THE DEVELOPMENT OF A SUBSTANCE ABUSE PREVENTION PROGRAMME FOR EARLY ADOLESCENTS IN KWAZULU NATAL

by

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Dedicated to J.M.D. BRANDT

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Dedicated to J.M.D. BRANDT

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SUMMARY

THE DEVELOPMENT OF A SUBSTANCE ABUSE PREVENTION PROGRAMME FOR EARLY ADOLESCENTS IN KWAZULU NATAL

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In this investigation an attempt was firstly made to define, describe and explicate the phenomenon of substance abuse among the youth, providing a basis for understanding the multidimensional nature of adolescent substance abuse, in terms of its etiology and consequences. Secondly, the development, risk and consequences of adolescent substance use and abuse were investigated after which different components of substance abuse prevention among adolescents was studied. Hereafter, the researcher presented a self-developed substance abuse prevention programme for early adolescents in KwaZulu Natal (i.e. Project Skills Development) followed by all the empirical research findings, a general summary, conclusions and recommendations.

Two research questions as well as a hypothesis and three sub-hypotheses were formulated for the study. The research questions included: (a) what is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal? and (b) what is the state of existing substance abuse prevention programmes for early adolescents in

KwaZulu Natal? Accordingly, the hypothesis of the study read: If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way. From this, three sub-hypotheses was worded: (a) If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users, will be influenced in a positive way, (b) If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase, and (c) If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.

The selected research approach for the study was the combined quantitative-qualitative approach and the type of research, identified as Intervention Design and Development. An exploratory and descriptive research design were selected to reach the first three objectives of the study, namely:

(a) To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.
(b) To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.
(c) To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.

The researcher also applied the comparison group pretest-posttest design (i.e. a quasi-experimental/associative design) with respondents to reach the last three objectives of the study, namely:

(a) To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.

(b) To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.

(c) To evaluate the substance abuse prevention programme among early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.

Empirical research findings based on the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal confirmed that alcohol was still the most popular legal drug among the youth in KwaZulu Natal with cannabis the most popular illegal substance.

Herewith, empirical findings based on the review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal suggested that two substance abuse prevention programmes, namely Life orientation (Curriculum 2005) and Teenagers Against Drug Abuse (TADA) programme from SANCA seem to be more effective on preventing adolescent substance abuse than the DAP (Drug Abuse Prevention programme) of the Department of Social Welfare and Population Development or Community Education programme by the South African Narcotics Bureau (SANAB). Other Social Welfare Non-Governmental Organisations in KwaZulu Natal (e.g. Durban Children Society, "Natal Christelike Vroue Vereniging" and "Christelik-Maatskaplike

Diens") do not render any substance abuse prevention services to the youth as this is seen as a core function of SANCA.

The evaluation of the self developed substance abuse prevention programme for early adolescents in KwaZulu Natal, i.e. Project Skills Development was done by means of a self-constructed group-administered questionnaire in the pre-test i.e. before implementation of Project Skills Development, and post-test with both the experimental (25 respondents) and comparison group (25 respondents). The sample thus included a total of 50 early adolescents and the empirical data was collected to include 2 measurements, once before and once after the intervention (Project Skills Development). Empirical findings confirmed that there was a statistical significant difference in the experimental groups (a) attitudes to drugs and drug users, and (b) drug knowledge, with a 95% chance that the results were due to Project Skills Development and not to chance. There is not a statistical significant difference in the experimental groups' personal and social skills after exposure to Project Skills Development even though a positive movement (i.e. in the development of assertiveness skills) did occur among the respondents. The 1st two of the three sub-hypotheses is thus confirmed with a positive movement identified in the 3rd hypothesis.

Key words

Substances, substance abuse, substance dependence, adolescents, early adolescents, youth, prevention, prevention services, substance abuse prevention programme, KwaZulu Natal.

OPSOMMING

DIE ONTWIKKELING VAN 'N SUBSTANS MISBRUIK VOORKOMINGSPROGRAM VIR VROEë ADOLESSENTE IN KWAZULU NATAL

deur

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In hierdie ondersoek is daar eerstens gepoog om die verskynsel van substans gebruik onder die jeug te definieer, beskryf en verduidelik ten einde 'n basis vir beter begrip van die multi-dimensionele aard van adolessente substans gebruik in terme van die etiologie en gevolge te voorsien. Tweedens, is die ontwikkeling, risiko en gevolge van adolessente substans gebruik en -misbruik ondersoek, waarna verskillende komponente van substans misbruik voorkoming onder adolessente bestudeer is. Hierna bied die navorser 'n selfontwikkelde substans misbruik voorkomingsprogram vir vroeë adolessente in KwaZulu Natal ("Project Skills Development"), gevolg deur die empiriese navorsingsbevindinge, 'n algemene opsomming, gevolgtrekkings en aanbevelings.

Twee navorsings vrae, insluitende 'n hipotese en 3 sub-hipotesese is geformuleer vir hierdie studie. Die navorsings vrae het ingesluit: (a) wat is die aard en voorkoms van substans misbruik onder vroeë adolessente in KwaZulu Natal? en (b) wat is die toestand van bestaande substans misbruik voorkomingsprogramme vir vroeë adolessente in KwaZulu Natal?

Die hipotese van die studie lees: As vroeë adolessente 'n skool gebaseerde substans misbruik voorkomingsprogram ondergaan dan sal hulle houding, kennis en vaardighede teenoor substans misbruik positief beïnvloed word. Hieruit, is drie sub-hipotesese geformuleer: (a) As vroeë adolessente 'n skool gebaseerde substans misbruik voorkomingsprogram ondergaan dan sal hulle houding teenoor substanse en substans misbruikers positief beïnvloed word, (b) As vroeë adolessente 'n skool gebaseerde substans misbruik voorkomingsprogram ondergaan dan sal hulle substans verwante kennis vermeerder word, en (c) As vroeë adolessente 'n skool gebaseerde substans misbruik voorkomingsprogram ondergaan, dan sal hulle persoonlike- en sosiale vaardighede bevorder word.

Die geselekteerde navorsings benadering vir die studie was die gekombineerde kwantitatiewe-kwalitatiewe benadering en die tipe navorsing: Intervensie Ontwerp en Ontwikkeling. 'n Verkennende- en beskrywende navorsings ontwerp is gekies om die eerste drie doelwitte van die studie te bereik, naamlik:

(a) Om die ondersoek binne 'n teoreties gefundeerde verwysings raamwerk uit te voer deur 'n literatuur studie van die verskynsel van substans misbruik, substans misbruik onder vroeë adolessente en substans misbruik voorkoming onder die jeug te onderneem.
(b) Om die aard en voorkoms van substans misbruik as 'n problematiese menslike toestand onder vroeë adolessente in KwaZulu Natal te identifiseer.
(c) Om 'n kritiese oorsig van die toestand van bestaande substans misbruik voorkomingsprogramme vir vroeë adolessente in KwaZulu Natal te onderneem.

Die navorser het ook die vergelykende groep voortoets natoets ontwerp (i.e. 'n kwasi-eksperimentele/assosiatiewe ontwerp) toegepas om die laaste drie doelwitte van die studie te bereik, naamlik:

(a) Om 'n substans misbruik voorkomingsprogram vir vroeë adolessente in KwaZulu Natal te ontwikkel.

(b) Om die substans misbruik voorkomingsprogram vir vroeë adolessente in KwaZulu Natal te implementeer.

(c) Om die substans misbruik voorkomingsprogram vir vroeë adolessente in KwaZulu Natal te evalueer met die doel om verdere benutting in die praktyk aan te beveel.

Empiriese navorsingsbevindinge gebaseer op die aard en voorkoms van substans misbruik onder vroeë adolessente in KwaZulu Natal bevestig dat alkohol steeds die mees populêre wettige dwelm onder die jeug in KwaZulu Natal is met cannabis die mees populêre onwettige dwelm.

Hiernaas suggereer empiriese bevindinge gebaseer op die oorsig van die toestand van bestaande substans misbruik voorkomingsprogramme vir vroeë adolessente in KwaZulu Natal dat twee substans voorkomingsprogramme, naamlik: Lewens Oriëntering (Kurrikulum 2005) en die Tieners Teen Dwelm Misbruik (TTDM) program van SANRA meer effektief is vir die voorkoming van adolessente substans misbruik as die Dwelm Misbruik Voorkomings program van die Departement van Maatskaplike Welsyn en Bevolkings Ontwikkeling of die Gemeenskap Opvoedings program van die Suid-Afrikaanse Narkotiese Buro. Ander Maatskaplike Welsyn (nie- regerings) Organisasies in KwaZulu Natal (byvoorbeeld Durban Kinder Vereniging, Natal Christelike Vroue

Vereniging en Christelik-Maatskaplike Diens) bied geen substans misbruik voorkomings dienste aan die jeug nie aangesien dit gesien word as 'n kern funksie van SANRA.

Evaluasie van die selfontwikkelde substans misbruik voorkomingsprogram vir vroeë adolessente in KwaZulu Natal, i.e. "Project Skills Development", is gedoen deur middel van 'n self-gekonstrueerde, groep toegepaste vraelys in die voor toetsing, i.e. voor implementering van "Project Skills Development", en na toetsing met beide die eksperimentele (25 respondente) en vergelykende groep (25 respondente). Die steekproef sluit dus 'n totaal van 50 vroeë adolessente in en die empiriese data was ingesamel om twee metings in te sluit, een voor en een na die intervensie ("Project Skills Development"). Empiriese bevindinge bevestig dat daar 'n statisties betekenisvolle verskil in die eksperimentele groep se (a) houding teenoor dwelms en dwelm gebruikers, en (b) dwelm kennis is, met 'n 95% kans dat die resultate toegeskryf kan word aan "Project Skills Development" en nie aan toeval nie. Daar is nie 'n statisties betekenisvolle verskil in die eksperimentele groep se persoonlike en sosiale vaardighede na blootstelling aan "Project Skills Development" nie, al het daar 'n positiewe beweging (i.e. in die ontwikkeling van selfgeldende gedrag) voorgekom onder die respondente. Die eerste twee van die drie sub-hipotesese is dus bevestig, met 'n positiewe beweging geïdentifiseer in die derde hipotese.

Sleutelwoorde

Substanse, substans misbruik, substans afhanklikheid, adolessente, vroeë adolessente, jeug, voorkoming, voorkomings dienste, substans misbruik voorkomingsprogram, KwaZulu Natal.

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Chapter 1

General introduction

1. Introduction

Substance abuse is a global socio-medical problem that is regarded as one of the most alarming issues of our era (Roper & Burtlett, 1994: 1). Particularly disturbing are indications of a progressive increase in the general level of substance abuse among South African youth (Giangregorio, 1999: 1). In addition the consequences of substance abuse are serious for both the youth and society. According to Rocha-Silva, De Miranda and Erasmus (1996: 3) the negative impact that substance abuse practices may have on health, economic growth, social relationships, community life and emotional and spiritual well-being is widely acknowledged.

The present-day reality of substance abuse as a growing problem among the youth, shrinking resources and rather unstable socio-economic climate in South Africa suggest an urgent need for prevention programmes in the field of substance abuse (Rocha-Silva, De Miranda & Erasmus, 1996: 85).

In this chapter the researcher gives a general introduction to the study that is aimed at the development, implementation and evaluation of a substance abuse prevention programme for early adolescents in KwaZulu Natal. The chapter is set out in terms of the study's rationale, research

methodology, collection and analysis of data. In fact, the researcher starts with the motive for the choice of substance abuse as a subject for the study, followed by a formulation of the problem. Here after the goal and objectives of the study are identified and 2 research questions and a hypothesis with 3 sub-hypotheses formulated. The next sections describe the research approach, the type of research, research design, research procedure and strategy that will be used. Aspects concerning the pilot study are also explained and a description of the research population and sampling methods given. Ethical aspects and limitations of the study are briefly outlined and key concepts defined. Finally ending with the arrangement of the research report.

2. Motivation for the choice of the subject

The researcher has chosen to embark on this particular topic because of the nature and size of the problem of substance abuse among South African youth. With escalating patterns of substance abuse and the youth's vulnerability and risk-proneness with respect to developing substance abuse related problems, the need for this study is highlighted. This fact, as well as the present rather unstable socio-economic climate in South Africa, and the public health implications of a future increase in substance-related problems among the youth create great pressure for cost-effective and innovative prevention programmes in the field of substance-related problems. (Compare Rocha-Silva, De Miranda & Erasmus, 1996: 91.)

Further motivation for this study is found in Sancho's (1994: 20) recommendation concerning the need for research in the field of alcohol

and drug abuse. She states that the primary prevention of substance abuse in children at risk is the one area worthy of an in-depth inquiry in the South African context.

