampling was done on a convenience basis. In terms of data collection methods, interviews was the only real method used although the researcher did observe the soccer training sessions and noted how the adolescents were participating in the sessions and interacting with one another. The participants were also not afforded the opportunity to read the transcripts of their interviews. This was mainly due to an inability to make contact with the participants within the timeframe afforded for the research. Their responses were however checked with them before being transcribed.

### 3.6.2 Transferability

Shenton (2004) described transferability as the extent to which the findings of one study can be applied to other situations. In a qualitative study it is important to provide the appropriate context so that the users can decide whether the information can be transferred. Information on the following issues should be provided:

- a) the number of organisations taking part in the study and where they are based;
- b) any restrictions on the type of people who contributed data;
- c) the number of participants involved in the fieldwork;
- d) the data collection methods that were employed;
- e) the time period over which the data was collected.

The transferability of this study, as with qualitative studies in general would be quite difficult to reproduce. Certainly this researcher would be interested in

seeing if similar findings were found for adolescents from a similar environment and with soccer itself as the specific sport. There is a concern that part of the coping strategies adopted by the participants involved in this study was as much due to the influence of the particular coaches as it was related to being involved in soccer.

### 3.6.3 Dependability

Shenton (2004) noted that dependability is the ability of results to be repeated in the same context, with the same methods and the same participants. In order to address this issue the following aspects should be included:

- a) the research design and its implementation, describing what was planned and executed on a strategic level;
- b) the operational detail of data gathering, addressing in detail what was done in the field;
- c) reflective appraisal of the project.

It is believed that the results obtained from this particular group of participants, accurately reflects what was happening. The process was similarly employed for all of the participants and each interview session was analysed after its completion. As the time frame for conducting the interviews was relatively short the issues that could be affecting the community should also not have been diluted for any of the participants by time.

### 3.6.4 Confirmability

This was described by Shenton (2004) as the qualitative investigator's concern for objectivity. Steps should be taken to ensure as far as possible that the results of the study are the result of the ideas and experiences of the informants, rather than the characteristics and preferences of the researcher. The beliefs underlying decisions made and methods adopted should be acknowledged within the research project. In terms of the results, the preliminary theories that are not borne out by the results should be discussed.

While the results obtained did seem to have some bearing on the research hypotheses, as noted in the following chapter, there are discrepancies in the results obtained from the participants and the research hypotheses. This seems to indicate that the participants were supplying their own thoughts and beliefs rather than having the researcher's aims projected onto them.

## 3.7 Ethical considerations

### 3.7.1 Informed consent

Seven of the nine participants in the study were minor children and it was therefore imperative that informed consent was given by their legal guardians for them to participate in the research study. A letter written in English was given to all of the children explaining what the purpose of the research study was and how it would be conducted. This was done in accordance with the stipulations of the Health Professions Council rules of conduct. Where English was not easily understood the consent form was explained to the adolescents involved with the use of their coach who could translate the details into the relevant language. Participants were told that they would only be interviewed

once written consent had been provided and participants were only interviewed after consent was provided in writing for their participation.

### 3.7.2 Privacy, anonymity and confidentiality

All participants were assured that their names would not be used in the research study and all information that they shared would only be used for the purposes of the research study.

### 3.7.3 Nonmaleficence

This is the right to protection against possible harm. While no clear threat to the participants was evident in either the research material or the data collection method, every effort was made to do the one-on-one interviews in a public setting where the participants were always visible to their peers. If any information came up that could be potentially damaging on an emotional level the researcher took time to ensure that the participant was adequately cared for and did not leave them with any unfinished issues.

### 3.7.4 Beneficence

This relates to the benefit that the participants could derive from participating in the study. The benefits relate to the experience of adolescents knowing that their stories were being heard and told and this could give a sense of importance to their concerns. On an individual basis they had the opportunity of having their stories told and this had the potential to assist them in the processing of their life stories. On a collective level, their participation in the research study could contribute to the expansion of knowledge relating to sport participation and adolescents and how the one affects the other. This may have beneficial effects

for these adolescents, as well as younger family members or the community in which they live.

The research study will be made available to the Real Sosh football club and by extension to its members so that they could see how their participation influenced the study.

### 3.7.5 The role and competence of the researcher

To the group of research participants the researcher was seen as an outsider who was trying to find specific information from them. He was viewed as being of some use to the participants as they believed he might be able to provide tangible support in terms of equipment to their club. The researcher was inexperienced in the role of researcher but was interested in the topic and displayed a desire to learn from the participants.

