

THE ADOLESCENT AND THE
USE OF CANNABIS

THEODORE DAVIDSON

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THE ADOLESCENT AND THE USE OF CANNABIS

by

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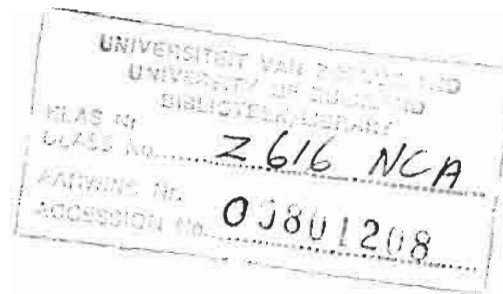
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at the
University of Zululand

Study leader: Prof M S Vos

Kwadlangezwa
January 2007



DECLARATION

I declare that this dissertation, “ *The adolescent and the use of cannabis*” represents my own work and all the resources that I have used have been indicated and acknowledged by means of complete references.


PD Ncane

KwaDlangezwa
January 2007

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DEDICATION

This work is dedicated to:

- My mother Thembekile
- My wife Thokozani
- My daughter Londeka and my son Khethokuhle

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SUMMARY

The aim of this study was to investigate the effect of cannabis use on the adolescent's development. This was achieved by means of a literature study and an empirical investigation.

The literature study found that the use of cannabis by the adolescent affects his physical, psychological (cognitive and affective), social and normative development. Adolescents' are exposed to drugs on a daily basis. They see adults taking medicines, they watch at drug and alcohol commercials on television and in magazines and they see family members smoking and drinking. Cannabis (dagga or marijuana), which is regarded as a gateway drug, is grown locally and are relatively cheap. Research has found that there seems to be a fairly uniform progression from non-use to alcohol and cigarette use, to cannabis use and finally to the use of hard drugs.

Cannabis is viewed as an initiating drug, because it is normally the first drug that adolescents abuse. The effects of cannabis are also seen as mild compared to some of the other drugs. Cannabis contains more than 400 chemicals and because it is normally smoked, these chemicals are inhaled into the lungs. In the lungs the chemicals are transferred to the bloodstream, circulated in the body to the brain cells, where they have their effect. Therefore the use of cannabis affects the adolescent as totality, physical and psychological.

For the purpose of the empirical investigation a self-structured questionnaire was utilized. The data from the questionnaires completed by secondary school educators was processed and analysed by means of descriptive statistics. From the findings of the research the following recommendations were made:

- Drug organisations such as Sanca must conduct workshops on drug abuse at schools

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CHAPTER 1

ORIENTATION

1.1 INTRODUCTION

Very few topics generate as much debate and concern as that of drug use and/or abuse (Goldberg, 1996:14). For a full understanding of the issue it is necessary to make a distinction between drug use and drug abuse.

Medical research has developed thousands of drugs that have had a revolutionary effect on man by curing, preventing or slowing diseases (Nault, 1997:313). Antibiotics have improved the treatment of infections and vaccines prevent the spread of diseases such as measles and analgesics lessen or eliminate pain. Drugs are the medical profession's most valuable tools (Bowman, 2002a: 10).

There are, however, many harmful and illegal drugs (substances) that people use to achieve a pleasurable state of mind. The abuse of legal drugs such as medicinal drugs, tobacco and alcohol has also become a serious social issue. In general any drug or substance which is used improperly can cause harm (Reddy, 2003:12). Substance abuse does not discriminate or respect any boundaries or obey any laws but infiltrate all levels of society asking no name, title, age or gender. Colett (2004:2) says drugs destroy whatever they come into contact with, effectively erasing health, sanity, families and eventually people's lives.

Substance abuse in South Africa is well documented. Bezuidenhout (2004:119) states that some people are strongly opposed to the use of legal/illegal drugs such as alcohol and cannabis (dagga) whilst others incorporate these substances in their life style.

According to research findings most people get caught up in the web of substance abuse during the adolescent stage (Sanca, 2004a:14) The present South African youth are experiencing a transition in their political, social, demographic and economic environment as the country moves from an authoritarian apartheid state to a democratic one (Reddy, 2003:11). The latter together with the changes and uncertainty that characterise adolescence put them at risk of either abusing substances or becoming dependant on them. Alvergue (1998:3) concurs that the number of young people abusing drugs is increasing and supports the general assumption by Connolly 2003:24) that most drug users have their first exposure to drugs when they were teenagers.

According to Myers (1995:49) cannabis is viewed as an initiating drug because it is normally the first drug learners (adolescents) in school use. Kandel (Bezuidenhout, 2004:120) states that there seems to be a fairly uniform progression from non-use to alcohol and cigarette use, to cannabis (dagga) use and finally to the use of hard drugs. Stanley (2000:42) argues that the effects of cannabis are mild compared to some other drugs and it is more readily available in the South African drug market.

1.2 ANALYSIS OF THE PROBLEM

According to Colett (2004:2) learners (adolescents) are exposed to drugs on a daily basis. They see family members smoking, adults taking medicines for the common cold, they look at drug and alcohol commercials on television and in magazines and have access to the Internet. Dagga or cannabis, which is regarded as a gateway drug are grown locally and are relatively cheap. Bezuidenhout (2002:2) says that many cannabis users are young and in the adolescent stage. The worry is that if cannabis is used frequently the adolescent will not learn to cope with the stresses and problems of everyday life and perpetual immaturity may result with greater dependence on harder drugs in order to cope with life.

The present South African statistics on drug use are staggering. According to Theunissen (2004:2) research has found that amongst secondary school learners (adolescents) in South Africa 45% have used drugs and 32% are drug users. In a survey to examine youth drug use in South Africa the following are significant findings concerning the use of cannabis (Neser, Ovens, Ladikos & Olivier, 2001: 131):

- More than a third of the respondents indicated that dagga (cannabis) could be bought within an hour.
- One third admitted having smoked dagga with 24% of them under the age of 12 and 34% being 15 and 16 years old.

In their eagerness to conform adolescents may take part in activities they themselves do not approve, such as smoking cannabis (Louw, Van Ede & Louw, 1998:449). An adolescent will conform even if it entails a contravention of social and parental norms (Vrey, 1990:171). According to Myers (1995:49) the adolescent become involved in substance abuse, such as smoking cannabis, to cope with the pressures of the peer group. Le Roux (1992: 90) and Bezuidenhout and Joubert (2003:38) cite the following as reasons why adolescents become involved in cannabis smoking:

- Neglect, especially in the emotional upbringing of the child and adolescent. A desperate need for love and attention causes children and adolescents to turn to substance abuse such as cannabis smoking.
- The absent or weak paternal figure, which does not fulfil his role of authority adequately often causes identification problems among adolescents. Such adolescents readily identify with undesirable elements and are easily trapped into the use of cannabis.

- In the absence of meaningful leisure-time activities the adolescent lapses into idleness, boredom and loneliness which can create a situation in which they will experiment with illegal substances such as cannabis smoking.
- Adolescents are unfavourably influenced by society. Excessive sensational publicity often overemphasizes the problem of substance abuse and is the very thing that generates a morbid interest in the subject, an interest leading to experimentation and possible addiction.
- The undisciplined and indiscriminate smoking and use of tablets and medicine by parents set a dangerous example for the adolescent.
- Negative self-esteem and identification problems lead to substance abuse among adolescents which usually start with cannabis smoking.
- By smoking cannabis the adolescent try to escape from reality with its responsibilities, problems, frustrations, disappointments, pain and stress.

Naik (1997:118) says that if an adolescent is under any kind of pressure to take a drug, it is more than likely that such a drug will be cannabis. Naik (1997:118) further states that cannabis (dagga) has a fairly "cool" reputation so that people who smoke it often want their friends to do the same. She says that cannabis is far more of a group drug than other drugs, simply because a "joint" is passed around from person to person, making it embarrassing and difficult to say no.

Studies have shown that cannabis (marijuana, dagga) is the most widely used illegal drug in the world. It is said that it grows in many parts of the world, and occurs naturally in the greater Durban and Zululand area (Sanca, 2002:1).

1.3 STATEMENT OF THE PROBLEM

The problem that will be investigated in this study concerns the effect that the use of cannabis has on the adolescent. This study is an attempt to find answers to commonly asked questions about cannabis such as:

- What are the reasons for the use of cannabis by adolescents?

- What effect does the use of cannabis have on the development of the adolescent?

1.4 ELUCIDATION OF CONCEPTS

In the interest of clarity and understanding certain concepts in this study need to be elucidated.

1.4.1 Gender

In this study all reference to any gender includes reference to the other gender.

1.4.2 Adolescent

The concept adolescent means a person growing up from childhood (Allen, 1993:9). According to Mussen, Conger and Huston (1984:461) the term adolescent refers to a person in the stage between childhood and adulthood who experiences physical, sexual, psychological and cognitive changes as well as changes in social demands. Van den Aardweg and Van den Aardweg (1990:13) say the adolescent is the youth at the stage between childhood and adulthood. The adolescent is unstable and flexible, and one moment he is happy and confident and the next moment he is depressed and uncertain.

According to Le Roux (1992:3) adolescence is the human developmental phase, social status or transitional period within the total life cycle, from puberty to adulthood. The development of the adolescent's code of moral behaviour, self-discovery and the establishment of an identity, changes in emphasis, and the actualization of social independence are characteristic of this phase.

1.4.3 Cannabis

The name cannabis is given to all the by products of a green bushy plant originally found in Asia but now grows all over the world (Naik, 1997:110). According to Royston (2001: 6) there are four forms of the drug cannabis, namely:

- *Hashish* which is a hard, brownish-black block. It is made by drying the whole plant and rubbing it to make the resin into hashish.
- *Sinsemilla* which is made from the male flowers of the plant and is stronger than most forms of hash.
- *Cannabis oil* which is made from the juice of the plant.
- *Marijuana* which is made from the chopped leaves and stalks of cannabis. Marijuana is said to be less strong than hashish. It is defined as the dried and shredded leaves and flowers of the cannabis plant.

Getchell, Pippin and Varnes (1994:518) state the following:

- Tetrahydrocannabinol is the main chemical in the cannabis and is harmful to the human body.
- Hallucinogens are drugs such as cannabis that make people see or hear things that are not true and then cause them to do harmful things.

1.4.4 Drug

A drug is a “medicinal substance or a narcotic, a hallucinogen or stimulant, especially one causing addiction” (Allen, 1993:360). According to Kreiner (1996:11) the term drug is commonly associated with a substance that may be purchased legally with a prescription for medical use. This refers to a drug such as penicillin, which is almost never abused and valium, which is frequently abused, or illegal substances, such as “angel dust” which are taken for the purpose of getting high, or intoxicated, but have no medical use. Laurence (2001:1) describes a drug as a chemical or other substance that alters the function of a person. Such chemicals are used for the prevention, treatment and alleviation of disease.

1.4.5 Drug abuse/substance abuse

Nault (1997:322) describes substance abuse as the “harmful, non-medical use of mind altering substances which may lead to personality and behavioural problems”. Substance abuse refers to any drug used for the wrong reasons in excessive doses. Mood altering substances known as psycho-active drugs are the most commonly abused drugs. These include but are not limited to street drugs such as dagga, cocaine, crack, heroin and mandrax (Colett, 2004:2). Tobacco and alcohol, which affect mood, behaviour and bodily functions, are examples of everyday substances that are abused.

Getchell, Pippin and Varnes (1994:510) define drug abuse as any use of an illegal drug, even for occasional light use. This includes intentionally using legal drugs and substances, such as prescription medicine, over-the-counter medications, alcohol and even some common household products in an inappropriate or unsafe manner. Goode, Diaz & Gorodetzky (1995:2) see drug abuse as the use of a drug with such frequency that it causes physical or mental harm to the user or impairs social functioning.

1.4.6 Drug addiction

According to the Bezuidenhout (2004: 119) drug addiction is the repeated consumption of a drug that produces a state of periodic or chronic intoxication that adversely affects the individual as well as society. Addiction refers to the individual's overpowering desire or compulsion to continually take the drug by any means (Cole & Miller, 1965: 262-263). According to Colett (2003: 2) addiction is "having an uncontrollable, abnormal need or desire for a drug". Addiction is thus a process that takes over the person.

The drug user relies on the drug to "make things better". The United Nations Office on Drugs and Crime regards addiction as the repeated use of a psycho-active substance to the extent that the user is periodically or chronically intoxicated and has great difficulty in voluntarily ceasing use (UNODC, 2004: 3).

Addiction means that the life of the user centres on the need to consume the drug. The user is dependent on the drug. He no longer has a choice in the taking of the substance and he feels powerless to stop. Addiction is an illness that begins with the abuse of drugs and has nothing to do with weak morals or weak will power. Addiction can be both physical and psychological.

1.4.7 Education

The concept "education" is derived from the Latin word "educare" which means upliftment, rearing or bringing up of children (Allen, 1993:227). According to Van Rensburg, Landman and Bodenstein, (1994:366) education is the conscious, purposive intervention by an adult in the life of a non-adult to bring him/her to independence.

Educationists have come up with different definitions of education, which are, *inter alia*, the following (Smith,1995:8):

- Education is the guiding of the learner towards proper (moral) adulthood.
- Education deals with the formation of character. Character includes such virtues as integrity, honesty, patience, tolerance, compassion and humility. In this context, book knowledge and skills are of secondary importance.
- Education is considered as the gradual preparation for life in its entirety.
- Education is the guiding and bringing up of a child by an adult towards responsible adulthood.

1.5 AIMS OF THE STUDY

The aims of this study are as follows:

- To pursue a study of available and relevant literature pertaining to the effect cannabis use has on the adolescent.
- To undertake an empirical investigation into educators' perceptions of the effects that the use of cannabis has on the adolescent.
- To determine, in the light of the findings obtained, certain guidelines which can assist educators and parents on how to plan and what actions to take in order to prevent the use of cannabis among adolescents.

1.6 METHOD OF RESEARCH

Research with regard to this study will be conducted as follows:

- An overview of available and relevant literature in order to base this study on an accountable, theoretical base.

- An empirical survey comprising a self-structured questionnaire to be completed by educators.

1.7 FURTHER COURSE OF THE STUDY

Chapter 2 will deal with a literature study on the effects that the use of cannabis has on the adolescent.

In Chapter 3 the method followed in the empirical research will be explained.

The presentation and analysis of the research data will form the contents of Chapter 4.

Chapter 5 will comprise the summary, findings and recommendations.

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CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

Adolescents are the adults of tomorrow, the inheritors of our civilization. Vrey (1990:165) says adolescents have always received the "torch of civilization" from the previous generation to continue the values and norms as well as the content of their culture. According to Van den Aardweg and Van den Aardweg (1990:13) the adolescent stands on the brink of adulthood seeking for an image which he cannot yet envisage or to which he cannot yet attain. The adolescent is indeed in a world he barely understands, with a body, an intellect and emotions he is just discovering. Mussen, Conger and Huston (1984:461) say an adolescent has the desire to be an individual who wants to assert himself, yet at the same time fears to lose the security and stability that his family offers.

According to Dekker and Lemmer (1998:197) recent research in South Africa indicates that adolescents start to experiment with alcohol and drugs at increasingly younger ages. Today many adolescents start to experiment with drugs at the age of ten or eleven and it is a phenomenon that is increasing at an alarming rate (Bowman, 2002b:11).

Many researchers are in agreement that a poor self-concept during the adolescent years, coupled with peer influence is probably one of the major precipitating factors in adolescent drug abuse (Westcott, 2000:34). Underlying all substance abuse is the issue of self-esteem or self-worth, in short the lack of a realistic, positive self-concept (Lifescope, 2004:5).

According to Le Roux (2000:91) peer relations are generally considered to be an important factor in the initiation of drug use, although there is no clear consensus on the role of peers in relation to drug dependence.

This chapter will deal with the effect that the use of a drug, such as cannabis, has on the development of the adolescent. The latter will be discussed under the following headings:

- Reasons why adolescents become involved in drugs such as cannabis.
- The effect the use of cannabis has on the physical, psychological, social and normative development of the adolescent.

2.2 REASONS WHY ADOLESCENTS SMOKE CANNABIS

Most researchers working on the frontier of drug abuse (e.g. cannabis use) research accept an explanation of drug dependency in terms of multiple cause. In this regard Begleiter and Porjesz (Dekker & Lemmer, 1998: 197) conclude that drug abuse is not the result of a single biological or behavioural factor but that it is indeed related to the complex interactions of biological and behavioral predisposing factors in conjunction with environmental precipitating factors.