Another reason for the choice of this subject is the limited extend of South African based research regarding substance abuse prevention among the youth. Through this research the knowledge base of social work can thus be extended and a basis provided for future or further study.

Lastly the researcher has a professional interest in the work that is done in the addiction field, especially among the youth. This study is a concrete investment in South African youth as they constitute a major proportion of the South African population and represent the future.

3. Problem formulation

The research process begins with a research issue or a problem that potentially can be solved through a research study. York (1997: 44) refers to this beginning phase of research as problem formulation. According to the New Dictionary of Social Work (1995: 48) problem formulation is the process of "defining the phenomenon into which research is to be carried out." Bearing this in mind the following is stated: In order to solve a problem, one must generally know what the problem is.

It is widely acknowledged that substance abuse is a growing problem among the youth. According to Sancho (1994: 2) the escalation of substance abuse by the adolescents in South Africa is reason for concern. In this regard Giangregorio (1999: 1) states that the youth appear most

vulnerable, as direct social pressure to use drugs tends to be common and there is easy access to substances such as cannabis and alcohol. Herewith, new patterns are emerging reflecting an "intensification" of past drug-use patterns i.e. there is an increase in the number of drugs used as well as the frequency and volume of intake. The current prevalence for licit and illicit drug use among South African youth reflects that alcohol, the tranquilo-sedative group and stimulants (amphetamines) are fairly popular drugs of abuse, with LSD, cocaine and heroin being used to a lesser extent (Giangregorio, 1999: 1).

The consequences of substance abuse are serious for both the adolescent and society. For the developing adolescent, substance abuse disrupts school career, damages physical growth and development, contributes to debilitating psychological disorders and increases risk of accidental injury or death (Sancho, 1994: 3). For society, substance abuse among adolescents exacts escalating costs in terms of health care, educational failure, mental health services, alcohol and drug treatment, and juvenile crime (Sancho, 1994: 3). In addition to these costs substance abuse is a major contributor to a vast array of social problems such as AIDS, violent behaviour, crime and unemployment.

Herewith it seems that a general social and psychological climate exists in South Africa, which is supportive of substance abuse. Rocha-Silva *et al.*, (1996: 3) point out that history in Africa and the wider world has shown that when a country is experiencing general and drastic socio-economic changes, as is the case in South Africa at present, these frequently reverberate within the sphere of drug intake. It seems that various substance related problems often develop and escalate in the wake of such changes, draining scarce and key human and other resources,

marginalizing people, and impeding socio-economic growth (Rocha-Silva, De Miranda & Erasmus, 1996: 3).

Moreover, with increasing opportunities for South Africans to participate in international trade and travel and for international illicit drug traffic networks to penetrate the local market, the proportion of drug users and indeed, the general level of drug intake can only be expected to rise in the near future. (Compare Rocha-Silva, De Miranda & Erasmus, 1996: 4; Van Zyl, 1997: 14.) This danger is recognised in the World Health Organization's 1992 progress report on their Substance Abuse Programme where the point is made that

> ...measures to reduce alcohol and drug abuse (should be)... seen as essential to a country's programme of national economic development;... efforts to combat alcohol and drug abuse (should) become part of a nation's positive drive to achieve its full potential. (Compare World Health Organization in Rocha-Silva, De Miranda & Erasmus, 1996: 4.)

With the growing problem of adolescent substance abuse, shrinking resources and rather unstable socio-economic climate in South Africa, Rocha-Silva *et al.*, (1996: 85) suggest an urgent need for innovative prevention programmes in the field of substance abuse. This fact combined with the limited extent of age-specific, developmentally correct and culturally sensitive substance abuse prevention programmes in South Africa underscores the need for an investment in South African youth through preventive programmes.

Based on what has been mentioned it is clear that substance abuse is a growing problem among adolescents in South Africa and that there is an urgent need for prevention efforts. Consequently this study is directed at the development, implementation and evaluation of a substance abuse prevention programme for early adolescents in KwaZulu Natal.

4. Goal and objectives of study

Goal

To develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.

Objectives

- To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.

- To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.

- To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.

- To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.

- To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.

- To evaluate the substance abuse prevention programme for early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.

5. Research questions as well as hypothesis and sub-hypotheses

Research always commences with one or more questions or hypothesis and/or sub-hypotheses. In general research questions are posed about the nature of real situations, while hypotheses are statements about how things can be. According to De Vos (1998: 116) research questions are more relevant if the researcher works qualitatively, and hypotheses when the researcher works quantitatively. In fact, Reid and Smith as quoted by De Vos (1998: 116) reply that often in social work research not enough is known about phenomena to be studied to justify the formulation of hypotheses. What is more, there may not even be sufficient knowledge to identify and define relevant variables. Before hypotheses can thus be formed and tested, it may be necessary to describe phenomena of interest, locate promising variables and explore relationships among them.

Accordingly the following research questions were formulated for this study:

- **What is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal?**

- **What is the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal?**

The researcher continues by moving from this exploratory and descriptive study organised around the above-mentioned research questions to more definite, hypotheses-testing research.

The Social Work Dictionary (1999: 226) describes a hypothesis as: "A tentative proposition that describes a possible relationship among facts that can be observed and measured". Kerlinger as quoted by De Vos (1998: 42) defines a hypothesis as a conjectural statement, a tentative proposition about the relation between two or more phenomena or variables. (Compare Bless & Higson-Smith, 2000: 33.) Our scientists will say, Kerlinger quotes, "if such-and-such occurs, then so-and-so-results". (Compare Oliphant, 1990: 4.) A hypothesis in other words, is a tentative, concrete and testable statement that predicts what we expect to find about the way variables are related.

For this study the following hypothesis is formulated:

If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way.

From this, three sub-hypotheses is worded:

- **If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way.**

- **If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase.**

- **If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.**

6. Research Approach

There are three well-known and recognised approaches to research namely the quantitative approach, qualitative approach, and combined quantitative-qualitative approach (De Vos, 1998: 15). The quantitative and qualitative methodological paradigms differ vastly from each other: The quantitative paradigm is based on positivism, which takes scientific explanation to be nomothetic (i.e. based on universal laws). Its main aims are to objectively measure the social world, to test hypotheses and to predict and control human behaviour. In contrast, the qualitative paradigm stems from an antipositivistic, interpretative approach, which is idiographic, thus holistic in nature, with the main aim to understand social life and the meaning that people attach to everyday life (De Vos, 1998: 241).

Combining the two approaches is problematic but in nearly all cases the line between quantitative and qualitative methods is somewhat blurred. In fact, most comprehensive studies will probably use both approaches and thus cannot strictly be called either quantitative or qualitative (Bless & Higson-Smith, 2000: 38). In reality researchers often have to use both approaches (De Vos, Strydom, Fouché & Delport, 2002: 364).

For this study the combined quantitative-qualitative approach is selected. In the context of Cresswell's three models of combination (De Vos *et al.*, 2002: 365) the dominant-less-dominant design is used. The researcher presents a dominant quantitative study based on the development, implementation and evaluation of a substance abuse prevention programme with one small qualitative interview component in the data collection phase. This particular approach is appropriate due to the following reasons:

- The process and focus of the study, i.e. to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal;

- The main data collection method that is a self-constructed questionnaire while only using structured interviews with a schedule as component of the critical review of the state of existing substance abuse prevention programmes in KwaZulu Natal; and

- The predominant use of statistical methods in data analysis.

7. Type of research

The type of research proposed for this study is intervention research.

Rothman and Thomas (1994: 4) describe intervention research as an integrative perspective for human service research. In so doing a basis is provided for bringing together three types of research and inquiry as facets of intervention research, i.e.

(a) Empirical research to extend knowledge of human behaviour relating to human service intervention (referred to as Intervention Knowledge Development - KD),
(b) The means by which findings from intervention knowledge development research may be linked to and utilised in practical application (referred to as Intervention Knowledge Utilisation - KU), and
(c) Research directed towards developing innovative interventions (referred to as Intervention Design and Development – D&D). (Compare De Vos, 1998: 11.)

Herewith the New Dictionary of Social Work (1995: 35) defines intervention research as: "Research directed at the establishment of procedures for designing, testing, evaluating and refining techniques and instruments with a view to intervention in social problems in communities and groups." Intervention research is thus an integrated approach to research directed at providing solutions to practical problems.

In the light of the study's focus, as mentioned before, it is clear that Intervention Design and Development (D&D) research is relevant for

several reasons. The proposed study is in essence a problem-solving process seeking an effective intervention to prevent substance abuse among early adolescents. (Compare Rothman & Thomas, 1994: 12.) The study's goal is to evolve an innovative intervention, i.e. a substance abuse prevention programme for early adolescents in KwaZulu Natal. Accordingly this goal concurs with the emerging methods of D&D that include the means of problem analysis, intervention design, development, evaluation and dissemination (Rothman & Thomas, 1994: 7).

Hence Rothman and Thomas's (1994: 9) integrated model of D&D can be used. In this integration there are six main phases of intervention D&D:

(a) Problem analysis and project planning,
(b) Information gathering and synthesis,
(c) Design,
(d) Early development and pilot testing,
(e) Evaluation and advanced development, and
(f) Dissemination.

Although performed in a stepwise sequence, some or many of the activities associated with each phase continue after the introduction of the next phase. Also, though ideally stepwise and linear, there is sometimes looping back to earlier phases, as difficulties are encountered or new information is obtained.

Table 1 gives an explanation of the integrated model of Intervention Design and Development (D&D) according to Rothman and Thomas (1994: 57-369) as proposed for application in this study.

Table 1: Integrated model of Intervention Design and Development (D&D)

Integrated model of Intervention Design and Development (D&D)		Application of D&D in this study
Phases	**Steps**	
Problem analysis and project planning	Identifying and involving clients Gaining entry and co-operation from settings Identifying and analysing concerns of the population Setting goals and objectives	❑ Key Partners included: (a) Primary schools, (b) youth, (c) parents, (d) law enforcement agencies, and (e) state, local or tribal government agencies. ❑ Authorities in the substance abuse field were willing to co-operate in this endeavour. Accordingly the school environment, i.e. Sizani Primary school, was supportive and accommodating to the study. ❑ A written letter of approval from the Department of Education and Culture was obtained. (See Appendix 1, page 395.) ❑ Identified respondents and their parents were briefed about the research project and then provided the opportunity to refuse or participate in the study. (See informed consent form, page 571.) ❑ The study was scheduled at the convenience of the school and participants. ❑ Concerns of the population: The nature and prevalence of substance abuse among early adolescents in KwaZulu Natal was determined by examining the research data of the South African Community Epidemiology Network of Drug Use (SACENDU) i.e. an alcohol and drug surveillance system that is operational in KwaZulu Natal. ❑ The study's goals and objectives were established.
Information gathering and synthesis	Using existing information sources; studying natural	❑ The investigation was conducted within a theoretically founded reference frame by means of a literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth. ❑ To determine what is being done to address the problem of substance

Integrated model of Intervention Design and Development (D&D)		Application of D&D in this study
Phases	**Steps**	
	examples Identifying functional elements of successful models	abuse among the youth and to identify functional elements of successful programmes the researcher reviewed the available prevention programmes from 8 core Social Welfare organizations in KwaZulu Natal, namely: (a) Department of Social Welfare and Population Development, (b) Department of Education and Culture, (c) SANCA, (d) SANAB, (e) and other Social Welfare Non-Governmental organizations (i.e. Durban Children Society, "Natal Christelike Vroue Vereniging" and "Christelik-Maatskaplike-Diens).
Design	Designing an observational system Specifying procedural elements of the intervention	To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal the researcher focused on the following aspects of programme planning and design: ❑ Programme outline (i.e. vision statement, the researcher's role, priority activities and key partners), ❑ Defining of the target group, ❑ Specifying of key issues (theory base and delivery setting), ❑ Setting of risk and protective factors (targeted risk factors and targeted protective factors), ❑ Determine capacity (internal capacity and external resources), and ❑ Evaluation of the programme.
Early development and pilot testing	Developing a prototype or preliminary intervention Conducting a pilot test	Early development and pilot testing within this study included ❑ A literature study, ❑ Consultation with 6 experts in the field of substance abuse among the youth, ❑ Exploration of the feasibility of the study, and ❑ Pilot test of the measuring instruments (i.e. self-constructed questionnaire

Integrated model of Intervention Design and Development (D&D)		Application of D&D in this study
Phases	**Steps**	
	Applying design criteria to the preliminary intervention concept	and structured interview with a schedule).
Evaluation and advanced development	Selecting an experimental design Collecting and analysing data Replicating the intervention under field conditions Refining the intervention	For the implementation and evaluation of the researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development) the researcher utilized the following criteria as boundaries of the study, namely: a. Development phase: Early adolescence (11 – 14 years old), b. Permanent residence North coast, KwaZulu Natal, c. Population group: Black, and d. Youth with no obvious substance use/abuse problems. Data collection was done by means of a self-constructed, group-administered questionnaire in the pre-test i.e. before implementation of the prevention programme, and post-test with both the experimental and comparison group (comparison group pretest-posttest design). Data was analysed by means of the computer.
Dissemination	Preparing the product for dissemination Identifying potential markets for the	❑ The researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal was developed, implemented and evaluated with a view to recommend further utilisation in practice. ❑ Potential markets: Social Welfare field and school environment. ❑ The programme is introduced and recommended to the above-mentioned market. ❑ The programme (Project Skills Development) is not meant to be

Integrated model of Intervention Design and Development (D&D)		Application of D&D in this study
Phases	Steps	
	intervention Creating a demand for the intervention Encouraging appropriate adaptation Providing technical support for adopters	prescriptive; rather its purpose is to stimulate ideas and indeed can and should be adapted, abridged and expanded according to the users need. ❑ It is recommended that social workers/teachers undergo training before implementation of the programme (Project Skills Development).