## 3.8 Conclusion

The topic under consideration in this research study indicated that a qualitative research study would provide us with the richest source of information. Sampling was done using a convenient group to which access was provided, and interviews were conducted on a semi-structured basis where the researcher could probe for specific information but with enough flexibility provided that the participants could contribute actively to the study. Ethical considerations, especially as regards minor children were adequately dealt with in this study and the rights of the individual participants were protected.

## CHAPTER 4

### ANALYSIS AND INTERPRETATION

#### 4.1 Introduction

The aims of this research study as outlined in chapter one were to explore the value of sport participation as a therapeutic tool in the following respects:

- a) in assisting adolescents who are suffering from various psychosocial problems such as depression, anxiety and exposure to violence;
- b) by indicating sport as a proactive means of combating psychosocial problems; and
- c) to examine how sport can be used as a tool to assist adolescents to interact with their peers and with authority figures.

In attempting to address these aims the focus in the interviews was on three main areas. The first aspect looked at the lived experiences of the research participants in Soshanguve and tried to ascertain what issues they faced in their environment on a daily basis. This would allow the researcher to see what psychosocial problems the adolescent research participants were experiencing. The second aspect was to establish the research participants' choice of participation in sport as opposed to other options, such as drinking, using drugs or participating in criminal activities. This would allow us to see what effect the research participants' experience of sport participation might have on their social problems. In this line of questioning it was also important to look at why this particular football club had been chosen rather than one of the other options that were available in the area as it seemed that this could have some significance. The last aspect to be analysed in this research study was to establish what effect the research participants believed sport participation had

on them. This meant inquiring about the participants' lived experiences as it related to their participation in sport and the effect they believed it had on their lives. This enquiry would also investigate their interaction with peers and coaches as well as other significant adults in their lives.

## 4.2 Living in Soshanguve

### 4.2.1 Substance abuse

The research participants experienced alcohol use and abuse to be rife in their area. This was something that all of the participants were concerned about. Participant 4 noted this when he said, "I don't like the tavern at the end of our street. People drink and drive which is not good. People send children to go and buy alcohol for them. Most of the drinking is in the late afternoon, on any day. It is a big problem as children will drink the alcohol." A sport coach involved in the research study related an incident where he was assaulted by four men who had been drinking and were driving recklessly in the neighbourhood on a Saturday afternoon. When he stopped them to admonish them to be more careful, especially where there were children around, they got out of the car and assaulted him. He spent three days in hospital after this incident. Participant 3 stated: "There are lots of people my age who drink and smoke at Mabopane Station. They smoke mostly cigarettes and drink beer."

A further issue raised by the research participants was smoking, which they viewed as another problem in the community especially amongst young people. Most of the people who smoke use cigarettes, but some of the adolescents who they know from school smoke dagga and nyaope. Most of the research participants spoke about the number of people in their schools who smoked after school and in some cases smoked during school time. The number of

people who were smoking were seen as significant by all of the research participants as it was mentioned by all of them. Participant 4 noted “some of my friends smoke and drink. They drink beers and smoke cigarettes and marijuana.” Participant 9 added, “substance abuse is a big problem, using dagga. Most kids start with cigarettes and nyaope”.

The drug-related crime figures released by SAPS for Soshanguve (refer to Annexure 1), seem to bear this out. Drug-related crime in Soshanguve has increased from 28 instances in 2003/04 to 90 instances in 2010/11. The Nelson Mandela Foundation held ‘Youth in Dialogue’ workshops in various parts of the country in November 2007. One of these areas was Soshanguve and the research participants in these discussions spoke about the abuse of drugs in the area, especially nyaope. Research (cited in myfundi.co.za, 2010) showed that heroin and cocaine use is increasing rapidly in South Africa, especially in Cape Town and Pretoria. Previously, prior to 2000, heroin abuse occurred more frequently among white youths (myfundi.co.za., 2010) but this is no longer the case. Furthermore, it is noted that between 70% and 80% of the global use of Mandrax takes place in South Africa and the amount of dagga in circulation in this country is the second highest in the world (myfundi.co.za.,2010). While the information obtained from the research participants in this study focused on alcohol, cigarettes and dagga, the fact that they mentioned nyaope seems to indicate that the participants are aware of a more serious drug problem in the area. Nyaope is a mixture of dagga and heroin and is used by drug dealers to get people hooked without them being aware that they are using something as dangerous and addictive as heroin.

#### 4.2.2 Violence

Violence seems to be a constant threat for adolescent residents of Soshanguve especially after school. Even if the participants had not personally experienced a violent act they were well aware that incidents often occur in Soshanguve. All of the participants in this study were aware of what had happened to their coach with regards to being assaulted when he tried to intervene with people driving recklessly in the area. The constant threat of fights and being beaten up after school was reported from the majority of research participants. Participant 2 said, “People like to fight here. After school they want to fight and want to beat us up.” Participant 3 added, “Bad people rob and kill them with a spear. It is very violent and there are lots of people who want to fight.” Participant 5 noted that “I think about fighting as people want to fight with me.” Participant 7, the coach, relayed the following, “One of our boys friend was stabbed to death in front of him.”