Adolescents become involved in cannabis because of, *inter alia*, the following reasons (Le Roux, 2000: 91; Dekker & Lemmer, 1998:197):

- The adolescent wants to fit in and feel part of the peer group. It is important for the adolescent to conform to the peer group. Substance abuse, for example cannabis smoking, within the peer group readily leads to drug abuse by the adolescent as a result of peer group pressure.
- Smoking cannabis, or any other substance abuse, serves as an escape mechanism for coping with stress, school and personal problems. The

adolescent who cannot handle everyday school, sports, family or emotional problems is more likely to abuse drugs, as drugs represent a coping and escape mechanism for him.

- Adolescents are unfavourably influenced by society. Excessive sensational publicity may over emphasize the drug problem (e.g. cannabis smoking) and may generate a morbid interest in the subject leading to experimentation and addiction. On the other hand advertisements, which picture substance abuse as being powerful, exciting, hip, sophisticated, elegant, cool and glamorous, influence the adolescent to experiment with drugs. He begins to believe that drugs help him to think better, be more popular, stay more active or become a better athlete.
- If an adolescent lacks meaningful leisure time activities and lapses into periods of idleness, boredom and laziness, participation in undesirable leisure time activities and a quest for aimless pleasure can lead to drug experimentation and abuse. Cannabis is the illegal drug that is most widely used by young people as a gateway drug.
- Unhealthy marital relationships and weak maternal and paternal figures can predispose the adolescent to drug abuse. The absent maternal or paternal figure who does not fulfill his role of authority adequately or who provides the adolescent with inadequate social support in handling stressful life events or societal pressures often cause identification problems and a negative self-esteem in the adolescent. This encourages him to readily identify with undesirable elements and he easily becomes trapped into drug abuse thereby rebelling against authority.
- The decline of positive family relationships coupled with the generation gap leads to isolation and estrangement of the adolescent. Parents are often too involved with their own search for success, prestige and personal gratification thereby neglecting the emotional upbringing of their children.

The adolescent in his desperate attempt to seek love and attention turns to using cannabis, or other drugs, to find peace and solace.

- Rebellion against parents and the community is another reason why the adolescent may start smoking cannabis or abuse drugs. He realizes that his behaviour and actions will evoke indignation from other learners, his parents, educators and the community. This is an attention seeking strategy and a desperate cry for help from the adolescent.
- The adolescent may feel inferior and has a need for recognition or may want to feel in control. Smoking cannabis by the adolescent results in him experiencing a temporary feeling of independence and power.
- A poor or negative self-concept during adolescence may result in the use of cannabis. The adolescent is at the most vulnerable stage of development as human being, mainly because the maintenance of a positive self-concept is based on his continual search for a sense of belonging, competence and personal worthiness

2.3 IDENTIFICATION OF CANNABIS USERS

It is important for parents, learners, educators and adults to identify the physical and psychological signs and symptoms of cannabis use. The earlier the identification, the greater the success of the intervention programmes (Rutherford, 2001b: 6).

The adolescent who smokes cannabis may show, *inter alia*, the following symptoms:

- The adolescent learner experiences deterioration in scholastic performance. The learner achieves low grades and may display hostile, defiant and unco-operative behaviour towards others in school. The learner may also

experience a drop in motivation, concentration, general achievement, interest in sport and extra-mural activities. Under these circumstances school is of no interest to the learner and truancy often results (Donald, Lolwana & Lazarus, 2002: 212).

- The adolescent may experience extremes of behaviour. He may either become extremely aggressive or unusually docile. On the one hand the adolescent may be defiant, unco-operative, moody, cranky, or verbally abusive and on the other hand he may be jovial, pliable, sociable and agreeable (Marsh, 1992: 86).
- The adolescent may suffer from a perpetually runny nose, suffer from nosebleeds, have red, glassy, puffy eyes and cough excessively. In addition, the adolescent may display skin abrasions, suffer from blurred vision, have poor muscular co-ordination and slurred speech (Web MD Health, 2004b: 4).
- The adolescent may be involved in constant conflict situations and may experience a breakdown in communication and a general deterioration in interpersonal relationships. The adolescent may become withdrawn, depressed, sleepy, tired, manipulative and self-centred (Much, 2002:4).
- The adolescent may begin to tell lies, keep secrets, steal or borrow money or engage in sneaky and suspicious behaviour. He may even be found in the company of suspicious individuals (Fish Hoek Drug Crisis Centre, 2004: 6).

2.4 EFFECT OF SMOKING CANNABIS ON THE ADOLESCENT

According to Macfarlane and McPherson (2003:72) there is no getting away from the fact that cannabis, whether it is smoked or taken by mouth does have some bad effects. Whether these effects are better or worse, or more or less likely to occur than, for example, when smoking tobacco or drinking alcohol can not be

argued. What cannot be argued about is that these bad effects of cannabis exist. It is also a fact that, in general, the more cannabis an adolescent uses, the more likely he is to get the bad effects. Long-term effects of the use of cannabis include possible psychological dependence, an increased risk of lung cancer, emphysema and other lung diseases, anxiety and panic attacks, and impairment of brain function and memory (Editor, 2005:7).

Adolescents who are cannabis users may have difficulty in establishing their identity, developing relationship or skills, gaining physical and emotional independence and preparing for future responsible adulthood. Much (2002:5) says substance abuse, such as smoking cannabis, halts the adolescent's development into maturity causing him to continue immature behaviour into adulthood.

The effect of the use of cannabis on the development (becoming) of the adolescent will be discussed under the following headings:

- Physical development.
- Psychological development (cognitive and affective).
- Social development.
- Normative development.

2.4.1 Physical development

Physical development concerns the growth of the body, changes in the proportions between different parts of the body and changes in the internal structure and functioning of the body (Gouws & Kruger, 2003: 8; Very, 1996:86).

Physical development is described as the simple growth of the body (Van den Aardweg and Van den Aardweg, 1999:173). This simple growth is closely linked to motor abilities or the skills required controlling and using muscles. Van den Aardweg and Van den Aardweg (1999: 173) say that physical development greatly

affects the adolescent's psychological development by influencing his cognitive development, his relationships with others and his self-concepts.

1 Meaning of physical development

Physical development concerns the growth of the body, changes in the proportions between different parts of the body, and changes in the internal structure of the body (Gouws & Kruger, 1994:9). Physical development greatly affects the adolescent's psychological development influencing his cognitive development, his relationships with others and his self-concept.

According to Van den Aardweg and Van den Aardweg (1990:171) the more able and active the adolescent is physically, the better he will be able to explore his world and learn. It is, however, unfortunate that in such an exploration the adolescent is exposed to both accepted and unaccepted habits and behaviour which includes learning to use cannabis.

The physical changes during adolescence vary widely in both amount and duration from individual to individual. Lawrence and Neinstein (1991:3) and Gouws and Kruger (1994:9,16) cite the following important aspects of the adolescent's physical development:

- The onset of adolescence (puberty) which is marked by a growth spurt and a whole range of pubertal changes that are devisable in external bodily changes and internal psychological changes. During this period various internal changes take place in the body, which lead to reproductive maturity.
- The drastic and rapid change of the body during early adolescence frequently occasions problems and stress for the adolescent. Adolescents are acutely aware of their bodies and worry whether it will develop naturally and acceptably. Both sexes are, for example, upset by the

appearance of acne because of adolescents' sensitivity about things that affect their appearance.

- Adolescents have to learn to express and seek fulfillment of their sexual needs in a socially acceptable way so that their sexuality will render a positive contribution to the development of their identity. The adolescent's new-found sexuality also has to be integrated into his or her interpersonal relationships.
- In order to develop a sense of identity the adolescent must accept the physical changes in his or her body and integrate them to form a unity. Moreover, the adolescent must retain a sense of continuity, that is, the feeling that he or she is still the same person. The particular way in which adolescents perceive their bodies may therefore have important psychological consequences and may impede or enhance the formation of their self-concept.

2 Effect of cannabis smoking on physical development

Whenever someone talks of the use of cannabis by an adolescent, the mind commonly registers that such an adolescent is also a tobacco smoker. It is probably because of this assumption that the effects of cannabis are compared to that of tobacco which makes it more understandable to the reader (Van Eeden, 2002:1). According to Van Eeden (2002:1) one "joint" of cannabis is the equivalent of four tobacco cigarettes in terms of the amount of tar, five tobacco cigarettes in terms of the amount of carbon monoxide produced and ten tobacco cigarettes in respect of the amount of damage to the airways. Cannabis users have a nine to ten times higher risk to develop lung cancer. In addition to poisonous chemicals such as hydrogen, cyanide (a deadly poison), ammonia and carbon monoxide which are said to reduce the amount of oxygen in the blood and damages the heart, Royston (2001:12) says that "joints" that are mixed with tobacco contain nicotine which is a very addictive chemical.

The use of cannabis is said to change the chemistry of the body. A cannabis smoker ingests the chemical, tetrahydrocannabinol (THC), a substance that affects overall growth and health. This substance is fat-soluble and attaches itself to fatty tissue like the brain, reproductive organs, liver, kidneys and spleen, causing damage to them. (Sanca, 2004b:2). The adolescent's physical development and more specially the development of the primary and secondary sexual features, which develop at this stage, will be hindered (Smith, 1999:12).

According to Stanley (2000:14) smoking cannabis damages the cilia in the respiratory organs and residue builds up in the lungs so that they cannot function effectively. Smith (1999:21) says the THC in cannabis causes blood vessels to expand, lowers blood pressure and speeds up the heartbeat. The blood vessels in the eyes also relax, become larger and receive more blood. This probably explains why the eyes of a cannabis smoker are bloodshot. Smith (1999:22) further points out that when the vessels in the body relax, the blood pressure goes down, which makes the hands and the feet of cannabis user feel cold.

In the case of female adolescents who smoke cannabis, it is said that the most noticeable effect on physical development would be when they happen to fall pregnant. According to Shniderman and Hurwitz (1995: 15) when a pregnant adolescent uses cannabis, less blood goes to her baby. This result in the baby's failure to get the oxygen needed to grow normally and the baby may be premature with a low birth weight.

In an attempt to clarify physical dependence on cannabis, Good, Diaz and Gorodetzky (Grolier, 1995: 1) identify the following three characteristics:

1. Cannabis users continue to take the drug over an extended period of time. The length of this time is said to depend on the drug and its user.

2. The cannabis user is said to find it difficult to stop smoking cannabis. The failure to stop using cannabis leads to the adolescent dropping out of school, stealing and leaving their family home.
3. If the cannabis user stops using the drug, or the supply of cannabis is cut off, or he is forced to quit, he undergoes painful physical and mental distress.

This means that the adolescent always has to have a certain amount of cannabis in his body to stave off withdrawal symptoms and tolerance, the need to increase the dose to get the same effect (Sanca, 2002:2). The tetrahydrocannabinol (THC) which is ingested when smoking cannabis weakens the body's resistance to bacteria and viruses. According to Leigh (1986:21) the lower resistance to bacteria and viruses weakens the body's immune system which leads to great susceptibility to infectious diseases.

Stanley (2000:17) refers to cannabis smokers' habit of inhaling these smoke deeply and holding their breath to the smoke as the reason for all the disease-causing ingredients in cannabis to cause more physical damage in a short time. This implies that the adolescent who smokes cannabis may be affected by diseases of the respiratory system which may affect different parts of his physical being with each disease affecting his physical development. According to Royston (2001:17) the cannabis user may suffer from one or more of the following diseases:

- **Asthma.** A person suffering from asthma cannot get enough air into his lungs which leads to the swelling of his bronchial tubes and the tight squeezing of muscles around such bronchial tubes. Trapped mucus in the lungs causes the gasping for air in asthma sufferers.
- **Emphysema.** Emphysema is a disease, which makes the cannabis smoker feel he cannot breathe enough air into his lungs. The smoker's lungs lose their elasticity to expand for the absorption of sufficient oxygen which

forces the heart to work much harder in an attempt to compensate for the lack of oxygen

- **Lung cancer.** Either smoking cannabis or living with a person who smokes cannabis causes this disease. Victims of the disease die by drowning when fluid from inside their bodies seep into their lungs and fill them up.

Stanley (2000:24) and Somdahl (1999:38) cite the following diseases that can affect the physical development of the adolescent who is a cannabis user:

- **Heart attack.** Smoking cannabis increases the heart rate as much as 50%, which can result in the smoker's blood pressure to rise. This can in turn leads to a condition when the heart muscles become so weak that the heart fails to work effectively. The fatty deposits (THC) then start to stick to the insides of blood vessels, which results in the hardening of arteries. Over time, the arteries become stiff and hard and close up. This leads to a heart attack or stroke.
- **Stroke.** Smoking cannabis can cause high blood pressure which can lead to stroke. A stroke is similar to a heart attack with the exception that it takes place in the smoker's brain. The stroke deprives the brain of the cannabis user of the blood and victims either die or remain unable to walk or to talk.
- **Accidents.** Although an accident is not a disease, it can hamper the physical development of the cannabis user. When under the influence of cannabis the adolescent, for instance, is unable to cross a road as safely as someone who is not under the influence of the drug. Smoking cannabis can make the user clumsy and uncoordinated. This results in him being more likely to take risks which increases the chances of getting physically hurt in accidents.

Smoking drugs such as dagga, cigarettes and opium causes various respiratory problems and diseases such as bronchitis, pneumonia, and cancer of the mouth, throat, larynx, oesophagus, bladder, pancreas and kidney. Furthermore, smoking can aggravate asthma and prevent enough oxygen and nutrients from nourishing the skin, giving rise to bad skin and a disease called psoriasis (Lifescope, 2004: 4). These physical illnesses often cause the adolescent to become easily fatigued. It also prevents the adolescent from working or studying effectively and may also cause him to be absent frequently as he becomes more prone to the common cold, wheezing and influenza.

Continued smoking of cannabis causes breakdown of lung tissue and clogging of the air sacs (Izenberg & Lyness, 2004: 3). This affects lungpower and the adolescent consequently become less active and his sports performance will be inhibited. He will suffer from an increased heartbeat, poor blood circulation and shortness of breath making it difficult for him to engage in activities that adolescents engage in (i.e. Boys: games that require physical strength and vitality such as body-building, soccer and cricket. Girls: sports such as netball, gymnastics, swimming and hockey).

Cannabis use may make the adolescent giddy, stagger, lose balance and will affect his motor co-ordination (Sanca, 2004a: 6). Motor dysfunction (especially dysfunction regarding fine motor co-ordination as required for articulation, writing and eye movements) may cause the adolescent learner to experience speaking, writing and reading difficulties.

Cannabis smoking can rob the adolescent's body of essential vitamins and minerals and interferes with the digestion of food (Sanca, 2004b: 4). They may suffer from malnutrition, which may prevent them to develop normally. The brain may not get enough essential nutrients required for development resulting in the young adolescent's brain not reaching adult size and mass as expected. This will hamper the adolescent's learning abilities at school.

2.4.2 Psychological development

Psychological development refers to the development of mental characteristics or attitude of a person with specific emphasis on those factors affecting behaviour in a given context (Vrey, 1996:37). The psychological development of the adolescent will be discussed by distinguishing between the cognitive and affective aspects.

1 Cognitive development

Cognitive development can be described as the continuous and cumulative development of the intellect. According to Du Toit and Kruger (1994:33) cognitive development concerns all that has to do with knowing, perception, conceptualization, insight, knowledge, imagination and intuition, and is closely allied to experience. Cognitive development is the unfolding and refinement of cognitive processes and products. Examples of such processes are; paying attention, perceiving, remembering, thinking, reasoning, planning, solving problems, imaging, inferring, conceptualizing, classification, associating, relating, symbolizing, dreaming and fantasizing (Louw, Van Ede & Louw, 1998:10).

The cognitive structures (the mental organization and ability) of a child can be distinguished at different age levels. According to the cognitive developmental stages as described by Piaget (Vrey, 1990:155) the adolescent is in the phase of formal thinking operations. There is a definite change in adolescents' ability to reason about many topics, to solve problems, to see a situation from many angles, to discuss and participate meaningfully and make a contribution to the conversation of adults.

According to Vrey (1990:155) and Van den Aardweg and Van den Aardweg, (1990:43) the adolescent whose cognitive development was not interfered with will therefore be in a position to:

- Think or reason about relationships between ideas.
- Consider all possible disjunctions and combinations of ideas.
- Handle both opposites and converses within the same system.
- Understand action and reaction.
- Think beyond the immediate and the obvious and consider many possibilities of a situation.
- Consider hypothetical situations.
- Become involved in problem solving in many fields by planning, anticipating and offering a solution.
- Become aware of the factors affecting thinking such as memory, knowledge, communicative and language skills and attention span.