(Compare De Vos, 1998: 385.)

8. Research design

The New Dictionary of Social Work (1995: 53) defines research design as the: "Plan of a research project through which data is gathered in order to investigate the hypothesis or to realise the aim". Mouton and Marais (in Oliphant 1990: 11) offer a closely related definition of design as the "arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with

economy in procedure". De Vos (1998: 77) uses the term research design only for those groups of small worked-out formulas from which prospective (quantitatively oriented) researchers can select or develop one or more suitable to their specific research goals and objectives. For the purpose of this study the term research design is considered the plan of the research project through which data is gathered to realise the aim of the study.

The researcher utilized the exploratory and descriptive design to reach the following three objectives, namely:

(a) To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.

(b) To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.

(c) To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.

The exploratory and descriptive design were thus selected because it would help the researcher explore, describe and gain new insights into the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth in KwaZulu Natal. Exploratory designs are, however, at the lowest level of the continuum of knowledge that can be derived from research studies.

According to Grinnell (in De Vos, 1998: 124) an exploratory study explores a research question about which little is as yet known. The purpose is to uncover generalisations and develop hypotheses which can be investigated and tested later with more precise and hence more complex designs and data-gathering techniques. Because they go no further, they are sometimes called pre-experimental or non-experimental designs. The exploratory and descriptive design is thus utilized to undertake a preliminary investigation prior to the more structured study (i.e. to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal) of the phenomenon.

The researcher also applied the comparison group pretest-posttest design (i.e. a quasi-experimental/associative design) with respondents to reach the next three objectives, namely:

(a) To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.

(b) To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.

(c) To evaluate the substance abuse prevention programme among early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.

The comparison group pretest-posttest design is the equivalent of the classical experimental design, in that two groups are used, as well as pre- and post-tests. However, randomised allocation of subjects is lacking (De

Vos, 1998: 79) therefore utilization of a comparison group takes place and not a control group.

A sample of 50 early adolescents in the North coast, KwaZulu Natal was purposively selected according to the following criteria, i.e. (a) Development phase: early adolescence, (b) permanent residence: North coast, KwaZulu Natal, (c) population group: Black, (d) youth with no obvious substance use/abuse problems. (See Chapter 1, page 33.) These respondents were then equally divided according to their gender and randomly assigned to two groups, one of which became the experimental group and the other the comparison group. Both groups were measured at the beginning of the study, i.e. before implementation of the prevention programme (pre-test). Thereafter, the experimental group was subjected to the intervention, i.e. the substance abuse prevention programme. Following the intervention both groups were measured again (post-test). This enabled the researcher to measure the effectiveness of the intervention (substance abuse prevention programme) by comparing differences between pre-intervention and post-intervention measures with changes that occurred during the same time period in the comparison group. Measurement occurred with the use of a self-constructed questionnaire that was administered in-group context.

This comparison group pretest-posttest design was selected because it enabled the researcher to reach the goal and previously mentioned objectives of the study. Other considerations taken into account in choosing this design was:

- Relevance: Use of this design made it possible to determine how the independent variable (substance abuse prevention programme) affected the experimental group by comparison of pre- and post-test results.

- This design overcame the difficulties of history, maturation and regression towards the mean, since measurement took place at the same time (Bless & Higson-Smith, 2000: 70).

- Time and money: This design was successfully implemented within the space of time and budget of the project.

- Availability of respondents: As this design is a series of two measures over time, changes in the composition of the experimental and comparison group didn't pose a problem.

- The selected quantitative data collection technique was a group-administered questionnaire, commonly used with the comparison group pretest-posttest design.

9. Research procedure and strategy

Data collection

There are a number of methods that can be used to collect data for a research study (York, 1997: 78). In this study, data was gathered by means of the following:

- A questionnaire; and
- Structured interviews with a schedule.

Table 2 presents an explanation of the proposed data collection methods, according to the researcher's goal, objectives, research approach and selected research design.

Table 2: Data collection methods

Objective	Target group	Data collection method	Research approach	Research design
Identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.	o South African Community Epidemiology Network of Drug Use (SACENDU)	Access to all the data of SACENDU through Internet (http;//www.mrc.ac.za)	Qualitative	Exploratory and descriptive design
A critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.	o Department of Social Welfare and Population Development, KwaZulu Natal o Department of Education and Culture, KwaZulu Natal o South African National Council on Alcoholism and Drug Dependence (SANCA) o Durban Children Society o South African Narcotics Bureau o NCVV ("Natal Christelike Vroue	Structured interviews with a schedule	Qualitative/ Quantitative	Exploratory and descriptive design

Objective	Target group	Data collection method	Research approach	Research design
	Vereniging") ○ CMD ("Christelik-Maatskaplike Diens") ○ Newland Park Rehabilitation Centre			
To implement and evaluate the developed substance abuse prevention programme.	○ Early adolescents in KwaZulu Natal	Group-administered questionnaire (Self constructed)	Quantitative	Comparison group pre-test post-test design

- To identify the nature and extent of substance abuse among the youth in KwaZulu-Natal, the researcher accessed the research data of the South African Community Epidemiology Network of Drug Use (SACENDU). SACENDU is an alcohol and drug surveillance system that is operational in South Africa and among other places in KwaZulu-Natal. The system monitors trends in alcohol and drug use and associated consequences on a six-monthly basis, using multi-source information, e.g. admissions to specialized drug-related treatment centres, psychiatric facilities, drug-related police arrests and illicit drug seizures. As SACENDU had all the necessary statistics and information at their disposal, the researcher accessed their research findings that are available to the public, on the Internet (http://www.mrc.ac.za). This data collection method was selected due to (a) the utilization of this existent surveillance system, and (b) to save time during data collection.

- However, to determine what was being done to address the problem of substance abuse among the youth and to identify functional elements of successful programmes the researcher reviewed all available prevention programmes in KwaZulu Natal. Using a structured interview with a schedule during interviews with representatives from:
  (a) The Department of Education and Culture,
  (b) Department of Social Welfare and Population Development,
  (c) South African National Council on Alcoholism and Drug Dependence (SANCA),
  (d) Durban Children Society,
  (e) South African Narcotics Bureau (SANAB),
  (f) NCVV ("Natal Christelike Vroue Vereniging"),
  (g) CMD ("Christelik-Maatskaplike Diens"), and
  (h) Newland Park Rehabilitation Centre.

  The schedule served as a guideline for the interviews and lead to systematic obtained data. Accordingly it ensured a high response rate and saved time and costs.

- To implement and evaluate the developed substance abuse prevention programme (Project Skills Development) a self-constructed, group-administered questionnaire was used in the pre-test i.e. before implementation of the prevention programme, and post-test with both the experimental and comparison group. (See Appendix 5, page 517.) The implementation of this procedure is illustrated in Figure 1:

Figure 1: Group administered questionnaire used with a comparison group pretest–posttest design

***Experimental group*: Consisting of 25 children (13 boys and 12 girls) between the ages of 11 and 14 years**	**Pre-test**	**Intervention, i.e. the substance abuse prevention programme**	**Post-test**
***Comparison group*: Consisting of 25 children (12 boys and 13 girls) between the ages of 11 and 14 years**	**Pre-test**		**Post-test**

By use of the group administered (self-constructed) questionnaire much time and costs were saved. The use of a suitable venue (a school classroom) and time slot (Life Orientation periods) were negotiated with the Primary school principle involved in the study.

Validity of the questionnaire or quantitative measuring instrument was executed against one of the most common and useful classification schemes attempting to categorise the validities underlying measurement, i.e. content, face, criterion and construct validity. (Compare De Vos 1998: 84.) In general is should be noted that it is widely acknowledged that all data gathering instruments have built-in validity problems. Questionnaires, whether self-completed or administered through face-to-face interviews, are no exception and particularly so studies on drinking/drug taking among adolescents (Rocha-Silva, De Miranda & Erasmus, 1996: 13).

Data analysis

According to De Vos *et al.*, (2002: 222) quantitative data can either be analysed manually or by computer. In this study, the analysis of the quantitative data was done, in cooperation with the University of Pretoria's Statistical Department, by means of the computer. Herewith, all collected data (quantitative) was displayed by means of tables and graphic presentations. (See Chapter 6, page 249.)

Analysis of the qualitative data was done by means of (a) a description of the available prevention programmes, and (b) an evaluation of the latter according to the National Institute on Drug Abuse's (2001) prevention principles. (See Chapter 4, page 190.) Validation of the qualitative research methodology was executed against Guba's model of trustworthiness. (Compare De Vos, 1998: 348.) This was achieved by applying the following criteria to the assessment of qualitative data, i.e. truth- value, applicability, consistency and neutrality. See Chapter 6 (page 257) for a more detailed description of the implementation of Guba's model of trustworthiness.

10. Pilot study

The pilot study is a prerequisite for the successful execution and completion of a research project (De Vos, 1998: 178). The New Dictionary of Social Work (1995: 45) defines pilot study as the "Process whereby the research design for a prospective survey is tested." Bless and Higson-Smith (2000: 155) describe a pilot study as: "A small study conducted prior to a larger piece of research to determine whether the methodology,

sampling, instruments and analysis are adequate and appropriate". A pilot study is thus similar to the researcher's planned investigation but on a smaller scale. Pilot studies are therefore becoming more and more a standard practice in research (De Vos *et al.*, 2002: 211). Subsequently, the pilot study of this endeavour is now discussed according to (a) literature study, (b) consultation with experts, (c) feasibility of the study, and (d) pilot test of questionnaire/measuring instrument.

10.1 Literature study

With the focus of the research project in mind, a literature search was utilised to (a) determine what information is available on the subject, and (b) to establish the feasibility of the investigation. The researcher familiarised herself with the databases and types of literature searches available. In this process the services of the subject librarian at the academic information services of the University of Pretoria was of great value. Research books, reports, journals, articles and published and unpublished theses were searched and interlibrary loans used. Due to the fact that the researcher lives in KwaZulu Natal, a letter of credence was provided to the E.G. Malherbe library (Durban) during February 2001, to ease access to literature.

From the literature study the researcher came to the conclusion that there was a limited extent of South African based scientific literature regarding this subject. Consequently the use of overseas studies was an important component of the study, placing special emphasis on comparisons between related South African and overseas studies.

10.2 Consultation with experts

During the pilot study, but also throughout the research process, experts were consulted and involved in the following:

- The construction and coding of the questionnaire and schedule;
- The evaluation of the self-constructed substance abuse prevention programme;
- The processing, interpretation and presentation of statistical information; and
- The see through of aspects concerning substance abuse among the youth and prevention.

Experts in the following organizations were identified for approach:

- Mrs. O. Louw, Director, Institute for Health Training and Development who has developed a Substance Abuse Life Skills Prevention Programme for secondary schools in Gauteng and the North West Provinces in 1999.
- Mrs. J. Shopley from the National Directorate - South African National Council for Alcohol and Drug (SANCA) Centres.
- Mrs. C. Savage, information officer at Penthouse Clinic, Durban.

- Mr. P. Mafoko, youth social worker, Newland Park Rehabilitation Centre. The inpatient treatment facility of the Department of Social Welfare and Population Development.

- Dr. M.J. Lötter from the Department of Education; and

- Captain Wakefield, a police officer from the South African Police Services (South African Narcotics Bureau) in Durban.

A total of 6 experts on the field of substance abuse among the youth were thus consulted as part of the pilot study.

10.3 Feasibility of the study

According to Bless and Higson-Smith (2000: 154) a feasibility study is "a study designed to determine whether a particular strategy or intervention is likely to reach its stated objectives". One should thus be as certain as possible that the planned project will work before pouring large amounts of money, material, time and energy into it.

By general standards the planned study was not too difficult to manage or overly expensive to conduct, leading to findings that could have important implications for the prevention of substance abuse among the youth in KwaZulu Natal.