Participant 8 believed that if he stayed at home, rather than coming to play soccer, he would get into trouble as there are young men who live in his area who are always looking for fights. He said: “Some people beat up one of my friends and wanted to fight with me. I told them that they could beat me up but I wasn’t going to fight back.”

This information seems to be supported by the figures released by the SAPS for Soshanguve (Annexure 1). It is clear that with the exception of theft and burglary, assault is the most pervasive crime reported to the police services in Soshanguve. Given almost two reported incidences per day, it seems that the threat of violence constantly exists in this area and even if some of the research participants have not personally experienced such incidences, it is a threat they appear to be aware of all the time.

#### 4.2.3. Poverty

Lack of money seems to be an ever present problem and is an important consideration for this study as it is a stressor for the participants. Half of the research participants live in families where income is sporadic at best, as the bread winners in the family are unemployed or earn income on a casual wage basis when they are able to find work. Participant 1 stated: “My mom is unemployed. My father lives and works in Limpopo.” This was noted by participant 3: “My mom doesn’t do anything and Dad works far away.” Participant 6 stated: “My sister doesn’t work but she looks after me. Mom lives in Hammanskraal. Dad died in 2003.” Participant 8 noted: “I live with my mother and my brothers and sisters. They are unemployed.” This poses several problems for the participants. Being able to eat adequately on a daily basis is not something that every participant living in Soshanguve can take for granted. While this situation is probably not unique to the area, it was an important consideration in this specific study as it was mentioned by the research participants as something that was a concern from time to time. It also aids one in generalising the results of the study as it is not a unique feature of this area. This means that the research participants were not always sure how often they would eat in the day and that fact had implications for how much energy they would have available for the day.

The lack of money also had implications for the boys’ participation in sport. The research participants all bemoaned the lack of adequate equipment to practice and play with. Participant 1 said: “The shortage of equipment is the biggest problem in soccer.” This started with having soccer boots which would make playing the game far easier. None of the boys owned a pair of shin pads which is an important piece of equipment in soccer to prevent injuries. More

money means that the balls they had to play with would be of a better quality, which would make it easier to improve their skills. Other pieces of equipment which could be purchased if more money were available are training cones and a first aid kit which would allow the coaches to immediately deal with any injuries the boys picked up. The implication of this for the purposes of this research study is that poverty and therefore lack of equipment could prevent adolescents from participating in sport and deriving benefit from it. While the participants in this study were already participating in sport there may well have been potential participants who were not playing sport due to financial constraints.

Poverty also has further implications as it reduces the possibilities for future study and employment for the research participants. From the information the participants shared, it appears that their generation is able to find opportunities to study further after school, as many of their older siblings are currently studying or have studied after completing matric. Lack of money does however put pressure on individuals to seek employment and earn an income as soon as possible. This is especially true if they are males who need to assist in providing for a family, as it appears that the males are placed under greater pressure to provide for their families. One of the main results of this need to earn income is a high dropout rate from sport participation in late adolescence and early adulthood. Whatever benefit was derived from adolescents participating in sport is then negated as they find themselves unable to continue playing when the need to provide for their families becomes paramount.

### 4.3 Reasons for participating in sport

It was important to note the reasons why the participants participated in sport as this could help to explain why there may be benefits attached to sport participation. The rationale for this comment is that something may only benefit someone if they are self-motivated to participate. Certainly therapy in a traditional sense seems to work best when the patient/client is personally motivated to be involved.

#### 4.3.1 Love of the game

The underlying reason that all of the research participants gave for being involved in soccer was their love of the game. They all enjoyed playing soccer and could happily do so every day. All of the boys had a dream or desire to play soccer professionally if the opportunity presented itself. Participant 1 said: “The best thing about living here is the soccer and reading books from the library.” Participant 3 stated: “I love soccer and want to play for Sundowns one day.” Participant 4: “I love playing soccer and want to keep playing soccer all the time.” Participant 8 claimed: “I like sport. My favourite thing is all sports.” Far more interesting, however, was the fact that only one of the boys in the study stated that he would play soccer after school even if he wasn’t doing so professionally. This seems to be at odds with their initial comments about loving the game. The main argument given for not continuing to play was the need to earn a living and provide for families and there would thus not be time for playing games, such as soccer.