2 Effect of smoking cannabis on cognitive development

According to Smith (1999:21) cannabis is a mind-altering drug which changes the thinking process. Stanley (2000:6) refers to this as the power of cannabis to change the way the adolescent experiences the world around him by distorting his perception of reality. Royston (2001:16) maintains that the use of cannabis can kill brain cells, which negatively affects the memory and results in the user becoming scared, anxious, panicky and suspicious of other people. The use of cannabis is said to have the power to cause loss of short-term memory, a slowed sense of time, difficulty in concentrating and possible mental confusion which resembles severe mental illness (Sanca, 2003:2).

Long term use of cannabis can make the user lose interest in life which may lead to learning problems at school (Hurwitz & Shniderman, 1995:1). The paranoia that the use of cannabis tends to cause can make the adolescent's problems seem larger than it really is. This drives to the conclusion that the adolescent will probably regard it better to give up than to seek a solution for any seemingly larger problem he comes across (Hurwitz & Shniderman, 1995:1). Stanley (2000:7) refers to the paranoia caused by cannabis use as a hallucination, which is the ability to see things that are not actually there but seem totally real. The mental confusion it causes makes it difficult for the user to cope with schoolwork (Smith, 1999:35).

According to Van Eeden (2002:2) the mild euphoria, occasional hallucination, increased but not necessarily realistic perceptions, giggling, possible anxiety and paranoia have a negative effect on the mental development of the adolescent. It does not only cause the adolescent's memory to suffer, but it also has a negative effect on his concentration span. This, according to Goldberg (1991:146) gives rise to the cannabis user's failure to keep his mind focused on one thing in opposition to mentally wandering all over the place. The end result of the said mental wandering is the incapability of the cannabis user to keep himself together.

Connolly (2003:30), Van Eeden (2000:1) and Bezuidenhout (2004:126) say the use of cannabis has the following effect on the brain:

- The THC in cannabis is an extremely powerful intoxicant which affects, alters and damages brain cells that control thinking, pleasure, coordination, mood and memory. It also accumulates in the microscopic spaces between nerve cells in the brain called the "synapse". This clogging interferes with the normal functioning of the brain by slowing and impairing transfer of critical information.

- Cannabis use interferes with a good nutrient supply to the brain and may result in brain damage, which is irreversible and this will affect the acquiring of knowledge, which is done in a cognitive and formal manner. Cannabis damage to the brain impairs concentration and short term memory as well as the ability to learn and perform normal tasks.
- The use of cannabis over a long period of time may impair the long and short-term memory and problem solving abilities of the learner. This has serious consequences on scholastic and other academic achievement as well as appropriate life decisions that have to be made. The adolescent learner may experience problems with reading, calculating, writing and incorporating new concepts into his knowledge structure. He may experience falling grades and may drop out of school.
- Substance abuse interferes with the brain's ability to take in, sort, analyze and synthesize information. The adolescent may have a limited vocabulary, which will impact on his ability to follow teaching. He may also experience difficulties in assigning meaning to sensation and in recognizing, memorizing, integrating, differentiating and imagining. The learner whose brain impairment is great may have to attend special training facilities, which are both expensive and in short supply.
- Cannabis smoking stimulate the limbic system. i.e. the part of the brain that regulates pleasure, memory, learning and emotions. The limbic system also communicates with the front part (frontal lobe) of the brain, which controls feelings, perceptions and speech. Hence the adolescent's memory, learning, feelings, pleasure, perceptions and speech are impaired as a result of substance abuse and addiction.
- The adolescent who uses cannabis alcohol finds it more difficult to be cautious and to use good judgement to protect himself. He finds it more

difficult to think clearly because the more cannabis is used, the more slowly their brain works.

- Shortly after intake, cannabis can trigger severe states of mental derangement (psychoses), persecution anxiety, delusional perceptions, hallucinations and orientational disturbances have been experienced.

3 Affective development

Affective development is concerned with the development of those aspects pertaining to the emotions, feelings, passions, moods sentiments and whims and determines the adolescent's personality (Van den Aardweg & Van den Aardweg, 1990:15). Affective qualities accompany the adolescent's memory, thoughts, concepts, ways of thinking, responses, association of impressions and experiences and are inseparably joined to every perception, conscious or unconscious, physical or intimate personal.

Gouws and Kruger (2003:9) maintain that because adolescents' find themselves between the expectations of childhood and adulthood their affective development follows an unstable course. Adolescents have adjustments to make which they never had as primary school learners, namely (Dreyer & Duminy, 1983: 38; Le Roux, 2000:56; Van den Aardweg & Van den Aardweg, 1990:16):

- A heavier workload and higher academic expectations in secondary school.
- Relations with many educators rather than with one or a few.
- Starting at the bottom rung. Adolescents begin their secondary schooling in Grade 8 having just come from the top at Grade 7 where they were looked up to by other pupils.

- The future has to be taken into consideration after living for the present only.
- Adolescents have to assume greater responsibilities.
- They become aware of the need for a positive self-concept. Who am I and what am I going to become rather than what can I do?
- Adolescents have to cope with an awakening of sexual relationships.
- They have to come to terms with peer pressure and the need for acceptance, the temptation of drug (cannabis smoking) and alcohol participation, sexual activity and the like.

4 Effect of smoking cannabis on effective development

Smoking cannabis leads to rapid mood changes, (Getchell, Pippin & Varnes, 1994:158). This could make it hard for an adolescent to cope with his schoolwork because he may have to respond to the demands of the drug during the course of the lesson. Adolescents who are cannabis users usually perform poorly at school, have limited educational aspirations and drop out of school (Louw, Van Ede & Louw, 1998:407).

According to Van den Aardweg and Van den Aardweg (1990:70) research has shown that drugs, such as smoking cannabis, stimulate sexual activity through nullifying inhibitions and through direct stimulation of desire. Adolescents who uses drugs have been found to be much more sexually active than the non-user,

and they start their sexual activity at an earlier age and with a more diverse selection of partners.

According to Stanley (2000:35) cannabis dulls its user's feelings, whether good or bad. While emotional or psychological pain is said to be hard to handle, it is also said that cannabis is one of the drugs when life gets too much. Such an adolescent's emotional development will be hampered and his biggest achievement will not come from living his life but from escaping from it. Ahmed (2003:2) reports that some scholars (between 14 and 18 years old) who smoke cannabis said it makes them go to another level while others said it help to reduce their family and school stress-related problems. Quoting the words of a cannabis smoker Ahmed (2003:2) writes, "My teachers make my life difficult. They shout at me and embarrass me in front of the whole class and I feel degraded, but when I have had a smoke, I forget all the humiliation."

According to Stanley's (2000:35) the use of cannabis make the user feels happy and giggly, so spaced out that he forgets all his problems. The use of cannabis does have the power to enable an adolescent to temporally escape his problems.

Smoking cannabis can make the adolescent talkative and friendly or aggressive and angry. It can alter perceptions, emotions, movement and vision and causes the adolescent to become more angry and stubborn or get into a rage without much provocation (Bezuidenhout, 2004:121).

Cannabis use can weaken an adolescent's inhibitions, dull the common sense, bring out aggressive behaviour and make the adolescent more ego-centric (Shatz, 2004b: 8). It prevents the adolescent from acquiring skills like co-operation and communication to resolve his differences with others and might encourage him to resort to force and violence to resolve his problems or to relieve his frustrations.

Cannabis use has been noted for blunting emotions and for making the adolescent paranoid. He will most probably end up becoming suspicious and fearful of the

people around him causing him to boast, be anxious or engage in noisy behaviour, which are all symptoms of suppressed fear (Bowman, 2004a: 3). Jealousy may be displayed by anger, rage and the use of force rather than by teasing, lying and bullying.

Smoking cannabis and addiction may cause stress and anxiety, which in turn may cause the user to increase the substance dosage to cope with the situation. When this fails, the individual may suffer from uncontrolled depression and may commit suicide (Shatz, 2004a: 6). Once the adolescent becomes psychologically dependent on cannabis he finds it difficult to stop. Svanum and McAddo (Bezuidenhout, 2004: 127) say that 90% will experience some degree of relapse. Even if he wishes to stop he will not know how to because he has relied on cannabis use to resolve his problems and escape from his situation. He may even start using harder drugs to solve his problems.

From the above discussion, it is clear that the adolescent who uses cannabis often produces schoolwork of a poor standard because of the effect cannabis use has on his emotions.

2.4.3 Social development

The social development of the adolescent refers to a process whereby he learns to fulfil moral standards, expectations and requirements for acceptable behaviour in the society that he lives (Du Toit & Kruger, 1994:91). It refers to the development of relationships and associations with others. Social development is marked by mutual interaction, friendliness and geniality with the aim of enjoying the society or companionship of others. It is dependent upon relationships and is learned. Social development is essential for healthy growth to adulthood (Louw. Van Ede & Louw, 1998:350).

Mussen, Conger, Kagan and Huston (1984:478) maintain that as the adolescent moves into the larger society from the restricted world of childhood, he is faced

with new choices and demands and comes into contact with conflicting values and behaviours. Amidst all these new experiences the adolescent is trying to find his place in the society. Van den Aardweg and Van den Aardweg (1990:216) say that during adolescence peer involvement is paramount and yet the adolescent still relies on his parents in many areas and holds onto their social fundamental values.

Adolescence is an intensely social period and the peer group is the dominant factor in the social life of the adolescent. According to Vrey (1990:170) the peer group takes the place of the family in providing status, acceptance, a sense of belonging, security and much of what the family provides.

1 Characteristics of social development

The following are, *inter alia*, characteristics of the adolescent's social development (Gouws & Kruger, 1994:138-143; Le Roux, 2000:92):

- Emancipation. During adolescence there is a change from being homebound to being a member of a peer group. The adolescent shifts his security base from the parental home to his peer group, which helps him to gain gradual emancipation from his parents.
- Independence and decline of adult authority. Parents of adolescents have to walk a fine line between granting too many liberties, for which the adolescent is neither emotionally nor socially ready and excessive protection or unwillingness to allow the adolescent to experiment.
- Communication. Adults must create a climate of acceptance so that the adolescent can communicate freely about his problems.
- Relationships. Opportunities must be created so that adolescents may take part in their peer group activities. The adolescent not only develops social

skills through communication and interaction with his peers, but also develops in all other domains of becoming.

- Peer group pressure. Peer groups more or less pressurize adolescents into conforming to the behaviour and values of the group. This pressure can benefit the adolescent's development where the group's values coincide with those of the educators, but in cases where they are diametrically opposed to those of the educators, considerable stress may be experienced on both sides.
- Competition. The adolescent forms an increasingly well-defined conception of his capabilities and of his position in the social order.
- Acceptance by the peer group. Adolescents who are rejected or neglected by the peer group run the risk of developing a poor self-concept and become lonely and depressive. These adolescents may turn to other social deviants and thus become embroiled in juvenile delinquency.

2 Effect of smoking cannabis on social development

The use of cannabis can have the following effects on the social development of the senior primary school learner:

Addiction to cannabis can control the life of the adolescent and he tends to withdraw from all previous relationships with others. The addict finds it difficult to simultaneously maintain and satisfy the need for a substance such as cannabis, and for intra- and extra-familial relationships (Izenberg & Lyness, 2004: 3). On the one hand he may try to conceal his addiction and on the other hand he may be pre-occupied with the need to acquire and use the substance. His habit drives him to look for friends who will accept him and who will more often than not, have similar habits (e.g. cannabis smoking) as himself.

The adolescent who comes from an environment where substance abuse, such as cannabis smoking, and addiction is rife, arrives at the mistaken understanding that this is the social order that must be maintained, upheld and justified. For obvious reasons his path towards adulthood is hindered, thus affecting his becoming (Strydom, 1977: 29).

Cannabis use can make an adolescent feel happy, relaxed, less shy and more talkative but it can also make the learner more bold and aggressive (Gavin, 2004: 4). The adolescent may stop acting responsibly and may end up in conflict situations with others (arguments and fights), affecting his present and future interactions with those around him. Since an adolescent enjoys the security of his peer group rather than his safe family circle, he may start conforming to the ideals and values of the peer group, to which substance abuse is acceptable.

The adolescent who is addicted to cannabis use tends to interact increasingly more with those that share his substance abuse habits (Bowman, 2002b: 6). These groups provide him with the opportunities to acquire and use the drug. He begins to feel safe and secure in his new peer group where he is readily accepted and shares similar beliefs and likings. He may end up being a member of a gang or club and sooner or later because of his cannabis use, will come into contact with the law and may even end up in a place of safety or be imprisoned.

Some adolescents that use cannabis exhibit unacceptable behaviour such as mugging, stealing, handbag snatching and violence to acquire money to satisfy and maintain their habit whilst others may resort to prostitution (Bezuidenhout & Joubert, 2003: 128). This brings them into contact with the law and they may end up suffering the ire of other adults, family members and educators.

Many cannabis smokers suffer from a medical condition called "halitosis" (persistent bad breath). In addition to this, they may have yellow teeth and stale smoke which tends to linger on their hair and clothes (Shatz, 2004a: 2). This may influence their acceptance or rejection in the peer group. Educators, parents and

other adults may not want to associate with such adolescents resulting in labeling and isolation. The adolescent may resort to violence against specific persons or may cause damage to property to relieve his frustration.

Substance abuse (e.g. cannabis smoking) increases the likelihood of adolescents engaging in risky behaviour such as fighting and carrying a weapon (Bezuidenhout, 2004:127). These types of risky behaviour put adolescents in conflict situations with their educators, parents, friends, peers and the law. The loss of a healthy relationship with parents implies that the adolescent may look for another adult to gain gradual emancipation from his parents. The morals and values of this adult may be suspect, leading to greater complications.

Cannabis use affects reasoning and judgement and hinders the adolescent's chance to experience feelings and develop good relationships with his parents, peers and adults (Lembersky, 2004b: 7); relationships that may have a positive impact on him becoming a responsible and socially accepted adult.

Adolescents who use cannabis are more likely to engage in unacceptable behaviour such as having unprotected sex (Bezuidenhout, 2004:126). This could possibly lead to unwanted pregnancies or the transmission of sexually transmitted diseases (STD'S) and HIV/AIDS.

The adolescent who is addicted cannabis smoking will do everything in his power to obtain it (Brown, 2004:6). This includes lying, cheating and stealing, and by displaying these negative actions the adolescent loses the trust of his peers, his family members, the educator and other adults. This will negatively affect his maturation and self-realization as he may lose the support of the very people who have a vested interest in his welfare.

Drug addiction, such as cannabis use, among school going adolescents is said to be more than just a socio-education problem (Naik, 1997:118). It is referred to as a socio-pathological phenomenon, because the addict is subject to the total breakdown of himself as a person, of his social relationships, his humanness and

his survival as an individual. This breakdown takes place on the physical, emotional, cognitive, ethical and moral level while the consequences may have far resulting criminological and legal consequences for the drug addict

2.4.4 Normative development

Vrey (1990:30) says normative development is a key aspect of adolescents' overall development. It bears on both the conative (will-related) and the cognitive aspects of their development and is influenced by their progress towards independence and identity. Normative development is also linked to both the moral and religious development of adolescents. According to Gouws and Kruger (1994:10) The normative development of adolescents therefore entails an event whereby they acquire values and norms that enable them to distinguish between behaviour that is regarded as correct and acceptable or wrong and unacceptable by members of the community and cultural group.

1 Characteristics of normative development

The adolescent displays, *inter alia*, the following characteristics during his normative development (Gouws & Kruger, 2003: 173; Du Toit & Kruger, 1994: 120-125; Vrey, 1996: 90):

- Initially the child accepts the moral values of his educators without question, but adolescents gradually become aware of their educators' fallibility and alternative moral codes. Adolescents react to educators' general behaviour rather than their verbal utterances. At the adolescent stage the reference framework determining the child's morality shifts and becomes a set of autonomous moral precepts that are evolved by the adolescent and are in keeping with the adult's moral values.
- The adolescent's thinking is more flexible and abstract than before and he can now accommodate a variety of complicating factors in deciding moral

issues. Moral concepts become more abstract and a critical, objective and rational approach to moral values is developed.