Due to the fact the researcher was a full time student with available time to carry out the research project this did not pose a problem. Herewith, authorities in the substance abuse field were willing to co-operate in this

endeavour. Accordingly the Primary school environment was supportive and accommodating to the study. (See written letter of approval from the Department of Education and Culture, attached as Appendix 1, page 395.)

In view of substance use and abuse being widely recognised as a reality among the youth of South Africa; and by reason of the widely accepted value of the educational mode of intervention it was foreseen that the project would be well received, thus reaching its stated goal and objectives.

10.4 Pilot test of questionnaire/measuring instrument

To rectify errors and to improve the success and effectiveness of the proposed study, the suitability of the measuring instruments, i.e. the self-constructed questionnaire and structured interviews with a schedule, were tested before the main investigation. This implied that the self-constructed, group-administered questionnaire was presented and worked through with three early adolescents in KwaZulu Natal. All the participants in the pilot study were asked to comment on the ordering, layout, length, physical appearance and wording of the questionnaire. These participants were then automatically excluded from the sample in the main study.

Participants were satisfied with the ordering, length and physical appearance of the questionnaire, although they did propose changes to the wording of some of the statements included in the second part of the

self-constructed questionnaire. The necessary changes were thus made to the wording of the statements and included the following:

- Statement 15, initially read as follows: "Newspapers mostly focus people's attention on the dangers of illegal drugs, like ecstasy". Now it reads: " Newspapers mostly focus people's attention on the dangers of illegal drugs, like cannabis".
- Statement 34, initially read as follows: "I don't like talking to people who are always whining about negative stuff". Now it reads: "I don't like talking to people who are always complaining about life".
- Statement 35 was changed from: "I have an easy nature; and am therefore not easily upset" to " I am easy-going".
- Statement 36 first read as follows: "I am interested in other people's opinions". Now it reads: "I am interested in other people's thoughts".
- Statement 50 was also changed from: "When I talk to people I look into their eyes to show my interest and full attention" to " When I talk to my friends I look into their eyes to show my interest and full attention".
- Statement 58 initially read as follows: "I find it easy to criticize my friends". Now it reads: ""I find it easy to criticize (judge) my friends".

Accordingly, the structured interview with a schedule was tested with two representatives of the Department of Social Welfare and Population Development in KwaZulu Natal. During these interviews space were specifically given for criticisms and/or comments on the interview schedule. From this, it was clear that both representatives were satisfied with the schedule as a whole; this included the schedule format, ordering, line of questions and appearance. The interview length varied between

40 to 50 minutes, which suited the representatives' busy time schedule. Most importantly, one representative recommended the inclusion of an aspect called "additional information" as the last point of the schedule.

11. Description of the research population, boundary of sample and sampling methods

11.1 Research population

Seaberg (in De Vos, 1998: 190) defines the term population as the total set from which the individuals or units of the study are chosen. He continues by adding that a population includes the totality of persons, events, organization units, case records or other sampling units with which the research problem is concerned. Similarly, York (1997: 98) describes the term research population as a larger aggregate of people from which each and every member of the sample is a member. Research population is thus a term that refers to the total set of units with which the research problem is concerned.

The research population of this study included all early adolescents between the ages 11-14 years in KwaZulu Natal. This amounted to a total of 812 881 children accommodated in 3920 primary schools in KwaZulu Natal.

Table 3 gives an explanation of the available statistics:

Table 3: Number of early adolescents in KwaZulu Natal

Race	Age group: 11 - 14 years
Black	**693 888**
Coloured	10 484
Asian	64 814
White	43 695
Total	812 881

(Statistics South Africa - Census 1996)

11.2 Boundary of the research project

The following criteria were applied in the limitation of the research project namely:

(a) Development phase: early adolescence,

(b) Permanent residence: North coast, KwaZulu Natal,

(c) Population group: Black, and

(d) Youth with no obvious substance use/abuse problems.

Consequently each identified criteria is discussed to show the point to it. These criteria applied to both the experimental and comparison group.

11.2.1 Criteria applied in the limitation of the project

- **Development phase: Early adolescence**

The only youth that were included in the experimental and comparison group were boys and girls between the ages of 11 – 14 years. The reason for this was to keep participants homogeneous regarding their development phase. Herewith this particular development phase was selected due to the fact that this is regarded as a high-risk period for substance use by youth. It is at this stage, early adolescence, that children are likely to encounter drug use for the first time (Louw & Amorim, 1999: 42).

- **Permanent residence: North coast, KwaZulu Natal**

The youth had to be accessible to the researcher and were therefore permanent residents of the North coast. With this requirement in mind the researcher included youth from a relative safe, peaceful and accessible area in KwaZulu Natal.

Table 4 gives an explanation of the number of children living in the North coast (i.e. Kwadukuza).

Table 4: Number of children in Kwadukuza

Race	Gender	Age group				
		0 – 10 years	11 – 14 years	15 – 18 years	19+ years	TOTAL
Black	Male	9834	2908	2899	27553	43194
	Female	10248	3124	3110	26309	42791
Coloured	Male	116	62	47	332	557
	Female	131	66	46	433	676
Asian	Male	3133	1479	1526	11199	17337
	Female	3072	1422	1515	12136	18145
White	Male	535	153	149	2597	3434
	Female	419	157	144	2541	3261
Unspecified	Male	235	76	99	397	807
	Female	217	75	76	479	847
TOTAL		27940	9522	9611	83976	131049

(Statistics South Africa, Census 1996.)

- **Population group: Black**

Several researchers agree (compare Barnes, Farrell & Banerjee, 1994: 183-201; Bukstein, 1995: 66; Peterson, Hawkins, Abbott & Catalano, 1994: 203-227; Louw & Amorim 1999: 32.) that there is ethnic and inherited cultural differences in substance use and abuse among adolescents. To exclude this variable the researcher thus focused on one-population group only, i.e. Black early adolescents.

- **Youth with no obvious substance use/abuse problems**

The substance abuse prevention programme would presumably influence the attitude, knowledge and life skills necessary to reduce the chances of substance abuse. Youth selected for the experimental and comparison group were children with no obvious substance use/abuse problems. The children were selected on grounds of the presence of the following protective factors:

- Bonds with the family,
- Involvement of parents in the lives of their children,
- Success in school performance,
- Bonds with pro-social institutions (e.g. family, school, or religious organizations), and
- Adoption of conventional norms about drug use. (Compare NIDA, 2001: 2; Bukstein, 1995: 58-71; Louw & Amorim, 1999: 46.)

The reasoning behind this requirement was (a) to involve and empower the child with no obvious substance use/abuse problems, (b) participant homogeneity, (c) comparability, and (d) to heighten the validity and reliability of the research.

11.3 Sample and sampling methods

As the research population in itself was too large to study, a sample was drawn. York (2000: 156) describes a sample as a group of elements drawn from the population, which is considered to be representative of the population, and which is studied in order to acquire some knowledge about the entire population. According to the New Dictionary of Social Work a sample is a "number of units which are representative of the total number of units in the population concerned". A sample is thus a representative portion of the population concerned.

Sampling with regard to the review of the state of existing substance abuse prevention programmes in KwaZulu Natal were done according to the availability of Social Welfare Organizations in KwaZulu Natal rendering substance abuse prevention services. This is a non-probability sampling technique that selects available elements, which contained the most typical attributes of the sample. The researcher first compiled a list of names of relevant Social Welfare Organizations in KwaZulu Natal. Great effort was put into an attempt to involve a sufficient number of respondents by carefully explaining the purpose and value of the study to them. A sample of 8 Social Welfare organizations, namely the Department of Social Welfare and Population Development, Department of Education and Culture, South African Police Service: South African

Narcotics Bureau (SANAB) and other Non Governmental Organizations (i.e. Durban Children Society, "Natal Christelike Vroue Vereniging", and "Christelik-Maatskaplike Diens") were finally put together.

With the implementation of the self-developed substance abuse prevention programme for early adolescents in KwaZulu Natal (i.e. Project Skills Development) sampling with regard to the experimental and comparison group were done according to the purposive procedure, without randomisation. This implied that the study only included respondents that were judged to contain the most characteristics, representative or typical attributes of the population under investigation. In order to address subjectivity as a real danger of this method the researcher and relevant class teacher jointly identified 50 respondents that conformed to the requirements as stated in paragraph 11.2.1 (page 33). Sampling was proportionally divided between boys and girls. Consequently the sample was made up of 50 early adolescents, divided into an experimental group of 25 children (thirteen boys and twelve girls) and a comparison group of 25 children (twelve boys and thirteen girls).

12. Ethical issues

According to Strydom (in De Vos *et al.*, 2002: 63) ethics is a set of moral principles which is suggested by an individual or group, that is subsequently widely accepted, and which offers rules and behavioural expectations about the most correct conduct towards experimental subjects and respondents, employers, sponsors, other researchers, assistants and students. Similarly the New Dictionary of Social Work (1995: 61) defines social work ethics as: "Principles, standards and expectations

resulting from accepted values and norms which determine the social worker's professional actions with or in the interest of a client". Ethics thus implies preferences, which influence behaviour in human relations.

For this study the following ethical considerations were taken into account:

- Harm to the participants. The researcher had no reason to believe that any harm would come to participants. In fact, similar research has been conducted in the past without any incidents of harm in any way.

- Confidentiality of responses was another consideration. The participant responses were anonymous, because privacy was assured in this way. Thus, the participants' identities were not displayed on their responses and anonymity assured by the use of a number system for comparison of the pre- and post-test results.

- Another issue was voluntary participation. Identified respondents were briefed about the research project and then provided the opportunity to refuse or participate in the study. Direct consent was obtained from the parents or guardians of interested children.

- Consultations with experts and colleagues, formally or informally, was contracted to avoid any misunderstandings.

- Finally, the researcher's aim was to make a useful contribution to society, and research results are thus available in the form of this research report.

13. Limitations of this study

- Choice of research design: A comparison group pretest-posttest design was used to gather quantitative data and realise the aim of the study. A longitudinal approach to the study, however, is seen as the ideal and could lend itself to fundamental findings in social work practice.

- A major limitation of the study is that the findings are inconclusive and cannot be generalized to the larger population, given the fact that a purposive sample (of 50 respondents) was employed.

- South African literature is inadequate in this field.

14. Definitions of key concepts

14.1 Prevention

According to The Social Work Dictionary (1999: 374) prevention is: "Actions taken by social workers and others to minimise and eliminate those social, psychological or other conditions known to cause or contribute to physical and emotional illness and sometimes socio-economic problems. Prevention includes establishing those conditions in society that enhance the opportunities for individuals, families, and communities to achieve positive fulfilment." Louw and Amorim (1999: 55) formulate the following

definition of prevention: "A proactive process that empowers individuals and systems to meet the challenges of life events and transitions by creating and reinforcing conditions that promote healthy behaviour and lifestyles."

Prevention is thus a process aimed at minimising the impact of conditions that may lead to social malfunctioning. In this study the focus of prevention was therefore aimed at minimising the impact of substance use among early adolescents in KwaZulu Natal to reduce their chances of social malfunctioning.

14.2 Prevention services

The New Dictionary of Social Work (1995: 46) defines prevention services as "Services for the early identification, control and improvement of conditions that might impede social functioning." Oliphant (1990: 22) describes this term as follows: "Dienste vir die vroegtydige identifisering, beheer en opheffing van toestande wat moontlik maatskaplike funksionering kan belemmer."

Prevention services are thus a service for minimising and eliminating conditions that might impede social functioning. As applied in this study it was seen as a service for minimising and eliminating substance abuse among early adolescents in KwaZulu Natal.

14.3 Programme

The Social Work Dictionary (1999: 381) describes a programme as "A plan and guideline about what is to be done. A relatively permanent procedure designed to meet ongoing client needs (as opposed to a project, which is more flexible and short term in scope." Koontz, O'Donnell and Weihrich (in De Vos, 1998: 367) define the term programme as: "a complex of goals, policies, procedures, rules, task assignments, steps to be taken, resources to be employed, and other elements necessary to carry out a given course of action; they are ordinarily supported by necessary capital and operating budgets... A primary programme may call for many derivative programmes.... Thus one seldom finds that a programme of any importance in enterprise planning stands by itself. It is usually a part of a complex system of programmes, depending upon some and affecting others."

A programme is thus a plan or guideline to carry out a given course of action. Accordingly, as applied in this study, the term programme referred to a plan or guideline to carry out a given course of action.

14.4 Substance abuse

According to the Social Work Dictionary (1999: 470) substance abuse is "A maladaptive pattern of using certain drugs, alcohol, medications, and toxins despite their adverse consequences. Substance abuse is considered less problematic than substance dependence in that tolerance and withdrawal symptoms have not yet occurred."