Only a few of the participants had access to other sports but these boys stated that they would happily play any sports. Other sports they played included tennis, basketball, rugby and volleyball. Soccer was, however, a game common

to all the research participants. Playing soccer was seen by the participants as the most pleasurable activity they could choose to participate in on a daily basis.

#### 4.3.2 Avoid trouble

As mentioned above soccer is a sport participating option that is the most pleasurable option open to all of the research participants. Playing soccer seems to keep them busy and away from bad influences. The boys felt that if they were not playing soccer they could become involved in fights as many people in their area chose to engage in this activity in the afternoons. Participant 3 noted: “The biggest problem is crime and people being killed in the area. Soccer keeps me away from all of this.” Furthermore they believed that the possibility existed that they would start abusing substances. This would include cigarettes, alcohol and move on to cannabis and stronger substances. The boys felt that this was inevitable as the peer pressure would make it unbearable and they would probably be unable to resist. Sport participation provided positive peer pressure, as they needed to attend practices while doing something healthy and conforming to a culture of healthy participation.

A further area that the research participants believed that they could be sucked into if they were not playing soccer was crime. As many people were struggling to make ends meet and often were ill-fed, they would turn to crime as a means of getting by. The boys believed that the need to conform and to provide for themselves and their families might prove too great a temptation and they could become involved in criminal activities. For most this involved petty theft rather than anything more sinister, but they would prefer to avoid crime at all costs. They believed that playing soccer shielded them from these temptations as they were exposed to a positive atmosphere where doing the right thing was emphasised. A happy bonus of playing sport was that the participants were often given food and drink at matches and tournaments. While participating in

sport did not specifically assist the participants in making ends meet, it did expose them to other people in the community who may be able to provide assistance. It also was the experience of the participants that being exposed to sport gave them a positive reason to avoid crime.

#### 4.3.3 Provider of hope

Playing soccer provided all of the participants with hope and ambition. The research participants all had a desire to play soccer professionally and were hoping that someone from a big club would spot them playing so that they could further their sporting careers. They all believed they had the ability to play at the level of the Premier Soccer League (PSL). The initial reaction to the researcher from all of the research participants was to ask if he was a scout. If playing soccer was not an option the participants all thought that they should study after school. They all thought that they would be able to go to university and study further.

The research participants all believed that they had viable futures ahead of them. Part of this belief was gained from being involved in a sport setting, namely playing soccer, where future possibilities were constantly emphasised. This is in stark contrast with the hopelessness they see in many of their peers who are involved in various antisocial activities.

#### 4.3.4 Soccer at Real Sosh FC

One of the questions posed to the participants revolved around their choice of playing for this particular sports club. This was important as there are at least three clubs that operate in close proximity to each other and it was valuable to establish the boys' reasons for being involved with this particular club. As I

wanted to ascertain whether the benefits were derived from participating in sport or from being involved with a particular set of coaches and players, this was a relevant aspect for consideration.

#### 4.3.4.1 Training

According to the research participants, Real Sosh was the only sports/soccer club in Soshanguve that trained from Monday to Friday. From their perspective this meant that the club was serious about the training and playing of sport. It also meant that the research participants would be involved in an activity every afternoon and would therefore not be tempted to become involved in crime or abusing substances, like their peers in the area. The coach arrived every afternoon and it was expected of the boys to have the same dedication. This commitment was an important feature of the club and the attraction it had for the players. Participant 8: “I am glad that we have soccer every day. If there is no soccer fights happen.” It appeared to be a unique feature of this club, but is also an important feature of the benefit one can derive from sport participation.

For the purposes of this study this aspect was an important one. For any intervention to be meaningful in a therapeutic sense it must have value to the participants. As Hays (1999) has pointed out, sport interventions have value when people are actively involved in the activity. As soon as they stop participating in an activity its therapeutic value diminishes quite quickly. The fact that the soccer club operated on a daily basis was one of its most important features. It is, however, also important to note that this feature of the club would tend to draw only the most dedicated individuals and might therefore not attract the people who could benefit most from being involved.

#### 4.3.4.2 Coaching

Many of the research participants had a personal relationship with the coach which he had fostered before they arrived at the soccer club. Research participants described instances where they had met the coach at school and he had invited them to come and join the club. There was thus a sense of trust in the coach and a belief in what he was saying. The research participants all stated that their reasons for playing soccer for Real Sosh related to more than just the participation in a sport. They believed that the coach had a vested interest in their future and therefore their development. The research participants all described instances where the coach had personally taken an interest in their lives. Descriptions of this included dealing with an abusive father; assisting a child with schoolwork; taking care of the boys at the hospital when they had been injured; and being available for a boy whose friend was stabbed to death. The fact that the coach took an interest in their lives outside of the sport was a secondary benefit and another, possibly unique feature of this club. It is, however, a benefit that derives from the social aspect of sport participation where people are able to get to know each other better through spending time together. This allows them to understand when and how they can assist their fellow participants when required.