- With more advanced cognitive and moral development, adolescents begin to question and assess various social and political beliefs held by their parents and other adults by comparing them with each other. They also begin to see past, present and future in perspective and strive for independence and self-reliance.
- From about 12 years of age adolescents display a desire to be self-regulatory, and they increasingly accept responsibility for their mistakes and accolades for their successes. Research on moral development has shown that internal control is the most effective way of regulating one's own behaviour.
- Despite adolescents' advanced level of cognitive development, their moral values are not always the result of rational decisions. Sometimes values are chosen for reasons of which making the choices are unaware. Given the complexity of modern society, in which numerous factors have to be weighed against each other, many adolescents struggle to be consistent in applying their moral principles.

Hurlock (Gouws & Kruger, 1994:176) notes the following important points regarding morality during adolescence:

- The adolescent's moral perception becomes more abstract and less concrete.
- There is greater concern with what is right, less concern about what is wrong, Justice emerges as a dominant moral force.

- Moral judgements become increasingly cognitive. This encourages the adolescent to analyse social and personal codes in earnest and to take decisions.
- Moral judgements become less egocentric.
- Moral judgements become emotionally strenuous.

2 Effect of smoking cannabis on normative development

Substance abuse has, *inter alia*, the following effects on the normative development of the adolescent:

- Cannabis use is an expensive pass time and adolescents may lie, cheat and steal to finance their habit (Bezuidenhout, 2004: 122). These are not qualities that parents, adults and educators would want adolescents to be familiar with. Hence the adolescent's habits become a dilemma for the morally upright parent. The cannabis user in this case fails to accept the fact that other people have views and values that are different from his own.
- Cannabis use is associated with crime and misconduct that disrupts the maintenance of an orderly and safe school atmosphere conducive to learning (Bezuidenhout, 2004: 122). Adolescents who use cannabis create a climate of apathy, disruption and disrespect for others. They transform schools into a market place for dope deals, which is associated with the destruction of school property and classroom disorder, which may affect the development of the adolescent's inner moral sense and conscience.
- Du Toit and Kruger (1994: 127) say that witnessing parents and other adults using cannabis impress on the adolescent that it is acceptable and right and they will expect their cannabis use to be accepted by the parents

and other adults. When parents and other responsible adults point out that smoking cannabis is unacceptable, it leads to confusion as the adolescent will try to work out how it is unacceptable if he uses it, yet it is acceptable if his parents and other adults abuse it.

- Cannabis use impairs the adolescent's ability to make healthy choices and decisions according to acceptable norms, putting him at great risk (Lifescope, 2004: 4). The adolescent may begin to believe that the use of cannabis, make him feel good and he will have a better time if he uses it. This incorrect assumption can have dire consequences for him.
- The adolescent strives to be part of the peer group and will do everything expected of him (Gavin, 2004: 6). To him, this is the correct behaviour and acceptable norm. Cannabis use to him may appear correct and normal. He most often will justify his behaviour because everyone else is doing it. The adolescent may lie to keep his habit a secret to avoid punishment, creating greater moral complications. Adolescents with poor home support tend to seek support and understanding from their peers.
- Cannabis use affects the development of the adolescent's inner moral sense and conscience, which in turn will affect the internalization of norms by the learner (Sanca, 2004b: 4). This will ultimately determine whether the learner is accepted or rejected by his group or community.
- According to Pretorius (1998:267) people (adolescents) who use cannabis tend to have twisted or socially unacceptable values, which make it difficult for them to develop meaningful relationships with people who do not use the drug. They are usually associated with other drug addicts and drug dealers. They sometimes share a misplaced sense of loyalty towards each other because they consider themselves as a persecuted minority which has rejected society's norms and values.

- The use of cannabis is regarded as the gateway to the use of other illegal (hard) drugs.

2.5 SUMMARY

From the literature study in this chapter it became clear that although the use of cannabis is not only illegal but also harmful and detrimental to the adolescent's physical cognitive, cognitive, affective, social and moral development. Parents and educators need to be knowledgeable about the adolescent's normal development and how it is affected by the use of cannabis.

The goal of education is to mould the adolescent into a responsible, accountable and contributing adult. Educators must be equipped with the necessary knowledge and expertise on how to assist, guide and support the adolescent, whether he is a cannabis user or not.

The identification of an adolescent who uses cannabis will help the educator to provide assistance to the adolescent encouraging him to see the error of his ways and changing his habits. Identification of a cannabis user also makes it easier for the educator to refer such an adolescent to other professionals and organizations that can help him.

The next chapter will focus on the research methodology used in the investigation.

CHAPTER 3

PLANNING OF THE EMPIRICAL RESEARCH

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CHAPTER 3

PLANNING OF THE EMPIRICAL RESEARCH

3.1 INTRODUCTION

In the preceding chapters the conceptual and theoretical issues relating to the effect of the use of cannabis on the development of the adolescent were examined. The literature review revealed that the effects of cannabis use included physical, psychological (cognitive and affective), social and normative aspects of the adolescent's development.

This chapter will focus on the research methodology used in the empirical investigation and the perceptions of educators on the effect of the use of cannabis on the development of the adolescent. A self-structured questionnaire was utilized as research instrument.

3.2 PREPARATION FOR AND DESIGN OF THE RESEARCH

3.2.1 Permission

The researcher planned to administer the questionnaire (Annexure A) to educators in the Port Shepstone District on the KwaZulu-Natal South Coast. Permission thus has to be requested from the Port Shepstone District Manager (Annexure B). Permission to conduct the research was granted (Annexure C).

3.2.2 Selection of respondents

The empirical investigation was conducted in the Port Shepstone District. For the purpose of this study secondary schools from the said district were selected. From the selected schools 150 educators were randomly selected as the research

group. Of the 150 questionnaires distributed 120 (80%) were returned. This return may be considered an adequate sample for reliable data analysis.

3.2.2. Sampling

According to De Vos (1998: 191) a sample is the element of the population considered for actual inclusion in the study. It can also be viewed as a subset of measurements drawn from the population in which the researcher is interested. A sample is a small portion of the total set of objects, events or persons, which together comprise the object of the study.

On random sampling a sample of the population is drawn in such a way that each member of the population has an equal chance of being selected (Huysamen, 1989: 50). The researcher used the lottery method to randomly select 10 educators from 15 schools.

3.3. THE RESEARCH INSTRUMENT

3.3.1. The questionnaire as research instrument

A questionnaire is an instrument with open-ended or closed-ended questions or statements to which a respondent must react. A questionnaire is a set of questions dealing with the same topic or related group of topics, given to a selected group of individuals, for the purpose of gathering data on a problem under consideration (Van Rensburg, Landman & Bodenstein, 1994: 504). Data is any kind of information that researchers can identify and accumulate to facilitate answers to their queries (Van Wyk, 1996: 130). The questionnaire is regarded as the most widely used survey data collecting technique (De Vaus, 1990: 80).

According to Van den Aardweg and Van den Aardweg (1990: 190), the questionnaire is a prepared question form submitted to certain persons

(respondents) with a view to obtaining information. It is not a list of questions to be filled out but a scientific instrument for measurement and collection of particular kinds of data. Therefore it has to be specially designed according to particular specifications and with specific aims in mind (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 14).

According to Churchill and Peter (Schnetler, 1993: 77) the measuring instrument has the greatest influence on the reliability of research data. The careful construction of the questionnaire best controls the characteristics of measurement. The questionnaire serves two major purposes (Schnetler, 1993: 77):

- It translates the research objectives into specific questions, the answers to which will provide the data necessary to test or to explore the area set by the research objectives.
- It motivates the respondent to communicate the required information.

A questionnaire is not simply thrown together. A well-designed questionnaire is the culmination of a long process of planning of the research objective, formulating the problem, generating the hypothesis, etc. (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 14). A poorly designed questionnaire can invalidate any research results, notwithstanding the merits of the sample, the field workers and the statistical techniques (Huysamen, 1989: 12).

In their criticism of questionnaires Berchie and Anderson (Schnetler, 1993: 61) object to poor design rather than to questionnaires as such. A well-designed questionnaire can enhance the reliability and validity of the data to acceptable tolerances (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 14).

Designing questionnaires does not take place in a vacuum. The length of individual questions, the number of response options and the format and the wording of questions are determined by the following (Dane, 1990: 315-319):

- The choice of the subject to be researched.
- The aim of the research.
- The size of the research sample.
- The method of data collection.
- The analysis of the data.

It is for these reasons that the researcher looked at the principles that determine whether the questionnaire is well designed or not. It is therefore necessary to draw a distinction between questionnaire content, question format, question order, type of questions, formulation of questions and validity and reliability of questions.

3.3.2. Construction of the questionnaire

To enable the researcher to explore the educators' perceptions about quality assurance in education a questionnaire had to be developed. The following brief theoretical perspectives informed the compilation of the questionnaire.

Designing a questionnaire should not take place in isolation. The researcher has consulted and sought the advice of specialists and colleagues during the construction and design of the questionnaire (Van den Aardweg & Van den Aardweg, 1990: 198). An ideal questionnaire must be clear, unambiguous and uniformly workable. Its design and content must restrict potential errors from respondents. Questions to be included in the questionnaire were tested on people, as a question may appear correct to the researcher when written down but can be interpreted differently when asked to another person.

There should be no hesitation in changing questions several times, keeping the original purpose in mind before the final formulation (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 15). A researcher must also ensure that sufficient time is budgeted for in the construction and preliminary testing of the questionnaire (Hlatshwayo, 1996: 149). All of the above was taken into account by the researcher during the designing of the questionnaire for this investigation.

A questionnaire has to engage the interest of people, since participation is voluntary. This will encourage their co-operation and elicit answers as close as possible to the truth (Cohen & Manion, 1994: 93). An important aim in the construction of the questionnaire was to present the questions as simple and straightforward as possible. An accompanying letter and instructions were also sent with the questionnaire. The researcher further aimed to avoid ambiguity, vagueness, bias, prejudice and technical language in the questions.

The aim of the questionnaire was to obtain information regarding the effect of cannabis use on the development of the adolescent as perceived by educators.

The questionnaire was sub-divided into the following categories:

- Section one: dealt with the biographical information of the respondents and consisted of questions 1 to 9
- Sections two, three and four consisted of closed-ended questions. The questions focused on adolescent's
 - Physical development.
 - Cognitive and affective development.
 - Social development.

3.3.3. Characteristics of a good questionnaire

During the construction of the questionnaire, the researcher was guided by the characteristics of a good questionnaire as identified by Wolhuter, Van der Merwe, Vermeulen and Vos (2003: 15) and Van den Aardweg and den Aardweg (1990: 190):

- The topic must be significant and relevant. The respondent should recognize it as important enough to warrant spending his or her time on responding. The significance should be clearly and carefully stated in the questionnaire and in the accompanying letter.
- Respondents must be competent to answer. It is important that the respondents are able to provide reliable information.
- It seeks only that information which cannot be obtained from other sources.
- Items must be clearly stated. An item achieves clarity when all respondents interpret it in the same way. Often the perspectives, words or phrases that make perfect sense to the researcher are unclear to the respondents.
- Simple items are the best. Long and complicated items should be avoided because they are more difficult to understand, and respondents may be unwilling to try to understand them. It must be as short as possible, but long enough to get the essential data. Long questionnaires are normally not answered.
- Questionnaires should be attractive in appearance and neatly arranged. It should be clearly duplicated or printed.

- Directions must be clear and complete and important terms clearly defined.
- Avoid double-barreled questions. Each question should be limited to a single idea or concept and should be worded as simply and as straightforward as possible.
- Different categories should provide an opportunity for easy, accurate and unambiguous responses.
- Objectively formulated questions with no leading suggestions should render the desired responses.
- Questions should be presented in a proper psychological order, proceeding from general to more specific and sensitive responses. An orderly grouping helps respondents to organize their own thinking so that their answers are logical and objective. It is preferable to present questions that create a favourable attitude before proceeding to those that are more intimate or delicate in nature. Annoying, negative, biased and/or embarrassing questions should be avoided.

3.3.4. Advantages and disadvantages of the questionnaire

Data can be gathered by means of a structured questionnaire in, *inter alia*, the following ways: a written questionnaire that is mailed, delivered, or handed out personally, personal interviews and telephone interviews (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 16). Each mode has specific advantages and disadvantages which the researcher needs to evaluate for their suitability to the research question and the specific target population being studied, as well as the related cost. The researcher used the written questionnaire as research instrument taking into consideration the following advantages and disadvantages (Wolhuter, Van der Merwe, Vermeulen & Vos, 2003: 16).

(1) Advantages of the written questionnaire

One of the advantages of using the questionnaire is that all the respondents receive the same set of questions phrased exactly the same way. The questionnaire is timesaving and is conducive to reliable results. Bless and Higson-Smith (1995:112-113) and Cohen and Manion (1994:111-112) list the advantages of the written questionnaire as follows:

- Affordability is the primary advantage of written questionnaires because it is the least expensive means of data gathering.
- Written questionnaires preclude possible interviewer bias. The way the interviewer asks questions and even the interviewer's general appearance or interaction may influence a respondent's answers. Such biases can be completely eliminated with a written questionnaire.
- A questionnaire permits anonymity. If it is arranged such that responses are given anonymously, this would increase the researcher's chances of receiving responses which genuinely represent a person's beliefs, feelings, opinions or perceptions.
- They permit a respondent a sufficient amount of time to consider answers before responding.
- Questionnaires can be given to many people simultaneously.
- They provide greater uniformity across measurement situations than do interviews. Each person responds to exactly the same questions because standard instructions are given to the respondents.

- Generally the data provided by questionnaires can be more easily analysed and interpreted than the data obtained from verbal responses.
- Using a questionnaire solves the problem of non-contact when the respondent is not at home "when the interviewer calls". When the target population to be covered is widely and thinly spread, the mail questionnaire is the only possible method of approach.
- Through the use of the questionnaire approach the problems related to interviews may be avoided. Interview "errors" may seriously undermine the reliability and validity of survey results.
- A respondent may be more willing to answer questions of a personal or embarrassing nature on a questionnaire as compared to a face-to-face situation with an interviewer who may be a complete stranger. In some cases it may happen that respondents report less than expected and make more critical comments in a mail questionnaire.
- Questions requiring considered answers rather than immediate answers could enable respondents to consult documents in the case of the mail questionnaire approach.
- Respondents can complete questionnaires in their own time and in a more relaxed atmosphere.
- Questionnaire design is relatively easy if the set guidelines are followed.
- The administering of questionnaires and the coding, analysis and interpretation of data can be done without any special training.
- Data obtained from questionnaires can be compared and inferences made.

- Questionnaires can elicit information which cannot be obtained from other sources. This renders empirical research possible in different educational disciplines.

(2) Disadvantages of the written questionnaire

According to Kidder and Judd (1986: 223-224), Mahlangu (1987: 84-85) and Wolhuter, Van der Merwe, Vermeulen and Vos (2003: 17) the written questionnaire also has important disadvantages which are, *inter alia*, the following:

- Questionnaires do not provide the flexibility of interviews. In an interview the idea or comment can be explored. This makes it possible to gauge how people are interpreting the question. If respondents interpret questions asked differently, the validity of the information is jeopardized.
- People are generally better able to express their views verbally than in writing.
- Questions can be answered only when they are sufficiently easy and straightforward to be understood with the given instructions and definitions.
- The mail questionnaire does not make provision for obtaining the views of more than one person at a time. It requires uninfluenced views of one person only.
- Answers to mail questionnaires must be seen as final. Re-checking of responses cannot be done. There is no chance of investigating beyond the given answer for a clarification of ambiguous answers. If respondents are

unwilling to answer certain questions nothing can be done to it because the mail questionnaire is essentially inflexible.

- In a mail questionnaire the respondent examines all the questions at the same time before answering them and the answers to the different questions can therefore not be treated as independent.
- Researchers are unable to control the context of question - answering, and specifically, the presence of other people. Respondents may ask friends or family members to examine the questionnaire or comment on their answers, causing bias if the respondent's own private opinions are desired.
- Written questionnaires do not allow the researcher to correct misunderstandings or answer questions that the respondents may have. Respondents might answer questions incorrectly or not at all, due to confusion or misinterpretation.

3.3.5 Validity and reliability of the questionnaire

Validity and reliability are two concepts that are of critical importance in understanding issues of measurement in social science research (Huysamen, 1989: 1-3). All too rarely do questionnaire designers deal consciously with the degree of validity and reliability of their instrument. This is one reason why so many questionnaires are lacking in these two qualities (Cooper, 1989: 15). Questionnaires have a very limited purpose. They are often one-time data gathering devices with a very short life, administered to a limited population. There are ways to improve both the validity and reliability of questionnaires. Basic to the validity of a questionnaire is asking the right questions phrased in the least ambiguous way. Terms must be clearly defined so that they have meaning to all respondents (Cohen & Manion, 1989: 111-112; Cooper, 1989: 60-62).