Reber (in Oliphant 1990: 19) describes substance abuse as the: "Improper use of drugs. Stressing that the usual connotation is that of excessive, irresponsible and self-damaging use of psycho-active and/or addictive drugs". Reber's focus is thus on extreme levels of chemical substances in terms of quantity and/or frequency of use or frequency of intoxication.

In this study the researcher concurred with the definition of substance abuse by the DSM-VI as it is largely based on the presence of a pattern of negative consequences. Defined by the DSM-VI, substance abuse is a maladaptive pattern of use leading to significant impairment and distress, as shown by at least one of four criteria during a one-year period.

DSM-VI criteria

- Recurrent uses resulting in inability or failure to meet major role obligations at work, schools, or home.
- Recurrent use in physically hazardous situations.
- Recurrent substance use-related legal problems (e.g. underage drinking).
- Continued use despite continuing or recurrent social or interpersonal problems caused or worsened by the effects of the substance (Bukstein, 1995: 28).

14.5 Adolescent

Since antiquity, poets, philosophers, and historians have referred to adolescence, as a period of "Youth" succeeding childhood and preceding full adulthood. What we now call adolescence is an early part

of adulthood when an individual learned the role of an adult while assuming most, if not all, of the responsibilities and privileges of adulthood (Bukstein, 1995: 1). Accordingly the Social Work Dictionary (1999: 9) describes adolescence as: "The life cycle period between childhood and adulthood, beginning at puberty and ending with young adulthood. Herewith adolescents struggle to find self-identity, and this struggle is often accompanied by erratic behaviour".

Konopka (in Louw & Amorim, 1999: 15) sees adolescents as people who are growing and developing at a particular time, but not as pre-adults, pre-parents or pre-workers. She defines adolescence as: "The age of commitment, a move towards a true interdependence of people – the adolescent's characteristic struggle between dependence and independence".

It is clear that the defining of the term adolescence can differ from researcher to researcher. The view that is taken in this study concurs with Bukstein (1995: 1) and the Social Work Dictionary (1999: 9) in that adolescence is a life phase beginning at puberty and ending in adulthood. Also, for the purpose of this study, the term, adolescent was restricted to the age category 11-21 years.

14.6 Early adolescence

Louw and Amorim (1999: 17) describe early adolescence as a development stage of adolescence from approximately 11 to 14 years of age. (Compare Louw, Van Ede & Louw, 1998: 385.) A dictionary of Education (1981: 74) offers a closely related definition of adolescence as

"The period at the beginning of adolescence (about 11-16 years) in which the individual develops mature sexual features and becomes capable of procreation."

Early adolescence is thus the first development stage of adolescence, 11-14 years of age. In this study the focus was therefore on youth between the ages of 11-14 years.

15. Contents of research report

The research report consists of seven chapters and is arranged as follows:

Chapter one provides a general introduction and orientation to the research report. This chapter started with a general introduction to the study, followed by a formal problem formulation and motive for the choice of the subject. Here after the goal and objectives of the study were identified and 2 research questions and hypothesis with 3 sub-hypotheses formulated. The next sections described the research approach, the type of research, research designs and research procedure and strategy that were used. Further more aspects concerning the pilot study were explained and a description of the research population and sampling methods given. Important issues regarding ethics were outlined and the problems and limitations of the study presented. Ending with the defining of key concepts in the study.

Chapter two presents the scientifically grounding, description and explanation of substance abuse among the youth providing a basis for understanding the multidimensional nature of substance abuse, in terms

of etiology and consequences. Herewith research results on the identification of substance abuse as a problematic human condition among early adolescents are presented.

Chapter three describes the development, risk and consequences of adolescent substance use and abuse.

Chapter four presents (a) a clarification of the term prevention, (b) identification of different strategies/approaches and models of adolescent substance abuse prevention, (c) school based substance abuse prevention principles, and (d) promising prevention programmes for the youth. The use of overseas literature is an important component of this chapter due to the lack of South African based studies.

Chapter five presents the researcher's planning and design of a substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development).

In Chapter six the research methodology and empirical findings are presented, analysed and interpreted.

Chapter seven presents the conclusions and recommendations as well as further interpretation and a summary of the investigation.

Chapter 2

Adolescent substance abuse

1. Introduction

Substance abuse is a serious public health problem of huge proportions facing Western civilisation today. In his first opening address to Parliament in 1994, President Mandela specifically singled out substance abuse among social pathologies that needed to be combated (Brewis, 2001: 4). In fact substance abuse is a major cause of crime, poverty, reduced productivity, unemployment, dysfunctional family life, political instability, the escalation of chronic diseases, such as AIDS and TB, injury and premature death. Its sphere of influence reaches across social, racial, cultural, language, religious and gender barriers and, directly or indirectly, affects us all. (Compare National Drug Master Plan, 1999.)

At this point in time, the "war on drugs' is not being won; if anything, we seem to be losing. Rocha-Silva, Mokoko and Malaka (1998: 1) state that there is an increase in the general prevalence of substance-related problems in South Africa. Indeed, the concerning upward trend of substance abuse among adolescents appear to be broad, including youth from different age groups, social classes, geographic regions, and racial/ethnic populations (Botvin, Schinke, & Orlandi, 1995: vii). Accordingly, one in four Grade 7, 10 and 11 learners in a school survey undertaken by UNISA reported getting drunk occasionally during the

course of a typical month (Parry, Pluddemann, Bhana, Matthysen, Potgieter & Gerber, 2000: 1). Concern that this increase in substance use by junior and senior high school students may herald the beginning of a new drug epidemic gives new urgency to the development of effective prevention methods (Botvin, Schinke & Orlandi, 1995: vii). Clearly adolescent substance abuse is a complicated, multifaceted problem that needs careful and thorough attention. However, Gonet (1994: 3) points out that, "Making sense of this overwhelming and emotional-laden issue is extremely difficult and requires careful examination of many factors related to teen drug use."

The purpose of this chapter then, is not to take a moral stand concerning whether or not it is appropriate to use drugs. Instead, the focus is on understanding the nature and prevalence of substance abuse by presenting theoretical and empirical knowledge concerning substance use/abuse among adolescents. This will help provide a context for understanding the real danger of substance abuse to South African youth and the urgent need for prevention efforts.

In order to avoid ambiguity and confusion the chapter opens with the defining of relevant terms and concepts for substance abuse in adolescence. Here after a summary of the effects of various substances is provided in order to explain the abuse potential which is inherent to substances of abuse and to highlight their adverse danger to the abuser. Furthermore an overview of the factors, which are believed to add up, culminating in the development of adolescent substance abuse is provided. A model is outlined, which has been devised by the researcher to explain the interaction between these factors. This is followed by a discussion of the extent of the substance abuse problem in KwaZulu Natal,

the RSA and abroad. However it is important to take note that the statistics, which are mentioned, reflect the paucity of quantitative data, which are available. In fact the very nature of substance abuse results in cover-ups and under-reporting of the problem. Herewith accurate record keeping is further hampered by a lack of sophisticated countrywide infrastructure to record substance abuse statistics. Finally a summary is provided of issues touched on in this chapter.

2. Terms and concepts

The need for the definition of basic concepts is a prerequisite for any disciplined scientific endeavour (De Vos, 1998: 19). Its rationale lies in the powerful role that the clear definition of basic concepts plays in the need to come to grips with any particular field of study, in this case the substance abuse field.

Keeping this in mind the researcher will mainly focus on the description of substance abuse and substance dependence in adolescence. Nevertheless the following terms form a fitting background for this study.

2.1 Drug

According to Stoppard (2000: 10) the term drug refers to "a substance used in medicine or as a stimulant or narcotic". Roper and Bartlett (1994: 5) describe the term drug as: "a dependence producing substance". These descriptions may appear simplistic, but they are basically true.

In this study the term "drug" is used in accordance with the definition provided by the World Health Organization, as quoted in the World Drug Report (1997: 10) of the United Nations Drug Control Programme. It refers to all psychoactive substances, i.e. "any substance that, when taken into a living organism, may modify its perception, mood, cognition, behaviour or motor function" – whether licit (e.g. alcohol, nicotine, sedatives and tranquillisers) or illicit (e.g. cannabis, cocaine, heroin and LSD). (Compare Rocha-Silva, 1999: 1.)

2.2 Youth

For the purpose of this study, the term "youth" is restricted to the adolescent, i.e. age category 11– 21 years.

3. Formulation of a definition of substance abuse in adolescence

There are perhaps as many names or labels for substance abuse as there are definitions from different theoretical perspectives (Bukstein, 1995: 19). Despite efforts to achieve a consensus or convention(s) as to what one should call substance abuse, a wide variety of labels or terminology exist to describe this problem (Gonet, 1994: 14). These labels are often used interchangeably and include: problem use, substance abuse, substance dependence, chemical abuse, chemical dependency, alcoholism and addiction (Daley & Raskin, 1991: 12). However, many of these definitions with different labels may reflect conceptually similar constructs.

Still, Bukstein (1995: 27) points out, "clear, concise operational definitions of adolescent substance abuse or dependence, or even specific diagnostic criteria, are rare". (Compare Perkinson, 1997: 7.) According to Bukstein (1995: 24) it is largely assumed that criteria for adult substance use disorders should apply to adolescents. The assumption is that the substance use disorders in both adolescents and adults represent the same disorder or pathological process. Yet, there are several salient differences between substance use in adolescents and use in adults. These differences include: (a) discontinuity between adolescent problem use and adult abuse and dependency, (b) differences in patterns and consequences of use, and (c) differences in the social, peer and developmental context of use. Thus, underlining the need for developmentally specific criteria, for diagnosis used to define substance abuse in adolescence.

Using this as a departure point in attempting to develop a reliable operational definition of adolescent substance abuse, Gonet (1994: 17) asserts that several variables should be considered, i.e.: (a) extreme levels of drug or alcohol use in terms of quantity and/or frequency of use or frequency of intoxication, (b) criteria-based "symptomatic" use behaviour, and (c) negative consequences presumed to be due to substance use.

The first potential basis for diagnosis, used to define substance abuse, is high levels of quantity and frequency. For instance, Reber (in Oliphant 1990: 19) defines substance abuse as: " The improper use of drugs." Stressing that the usual connotation is that of excessive, irresponsible and self-damaging use of psychoactive and/or addictive drugs. And Gullotta, Adams and Montemayor's (1995: 235) description of drug abuse: "as

taking a drug to such an extent that it greatly increases the danger or impairs the ability of an individual to function or cope with his or her circumstances adequately." Notwithstanding, Bukstein (1995: 25) asserts that this focus on extreme levels of substance use appears to be of limited usefulness when considered by itself. (Compare Gonet, 1994: 17.) In view of data released by the South African Community Epidemiology Network of Drug Use (SACENDU) there is an increase of substance use and abuse among young people (Parry, Pluddeman, Bhana, Matthysen, Potgieter & Gerber, 2000: 1). Currently two out of three children use drugs in South Africa, and children mainly girls, as young as nine are drinking themselves close to death (Fourie, 2001: 8). Accordingly nine out of ten boys under the age of 13 drink secretly. Herewith, one thousand children under 15 are admitted to hospital with acute alcohol poisoning each year in the United Kingdom alone (Stoppard, 2000: 39). Thus, it is clear that assigning pathologic status to behaviour with such a large prevalence can become dubious. As in many of these cases, a range of normal adolescent behaviour and development within the context of a modern society is observed (Bukstein, 1995: 25).

The second potential basis for adolescent diagnoses, used to define substance abuse is based on symptomatic behaviour, offering a way of eliminating a reliance on both quantity and frequency measures, or on more advanced complications of substance abuse such as withdrawal symptoms or medical consequences of use which are rare in adolescents. (Compare Bukstein, 1995: 25; Gonet, 1994: 17.) For instance, Talbot (in Daley & Raskin, 1991: 14) sees substance abuse/dependence as a disease rather than a weakness or symptom of something else. He explicates this position by identifying the major symptoms of the disease as: (a) compulsive drinking or drug use, (b) changing tolerance, (c)

withdrawal, (d) blackouts, (e) physical destruction, (f) psychological destruction, and (g) socio-cultural destruction. (Compare Velleman, 1992: 4.) However, symptomatic behaviour of psychological dependence, such as impairment of control, craving and preoccupation with use, are not well studied in adolescents (Bukstein, 1995: 25).

The third option to consider as a basis for a definition of substance abuse is the presence of negative consequences of use. The Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association, considers substance dependency a major psychiatric disease and base their definitions of abuse, as applied to adolescents, largely on the presence of a pattern of negative consequences. (Compare Boyd, Howard & Zucker: 1995: 149; Bukstein, 1995: 25; Perkinson, 1997: 128; Winger, Hofmann & Woods, 1992: 17.) Herewith the Social Work Dictionary (1999: 470) defines substance abuse as: "A maladaptive pattern of using certain drugs, alcohol, medications, and toxins despite their adverse consequences. Considering substance abuse as less problematic than substance dependence in that tolerance and withdrawal symptoms have not yet occurred." Moreover, the Diagnostic and Statistical Manual is the most official nomenclature and most widely used system of diagnosis used to define substance use problems in adolescents and is accepted across clinical and research settings. The most recent version is the fourth edition or DSM-IV (American Psychiatric Association, 1994).