A specific incident involved one of the research participants who had witnessed his best friend being stabbed to death. This had scared him so much that he was not willing to leave his home except to go to school. The soccer club provided a safe outlet for him to be able to leave his home and interact with people again. The sports coach had convinced this boy of the value of coming out to play soccer again. Participant 1 described the coach as follows: "Every day the coach tells us to come at 3 o'clock for soccer." It is therefore apparent that although the soccer provided the activity in which the boys could participate, the people

involved in the soccer club as coaches are just as important in the wellbeing of the participants.

#### 4.3.4.3 Social aspect

Many of the research participants described how much enjoyment they got from playing sport with their friends. There appears to be positive peer pressure from being involved in the soccer club. The participants all spoke warmly about the fact that they would spend the afternoons in the company of friends and the support of other people who shared their outlook on life. Participant 8 noted: “It’s nice to come to practice with my friends.” The soccer club seemed to provide a communal support structure that was an invaluable source of strength for the research participants. This support was often unspoken and intangible, but was nonetheless felt by all the participants concerned.

One of the hallmarks of traditional African society is the communal living that occurs. The coaches of Real Sosh Football Club had spoken about the erosion of this aspect of life with the strong advent of consumerism and greed. People in their community who were under financial strain were often the most at risk for resorting to an individualistic outlook on life. This implies that people are no longer concerned about the wellbeing of the community as a whole but are rather focused on what they can achieve individually. The idea of fostering a communal outlook in the sports club and with the research participants was strongly emphasised by their coach. It is believed that inadvertently the coach was teaching the boys participating in soccer in the club about traditional African values which had been eroded over time.

## 4.4 Effect of sport participation

### 4.4.1 Academically

From a schooling perspective it was noted that only two of the research participants had failed a grade at school. None of the research participants had failed a grade since they had been involved with the soccer club. While the correlation might not have been particularly strong, it did seem to indicate that the research participants were all committed to their schoolwork. Participant offered the following: “I did repeat grade 5 but now I am doing ok at school. Sport helps me with school. Sport helps me..as I am busy after school and I need to plan my day better to do my homework”. Part of this could be attributed to the soccer coach who only allowed boys to play if they were achieving the requisite standard at school. It was also related to their ambitions to study further after school, which was the case with all of the participants. As the research participants wanted to play sport, their parents and the coach could use that as an incentive to get them to concentrate on their schoolwork. By participating in sport every afternoon the research participants also found that they needed to plan their days to complete their homework. This was a secondary benefit of their sport participation.

Soshanguve has historically been an area where learners have struggled academically. The sports coach and teachers at Senthibele Secondary school stated that up to about ten years ago the matric pass rate was below 50%. The fact that all of the research participants appear to be coping adequately at school could be due to their participation in the soccer club but the evidence is inconclusive. Both secondary schools in the area, namely Kokotla Senior Secondary School and Senthibele Senior Secondary school which feed this particular area have a recent tradition of producing good academic results. The

coaches reported that in the past five years, Senthibele Secondary has had a matric pass rate of 90% and higher. Kokotla Senior Secondary School appears to have similar results over the same time period. Both these schools also have members of Asivusani Health Network operating in their schools and this could also be impacting on the improved performance of these schools. Asivusani Health Network is primarily in the schools to educate the learners about HIV/AIDS. They do, however, operate in a far wider sphere as they will fill in for absent teachers and focus on motivating learners to achieve more. As people with experience of the jail system in this country, they use their personal experience to educate learners about the consequences of making bad choices. The members of Asivusani, which included the coach of Real Sosh Football Club, also encouraged the pupils to participate in the soccer club that they run, as they believe this is a valuable way for adolescents to occupy their time and teaches them about a healthy lifestyle.

#### 4.4.2 Feeling good

All of the research participants described themselves as being happy and enjoying life. Some went so far as to say that they were always happy. This is a feeling they conveyed even after they had described the difficulties they were experiencing living in Soshanguve. It certainly appears to the outside observer that these boys are a group of young men who are enjoying themselves and each other's company. Although measuring the research participants' state of happiness and wellbeing is quite difficult, it is believed that one can rely on their subjective reports as an accurate gauge of where they currently find themselves. It seems reasonably clear that participating in sport does create a good feeling amongst the research participants. This is not a revolutionary finding as there are many good biological reasons mentioned earlier in this study as to why this should be so. The social aspect of their participation is,

however, an important component that was mentioned by several of the research participants as the reason why they felt good. Playing soccer with their friends was as important, if not more so, than the actual game.