Kidder and Judd (1989: 53) mention that although reliability and validity are two different characteristics of measurement, they "shade into each other". They are two ends of a continuum but at points in the middle it is difficult to distinguish between them.

Validity and reliability are especially important in educational research because most of the measurements attempted in this area are obtained indirectly.

Researchers can never guarantee that an educational or psychological measuring instrument measures precisely and dependably what it is intended to measure (Van den Aardweg & Van den Aardweg, 1990: 198). It is essential, therefore, to assess the validity and reliability of these instruments. An educational researcher is expected to include in his research report an account of the validity and reliability of the instrument he has employed.

Researchers must therefore have a general knowledge as to what validity and reliability are and how one goes about validating a research instrument and establishing its reliability (Huysamen, 1989: 1-3).

(1) Validity of the questionnaire

By validity is meant that the researcher's conclusion is true or correct. Validity is the extent to which a measuring instrument satisfies the purpose for which it was constructed. It also refers to the extent to which it correlates with some criterion external to the instrument itself (Van Rensburg, Landman & Bodenstein, 1994: 560). Validity is that quality of a data-gathering instrument or procedure that enables it to determine what it was designed to determine. In general the validity refers to the degree to which an instrument succeeds in measuring what it has set out to measure. Validity is an indispensable characteristic of measuring devices.

Van den Aardweg and Van den Aardweg (1990: 237), Mulder (1989: 215-217) and Dane (1990: 257-258) distinguish between three different types of validity:

- Content validity, where content and cognitive processes are included and can be measured. Topics, skills and abilities should be prepared and items from each category randomly drawn.
- Criterion validity, which refers to the relationship between scores on a measuring instrument and an independent variable (criterion) believed to measure directly the behaviour or characteristic in question. The criterion should be relevant, reliable and free from bias and contamination.
- Construct validity, where the extent to which the test measures a specific trait or construct is concerned, for example, intelligence, reasoning ability, attitudes, etc.
- The validity of the questionnaire indicates how worthwhile a measure is likely to be in a given situation. Validity shows whether the instrument is reflecting the true story, or at least something approximating the truth. A valid research instrument is one that has demonstrated that it detects some "real" ability, attitude or prevailing situation that the researcher can identify and characterize (Schnetler, 1993: 71). If the ability or attitude is itself stable, and if a respondent's answer to the items are not affected by other unpredictable factors, then each administration of the instrument should yield essentially the same results (Dane, 1990: 158).
- The validity of the questionnaire as a research instrument reflects the sureness with which conclusions can be drawn. It refers to the extent to which interpretations of the instrument's results, other than the ones the researcher wishes to make, can be ruled out. Establishing validity requires that the researcher anticipate the potential arguments that skeptics might use to dismiss the research results (Cooper, 1989: 120; Dane, 1990: 148-149).

From the interpretation of the results obtained and the sureness with which conclusions could be drawn the researcher is convinced that the questionnaire, to a great extent, did measure that which it was designed for.

(2) Reliability of the questionnaire

According to Mulder (1989: 209) and Van Rensburg, Landman and Bodenstein (1994: 512) reliability is a statistical concept that relates to consistency of obtaining the same relative answer when measuring phenomena and dependability. A reliable measuring instrument is one that, if repeated under similar conditions, would present the same result or a near approximation of the initial result. Van den Aardweg and Van den Aardweg (1990: 194) and Kidder and Judd (1986: 47-48) distinguish between the following types of reliability:

- Test-retest reliability (coefficient of stability). This gives an indication of the dependability of a score on one occasion and on another occasion.
- Internal consistency reliability. This indicates how well the test items measure the same thing.
- Split-half reliability. By correlating the results obtained from two halves of the same measuring instrument, the split-half reliability can be calculated.

In essence, reliability refers to consistency, but consistency does not guarantee truthfulness. The reliability of the question is no proof that the answers given are a true reflection of the respondent's feelings (Dane, 1990: 256). A demonstration of reliability is necessary but not conclusive evidence that an instrument is valid. Reliability refers to the extent to which measurement results are free of unpredictable kinds of error. Sources of error that affect reliability are, *inter alia*, the following (Mulder, 1989: 209; Kidder & Judd, 1986: 45):

- Fluctuations in the mood or alertness of respondents because of illness, fatigue, recent good or bad experiences, or temporary differences amongst members of the group being measured.
- Variations in the conditions of administration between groups. These range from various distractions, such as unusual outside noise to inconsistencies in the administration of the measuring instrument such as omissions in verbal instructions.
- Differences in scoring or interpretation of results, chance differences in what the observer notices and errors in computing scores.
- Random effects by respondents who guess or check off attitude alternatives without trying to understand them.

When the questionnaire as an empirical research instrument is used, there is no specific method, for example, the "test-retest" method, to determine the reliability of the questionnaire. Therefore, it will be difficult to establish to what extent the answers of the respondents were reliable. The researcher, however, believes that the questionnaires in this investigation were completed with the necessary honesty and sincerity required to render the maximum possible reliability. Frankness in responding to questions was made possible by the anonymity of the questionnaire. In the coding of the questions it was evident that questionnaires were completed with the necessary dedication.

3.4. PILOT STUDY

In all cases, it is essential that newly constructed questionnaires, i.e. in their semi-final form, be thoroughly tested before being utilized in the main investigation. That ensures that errors of whatever nature can be rectified immediately at little cost. It does not matter how effective sampling or analysis of the results is, it remains a fact that ambiguous questions lead to biased responses, and vague

questions lead to vague answers. Only after the necessary modifications have been made following the pilot test should the questionnaire be presented to the full sample (De Vos, 2000:158).

A pilot study is an abbreviated version of a research project in which the researcher practices or tests the procedures to be used in the subsequent full-scale project (Dane, 1990: 42). The pilot study is a preliminary or "trial run" investigation using similar questions and similar subjects as in the final survey. According to Kidder and Judd (1986: 211-212) the basic purpose of a pilot study is to determine how the design of the subsequent study can be improved and to identify flaws in the measuring instrument. A pilot study gives the researcher an idea of what the method will actually look like in operation and what effects (intended or not) it is likely to have. In other words, by generating many of the practical problems that will ultimately arise, a pilot study enables the researcher to avert these problems by changing procedures, instructions and questions.

The number of participants in the pilot study or group is normally smaller than the number scheduled to take part in the final survey. Participants in the pilot study and the sample for the final study must be selected from the same target population. For the purpose of this study the researcher conducted a pilot run on his colleagues.

According to Plug, Meyer, Louw and Gouws (1991: 49-66) the following are the purposes of a pilot study, and these were also the aims of the researcher in this survey:

- It permitted a preliminary testing of the hypothesis that leads to testing more precise hypotheses in the main study.
- It provided the researcher with ideas, approaches and clues not foreseen prior to the pilot study.

- It permitted a thorough check of the planned statistical and analytical procedures, thus allowing an appraisal of their adequacy in treating the data.
- It greatly reduced the number of treatment errors because unforeseen problems revealed in the pilot study resulted in redesigning the main study.
- It saved the researcher major expenditures of time and money on aspects of the research, which would have been unnecessary.
- Feedback from other persons involved was made possible and led to important improvements in the main study.
- In the pilot study the researcher experimented with a number of alternative measures and selected only those that produced the best results for the final study.
- The approximate time required to complete the questionnaire was established in the pilot study.
- Questions and/or instructions that were misinterpreted were reformulated.

Through the use of the pilot study as “pre-test” the researcher was satisfied that the questions asked complied adequately with the requirements of the study.

3.5. ADMINISTRATION OF THE QUESTIONNAIRE

The questionnaire is one of the best available instruments, if properly administered, for obtaining information from widespread sources or large groups simultaneously (Cooper, 1989: 39). The researcher personally delivered questionnaires to the selected schools and collected them after completion.

3.6 THE PROCESSING OF THE DATA

Once the data was collected, it was captured in a format which would permit analysis and interpretation. This involved the careful coding of the 300 questionnaires completed by the educators of both primary and secondary schools. The coded data was subsequently transferred onto a computer spreadsheet using Microsoft Excel (Office 2000). The coded data was submitted to the Department of Statistics at the University of Zululand and was computer-analyzed using the SPSS programme in order to interpret the results by means of inferential statistics.

3.6.1 Descriptive statistics

Descriptive statistics is concerned with the description and /or summarization of the data obtained for a group of individuals. Data may be described or summarized by tabulating or graphically depicting them. The purpose of descriptive statistics is to reduce large amounts of data physically to facilitate the drawing of conclusions about them (Huysamen, 1989: 4). Frequency tables, histograms and polygons are useful in forming impressions about the distribution of data.

According to Van Den Aardweg and Van den Aardweg (1990: 65-76) and Mcmillan and Schumacher (1993: 192), frequency distribution is a method to organize data obtained from questionnaires in order to simplify statistical analysis. A frequency table provides the following information:

- It indicates how many times a particular response appears on the completed questionnaires.
- It provides percentages that reflect the number of responses to a certain question in relation to the total number of responses.

3.6.2 Application of data

The questionnaire was designed to determine educators' perceptions of the affect of cannabis use on the development of the adolescent.

In order to obtain the information needed for the purpose of this study the questionnaire was sub-divided into two parts:

- The first part required demographic information about the educators and included items 1 to 9.
- The second, third and fourth sections gathered information regarding the effect cannabis use has on the adolescent's:
 - Physical development.
 - Psychological; development.
 - Social development

3.7 SUMMARY

In this chapter the planning and design of the empirical research was discussed and a comprehensive description of the questionnaire as a research instrument was given.

The data obtained from the completed questionnaires will be analyzed and presented in the next chapter.

CHAPTER 4

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CHAPTER 4

PRESENTATION AND ANALYSIS OF THE RESEARCH DATA

4.1 INTRODUCTION

In this chapter the data, which was collected from the completed questionnaires, will be presented and analyzed, the findings interpreted and some comments offered. The data comprised the respondents' biographical information and their perceptions of the effect of the use of cannabis on the physical, psychological (cognitive and affective) social development of the adolescent. One hundred and twenty (120) questionnaires were correctly completed for analysis.

4.2 DESCRIPTIVE STATISTICS

According to Hoberg (2002:25) research can be described as a systematic process of collecting and logically analyzing information for some process. Bless and Higson-Smith (1995:42) say the purpose of research is to gain insight into a situation, phenomenon, community or person. Descriptive statistics is one of the methods of research used to study a person or persons scientifically in the educational situation. It attempts to describe the situation as it is; thus there is no intervention on the part of the research and therefore no control. Van Rensburg, Landman and Bodenstein (1994:355) maintain that descriptive studies do not set out with the idea of testing hypotheses about relationships, but want to find the distribution of variables. In this study nomothetic descriptive research was employed with the aim of describing the educators' perceptions pertaining to the effect the use of cannabis has on the development of the adolescent. The researcher was primarily concerned with the nature and degree of existing situations concerning the use of cannabis by adolescents.

4.2.1 Gender of respondents

Table 1 Frequency distribution according to the gender of the respondents

	Gender	Frequency	%
1	Male	57	47.5%
2	Female	63	52.5%
	TOTAL	120	100%

Table 1 shows that the randomly selected research sample consists of a small percentage (5%) more females than males. This finding is in contradiction with the statistical data of the Department of Education which shows that seventy percent of the teaching staff at schools are females (Chetty, 2002:95). Possible reasons for this finding are:

- Gender equity is applied in the appointment of educators in the secondary schools selected for the research sample.
- The randomly selected sample of educators from the schools comprised more males than females.
- The research only focused on secondary schools (cf. 4.2.7) which often give preference to males when employing educators.
- More males apply for posts in secondary schools because they find teaching older learners more challenging than the young ones in primary schools.

4.2.2 Age of respondents

Table 2 Frequency distribution according to the age group of the respondents

	Age group	Frequency	%
1	20 – 25 years	16	13.0%
2	26 – 30 years	27	22.5%
3	31 – 35 years	27	22.5%
4	36 – 40 years	13	11.0%
5	41 – 45 years	18	15.0%
6	46 – 50 years	11	9.0%
7	51-55 years	5	4,0%
8	56-60 years	3	3,0%
	TOTAL	120	100%

The larger percentage of the respondents (45%) in the research sample is in the age group 26 to 35 years (Table 2). The table also shows that the majority of the respondents (58%) are younger than 36 years. Marsh (1992:93) is of the opinion that younger educators have a lot more to offer in terms of time, energy and productivity in the field of education. There is also a possibility that younger educators could remain in the school for a longer period, thus ensuring long-term stability (Smith, 1994:55).

A small percentage (7%) of the respondents who partook in the research are older than 50 years. This phenomenon might be contributed to educators that have taken the Voluntary Severance Package (VSP) offered by the Department of Education or they may have resigned from the profession due to other reasons, for example poor health or stress (Chetty, 2004:114)

4.2.3 Qualifications

Table 3 Frequency distribution according to the qualifications of respondents

	Qualifications	Frequency	%
1	Degree and diploma or certificate	17	14.0%
2	Diplomas and certificates only	103	86.0%
	TOTAL	120	100%

Table 3 indicates that the minority (14%) of the respondents possess both academic and professional qualifications. Naidoo (2001:96) says that educators in possession of academic qualifications (degrees) and professional (diplomas and/or certificates) are generally perceived as better qualified for the teaching profession, especially at secondary school level, than the ones with diplomas and/or certificates. The contents of teaching diplomas and certificates are more practically than theoretically orientated and thus seen as more appropriate for teaching primary school learners.

The quality of education, however, depends to a large extent on the quality of the educator. With relevant and adequate academic and/or professional qualifications educators will be able to promote efficiency in the classroom. Continuous professional development assists educators to keep pace with the change in knowledge, advancement of technology and increasing demands imposed on them.

One of the requirements to be an effective educator is to develop oneself to one's highest potential, both academically and professionally (Davis, 2005:16). The more empowered, experienced and qualified educators are, the better the possibility that they will be able to identify and assist the learner who uses cannabis

4.2.4 Years of service in the teaching profession

Table 4 Frequency distribution according to the respondents' years service in the teaching profession

	Years of service	Frequency	%
1	0 – 5 years	38	32.0%
2	6 – 10 years	29	24.0%
3	11 – 15 years	16	13.0%
4	16 – 20 years	13	11.0%
5	21 – 25 years	17	14.0%
6	26 – 30 years	1	1.0%
7	30 years and more	6	5.0%
	TOTAL	120	100%

Table 4 shows that nearly a third (32,0%) of the respondents in the research sample have less than 5 years teaching experience while more than half (56,0%) have less than 10 years teaching experience. More than thirty percent (31%) of the educators have more than 15 years teaching experience. The educator who has been in the teaching profession for a longer period might have more experience in identifying learners whom uses cannabis.

4.2.5 Post level of the respondents

Table 5 Frequency distribution according to the post level of the respondents

	Post level	Frequency	%
1	Principal	7	6.0%
2	Deputy	9	8.0%
3	HOD	16	13.0%
4	Educator (post level 1)	88	73.0%
	TOTAL	120	100%

According to Table 5 nearly three quarters (73%) of the respondents are post level one educators. This finding can be explained by the staff composition of schools which consists mainly of level one educators while promotion posts (management posts) form the minority of the staff.

4.2.6 Area in which schools are situated

Table 6 Frequency distribution according to the area in which respondents' schools are situated

	Area in which school is situated	Frequency	%
1	Urban area	33	27.0%
2	Semi-urban area	36	30.0%
3	Rural area	51	43.0%
	TOTAL	120	100%

The findings in Table 6 are in accordance with the areas selected for conducting the research. Secondary schools were randomly selected from a list of schools in the Port Shepstone District on the KwaZulu-Natal South Coast. Although Port Shepstone is urban and semi-urban the district includes large rural areas, which is reflected in the 43% rural schools.

4.2.7 Type of school

Table 7 Frequency distribution according to the classification of respondents' schools

	School	Frequency	%
1	Junior secondary	29	24.0%
2	Senior secondary	85	71.0%
3	Comprehensive school	2	1.5%
4	Special school	4	3.5%
	TOTAL	120	100%

In accordance with the focus of the research, the schools where the questionnaire was administered consist mainly of junior and senior secondary schools. Vrey (1990:165) identifies a child in the secondary school as in the adolescent stage.