From a social work perspective, the DSM-IV thus represents a reasonable compromise for categorical diagnoses used to define substance abuse disorders in adolescents.

3.1 Substance abuse

Substance abuse is defined by DSM-IV as a maladaptive pattern of use leading to significant impairment and distress, as shown by at least one of four criteria during a one-year period.

- *Recurrent uses resulting in inability or failure to meet major role obligations at work, school, or home.* This criterion involves substance-use related social, occupational and/or psychological impairment. However, the social worker should be careful to include only those behaviour or areas of dysfunction directly attributable to the adolescent's substance use. The replacement of major role obligations again suggests that substance use has taken over as the focal point of the affected youth's life.

- *Recurrent use in physically hazardous situations.* Driving a motor vehicle or participating in a recreational activity such as swimming while under the influence of a substance are common examples of use in hazardous situations. Recurrent use in such situations is evidence of use despite the risk of harm.

- *Recurrent substance use-related legal problems.* Underage drinking is a status offence where the adolescent is arrested by virtue of age and not necessarily due to immediate risk of danger to self or others. However, a pattern of substance-related offences should be considered a maladaptive pattern of use.

- *Continued use despite continuing or recurrent social or interpersonal problems caused or worsened by the effects of the substance.* This

item continues the general focus of substance abuse, that is, the repeated use of a substance or substances despite negative consequences due to use. Common examples for adolescents are physical fights, conflict with family, peers, or others while under the influence, or conflicts about the adolescent's use. (Compare Bukstein, 1995: 30; Holmes, 1991: 416; Perkinson, 1997: 7,227.)

Substance abuse thus indicates the presence of direct negative consequences of use.

3.2 Substance dependence

Similarly, DSM-IV defines substance dependence as, a maladaptive pattern of substance use, leading to clinically significant impairment or distress with three criteria occurring together at any time in the same 12-month period. The presence or absence of tolerance or withdrawal, indicating with or without physiological dependence, respectively further specifies substance dependence.

- *Tolerance* is defined as the need for significantly increased amounts of a substance to achieve the desired psychoactive effects or the development of decreased effect with the same amount of the substance. Extreme level of tolerance as manifested by use of large quantities of a particular substance is evidence of more advanced levels of use. Tolerance may also represent a compulsion to use to the point of achieving a given desired effect.

Tolerance is very common for many substances and among any substance user who uses beyond very modest levels. While helpful at extreme levels of use, tolerance at low or modest levels of use may have limited utility as a diagnostic criterion to distinguish substance abuse or dependence from non-pathological levels of use.

- *Withdrawals* indicate the presence of the characteristic or specific withdrawal syndrome for that particular substance, or taking the substance or a similar substance – to relief or avoid withdrawal symptoms. The presence of withdrawal symptoms and the continued use of a substance to avoid withdrawal are evidence of true physiological dependence. Significant withdrawal symptoms are rare in adolescents.

- *Substance often taken in larger amounts or over a longer period than the person intended.* This criterion suggests loss of control; that is, once a substance use episode has begun, it becomes difficult, if not impossible, for the adolescent to control use or stop despite any initial intention for control or abstinence.

- *Persistent desire or unsuccessful efforts to cut down or control substance use.* Inability to control substance use through previous efforts to abstain, relapse, or previous treatment experiences, despite recognition of one's excessive or pathological use is another sign of loss of control. Unfortunately, recognition of a problem with substance use or previous efforts by adolescents to quit is infrequent. Many adolescent substance abusers may acknowledge attempts to cut down or even quit in response to pressure from family or peers, or

negative consequences such as arrest for possession of substances or driving while under the influence of a substance.

- *Much time spent in activities necessary to get the substance, using the substance, or recovering from its effects.* Preoccupation with substance use and related behaviour is evidence that substance use is beginning or has already taken over the adolescent's life. In severe cases, virtually all of a person's daily activities also illustrate the preoccupation with substance use.

- *Important social, occupational or recreational activities given up or decreased due to substance use.* The neglect or withdrawal from previously desired and important activities also illustrates the preoccupation with substance use.

- *Continued substance use despite knowledge of having a continuing or recurrent social, psychological, or physical problem that is caused or worsened by the use of the substance.* Meeting this criterion involves surveying a list of negative consequences of use and their repeated occurrence accompanying or following substance use. The adolescent may not specifically admit to experiencing these consequences or may not attribute these consequences to substance use. (Compare Bukstein, 1995: 31; Holmes, 1991: 416; Lewis, Dana & Blevins, 1994: 79; Perkinson, 1997: 227.)

Substance dependence thus represents a level of substance abuse, consisting of a core of negative consequences in addition to signs, symptoms, or behaviour indicating physical dependence, preoccupation with psychoactive substances and/or compulsive use.

4. Effects and consequences of specific substances of abuse

Understanding the primary effects of specific substances of abuse, the routes of administration, and withdrawal symptoms of these substances is necessary for a better understanding of the real dangers that substance abuse holds for adolescents. Bukstein (1995: 121) states that psychoactive substances of abuse are used and abused in order to experience their acute psychoactive effects. Depending on the pharmacological properties of these substances, their use in combination with other substances, the quantity and frequency of use, and the age and baseline physical status of the user; the use of substances can produce a variety of acute, sub-acute, and chronic medical and physical consequences. (Compare Pagliaro & Pagliaro, 1996: 24; Perkinson, 1997: 197; Roper & Bartlett, 1994: 25.) As adolescents are more likely to be novice or inexperienced substance users, the appearance of more noxious substance-related effects may precipitate more extreme levels of distress, including anxiety and agitation (Bukstein, 1995: 121).

According to Stoppard (2000: 25), drugs can by classified in a number of ways. For the purpose of this study psychoactive substances of abuse are classified in terms of effects and divided into four categories:

- ***Central Nervous System Stimulants***, which have a general arousing effect;

- ***Central Nervous System Depressants***, which have a general sedating effect;

- ***Hallucinogens/psychedelics***, which have a distorting effect on sensory experiences; and

- ***Narcotics***, which have a general arousing, effect. (Compare Holmes, 1991: 417; Lewis, Dana & Blevins, 1994: 59; Pagliaro & Pagliaro, 1996: 2; Perkinson, 1997: 198.)

However, Stoppard (2000: 25) emphasizes that not all substances fit neatly into one category. For example cannabis, relaxes, mellows and some of the modern blends can also trigger hallucinations. Accordingly ecstasy is also halfway between being pure stimulant and pure psychedelic/hallucinogen.

With the above outline of categories in mind and for the sake of easy comparison some of the most prominent substances of abuse is summarised in Table 5. This list was compiled by the researcher after scrutinising attempts of a few authors such as Bukstein (1995: 121–136), Fourie (2001: 62), Ghodse and Maxwell (1990: 31-51), Holmes (1991: 417-432), Lowinson, Ruiz, Millman and Langrod (1992: 144-357), Pagliaro and Pagliaro (1996: 1-31), Perkinson (1997: 197-210), Roper and Bartlett (1994: 25-43), Stoppard (2000: 32-112) and Winger, Hofmann and Woods (1992: 22-160).

Table 5: Substances of abuse categorised by their effects

A. Central Nervous System Stimulants

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Amphetamine Amphetamine is short for ***AlphaMethylPh EneThylAMINE,*** a manmade drug first created over 100 years ago. It is a powerful stimulant that triggers the central nervous system, making a person more alert and energetic. **Street name (Colloquial name):** *Speed, Whizz, Sulphates, Billy, and Uppers.*	Comes as a white powder that looks like salt, or sometimes as a pill or paste. The powder usually comes in a folded paper envelope called a "wrap" that contains about 1 g of powder. However, most wraps only contain about 5 mg of this drug as it is often been "cut" or watered down with sugars, such as glucose and lactose.	Swallowed This drug is least dangerous when swallowed. Snorted, i.e. sniffed up the nose, through a straw or a rolled-up banknote, which produces a faster, more intense effect than swallowing it. Injected Some users inject speed, which is extremely dangerous	Physical effects: - *Low dose* Dilation of pupils of eye; decreased appetite; increased blood pressure, heart rate, blood sugar and respiratory rate. - *Moderate dose* Heart palpitation/ beating; chest pain; tremor; nausea; headache; dizziness; insomnia; blurred vision; constipation or diarrhoea; and urinary retention. - *High dose* Automatic jerking	Drug craving; general fatigue; prolonged sleep (12-24 hours); listlessness; depression and possible suicide.	• Overheating. A body temperature over 38°C will make the user delirious. If he is dehydrated he risk getting heatstroke, which can result in unconsciousness. • Increased heart-rate that can lead to a heart attack. • Liver and kidney failure. This can occur if a high dose of speed is mixed with alcohol. • High blood pressure. Small blood vessels may burst in the brain, leading to paralysis or coma.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
		due to possible overdosing and risk of being infected with HIV/AIDS.	movements; compulsive, stereotyped, repetitive acts. <u>Psychological effects</u>: - *Low dose* Increased mood, sociability, and initiative; improved concentration and "clearer" thinking; increased wakefulness and alertness; decreased fatigue and boredom. - *Moderate dose* Depersonalisation i.e. the user feels as if he is outside of his body, observing himself; restlessness; anxiety; confusion; irritation; inability to concentrate.		• Hyperventilation, the user's breathing may become irregular. • Paranoid psychosis frequently characterised by delusions of persecution that can lead to hostile, aggressive behaviour. • Risk of being infected with HIV/AIDS and hepatitis B or C from shared needles. • Vein blockage can occur from injection, leading to abscesses, ulcers, blocked blood vessels and gangrene. • Death from overdose.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
			- *High dose* Severe paranoid psychosis; fear; hallucinations; delusions; and self-consciousness.		
Cocaine Cocaine is found on the streets as a substance named ***cocaine hydrochloride***. It is made by refining the leaves of the coca bush, which mainly grows in Bolivia, Colombia and Peru. **Street name**: *Coke, Gold dust, Snow, C, Charlie, She, Her, Girl, White girl, Lady, White*	Comes as a white crystalline powder that looks like very fine salt. It is usually bought in a "wrap," containing 1 g of powder, although no one can know how much of that gram is actually cocaine.	Snorted Most users divide the cocaine into " lines" with a razor blade or credit card. Then they sniff it up one nostril through a small tube, or through a rolled-up card or bank note. Swallowed, i.e. to eat cocaine in small amounts mixed with	Cocaine leads to a quality of stimulation and euphoria, which is described as being so good that the compulsion to keep using the drug is greater than for any other known substance. Physical effects: Dilated pupils; cardiac stimulation; paleness and hypertension; rapid, shallow breathing and hypothermia.	Muscle cramps; mental depression; drowsiness; suicidal feelings; vomiting; shaking; weakness; hunger and irritability.	• Paranoid psychosis frequently characterised by delusions of persecution and suspicious, violent behaviour. • Malnutrition and emaciation (lack of sleep and appetite). • Nasal irritation and cold-like symptoms. • Loss of the senses of smell and taste. • Nasal damage. Constriction of the blood vessels results in inadequate nourishment of the tissues with ulceration and even

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
lady, Snort, Toot, Blow, Flake, Nose candy and Columbia (n).		food or drink. Some people rub cocaine on their gums. Because cocaine is also a natural anaesthetic, this causes the gums to go numb. Injected Few users inject cocaine to get a faster and more intense hit but that is very dangerous.	Psychological effects: Extremely marked feeling of euphoria and great power; energy and increased mental ability; sexual stimulation (short-term); sociability; hallucinations following high doses; insomnia; loss of appetite; and anxiety.		perforation of the nasal septum. In other words "snorting" can burn a hole between the nostrils. • Respiratory disease. • Severe exhaustion • Hypertension leading to cerebrovascular accidents (brain haemorrhages). • Sexual dysfunction (impotence). Male users won't be able to get or maintain an erection. • Liver cell damage. • Cardiac problems. • Visual disturbances. • "Cocaine bugs", i.e. a crawling, itching sensation as if insects were burrowing under the skin. • Severe depression and possible suicide once the effects of the drug wear off.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
					• Ruptured placenta, spontaneous abortion, or birth defects and neurological problem in the neonate if pregnancy occurs. • Bowel problems. • Risk of being infected with HIV/AIDS and hepatitis B or C from shared needles. • Vein blockage can occur from injection, leading to abscesses, ulcers, blocked blood vessels and gangrene. • Convulsions and death from over dosage.
Cocaine crystals/Crack Crack is derived from the	Crack crystals look like small rocks. Some of the "pieces" look like grains of	Smoked Crack is generally smoked by placing the	Intense euphoria and a great surge of energy; an incredible sense of well-being and	Drug cravings; increased appetite; irritability; apathy;	• Paranoid psychosis frequently characterised by delusions of persecution and