It appears then that the act of playing soccer in a team environment is beneficial to the research participants' emotional wellbeing. One of the research participants, whose friend had been stabbed in his presence, mentioned how playing soccer with his friends made it possible for him to leave home and have fun again. For all of the participants sport participation was enjoyable, because it made them forget about the things that were troubling or worrying them.

#### 4.4.4 Discipline

Participating in a soccer club that trained every day had been invaluable in teaching the research participants discipline. All of the research participants have described how knowing that they were playing soccer for two hours every afternoon has meant they had to properly structure their days. Most believed that they would go home and work after soccer practice and as their time to do school work had been cut, they had to work in a 'smarter' manner. They were also more aware of following instructions as they had been taught to do so in the soccer setting. The soccer coaches mentioned that this made them easier to deal with in other settings such as at school and in their homes. Since they were involved in an extra-mural activity grounded in a solid set of rules this may spread into all facets of their lives. This discipline allowed them to make decisions regarding their lives that meant that more often than not they were not being placed in potentially compromising positions.

#### 4.5 The role of religion

All of the research participants mentioned that no sport was played on a Sunday and that they all attended church services on a Sunday morning. While this does not appear to have any relevance to our study per se, it was information that was shared by many of the research participants. There was a feeling that it could relate quite strongly to the previously mentioned point about discipline. It requires commitment and discipline to attend church religiously every week and all of the participants, players and coaches, were adamant that this was how things operated. One research participant described how soccer filled up his week from Monday to Saturday but Sunday was for church and family. This attitude appeared to be pervasive through the group and was an important element of their shared experiences.

#### 4.6 Real Sosh soccer club

The researcher also believes it was important to be involved with this particular group as the story of this particular club is a compelling one. It has little or no money and the people involved are doing their work because of their interest and commitment to the community. There is a story that needs to be told, to inspire not only them, but other people who may find themselves in similar circumstances.

## **CHAPTER 5**

### **CONCLUSION**

#### 5.1 Introduction

The purpose of this chapter is to summarise the research findings and provide clarity about the research question. A conclusion will be drawn based on the research findings as well as a discussion on the limitations of the study. Finally there is a discussion on what use the study may have, along with recommendations based on the findings.

#### 5.2 Research Findings

Based on the thematic analysis of the interviews the following conclusions can be drawn:

##### 5.2.1 Problems

The problems that the adolescents experienced on a daily basis and which could be regarded as stressors were violence, substance abuse and poverty. The poverty was related to unemployment of the parents in the household as well as the low remuneration the adults could command, due to their level of education. Unemployment also impacted on the boredom in the area and therefore on people's desire to start abusing various substances. The use and abuse of mainly alcohol, but also smoking cigarettes, dagga and nyaope was prominent in the area. Unemployment also impacted on crime, as people committed theft to survive and this could lead to violent behaviour. Being able to fill one's time with activities that had a more positive influence was a major advantage of sport participation.

### 5.2.2 Sport participation

The participants in the study all viewed sport as playing a significant part in their lives. All the participants hoped that playing soccer would be a springboard to a career with a professional club in South Africa. Participation in sport was viewed as enjoyable and a healthy way to keep occupied in the afternoons. Being involved in the soccer club was seen as a productive employment of one's time, away from other temptations in the area. Soccer was the form of sport participation employed by the adolescents in this study as it was relatively cheap and easy to become involved in.

### 5.2.3 Therapeutic effects of sport participation

It was quite difficult to ascertain exactly what effect participating in sport had on the population being studied. The method settled upon was to note the absence of symptoms in the participants where the relevant stressors could cause some to be present. While absence does not necessarily equate to a positive outcome, it could certainly indicate further areas to be researched. The participants in the study all appeared to be in good spirits and interacting well socially. There was an absence of depressive and anxious symptoms which could have been expected, given some of their experiences. None of the participants was using any substances, showing that they were generally concerned about their health. Since joining the soccer club, none of the participants had repeated a year at school, even though several of the participants had struggled academically, especially prior to joining the club. Sport participation also seemed to add to the generally positive outlook on their futures that the participants had. This relationship appears to be rather tenuous, but the positive attitudes that the adolescents seemed to have acquired from

participating in sport could be the catalyst for them to view their futures in a more positive light.