4.2.8 Knowledge about cannabis

Table 8 Frequency distribution according to respondents' knowledge about certain cannabis issues

	Yes	No	TOTAL
Should the use of cannabis be legalized?	14 12.0%	106 88.0%	120 100%
Do you know what cannabis (dagga) looks like?	94 78.0%	26 22.0%	120 100%
Do you smoke cannabis (dagga)?	5 4.0%	115 96.0%	120 100%
Do you know a colleague that smokes cannabis?	44 37.0%	76 63.0%	120 100%

Table 8 shows that the majority of the respondents (88%) in research sample indicated that the use of cannabis should *not* be legalized. Possible reasons for this response is:

- The participants in the research are aware or have witnessed the negative effects the use of cannabis has.
- Educators have experienced the following with learners they suspect of using cannabis:
 - disciplinary problems.
 - frequent absenteeism.
 -
 - decline in schoolwork.

Cannabis (dagga) is the most widely used illegal drug, easily to obtain and even grown by local people. Thus the finding that more than three quarters (78,0%) of the respondents know what cannabis looks like.

The finding that more than a third (37%) of the respondents indicated that they know a colleague who smokes cannabis is, however, quite disturbing.

4.2.9 Physical development

Table 9 Frequency distribution according to the respondents' perceptions of the effect of cannabis use by the adolescents' on their physical development

	The use of cannabis by an adolescent:	Agree	Disagree	Uncertain	TOTAL
2.1	Can cause cancer (e.g. lung, throat and mouth cancer)	92 77%	4 3%	24 20%	120 100%
2.2	Affects the appetite (e.g. adolescent does not eat)	73 61%	24 20%	23 19%	120 100%
2.3	Causes impaired co-ordination (e.g. staggering movements)	69 58%	20 17%	31 25%	120 100%
2.4	Contributes to heart damage (e.g. increased blood pressure)	66 55%	11 9%	44 37%	120 100%
2.5	Damages the lungs (e.g. respiratory problems like bronchitis)	102 85%	3 2%	15 13%	120 100%
2.6	Results in physical dependence (e.g. smoke cannabis for energy)	68 57%	18 15%	34 28%	120 100%
2.7	Retards physical growth (e.g. suppresses users appetite)	66 55%	16 13%	38 32%	120 100%
2.8	Is not harmful if used moderately (e.g. to relieve pain)	32 26%	63 53%	25 21%	120 100%
2.9	Results in brain damage (e.g. growth of brain cells are stunted)	97 81%	8 7%	15 12%	120 100%
2.10	Weakens the body's immune system (e.g. becomes prone to pneumonia)	82 68%	7 6%	31 26%	120 100%

According to the frequency distribution of responses in Table 9 the majority of respondents agreed that the use of cannabis by adolescents adversely effects their physical development. Van Eeden (2000:3) states that cannabis use affects the normal growth of organs such as the heart, lungs, endocrine glands, liver and kidneys.

The above finding is substantiated by the responses to the following questions in Table 9:

Cannabis use causes cancer (2.1)

Cancer means a malignant tumor or growth that spreads indefinitely and tends to recur when removed. Macfarlane and McPherson (2003:72) refer to research that has found that lung, esophagus, pancreatic and kidney cancer occur more in smokers than non-smokers. The research also includes the smoking of cannabis (dagga).

Long term effects of smoking cannabis include possible psychological dependence, an increased risk of lung cancer, emphysema and other lung diseases (Editor, 2005:7). More than three quarters (77%) of the respondents in the research sample agreed that the use of cannabis can cause cancer.

Appetite (2.2)

Most of the respondents (61%) said that the use of cannabis affects the user's appetite. Smoking cannabis can cause loss of appetite with the result that the user does not eat properly. Inadequate nutrition during adolescence may interfere with the user's normal growth. Early adolescence (puberty) is characterised by physical development and lack of proper nutrition may slow down or hamper this development.

Papalia and Olds (1992:240) say that adolescents, especially adolescent boys, usually have good appetites and need to eat well because:

- A balanced diet supplies the energy and protein needed for growth.
- Food is needed to stay alive and healthy.
- Food energy is needed to be active.

Use of cannabis interferes with the proper absorption of food and robs the body of the essential food elements such as vitamins and mineral, which may lead to malnutrition and ill health. Macfarlane and McPherson (2003:67) explain that smoking cannabis affects the lungs so that the amount of oxygen that gets into

the bloodstream is less. Oxygen is essential for the metabolic processes in the body that is needed to grow and live.

Co-ordination (2.3)

Co-ordination is the harmonious interaction of various parts of a person's body or the complex bodily movements to produce a successful pleasing result (Van den Aardweg & Van den Aardweg, 1990:52). The use of cannabis decreases reaction time and affects hand-eye, foot-eye and arm-eye co-ordination resulting in difficulty to playing sport, reading and writing (Editor, 2005:7).

Nearly seventy percent (69%) of the respondents partaking in the research indicated that impaired co-ordination is one of the consequences of the use of cannabis. Stanley (2000:29) says that the use of cannabis makes a person acting clumsily and in an uncoordinated manner.

Heart damage (2.4)

More than half (55%) of the respondents in the research sample confirmed that the use of cannabis contributes to heart damage. According to Stanley (2000:24) the use of cannabis causes arterioma which is fatty deposits in the arteries. These in turn cause arteriosclerosis that can cause a heart attack. Van Eeden (2002:1) says the use of cannabis speeds up the heartbeat as much as 50% which increases blood pressure and poses a great risk to people with hypertension and heart disease.

Lung damage (2.5)

The function of the lungs is to supply oxygenated blood to the body via the heart. Cannabis is normally smoked and therefore gets into the body by being inhaled by the lungs where it causes damage to the tiny lung sacs (alveoli). Damaged lungs cannot effectively fulfill their function of supplying the body with oxygen (Macfarlane & McPherson, 2003:59).

The majority of respondents (85%) were in agreement that cannabis smoking causes lung damage. Stanley (2000:19) points out that continued smoking causes the breakdown of lung tissue and clogging of the lung sacs, thus affecting lung power.

Physical dependence (2.6)

Physical dependence refers to the state when the user relies more and more on the substance to function and to survive. According to Bezuidenhout (2004:120) the drug user cannot function without the drug and relies on the drug to help him get through the day. When he stops using the drug he suffers from withdrawal symptoms such as delirium tremens or shaking.

Although more than half (57%) of the respondents said that the use of cannabis results in physical dependence, research showed that the use of cannabis does not normally result in physical dependence on the drug, but users can become psychologically dependent on using cannabis (Leigh, 1986:21). This concurs with Good, Diaz and Gorodetzky's (Grolier, 1995:3) findings that the user's dependence is indicated by his failure to stop using cannabis or the painful physical distress he undergoes when he is forced to quit.

Retardation of physical growth (2.7)

Most of the respondents (55%) in the research sample agreed that the use of cannabis retards physical growth. Normal growth (physical development) is important for the adolescent, especially during puberty because (Du Toit & Kruger, 1994:104):

- The proportions of the adolescent's body need to change to take on an adult-like appearance.
- The brain needs to reach adult size and mass.
- Secondary sexual features need to manifest themselves.

Macfarlane and McPherson (2003:59) maintain that cannabis contains more than 400 chemicals. In the bloodstream these chemicals are carried around the body up to the brain cells where they have their effect. The inhaled chemical from cannabis that has the most effect is called delta-9-tetrahydrocannabinol (THC) which attaches to fatty tissue such as the brain resulting in the retardation of physical development.

Not harmful (2.8)

The minority of the respondents (26%) in the research sample indicated that the moderate use of cannabis is not harmful. Van Eeden (2002:1) says that presently there is a lot of controversy surrounding the study of the beneficial medical effects of cannabis. A synthetic extract of cannabis, called nabilone, is sometimes used legally as a medicine to suppress some of the unpleasant side effects of the chemicals used in cancer treatment. Some of its users insist that it is not harmful if it is used moderately, while other findings reveal that even one joint of cannabis does lower the oxygen supply to the user's brain.

According to Macfarlane and McPherson (2003: 77) cannabis like tobacco (and mostly they are smoked together) damages the lining of the lungs. Two to three cannabis cigarettes a day are the equivalent to 15 or more tobacco cigarettes. In this respect the amount of cancer-causing chemicals in cannabis smoke are much higher than those in cigarettes.

Results in brain damage (2.9)

More than eighty percent (81%) of the participants in the research indicated that the use of cannabis results in brain damage. All sensations and thoughts emanate from the brain and for the brain to function effectively it needs sufficient oxygen and nutrients (Allen, 1993:134). The harmful chemicals inhaled when smoking cannabis is carried via the bloodstream to the brain where it inhibits the functioning of the brain cells (Goldberg, 1996:139).

Immune system (2.10)

Most of the respondents (68%) agreed that the use of cannabis weakens the immune system. The chemicals that are present in cannabis smoke are inhaled and break down the vitamin B complex, stop white blood cells from growing and therefore weakening the immune system and make it easier for infections to set in (Somdahl, 199:39).

4.2.10 Cognitive and affective development

Table 10 Frequency distribution according to the respondents' perceptions of the effect of the adolescents' use of cannabis on their cognitive and affective development

	The use of cannabis by the adolescent:	Agree	Disagree	Uncertain	TOTAL
3.1	Inhibits the thinking processes (e.g. experiences difficulty in problem solving)	65 54%	26 22%	29 24%	120 100%
3.2	Affects the memory (e.g. cannot recall learned material for tests/exam)	64 54%	16 13%	40 33%	120 100%
3.3	Impairs concentration (e.g. cannot pay attention in class)	72 60%	22 18%	26 22%	120 100%
3.4	Weakens the ability to learn (e.g. finds it difficult to learn facts)	85 71%	16 13%	19 16%	120 100%
3.5	Results in a lack of interest in school work (e.g. is often absent)	97 81%	10 8%	13 11%	120 100%
3.6	Makes it difficult to cope with school work (e.g/ does not do tasks)	95 79%	9 8%	16 13%	120 100%
3.7	Weakens feelings (e.g. ability to show sympathy)	76 63%	12 10%	32 27%	120 100%
3.8	Causes rapid mood changes (e.g. sudden aggressive)	92 76%	9 8%	19 16%	120 100%
3.9	Impairs the making of correct judgments	87 73%	11 9%	22 18%	120 100%
3.10	Leads to emotional outbursts (e.g. cannot control temper)	93 77%	9 8%	18 15%	120 100%
3.11	Makes him fearful of people	56 47%	31 26%	33 27%	120 100%
3.12	Gives a false sense of identity	96 80%	7 5%	18 15%	120 100%
3.13	Lead to a negative self-concept	74 62%	20 16%	26 22%	120 100%
3.14	Causes aggressive behavior (e.g. is often involved in fights)	91 76%	17 14%	12 10%	120 100%

According to Royston (2001:14) the use of cannabis affects a person's sense of time, memory, balance and judgment. Getchel, Pippin and Varnes (1994:514) concur that possible mental confusion and distorted perceptions resembling severe mental illness are the result of using cannabis.

According to the frequency table (Table 10) the majority of respondents' are of the view that the adolescent who uses cannabis is affected by the use of cannabis.

The above is substantiated by the responses to the following questions in Table 10:

Thinking process (3.1)

Thinking is regarded as a cognitive act of meaning attribution whereby the learner attributes meaning to situations he is involved in (Du Toit & Kruger, 1994:48). Being a cognitive act, thinking is dependent on the effective functioning of the brain. The use of cannabis hampers the effective functioning of the brain, thus interfering with the adolescent's ability to think.

Most of the respondents (54%) agreed with the statement that the use of cannabis inhibits the thinking process. In an attempt to answer the question of the actual effect of cannabis on the cognitive development of the adolescent, Van Eeden (2002:1) says that it does not affect everyone in the same way, but it is the individual user's existing state of mind that largely determines the user's reaction.

Further findings confirm that the effect of cannabis is unpredictable because it depends on the following four factors (Sanca, 2003:3):

- The user's personality.
- Mood at the time when cannabis is smoked.
- The atmosphere in which cannabis is used.
- The strength of cannabis which varies significantly depending on the conditions under which it was grown.

Memory (3.2)

More than half of the respondents (54%) in the research sample agreed that the use of cannabis affects the adolescent's memory. Memory is the cognitive ability that enables the adolescent to remember and recall what he has learnt for

future use. According to the information-processing theory, memory is like a filing system. It operates on three basic steps: encoding, storage and retrieval (Papalia & Olds, 1990:255). If the adolescent's brain functioning is impaired, his memory may also be affected in the following ways (Stanley, 2000:33):

- His inability to recall meanings which were attributed to objects and concepts.
- His inability to apply learned material to new situations.

Concentration (3.3)

Concentration is the focusing of one's attention on mental ability. Concentration by the adolescent enables him to conceive images of objects, seeing similarities, differences and relationships between things and giving names to objects in his environment (Van den Aardweg & Van den Aardweg, 1990:41). Concentration in the classroom enables the adolescent learner to focus on the subject matter discussed by the educator.

According to Getchell, Pippin and Varnes (1994:518) people who use cannabis have great difficult concentrating on what they are doing and what is happening around them. The majority of respondents (60%) that participated in the research confirmed that the use of cannabis impairs the adolescent's concentration and consequently his ability to understand the learning material explained by the educator.

Ability to learn (3.4)

More than seventy percent (71%) of the respondents agreed that the use of cannabis weakens the adolescent's ability to learn. Learning is the gaining of knowledge or skill by study, experience or being taught. If the adolescent's learning is hampered he may have difficulty in gaining knowledge and skills.

Van Eeden (2002:2) says that the use of cannabis causes abnormal brain waves which interfere with the adolescent's learning ability.

Interest in schoolwork (3.5)

The majority of respondents (81%) indicated that the use of cannabis results in a lack of interest in schoolwork. Royston (2001:14) maintains that a person who is stoned by smoking cannabis shows no interest in any kind of work. All what he is interested in is the next smoke. According to Anker (Bezuidenhout, 2004:121) possible reasons for the cannabis user's lack of interest in schoolwork are, *inter alia*, the following:

- A cannabis user lacks the self-discipline necessary to attend school regularly, complete homework or schoolwork or to learn (study).
- Cannabis users often absent themselves from school because of illness and consequently perform poor because of all the schoolwork they miss.

Constant reprimanding by educators because of poor attendance and schoolwork intensifies the adolescent's apathy towards school.

Schoolwork (3.6)

More than three-quarters of the respondents (79%) agreed that the use of cannabis makes it difficult for the adolescent to cope with schoolwork. Hurwitz and Shniderman (1995:14) say that cannabis makes its user lose interest in schoolwork because he only thinks of it. Possible reasons why cannabis use retards the adolescent's scholastic progress are:

- He may not understand the subject contents and thus apply it incorrectly.
- He may experience difficulty in attaining skills taught.

- He may fail to master learning material and consequently perform poorly in assessments.

Cannabis use results in irregular school attendance and a poor attention span in class. This will impact negatively on the adolescent's ability to cope with schoolwork which will then adversely affect his scholastic progress.

Weakens feelings (3.7)

Feeling is a modality of the affective life and is a natural and spontaneous reaction to reality in an immediate positive or negative way. It is an inner condition excited by an external stimulus. When feelings activate a person to such an extent that the person is overwhelmed by it, it becomes an emotion (Van den Aardweg & Van den Aardweg, 1990:92). More than sixty percent (63%) of the respondents said that the use of cannabis weakens the user's feelings. Stanley (2000:35) says that the use of cannabis dulls its user's feelings, for example to distinguish between good and bad.

Mood changes (3.8)

A mood is an affective experience which alternates between cheerfulness and despondency. Moods can be positive, negative or in between these two extremes. The majority of respondents (76%) in the research sample acknowledged that the use of cannabis causes mood changes. According to Bryan (1992:25) the adolescent who use cannabis is more subject to mood swings and irritability. Mood changes disturb the adolescent's learning and participation in the school activities.

Making judgments (3.9)

Most of the respondents (73%) agreed that the use of cannabis impairs the making of correct judgment. In his research Royston (2001:14) found that the use of cannabis affects the user's ability to make correct judgments.