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
processing of cocaine hydrochloride (HCL) with ammonia or bicarbonate of soda. The result is crack crystals. **Street name**: *Rock, Wash, Stone, Roxanne, Cloud, Flake, Nuggets, and Nine.*	sand, although normally they are as much as 2 cm across. They vary in colour from pale yellow or pink to white.	rock into a pipe, glass tube or bottleneck filled with a metallic screen and vapoured with a lighter. Injected Few users inject crack, which is extremely dangerous due to possible overdosing and risk of being infected with HIV/AIDS.	power. Duration: 5 – 15 minutes	depression; paranoia; anxiety; suicidal ideas; loss of libido; cramps in muscles; loss of energy; shaking; palpitations; sweating; irregular breathing and insomnia or excessive sleep.	suspicious, violent behaviour. • Severe depression and possible suicide once the effects of the drug wear off. • Crack keratitis. As cocaine is a local anaesthetic, corneas may inadvertently be anaesthetized. When rubbing the eye, the user may damage the cornea. • Dilated pupils with loss of accommodation (adjustment) resulting in impaired vision. • Constriction of the blood vessels results in inadequate nourishment of the tissues with ulceration and even perforation of the nasal septum.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
					• Loss of sense of smell and nosebleeds. • Erosions on the enamel of the upper front teeth. • Problems swallowing. • Possible heart attack. • Strokes. A clot in the brain can mean permanent brain damage or paralysis or even death. • Elevation in blood pressure. • Sudden death. • Susceptibility to respiratory infections, which leads to bleeding in the lungs with coughing up of blood. • During pregnancy - foetal damage. • Risk of being infected with HIV/AIDS and hepatitis B or C from shared needles.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
					• Vein blockage can occur from injection, leading to abscesses, ulcers, blocked blood vessels.
Tobacco Tobacco leaves contain one of the most powerful poisons known to man – nicotine. In cigarette smoke it is absorbed directly from the mouth and because the smoke is alkaline it dissolves instantly in saliva. It is then carried through the mouth's lining into the bloodstream and straight to the brain.	The dried leaves of the tobacco plant are processed into tobacco for cigarettes, pipes or cigars. Tobacco is also sold as snuff, a fine powder that is sniffed. Tobacco sold in blocks is sometimes chewed, although this form is rarely used in South Africa nowadays.	Tobacco is normally smoked.	Increased heart rate and blood pressure; drop in skin temperature; increased respiration; nausea, diarrhoea and vomiting; CNS stimulation but paradoxically relaxation can occur in habitual users; and inhibition of stomach contractions.	Craving; headache; nausea or increased appetite; constipation or diarrhoea; sweating; tremor; hypertension; fatigue; insomnia; irritability; anxiety; restlessness; depression; feelings of hostility and inability to concentrate.	• Lung cancer. Years of smoking can cause lung cancer, but it can be less than six months from diagnosis to death. • Fatal heart disease. Nicotine can cause heart attacks. • Stroke. A clot in the brain can mean permanent brain damage or paralysis or even death. • Gangrene: Arteries can get blocked which can lead to gangrene and eventually to amputation.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Street name: *Cigs, Fags, Rollies, Snouts and Tabs.*					• Emphysema and bronchitis. The air passages in the lungs become clogged, narrow and damaged. • Cancer of the mouth, throat, bladder, pancreas, kidney, cervix and breast. • Stomach ulcers. • Worsening of asthma.

B. Central Nervous System Depressants

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Alcohol (Ethanol) Alcohol is an intoxicating substance made from fermented	There are many different forms of alcohol available. The most common include beer, spirits, wine and	Swallowed Alcohol is taken orally.	Suppression of higher brain functions (inhibitions, cognitive function, reason, logic, and judgement);	Nausea and vomiting; tremors (the shakes); sweating; flushing; headache;	• Damage to organs, such as liver, kidney, and nervous system. • Lack of alertness. • Blackouts and coma.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
starches and, although it gives an initial lift, it is actually a depressant drug. **Street name (Colloquial name):** *Juice, Dop, Booze, Bevies, Drink, Jars, Tinnies and Liquor.*	liqueurs.		reduced co-ordination; sedation; respiratory suppression; convulsions; and hypothermia.	nervousness; agitation; increased blood pressure and pulse rate; fever; electrolyte disturbances; sleep disturbances; aggression; delirium; intermittent hallucinations and seizures.	• Convulsions. • Death (from over-dosage). • Memory dysfunction. • Severe physical dependence. • More likely to have careless and unprotected sex, thereby risking becoming pregnant or getting a sexually transmitted disease. • Self-neglect. • During pregnancy – potentially damaging of the foetus. • Suicide • Alcohol has high sugar content, so anyone with diabetes is advised to avoid it altogether. • Psychological complications, including depression, anxiety, and poor self-esteem.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
					• Violent behaviour, including assault and rape. • Delinquency and criminal behaviour. • Social problems e.g. arguments with family members. • Abusive and aggressive behaviour (physical and psychological). • Accidents e.g. drowning, road traffic accidents and industrial accidents. • Psychotic disorders.
Barbiturates Primarily hypnotic drugs, barbiturates work by depressing the central nervous system. In small amounts they calm you	Come either as tablets or gel capsules for swallowing. The most common forms are: - *Sodium amytal, i.e.*	This drug is swallowed or injected. Injection can lead to vein blockages, overdosing or risk of becoming	Relieves insomnia, anxiety and tension; sedation; hypnosis; narcosis (general anaesthesia); coma; respiratory suppression; and death.	Craving; insomnia; anxiety; panic attacks; restlessness; tremors; weakness; loss of appetite, nausea and vomiting;	• Could lead to mental sluggishness. • Lack of alertness. • Depression and intense tiredness. • Mood swings often leading to violent or strange behaviour.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
down and in higher amounts make you sleep. They belong to a 19th-century group of drugs and, until the 1950s, when safer alternatives were found, were prescribed for people who couldn't sleep or who had nervous disorders. **Street name**: *Barbs, Depressants, Downers, Sleepers, and Barbies.*	bright blue capsules containing 60 mg of the drug. - *Seconal, i.e.* orange capsules containing 50 mg of the drug. - *Tuinal, i.e.* blue and orange capsules containing 50 mg of amytal and 50 mg of seconal.	infected with HIV/AIDS and hepatitis B or C.	Duration: Several hours, usually less than 24 hours	abdominal cramps; paranoid feelings of persecution; disorientation and delirium; seizures; cardiovascular collapse and death.	• Bronchitis or pneumonia. Both conditions may result from heavy use, and both can be fatal. • Hypothermia. Barbiturates cause the blood vessels near the skin to dilate so you lose heat. With heavy use, the metabolism becomes so slow that the body is unable to respond to the cold. Hypothermia can be fatal. • Severe physiological dependence. • Risk of becoming infected with HIV/AIDS and hepatitis B or C from sharing needles and other equipment. • Coma and death from over dosage.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
					• Vein blockage can occur from injection, leading to abscesses, ulcers, blocked blood vessels.
Tranquillizers Tranquillizers are prescribed for people who suffer from anxiety or those who have difficulty sleeping. Modern tranquillizers are based on the ***benzodiazepine*** group of drugs that largely replaced barbiturates in the 1950s. **Street name**: *Downers, Tranx, Benzos, Blockers,*	There are many different brands of tranquillizer available on prescription. The following are a few favoured by illegal street-users: Nitrazepam (e.g. Mogadon) Nitrazepam is a long-acting *benzodiazepine hypnotic*. It is an oval white tablet and was used as a sleeping pill in the 1970s and 1980.	Swallowed This drug is usually taken orally. Injected Some users take the drug by grinding up the pills into a powder, dissolving it in water and injecting the liquid.	Relieves stress and anxiety; decreases heart rate; lowers blood pressure; and leads to slow, shallow breathing and drowsiness. If misused by taking a high quantity: Extreme mood swings, paranoia, hangover, depression and chronic fatigue.	Tremors; vertigo (dizziness); sleep disturbances; anxiety, palpitations (heart-beating); panic attacks; increased sensory perception; irritability; headache; muscle spasms; metallic taste; depression; auditory hallucinations; convulsions; and rarely transient "psychotic" episodes;	• Mental deterioration. • Lack of alertness. • Risk of being infected with HIV/AIDS and hepatitis B or C from shared needles. • Vein blockage can occur from injection, leading to abscesses, ulcers, blocked blood vessels and gangrene. • Overdose, coma and death.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Chewies, Jellies, Eggs, Rugby balls, Temazzies, M&Ms and Blockbusters.	Temazepam (e.g. Normison) Temazepam is another *benzodiazepine hypnotic*, but it only lasts 6 – 8 hours. It is legally prescribed in pill form, but gel capsules do turn up on the streets from abroad. Temazepam is one of the most commonly abused tranquillizers. It is sometimes used as a cheap alternative to heroin. Diazepam (e.g. Valium) Diazepam is a *benzodiazepine anxiolytic*, which means it,			seizures and increased sexual function. Contra indications: Depression	

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
	reduces anxiety. It is a small white, yellow or blue tablet, of which white is the weakest and blue the strongest. It can last up to 24 hours. Lorazepam (e.g. Ativan) Lorazepam is an anxiolytic like diazepam, but it only lasts 4-6 hours.				
Rohypnol Rohypnol is a powerful tranquillizer. It is a relative of Valium; only it is much stronger and potently depressive. Even a very	Usually white, easily crushable, odourless, soluble and tasteless tablets.	Some users take Rohypnol knowingly, but it is notorious for being used to spike the drinks of unsuspecting females.	One tablet can make the user feel dizzy, nauseous, feverish and disorientated. More than one tablet will cause instant drunkenness and memory loss.	Confusion, serious convulsions and hallucinations, impaired motor skills, skin reactions, dizziness, uninhibited behaviour, impaired judgement,	• May produce extremely low blood pressure, respiratory depression, and difficulty in breathing, coma or even death.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
small dose makes the user feel sleepy and dopey. Rohypnol is generally prescribed as a sleeping pill for severe insomnia. **Street name**: *Roofies, Roaches, The forget pill, La Rochas, Trip-and-Fall, Pappas, Potatoes and The date-rape drug.*		This way a man can have sex without the woman remembering or being in control of what's happening.	Other effects include: Drowsiness, memory impairment, dizziness, nightmares, headaches and psychomotor impairment. Paradoxically it can induce excitability or aggressive behaviour in some users. Duration: Up to eight hours	reduced levels of consciousness combined with visual and gastrointestinal disturbances.	
Mandrax The active ingredient in Mandrax is ***methaqualone*** - a synthetic chemical substance, and	Originally the legal Mandrax tablet was white, flat and marked with the trademark letters MX. Today these tablets are very	Swallowed Mandrax can be taken orally. Smoked Users can smoke	Feelings of relaxation, seduction, relief of tension, blurred vision, impaired thinking, slurred speech, impaired perception of	Restlessness; aggression; insomnia; moodiness; lethargy (drowsiness); irritability; nausea; decreased	• Damage to the brain and memory. • Personality changes. • Convulsions. • Respiratory and circulatory collapse. • Abnormal heart rhythms.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
a central nervous system depressant originally used to treat sleeping disorders. **Street name:** *Buttons, Whites, Ludes, MX, Mandies, Pop outs, Germans, Golf sticks, One siders, Ewings, Double kicks, Shiny tops, Soapies, Omo and Surf.*	rare and the drug now comes in tablets, capsules and powder form.	Mandrax as a "white pipe" with cannabis.	space and time, slowed reflexes and breathing, reduced sensitivity to pain, nausea, vomiting, impaired concentration, restlessness, drowsiness, dizziness and emotional instability are experienced. Duration: 4 – 8 hours	appetite; headaches; seizures; hallucinations; depression; abdominal pain and tremors.	• Impairment of liver function. • Chronic intoxication (headache, impaired vision, slurred speech). • Depression. • Disturbed sleep patterns. • Marked impairment of ability to drive and operate machinery which may lead to accidents. • Chronic respiratory disease. • Eye damage. • Blood disorders. • Impairment of epilepsy control. • Potentially damaging to the unborn baby. • Coma and death due to overdose.