### 5.3 Limitations

#### 5.3.1 Qualitative versus quantitative

As this particular study was qualitative in nature, it focused on a small group of participants from one specific area belonging to one sports club. This meant that although the information obtained was quite rich, it was less certain whether the findings could be transferred to a more general population. The benefits of sport participation could therefore be felt for this specific area and for this specific club but it was not clear whether other clubs in the same area would have the same results. This is the main limitation of qualitative data collection as opposed to a quantitative study. Quantitative data collections make it easier to generalise results for the population, whereas the results from this study appear to be quite specific and could be hard to duplicate, even in the same area.

#### 5.3.2 Sampling problems

Specific limitations were attached to the sampling procedure. Firstly, convenience sampling was used, whereby access to Real Sosh Football Club was obtained, but there could have been issues and benefits that were unique to this club. The implication is that I may have only been exposed to issues relevant to this particular group. As will be explained below, the Real Sosh Football Club had some idiosyncrasies that had a significant impact on the lives of its participants.

As the participants were all minors they were only interviewed once permission had been granted by their legal guardians. This further shrunk the available sample to not only the adolescents in Real Sosh Football Club but only those whose guardians had given permission for them to participate. This means that people who had issues that they did not want discussed may have avoided obtaining and/or giving permission, thereby reducing the efficacy of the results obtained.

### 5.3.3 The idiosyncrasies of Real Sosh Football Club

A feeling was created by the participants that their coach had a significant impact on how they perceived things. It was therefore difficult to distinguish in this study whether the benefits that the participants derived was related to sport participation, having an adult interacting with them who believed in them and pushed them or a combination of these factors. If another club or clubs had been used, the influence of a specific coach could have been removed from the equation and the ability to make clear assumptions from the results would have been more likely. The coach at Real Sosh Football Club was very actively involved in the community as a whole and specifically with adolescents. He worked at the local senior secondary school, Senthibele Senior Secondary, through his employment with Asivusani Health Network, and this allowed him to note which adolescents may need more attention than what was being offered at home and at school. He was thus uniquely placed to influence their lives in a manner which may not necessarily be replicated by another coach.

#### 5.3.4 Impact of the area

Soshanguve is a very specific area with specific factors that impact on it and its inhabitants. In doing a study there, one will focus on the issues that are specific to those participants and how they manage their problems. Soshanguve is an area formed during apartheid times as an informal settlement area for Sotho, Shangaan, Nguni and Venda speaking people who were employed in the Pretoria metropolitan area. The basic infrastructure is therefore not that well developed and this can influence the attitude that people have towards laws, municipal services and formal education. As what happens in the area is considered the norm, especially by adolescents who have lived there their whole lives, it is difficult for them to comprehend that some of the things that happen around them are not the norm elsewhere. There are stressors that may be unique to Soshanguve and even to the participants from the particular area in Soshanguve. The support structure that exists for these specific participants may also be unique and therefore make it difficult to generalise the results. Although the belief is that people may react in a similar way to similar stimuli, unless it is verified, it remains an assumption.

#### 5.3.5 People playing sport

The study drew participants from adolescents who were already involved in sport. There were no participants who were drawn into sport for the purposes of the study and one therefore had to draw conclusions based on what was expected rather than noting an actual impact on someone who was new to sport participation. A more effective study may look at using the current group as a control group and look at introducing another group who had never been involved into sport participation.

## 5.4 Conclusions

Participating in sport does appear to have some benefits for adolescents. There are links to feeling good and therefore reducing the effects of depression and anxiety by being involved in sport. Sport also appears to have a positive peer effect as participants feel that they need to do what is correct in the eyes of their teammates. Sport participation is viewed as an alternative to being involved in various anti-social activities including crime, various forms of violence and the use and abuse of illegal substances. An indirect benefit of sport participation appears to be its effect on academic performance and future vocational outlook. Participating in sport seems to bring some focus to participants with regards to their academic work, as they realised they had limited time in a day to fit in all the activities expected of them. Participating in sport also brought the participants a sense of accomplishment which impacted directly on their self-image.

Negative factors associated with sport participation were hard to ascertain from the study. The main issues seemed to be external and were related to facilities and equipment. Finding valid reasons why participants should not play sport were not forthcoming in this study. The only negative issues were related to the fact that very few participants felt that they would continue participating in sport if they did not receive a professional contract.

## 5.5 Recommendations

Based on the findings from this study and the information gleaned from the literature review, the following is recommended:

- Make adequate sport facilities available for all children to have access to them. Ensure that these facilities are maintained and that a suitably qualified person can make proper use of the facilities.
- Expand this study to include other areas, other sports, females and other races.
- Expand this study to include a group who had never participated in sport and observe the impact of a season long participation on them.
- Participation in sport should be a compulsory part of the school programme and can be especially useful for adolescents that are experiencing difficulties either in their home lives or with the environment in which they live. This may be especially true if they are exhibiting problematic behaviour. This would be another group that one could research to investigate the impact of sport participation.