Emotional outburst (3.10)

Emotions refer to strong mental or instinctive feelings such as love or fear. Emotions add colour and variety to life. An emotional outburst is an explosion of love or fear explained on words. The larger number of respondents (77%) agreed that the use of cannabis leads to emotional outbursts. According to Stanley (2000:35) drugs blunt the user's emotions. The cannabis user experiences problems expressing, controlling, suppressing or hiding his emotions when compared to the non-user. The cannabis user becomes prone to emotional outburst. The adolescent who uses cannabis may quickly become angry, stubborn or fly into a rage without much provocation.

Fear of people (3.11)

The larger number of respondents (47%) indicated that the use of cannabis makes the adolescent fearful of people. Fear is a natural response to real or imagined danger. Paranoia is a mental disorder characterised by delusions of persecution. A cannabis user often becomes paranoid and has an abnormal tendency to suspect and mistrust others. This suspicion and mistrust make the cannabis user fear people.

Sense of identity (3.12)

The majority of respondents (80%) agreed that the use of cannabis gives the adolescent a false sense of identity. Royston (2001:21) refers to this as the superior feeling that cannabis users have that they think they know something that ordinary people do not know. Adolescents who use cannabis do not actually feel good about themselves; they doubt themselves and often struggle with low self-esteem (Stanley, 2000:33).

Self-concept (3.13)

According to Vrey (1990:95) the self-concept is the criterion on the basis of which a person becomes involved, attributes meaning and conducts himself. The self-concept determines not only with whom and with what the adolescent forms relationships but also the quality of the relationships formed. Most respondents

(62%) agreed that the use of cannabis leads to negative self-concept. The cannabis user often suffers from a negative self-concept because of his addiction and is inclined to interpret all new experiences in that light. All actions taken by other people may be interpreted negatively by the adolescent cannabis user with a negative self-concept (Du Toit & Kruger, 1994:30).

Aggressive behavior (3.14)

Aggressive behaviour is openly hostile and self-assertive behaviour directed towards another person or object. The adolescent who uses cannabis will have a tendency to exhibit the following aggressive behaviour (Beziudenhout, 2004:124);

- Mugging people in street, e.g. bag snatching to obtain money to buy cannabis.
- House breaking and mugging people in their homes.

The majority of respondents (75%) agreed that the use of cannabis causes aggressive behaviour.

4.2.11 Reasons for the use of cannabis

Table 11 Frequency distribution according to respondents' perceptions of the reasons why adolescents' use cannabis

	The adolescent uses cannabis:	Agree	Disagree	Uncertain	TOTAL
4.1	Because of peer pressure	96 80%	14 12%	10 8%	120 100%
4.2	Because parents are users	40 33%	52 44%	28 23%	120 100%
4.3	As experimentation	84 70%	17 14%	19 16%	120 100%
4.4	As it serves as proof of independence	41 34%	42 35%	37 31%	120 100%
4.5	As a result of it being freely available	61 51%	36 30%	17 14%	120 100%
4.6	To gain status in the peer group	86 72%	17 14%	17 14%	120 100%
4.7	As a form of recreation	53 44%	39 33%	28 23%	120 100%
4.8	To be accepted In the peer group	93 77%	14 12%	13 11%	120 100%
4.9	Because of permissive (uncaring, uninvolved) parents	52 43%	41 34%	27 23%	120 100%
4.10	As revolt against authoritarian (very strict) parents	50 42%	48 40%	22 18%	120 100%

The adolescent experiments, abuses or become addicted to cannabis for various reasons. Some of the reasons why adolescents use cannabis were formulated, as questions in Table 11 and the respondents in the research sample were required to respond to these questions.

The findings in Table 11 is substantiated by the following responses to the questions in Table 11:

Peer pressure (4.1)

The majority of the respondents (80%) who partook in the research agreed that adolescents use cannabis because of peer pressure. Royston (2001:22) says if they are offered a joint (cannabis cigarette) many adolescents are worried that if

they say no, their friends will think that they are stupid and childish and will therefore accept the offer. Somdahl (1999:51) maintains that peer pressure is a fact of life. Young people usually find themselves pressured more and more by friends and it is a fear of being seen as different that causes an adolescent to do what others are doing even when it could be wrong.

Parents use cannabis (4.2)

According to Connolly (2003:25) young people begin using cannabis early in a setting where adult (parents) are users themselves. However, most of the respondents (44%) in the research sample disagreed that adolescents use cannabis because their parents are users. Stanley (2000:18) says that parents who smoke around their children may not only end up by giving them asthma, but also set a bad example.

Experimentation (4.3)

The indication of 70% of respondents is that they agreed that the adolescent start to use cannabis on an experimental basis is supported by Haughton (1997:7) who found that adolescents started smoking cannabis mainly because a lot of their friends were into it. They wanted to know what it was like. Fraser (Bezuidenhout, 2004:121) says that the use of cannabis and its availability in peer groups results in the new members experimenting with the drug or being initiated into its use by others who are users.

Independence (4.4)

More than thirty percent (34%) of the respondents agreed that adolescents use cannabis as a proof of independence. Myers (1995:49) says that some adolescents experiment with cannabis to feel independent and explore new feelings. The peer group offers the adolescent a bridge for the gradual attainment of independence from the parents (Gouws & Kruger, 2003:121). In their peer groups the adolescents are forced to stand on their own feet and make their own decisions. In deciding to use cannabis the adolescent want to prove that he can take his own independent decisions.

Availability (4.5)

Most of the respondents (51%) agreed that the reason why some adolescents use cannabis is the result of it being widely used. Connolly (2003:4&32) says that cannabis is the most widely used illegal drug in the world. Its users come from all walks of life and represent nearly every age group.

Status in peer group (4.6)

More than seventy percent (72%) of the respondents agreed that adolescents use cannabis to gain status in the peer group. Connolly (2003:25) says that adolescents have to prove themselves as individuals in their own right by replacing their derived status with primary status. The child has derived status which is granted to him by virtue of being his parents' child, while adolescents attain primary status by their own efforts (cannabis use) and through exerting their own ability.

Recreation (4.7)

If the adolescent lacks meaningful recreation time and activities and lapses into periods of idleness, boredom and laziness, participation in undesirable activities and a quest for aimless pleasure can lead to the use of cannabis (Getchell, Pippin & Varnes, 1994:115). Most of the respondents in the research sample indicated that adolescents use cannabis as a form of recreation.

Acceptance in peer group (4.8)

As a result of the adolescent's need to be accepted in the peer group, his motivation to conform to the group's values, customs and fads increases. Vrey (1990:171) states that in the adolescent's eagerness to conform, he may take part in activities he himself does not approve, such as drinking and smoking. The adolescent will conform even if it entails a contravention of social and parental norms for example using cannabis. More than three-quarters (77%) of the respondents agreed that adolescents use cannabis in response to the quest for acceptance in the peer group. Getchell, Pippin and Varnes (1994:510) refer to this search for acceptance as the need to fit in the peer group.

Permissive parents (4.9)

Parents who resort to a permissive parenting style are usually exceedingly tolerant, non-controlling and non-threatening towards their children. They rarely make demands on the adolescent and offer him considerable freedom because virtually no limits are set. The outcome of this parenting style is often socially unacceptable behaviour such as cannabis smoking. Most of the respondents (44%) agreed that adolescents use cannabis because of uninvolved parents.

According to Davis (2004:3) uninvolved parents ignore even the warning signs simple because they do not want to believe that their children are involved in the use of cannabis. Brook (Bezuidenhout, 2004:122) contends that findings revealed that fathers who were psychologically well adjusted, traditionally orientated and warm-hearted, had sons who were less likely to use cannabis whereas fathers of cannabis users tended to be more tolerant of deviance and drug use but less child-centered.

Authoritarian parents (4.10)

Authoritarian parents have fixed and inflexible notions of right and wrong. They expect total obedience from the adolescent and dominate his behaviour and attitude. Rebellion against dominating (authoritarian) parents is one of the reasons why adolescents may use cannabis. The larger percentage (42%) of the respondents agreed that adolescents use cannabis as revolt against parental authority.

According to Davis (2004:3) authoritarian parents push adolescents to the use of cannabis by their incredible pressure, high academic and sporting expectations. A mistake these parents make is that while they may suppress dissent, they usually do not eliminate it; indeed, they are likely to encourage resentment in the adolescent.

4.3 SUMMARY

In this chapter an attempt was made to give some order to the range of information provided by the respondents in their answers to the questions in the questionnaire.

Some of the data obtained were of a demographic nature which enabled the researcher to construct a broad profile of the sample selected for the empirical investigation.

Data collected regarding the effect the use of cannabis has on the development of the adolescent was organized in frequency distribution tables to simplify statistical analysis. The frequencies of the responses to the questions were interpreted and the findings discussed.

The last chapter will consist of a summary, findings and certain recommendations.

CHAPTER 5

SUMMARY, FINDINGS AND RECOMMENDATIONS PAGE

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CHAPTER 5

SUMMARY, FINDINGS AND RECOMMENDATIONS

5.1 INTRODUCTION

In the previous chapters the effect cannabis use on the physical, psychological (cognitive and affective), social and normative development of the adolescent was investigated by means of a literature review and an empirical study. In this chapter a summary of the previous chapters will be given. This will be followed by findings from the literature and empirical research, recommendations and criticism that emanated from the study and a final remark.

5.2 SUMMARY

5.2.1 Statement of the problem

In essence this study investigated educators' perceptions of the effect the use of cannabis has on the adolescent. Adolescents are increasingly coming into contact with drugs or habit-forming substances (e.g. cannabis) and the problem of substance abuse is growing in schools. Adolescents who use cannabis (by smoking or by mouth) often experience difficulty in establishing their own identity, forming healthy relationships, developing skills and gaining physical and emotional independence as adults.

The use of cannabis (or any other substance) may negatively affects the self-actualization of the adolescent. Successful self-actualization implies that the adolescent realizes all his potentials which include all the necessary manual skills, cognitive maturity and affective and moral responsibility.

5.2.2 Literature review

Adolescence can be described as a stage of instability, a time of locomotion from the stable period of childhood to a yet poorly comprehended stage of adolescence and later adulthood. The adolescent's conception of life is formed by his physical and psychological (cognitive and affective) development, by new opportunities, social freedom offered by society and by a myriad of other influences which can either result in positive or negative behaviour. During this stressful transitional period the adolescent is confronted by many issues where he has to exercise a moral decision. In this regard the statistics on teenage substance abuse is staggering which make it apparent that it is a matter of urgency to educate adolescents to become responsible adults.

In adolescents development towards adulthood risk taking should be seen as a normal activity. The adolescent needs to take risks in order to become a mature, responsible, non-risk taking adult. One of the risks an adolescent might take is experimenting with legal or illegal drugs such as cannabis. However, taking the risk to use cannabis (substance abuse) can affect the adolescent's development to responsible adulthood and result in the continuation of immature behaviour into adulthood.

Although many reasons are cited for the use of cannabis by adolescents most researchers explain drug dependency (cannabis use) in terms of multiple cause. The use of cannabis (drug abuse) is not the result of a single biological or behavioral factor but an interaction of these factors.

The following are, inter alia, some of the reasons why adolescents use cannabis (by smoking or by mouth):

- The adolescent wants to fit in and feel part of the peer group (peer pressure).

- Cannabis use helps the adolescent escape from his problems.
- The adolescent wants to rebel against his parents.
- The adolescent sees it as a way to take control.

Although research on cannabis has shown that it does have some medicinal value (e.g. pain relief), there is also scientific evidence that it can cause the user harm (e.g. brain damage). The following are some of the effects that the use of cannabis has on the development of the adolescent:

- Cannabis smoking causes various respiratory problems and diseases, e.g. emphysema and lung cancer.
- The chemicals released in the bloodstream by cannabis interfere with the nutrient supply to the brain and result in brain damage.
- The use of cannabis affects the functioning of the brain which may prevent the adolescent to make sound judgement.
- Cannabis use can make the adolescent aggressive and angry.
- The use of cannabis can make the adolescent moody and depressed which put strain on his relationships.
- The adolescent who uses cannabis may lie, cheat or steal to maintain his habit.
- The adolescent's ability to make healthy choices and good decisions may be hindered by the effect the use of cannabis has on the functioning of the brain.

5.2.3 Planning of the empirical research

In this study a self-structured questionnaire was utilized as research instrument to obtain data concerning the problem to be investigated. The questionnaire was administered to educators in secondary schools in the Port Shepstone District on the South Coast of KwaZulu-Natal. Where the secondary schools targeted for the research are widely dispersed in a district, the most appropriate source of obtaining data is the questionnaire.

The aim of the questionnaire was to obtain information regarding educators' perceptions concerning the effect of cannabis use on the development of the adolescent. The questions were formulated to establish the following:

- The effect of cannabis use on the physical development of the adolescent.
- The effect that the use of cannabis has on the adolescent's cognitive and affective development.
- The reasons for the use of cannabis by adolescents.

5.2.4 Presentation and analysis of research data

In chapter 4 the data which was collected from the completed questionnaire was presented in frequency tables. The simplest and most appropriate method to organize the data for this study was to calculate the number of responses to each question according to the codes assigned to the questions and then transform them into frequency distribution tables. In the frequency tables the number of times each response code was attained is indicated by means of percentages. Frequency distributions show the most and the least frequently occurring responses and are useful in analyzing and interpreting the data obtained from questionnaires.

The data comprised biographical information, possible reasons why the adolescent use cannabis is used, and the effect of the use of cannabis on the physical, cognitive and affective development of the adolescent.

5.2.5 Aims of the study

The course of the study was determined by the specific aims that the researcher formulated in Chapter one (cf.1.5). These aims were realized through a literature review together with an empirical study comprising a self-structured questionnaire. From the literature review and the empirical study the following findings emanated.

5.3 FINDINGS FROM THE RESEARCH

5.3.1 Findings from the literature review

From the available and relevant literature it was found that the physical, psychological (cognitive and affective), social and normative development of the adolescent are adversely affected by the use of cannabis. The following are some of the findings from the literature review:

- Continued smoking of cannabis causes breakdown of lung tissue and clogging of the air sacs (alveoli). This affects the lung-power of the adolescent and can also result in emphysema and lung cancer.
- The chemicals present in cannabis rob the body of essential vitamins and minerals and interfere with food digestion causing the user to suffer from malnutrition, which may prevent the proper physical development of the adolescent during puberty.

- Lungs damaged by cannabis smoking fail to supply the user's body with the oxygen needed for its adequate functioning. The brain may not get sufficient oxygen and essential nutrients required for development resulting in the adolescent's brain not reaching adult size and mass as expected.
- The use of cannabis over a long period of time may impair the memory (through brain damage) of the adolescent. This can have serious consequences on the scholastic and other academic achievements of the adolescent.
- The adolescent's inhibitions can be weakened by the use of cannabis. It can also dull the user's common sense which may cause aggressive behaviour. Substance abuse, such as cannabis, prevent the adolescent from exercising skills like co-operation and communication to resolve his differences with others and might encourage him to resort to physical force and violence to solve his problems or relieve him of his frustrations.
- Cannabis smoking has been noted for blunting emotions and for making the user paranoid. This may result in the adolescent becoming suspicious and fearful of the people around him causing him to stammer, babble, be anxious and engage in noisy behaviour, which are all symptoms of suppressed fear. Adolescents who use cannabis often display their jealousy by means of anger, rage and the use of force rather than by teasing, lying or bullying.
- Adolescents who use cannabis often exhibit unacceptable behaviour such as mugging, stealing, handbag snatching and violence to acquire money to satisfy and maintain their habit. This will bring them in contact with the law and they may end up suffering the ire of other adolescents, family members and educators causing them to withdraw and look for

more sympathetic company elsewhere. This may be also the time when they resort to the use of harder drugs.

- Substance abuse, for example cannabis use, is associated with crime and misconduct that disrupts the maintenance of an orderly and safe school atmosphere conducive to teaching and learning. Adolescent learners who use cannabis create a climate of apathy, disruption and disrespect for others in the school. They transform schools into a market place for dope deals, which is often associated with the destruction of school property and classroom disorder.
- The use of cannabis affects the development of the adolescent's inner moral sense and conscience, which in turn will effect the internalization of norms by the adolescent. This will ultimately determine whether the adolescent is accepted or rejected by his peers and the adult community.

5.3.2 Findings from the empirical study

The following are some of the significant findings from the empirical study:

- The majority of the respondents (88%) in the research sample said that the use of cannabis should *not* be legalized (cf. 4.2.8). Scientific research on cannabis shows that it does seem to have some medicinal properties, like decreasing the side effects of some cancer therapies, but there is also increasing scientific evidence that it does also have bad effects on the brain.
- More than ninety percent (94%) of participants in the research indicated that they know what cannabis looks like (cf. 4.2.8). Cannabis (dagga) is the most commonly and widely used drug and is locally grown.