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## ANNEXURE 1

Crime Research and Statistics - South African Police Service  
Crime in Soshanguve (GP) for April to March 2003/2004 - 2010/2011

Crime Category	April 2003 to March 2004	April 2004 to March 2005	April 2005 to March 2006	April 2006 to March 2007	April 2007 to March 2008	April 2008 to March 2009	April 2009 to March 2010	April 2010 to March 2011
<b>CONTACT CRIMES (CRIMES AGAINST A PERSON)</b>								
Murder	26	14	12	13	13	23	17	9
Total Sexual Crimes	120	137	153	123	112	106	92	90
Attempted murder	59	39	44	47	37	35	36	29
Assault with the intent to inflict grievous bodily harm	545	383	358	395	374	364	352	332
Common assault	911	815	650	594	537	574	459	341
Common robbery	130	48	104	149	152	112	110	87
Robbery with aggravating circumstances	482	308	379	411	397	384	275	198
<b>CONTACT-RELATED CRIMES</b>								
Arson	8	8	5	14	12	7	8	8
Malicious damage to property	332	313	261	270	298	297	288	246
<b>PROPERTY-RELATED CRIMES</b>								
Burglary at non-residential premises	39	35	53	73	51	59	41	66
Burglary at residential premises	243	202	248	274	324	375	529	501
Theft of motor vehicle and motorcycle	65	66	82	66	73	97	73	91
Theft out of or from motor vehicle	178	133	147	122	127	161	208	158
Stock-theft	0	0	2	2	1	1	2	0
<b>CRIMES HEAVILY DEPENDENT ON POLICE ACTION FOR DETECTION</b>								
Illegal possession of firearms and ammunition	36	32	17	18	21	37	18	18
Drug-related crime	28	39	59	69	51	98	90	150
Driving under the influence of alcohol or drugs	39	64	28	45	66	102	96	70
<b>OTHER SERIOUS CRIMES</b>								
All theft not mentioned elsewhere	1 196	1 102	783	777	793	945	725	689
Commercial crime	44	33	24	24	27	34	32	36
Shoplifting	17	28	53	21	62	58	40	51
<b>SUBCATEGORIES FORMING PART OF AGGRAVATED ROBBERY ABOVE</b>								
Carjacking	27	28	68	45	91	101	57	60
Truck hijacking	0	0	0	0	1	6	0	0
Robbery at residential premises	30	20	30	30	35	43	38	24
Robbery at non-residential premises	0	3	4	9	21	16	14	11

**OTHER CRIMES CATEGORIES**

Culpable homicide	7	4	13	7	15	13	18	16
Public violence	2	1	3	0	2	3	7	2
Crimen injuria	180	153	107	80	54	65	41	53
Neglect and ill-treatment of children	4	9	3	3	2	5	1	3
Kidnapping	2	4	5	7	9	14	8	14

## Annexure 2

### Interview Schedule

An interview schedule was drawn up that sought to obtain relevant information from the participants. The interview schedule was referred to make sure all the relevant aspects were addressed but was not strictly adhered to. Participants were able to expand on any points raised from the questions. The following points were raised before the interviews commenced:

- Participants were thanked for their participation
- They were assured of confidentiality for their responses
- Permission was sought to record the interview
- A brief explanation was given for the purpose of the interview

### Questions

1. Please state your name, age and grade at school?
2. Where are you at school?
3. How are you performing at school?
4. How long have you lived in Soshanguve?
5. Who do you live with?
6. What jobs do the people you live with have?
7. What do you like about living in Soshanguve, and what do you dislike?
8. How long have you been playing soccer here?
9. What do you like about playing soccer for this club and what don't you like?
10. Explain your reasons for choosing to play for this club?
11. Do you play other sports? Expand
12. What do you want to do after school?

Annexure 3  
Consent Form



Dear Sir/Madam

I am a Clinical Psychology Masters student at UNISA. I am conducting a research study on the effects of sports participation on teenagers and would like to include your child in my study. All I need from them is approximately 1 hour where I can interview them which would be done at their and your convenience. I would appreciate it if you could sign the form below giving me permission to do so. All information that I gather will be used solely for my research study and I will not be using your child's name in my study. Please feel free to contact me should you have any queries.

Yours Faithfully

Mark Southwood  
[southmr@mweb.co.za](mailto:southmr@mweb.co.za)  
0827055064

I \_\_\_\_\_ the parent/guardian of \_\_\_\_\_  
Do hereby give permission for my child to participate in the abovementioned study.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

Participant's Name: \_\_\_\_\_

Contact No.: \_\_\_\_\_