- The finding that more than a third (37%) of the respondents in the research sample know a colleague (educator) that uses cannabis (cf. 4.2.8). This finding may be confirmation of the fact that cannabis is the illegal drug that is the most widely used as well as easily available. However, the educator that uses cannabis places a question mark over his responsibility to be a role model to learners.
- The larger percentage (77%) of the participants in the research is aware that the smoking of cannabis can cause lung, throat or mouth cancer (cf. 4.2.9, question 2.1) The majority (85%) of the respondents also agreed that cannabis smoking damages the lungs, for example causes emphysema (cf. 2.5).
- More than eighty percent (81%) of the respondents acknowledges that the use of cannabis can lead to brain damage (cf. 2.9). The chemicals present in cannabis are responsible for fatty deposits in the brain which may stunt the growth of brain cells and affects its effective functioning.
- The majority of respondents agreed that the use of cannabis by adolescents has the following effects on the cognitive abilities of the adolescent (cf. 4.2.10):
 - Inhibits the thinking process (54%).
 - Loss of memory (54%).
 - Impairs concentration (60%).
 - Weakens the ability to learn (71%).
 - Lack of interest in schoolwork (81%).
 - Difficulty to cope with schoolwork (79%).

- Most of the participants in the research indicated that the use of cannabis by adolescents has the following effects on the affective development of the adolescent (cf. 4.2.10):
 - Weakens feelings (63%).
 - Causes rapid mood changes (76%).
 - Impairs the making of correct judgement (73%).
 - Leads to emotional outbursts (77%).
- The majority of respondents agreed that peers play an important role in the use of cannabis by the adolescent. Eighty percent (80%) said that the adolescent use cannabis because of peer pressure, 72% agreed that they use it in order to gain status in the peer group while 77% said the adolescent use cannabis in order to be accepted in the peer group.

5.4 RECOMMENDATIONS

5.4.1 Policy on substance abuse

(1) Motivation

Bezuidenhout and Joubert (2003:38) postulate that the use and abuse of both legal and illegal drugs are taking on epidemic proportions among the South African youth. Children tend to become involved with drugs and alcohol at an early age, with the prevalence and incidence of use reaching a high in the late teens and early twenties. Between the ages of 10 and 18 years (adolescent years) one out of every four school going adolescents experiment with drugs of which cannabis (dagga) seems to be the most popular.

Although a well researched national policy concerning drugs, namely, the National Drug Master Plan is in existence, it does not have as yet the desired effect because not enough human and financial resources are spent on the

supervision, monitoring and implementation thereof (Brunton & Associates, 2003:51). This confirms Jansen (2002:199) assertion that policy making in South Africa is largely symbolic and that despite the production of thousands of pages of formal policy, there is little change in the school and classroom practice. The Department of Education's formal policy on the use of drugs in schools seems at present impractical. According to The South African Schools Act, Act no. 84 of 1996 it is the responsibility of the school governing body to develop and implement a policy concerning the use of drugs in the school in accordance with the departmental policy. However, many school governing bodies experience difficulty in completing the duties assigned to them with the result that many schools have not developed and implemented a drug abuse policy.

Although many schools incorporate rules relating to the use of drugs in their code of conduct for learners, there is an urgent that every school formulates a drug policy according to that specific schools circumstances.

(2) Recommendation

The recommendations are that:

- The Department of Education must develop a practical policy on the use of drugs in schools in collaboration with Sanca, the National Department of Health, the Police Service and other relevant stakeholders
- The Department of Education must make sufficient human and financial sources available for the training, supervision, monitoring and implementation of the drug policy in all schools.
- Where the department lacks the necessary resources support must be seek from the government, international organisations and the private sector.

- The drug policy for schools must be well researched and has clear and concise directives as to what is expected from the regions, districts, circuits and schools. The drug policy must include, *inter alia*, the following:
 - Rules about the use of drugs during school hours.
 - Rules about the possession of drugs in school.
 - Procedures for drug related offences.
 - A dependency management plan.
 - The role of the educator.
 - Identification of substance abusers
 - Prevention strategies.
 - List of organisations that can render support.

5.4.2 Workshops

(1) Motivation

Statistics paints a gloomy picture of the use of drugs among the school going children in South Africa (cf. 2.1). The use of legal and illegal drugs is taking on epidemic proportions among the South African youth. Research has found that learners in the secondary school have become drug users for a variety of reasons of which the following seems the most important (cf. 2.2):

- Peer pressure because the learner wants to “fit in” and becomes part of the group.
- Parents who are drug users and are seen as exemplary figures by their children.
- Single parent families where an authority figure is absent.

- Poor family relationships with uninvolved parents.

In the identification of the adolescent who uses cannabis (learner who abuses drugs) it is important to be aware of all the possible reasons for drug abuse. If an adolescent (learner) shows any of the symptoms of drug abuse, awareness of the reasons will render it possible to check if any one of them is present in the specific learner's situation.

(2) Recommendation

The recommendation is that the Department of Education in collaboration with teacher unions, principal forums, education organisations and Sanca must conduct workshops for educators and adolescents' parents in which the following aspects concerning drug abuse will receive attention:

- Reasons why adolescents (learners) use cannabis (drugs).
- The symptoms of the adolescent (learner) who uses cannabis (drugs).
- How to identify a cannabis (drug) user in class.
- Procedures to follow when an adolescent (learner) is suspected of being a cannabis (drug) user.
- How to behave toward the adolescent (learner) who is a cannabis (drug) user.
- How to handle the parents of the adolescent (learner) who is a cannabis (drug) user.
- Knowledge of treatment methods for cannabis use (drug abuse).

Parents can be invited to attend the workshops for the educators on a voluntary basis and asked to cover their share of the costs.

5.4.3 Further research

(1) Motivation

While the use of legal and illegal drugs, such as cannabis have increased dramatically over the past years, the information collected concerning the use of cannabis (drugs) by adolescents may still be incomplete in many aspects. Some reasons for cannabis use (drug abuse) among adolescents may not have been discovered as yet. The effect cannabis (drug) use has on the physical, cognitive and affective development of the adolescent may not be comprehensive. With the introduction of new and changed drugs the possibility exists that the symptoms and affect of the drug may differ from the already known ones.

(2) Recommendation

The recommendation is that further research of a quantitative and qualitative nature must be undertaken into the effect of drugs (cannabis) on the development of the adolescent. Research needs to be done to assist educators in the recognition of changed or new symptoms of the drug because new or altered drugs are introduced into the drug market at fairly regular intervals. New or altered drugs may also have a different effect on the development of the adolescent (learners) in school.

5.5 CRITICISM

Criticism that emanates from this study includes, *inter alia*, the following:

- The investigation was limited to secondary schools in the Port Shepstone District that comprises a large rural area. If the investigation included a wider and more representative area with a more even distribution between rural, semi urban and urban schools, the result may have been different
- The research sample consisted of secondary school educators only. The inclusion of parents and adolescent learners would have rendered a broader perspective on the use of cannabis (substance abuse).
- The questionnaires issued to the respondents were not all returned. More responses to questions could have reflected a different picture.
- Many of the questions dealt with sensitive issues and the possibility exists that the participants in the research were not completely frank in their responses to these questions. This could have influenced the validity of the findings.

5.6 FINAL REMARK

The findings in this study highlighted some of the detrimental effects that the use of cannabis may have on the development of the adolescent. It is hoped that the recommendations that were formulated could be of use in eliminating the negative effects the use of cannabis (drugs) has on adolescents (learners) in school. It is further anticipated that this study will be useful to all educators in the identification and assistance to substance abusers in school.

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APPENDICE A

STRICTLY CONFIDENTIAL

QUESTIONNAIRE

*The adolescent and the use of
cannabis*

P D Ncane
March 2005

Dear Educator

QUESTIONNAIRE: THE ADOLESCENT AND THE USE OF CANNABIS

At present I am engaged in a research project towards my MEd (Master in Education) degree at the University of Zululand under the guidance of Proff. G. Urbani and M S Vos. The research is concerned with *The adolescent and the use of cannabis*.

I have taken the liberty of writing to you, as one of the selected respondents, in order to seek your assistance in acquiring information about your experiences relating to the research.

<p style="text-align: center;">CONFIDENTIALITY</p> <p>All information will be regarded as CONFIDENTIAL, and no personal details of any educator/respondent will be mentioned in the findings, nor will any of the results be related to any particular educator or school.</p>
--

We deeply appreciate your co-operation.

Yours sincerely

.....

P D Ncane

.....

Date

INSTRUCTIONS TO THE RESPONDENT

1. Please read through each statement carefully **before** giving your opinion.
2. Please make sure that you do not **omit** a question, or skip any page.
3. Please be totally **frank** when giving your opinion.
4. Please **do not** discuss statements with anyone.
5. Please **return** the questionnaire after completion.

Kindly answer **all the questions** by supplying the requested information in writing, or by making a cross (X) in the appropriate block.

SECTION ONE: BIOGRAPHICAL INFORMATION

1.1 My gender is?

Male

Female

1.2 My age in completed years as at 2005-12-31:

Age group	
20 - 25 years	
26 - 30 years	
31 - 35 years	
36 - 40 years	
41 - 45 years	
46 - 50 years	
51 - 55 years	
56 - 60 years	
61 - 65 years	
Older than 65 years	

1.3 My qualifications are?

Academic qualification(s) (e.g. BA, MEd, etc.)

Professional qualification(s) (e.g. HDE, FDE, PTC, etc.)

1.4 Total number of completed years in the teaching profession as at 2005-12-31:

Number of years	
0 - 5 years	
6 - 10 years	
11 - 15 years	
16 - 20 years	
21 - 25 years	
26 - 30 years	
more than 30 years	

1.5 My post level is:

Principal	<input type="checkbox"/>	HOD	<input type="checkbox"/>
Deputy Principal	<input type="checkbox"/>	Educator (Post level 1)	<input type="checkbox"/>

1.6 Type of post held by me:

Permanent	<input type="checkbox"/>
Temporary	<input type="checkbox"/>
Governing Body	<input type="checkbox"/>

1.7 My school is situated in:

An urban area	<input type="checkbox"/>
A semi-urban area	<input type="checkbox"/>
A rural area	<input type="checkbox"/>

1.8 My school is classified as:

Junior secondary school	<input type="checkbox"/>
Senior secondary school	<input type="checkbox"/>
Comprehensive school	<input type="checkbox"/>
Special school	<input type="checkbox"/>

Other (please specify)

1.9

	Yes	No
Should the use of cannabis be legalised?	<input type="checkbox"/>	<input type="checkbox"/>
Do you know what cannabis (dagga) looks like?	<input type="checkbox"/>	<input type="checkbox"/>
Do you smoke cannabis (dagga)?	<input type="checkbox"/>	<input type="checkbox"/>
Do you know a colleague that smokes cannabis?	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>

SECTION TWO: PHYSICAL DEVELOPMENT

		Agree	Disagree	Uncertain
	The use of cannabis by an adolescent:			
2.1	Can cause cancer (e.g. lung, throat, mouth cancer)			
2.2	Affects the appetite (e.g. the adolescent does not eat)			
2.3	Causes impaired co-ordination (e.g. staggering movements)			
2.4	Contributes to heart damage (e.g. increased blood pressure)			
2.5	Damages the lungs (e.g. respiratory problems like bronchitis)			
2.6	Results in physical dependence (e.g. smoke cannabis for energy)			
2.7	Retards physical growth (e.g. suppresses user's appetite)			
2.8	Is not harmful if used moderately (e.g. to relieve pain)			
2.9	Results in brain damage (e.g..growth of brain cells are stunned)			
2.10	Weakens the body's immune system (e.g. becomes prone to pneumonia)			

SECTION THREE: COGNITIVE AND AFFECTIVE DEVELOPMENT

		Agree	Disagree	Uncertain
	The use of cannabis by the adolescent:			
3.1	Inhibits the thinking processes (e.g. experiences difficulty in problem solving)			
3.2	Affects the memory (e.g. cannot recall learned material)			
3.3	Impairs concentration (e.g. cannot pay attention in class)			
3.4	Weakens the ability to learn (e.g. finds it difficult to learn facts)			
3.6	Results in a lack of interest in school work (e.g. is often absent)			
3.7	Weakens feelings (e.g. ability to show empathy)			
3.8	Causes rapid mood changes (e.g. sudden aggressiveness)			
3.9	Impairs the making of correct judgements			
3.10	Leads to emotional outbursts (e.g. cannot control temper)			
3.11	Makes the adolescent fearful of people			
3.12	Gives a false sense of identity			
3.13	Lead to a negative self-concept			
3.14	Causes aggressive behaviour (e.g. is often involved in fights)			

SECTION FOUR: REASONS FOR THE USE OF CANNABIS

		Agree	Disagree	Uncertain
	The adolescent uses cannabis:			
4.1	because of peer pressure			
4.2	because parents are users			
4.3	as experimentation			
4.4	as it serves as proof of independence			
4.5	as a result of it being freely available			
4.6	to gain status in the peer group			
4.7	as a form of recreation			
4.8	to be accepted in the peer group			
4.9	because of permissive (uncaring, uninvolved) parents			
4.10	as revolt against authoritarian (very strict) parents			

APPENDICE B

Denver Zoar Primary School
P.O. Box 1307
Port Shepstone
4240
22 January 2004

The District Director
KZN Dept of Education and Culture
Port Shepstone District
Port Shepstone
4240

Madam

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH

I am engaged in a research project under the topic, **THE USE OF CANNABIS AND THE BECOMING OF THE ADOLESCENT**. This is towards my Masters degree in Education at the **University of Zululand** under the guidance of Proff G.Urbani and Proff M.S. Vos.


I would be glad if the District Director would allow me to conduct a research in Secondary Schools under Port Shepstone District. The research will be conducted by means of questionnaires.

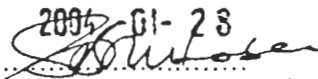
The information collected may be of great help to both educators and learners in schools under Port Shepstone District and abroad. I have made this correspondence known to the Circuit Manager under which I serve by asking if he could append his signature.

It would be highly appreciated if the District Director could address the request.

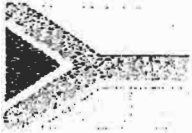
Yours Faithfully


P.D.Ncane


Circuit Manager
KZN DEPARTMENT OF EDUCATION & CULTURE
PORT SHEPSTONE DISTRICT
PORT SHEPSTONE 4240
Page -30-
SAYUL DISTRICT OFFICE

RESOLVED
UMNYANQO WEMFUNDO NAWASIKO
DEPARTMENT OF EDUCATION & CULTURE
DEPARTEMENT VAN ONDERWYS
2004 01-23

District Director X860
ISIKHATHI SAZANA
PRIVATE 1307 PORT SHEPSTONE
PORT SHEPSTONE 4240
PORT SHEPSTONE REGIONAL OFFICE

APPENDICE C



PROVINCE OF KWAZULU-NATAL
 ISIFUNDAZWE SAKWAZULU-NATAI
 PROVINSIE KWAZULU-NATAL



U-MSITHETHO WASENTOLO WASENTOLO
 U-MSITHETHO WASENTOLO WASENTOLO
 U-MSITHETHO WASENTOLO WASENTOLO

PORT SHEPSTONE DISTRICT OFFICE - PORT SHEPSTONE DISTRICT OFFICE - PORT SHEPSTONE DISTRICT OFFICE

Address: Old United Building
 Ikheli: 46 Aiken Street
 Address: Port Shepstone
 4240

Private Bag: X860
 Isikhwama seposi: Port Shepstone
 Privaatsaak: 4240

Telephone: [039] 6883600
 Ucingo:
 Telephone:
 Fax: [039] 6883661

Enquiries:
 Imibuzo:
 Navrae:

Reference:
 Inkomba:
 Vervysing

Date:
 Usuku:
 Datum:

GBF Mtombeni

23/03/04

TO : Professor Urbani and M.S. Vos

Permission has been granted to Pheneas Dayiloni Ncane to conduct research in the Port Shepstone District towards M.Ed Degree at the University of Zululand.

PROVINCE OF KWAZULU-NATAL
 DEPARTMENT OF EDUCATION AND CULTURE
 PRIVATE BAG X860
 PORT SHEPSTONE 4240
 GBF MTOMBENI
 DISTRICT MANAGER

 DISTRICT MANAGER
 PORT SHEPSTONE DISTRICT OFFICE