C. Central Nervous System Stimulants Hallucinogens

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Ecstasy The popular dance drug ecstasy is the chemical ***Methylene DioxyMeth-Amphetamines*** (MDMA). It's a stimulant with hallucinogenic tendencies. Ecstasy is described as an empathogen as it releases mood-altering chemicals, such as serotonin and L-dopa, and generates feelings of love and friendliness. Because it is also a hallucinogen, the world becomes	Ecstasy tablets come in different sizes and colours and often have logos such as doves on them. MDMA may be cut with other chemicals, such as dog-worming pills or talcum powder, to bulk out the tablet. Powerful drugs, such as ketamine or selegaline (used to treat Parkinson's disease) are also added giving unexpected side effects. When different colour "doves"	Swallowed Ecstasy is taken orally.	Increased energy; decreased appetite; changes in tactile perception; hypertension; anxiety; panic attacks; hypothermia and psychosis. Duration: The effect begins after about 30 minutes. Peak in an hour and last for 2-3 hours.	Nausea; mental depression; aggression; drowsiness; loss of appetite and possible suicide.	• Temperature control. Body temperature could rise well above normal leading to delirium and hallucinations. • Brain swelling: Drinking to much water too quickly can cause the brain to swell, leading to unconsciousness and rapid death (within 12hours). • The rush of brain chemicals can trigger nightmare hallucinations. • Liver and kidney failure. • Physical exhaustion leading to collapse, dehydration and irregular heart beat.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
surreal, highly coloured and distorted. **Street name (Colloquial name):** *Ecstasy, "E", Adam, Eve, Banana milkshake, Torpedo, Yellow callies, Swallows, Strawberry's, Cloud A, X, Love doves, XTC, Clarity, Disco Biscuits, Shamrocks, and MDMA.*	were analysed, one contained as little as 29mg MDMA, another had as much as 170mg, and one had none at all.				• Brain damage. Ecstasy can interrupt blood flow to the brain and cause a stroke, resulting in paralysis, dementia (loss of memory and the ability to think clearly) and Parkinson's disease (when the body shakes and twitches uncontrollably).
Cannabis Most cannabis comes from a plant called ***Cannabis sativa*** that is mainly found in	There are three forms of cannabis: herbal, resin and the least common hash oil.	Smoked Most users smoke cannabis on its own or mixed with tobacco in a hand-rolled cigarette.	Cannabis mainly causes hallucinogenic (mind-distorting) effects, but also has euphoriant and sedative properties.	Restlessness; aggression; insomnia; moodiness; sweating; lethargy (drowsiness); irritability; nausea;	• Acute paranoia and panic reactions. • Psychomotor impairment and related motor vehicle crashes. • Habituation, i.e. psychological dependence.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Asia and South America. The most active chemical in cannabis is called *delta9-Tetrahydro cannabinol (THC).* **Street name for herbal:** *Dagga, Grass, Marijuana, Boom, Dope, Draw, Puff, Blow, Weed, Gear, Spliff, Ganja, Herb, Poison, Durban poison, Swazi sticks, Arms, Bankies, Zol, Skyf and Joint.* **Street name for resin:** *Hash, Pot, Dope, Shit, Black, Gold,*	Herbal This is the most common form of cannabis, made from the dried leaves and flowers of the plant. It looks like the kind of coarsely chopped dried herbs used for cooking. The colour is usually greenish-brown and it has a sweet herbal smell. Resin Resin is made by compressing the sap on the leaves and stem of the plant into blocks. The colour varies from almost black through to a pale golden brown. Some forms of resin	The smoke is usually inhaled more deeply and held down for longer than with a normal cigarette. Some people smoke cannabis in a pipe, called a "Bhong" that cools the smoke before it is inhaled. Eaten Some people add cannabis to foods, such as biscuits to make hash-cakes.	Physical effects: Increased heart rate; red eyes; increased appetite that decrease after long-term use; a craving for sweet foods (the munchies); a dry mouth and thirst. Short-term CNS effects: Altered time and distance perception; short-term memory loss; impairment of ability to concentrate; elation; reduced anxiety; a feeling of well-being; increased sociability; enhancement of pleasant sensations and sensory perceptions. Sedation and a	decreased appetite; headaches and sudden loss of weight because of the elimination of retained body fluid.	• Chronic learning disabilities (e.g. disruption of short-term memory). • Damage to the reproductive system – low sperm count in males and menstrual irregularities in females. • Disturbance in immunity – leading to a predisposition to disease and illness. • Chronic respiratory irritation and disease (e.g. asthma and bronchitis). • Heart problems. • Cannabis psychosis characterised by mental confusion, delusions and thought disorders. • A-motivational syndrome characterised by apathy, lethargy; and reduced

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Brown, Slate and Squidgy. **Street name for hash oil:** *Honey, Oil and Diesel.*	are hard and brittle, like charcoal, while others are as soft as liquorice. Resin is usually mixed with tobacco in a hand-rolled cigarette but, like herbal, it can be eaten when added to foods. Hash oil Hash oil is formed when cannabis resin is dissolved in a solvent, filtered and allowed to evaporate. The colour varies from black to green, and smells strongly of rotting vegetables. It is either smeared on cigarette papers or mixed		sleepy dream-like state if the cannabis user is alone; irritability; agitation; anxiety; panic; aggression; paranoia and psychosis. Duration: Several hours for occasional use, days and even weeks for severe effects		ambition.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
	with tobacco and smoked.				
Ketamine Ketamine is a dissociative anaesthetic, which means it detaches the mind from the body. It is used as a horse tranquillizer and is related to the veterinary anaesthetic. PCP, also known as angel dust. **Street name:** *K, Special K and Vitamin K.*	On prescription Ketamine comes as a clear liquid, but on the street it is a white powder or tablet. The powder is bought in a paper "wrap", similar to speed, and can be swallowed or inhaled ("snorted").	Swallowed Ketamine tablets are usually taken orally. Snorted Some users take the drug by grinding up the pills into a powder. Then they inhale or sniff it up one nostril. Injected Some users inject Ketamine. This is extremely dangerous.	There is an initial rush that may happen within 30 seconds if the drug is injected, or 20-30 minutes if swallowed. Then it is rapidly downhill for about the next three hours. The body is numb and paralysed. There is sickness, vomiting and a loss of co-ordination, making the simplest tasks impossible. Feelings of being weightless and of being separated from the body. Terrifying hallucinations can occur; with limbs feeling as though	Nausea; mental depression; aggression; and drowsiness.	• Brain damage. • Slows heart rate and breathing. • Risk of becoming infected with HIV/AIDS and hepatitis B or C from sharing needles and other equipment. • Vein blockage can occur from injection, leading to abscesses, ulcers and blocked blood vessels. • It is easy to overdose as the potency varies so you never know how much you're taking.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
			they are growing and shrinking, there is tunnel vision and faces look distorted.		
PCP ***Phencyclidine*** (PCP) was originally designed to be used as an anaesthetic, but because it caused confusion and delirium its use was abandoned. PCP is now only used on animals and even then rarely. Some PCP users may be unaware they have taken the drug because it is sometimes a hidden ingredient of ecstasy and cannabis resin.	PCP is a white, impure, crystalline powder.	PCP is swallowed, snorted, smoked or – rarely – injected. Sometimes it is mixed with cannabis and tobacco and smoked like a joint, or occasionally as skinny brown roll-ups that have been dipped in liquid PCP.	PCP possesses hallucinogenic - sedative and analgesic properties. Physical effects: Increased blood pressure; sweating; nausea; numbness; floating sensation; relaxation; warmth and tingling; increased heart rate; lethargy; and slowed reflexes. Cognitive effects: Altered body image; altered perception of time and space; impaired immediate- and r	Alternate periods of sleeping and wakefulness, followed by memory loss; anxiety, panic attacks, paranoia and depression.	• Coma: Mild, moderate or severe. • Catatonic syndrome, i.e. rigidity, staring, negativism, possible violence and stupor. • Toxic psychosis, i.e. a condition in which an individual shows signs from detachment of reality. • Self-injury because of a loss of pain and perception. A feeling of invulnerability and a bizarre tendency towards self-mutilation. • Bizarre mutilation and injury of others, even when the PCP user has shown no tendency to any

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Street name: *Angel dust, PCP, Elephant tranquillizer, Rocket fuel, Zombie, Whack,* *Embalming fluid, Peace pill and hog.*			recent memory; decreased concentration; paranoid thoughts; delusions; disordered and confused thoughts. Behaviour effects: Blank staring; catatonic immobility and violence. Duration: Quick acting and very short, the psychosis may last weeks		aggressive behaviour prior to use. • Acute brain syndrome: disorientation, confusion, and loss of recent memory, inappropriate behaviour and violence. • Risk of becoming infected with HIV/AIDS and hepatitis B or C from sharing needles and other equipment. • Vein blockage can occur from injection, leading to abscesses, ulcers and blocked blood vessels.
LSD Acid (LSD or ***Lysergic acid diethylamide***) is a powerful,	LSD is a transparent crystal in its pure form, but on the street it looks different.	LSD can be swallowed, taken sublingual i.e. under the tongue, or	Physical effects: Rapid pulse and increased blood pressure; marked dilation of pupils of eye; bloodshot,	Flashbacks; perspiration and shakes.	• Neurological damage. • Anxiety. • Depression. • Paranoia.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
mind-altering drug, meaning that it affects the brain, causing hallucinations that alter the perception of the world and make images more intense. **Street name:** *Caps, Acid, Penguins, Candy, Strawberry fields, Sonic hedgehogs, Microdots, White lighting, Smarties, California sunshine, Trips, Tabs and Blotters.*	Acid is almost always soaked into small squares of blotting paper, called tabs, blotters or pieces. Tabs come in sheets of over a hundred. Each tab is about 5 mm square and has a picture or design on it that varies according to fashion (e.g. strawberries or penguins). A small square of paper, whatever the picture, is pretty much a guarantee that it will be acid. Microdots This is small coloured pills that have been impregnated	transdermal i.e. through the skin.	watery eyes; flushed skin; the short hairs standing on end; salivation; tremor and loss of co-ordination. Psychological effects: Depersonalisation - the user feels as if he is outside of his body, observing himself; prominent visual hallucinations; altered perception; time sense is lost; the user feels as if he is in contact with the universe and has access to and an understanding of all supernatural things; synesthesias occur, i.e. sounds are experienced as colours, visual stimuli are		• The unleashing of underlying psychiatric disorders. • Social withdrawal. • Flashbacks during which the user suddenly goes on a trip without using LSD. The danger of accidents then recurs. They may occur several times a day for about 18 months after LSD use has stopped. • Toxic psychosis, i.e. a condition in which an individual shows signs of detachment from reality and which requires medical intervention, commonly associated with LSD abuse.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
	with acid, but they are not as common as tabs. They are only 2 - 3 mm across and can be different colours. They often contain high doses of acid.		interpreted as music; mood swings occur and judgement is severely impaired (e.g. believing himself able to fly, the user may throw himself of a high building). Duration: Start 30 minutes after taking it, peak after two hours and may last 8 – 12 hours. Flashbacks may occur for several years.		
Mushrooms Mushrooms are similar in effect to acid as they contain chemicals that can trigger hallucinations. They are wild	There are two types of mushrooms: Liberty Cap and Fly Agaric. Liberty Cap This is a small pale yellow to light brown	Both fresh and dried mushrooms are eaten raw, cooked or boiled up into a tea. Smoked Dried	Hallucinations, euphoria; feel detached from the world; exited and engrossed in whatever they are doing; lose track of time; some experience a spiritual journey	Stomach pains, vomiting, diarrhoea, and drowsiness.	• Accidents due to distorted observations. • Psychiatric disorders. As a mind-altering drug mushrooms can unlock mental illnesses.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
mushrooms (fungi) from two main plant groups: the *psilocybe group* and the *amanita species*. Most common in South Africa is the Fly Agaric, which contains the hallucinogen ***ibotenic acid***. The Liberty Cap, which contains the hallucinogen ***psylocybin*** – has only been recorded once in South Africa. **Street name:** *Mushroom, Magic mushroom, Shrooms and Mushies.*	fungus with a slender stem and conical cap. In the UK, Liberty Cap mushrooms grow abundantly in early autumn on open grassland, parks and roadside verges. However, it is rare in South Africa. **Fly Agaric** Fly Agaric is a larger bright red mushroom with white spots and a thick white stalk that grows in undisturbed woodland and is found in early autumn. Once picked, the mushrooms are usually dried to preserve them.	mushrooms are smoked in a rolled cigarette or pipe.	and a sense of spiritual enlightenment; respiratory suppression; convulsion and coma. Duration: Several hours		• Respiratory failure, unconsciousness and death.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
	The Liberty Cap is dried whole and the pale cap darkens to brown or black. The dried cap of the Fly Agaric is cut into sections and the dried lumps turn brown. Once dried, both types are difficult to distinguish from other mushrooms.				
Poppers This is a group of quick-acting drugs (***alkyl nitrites),*** of which amyl nitrite; butyl nitrite and isobutyl nitrite are the most widely available. Poppers evaporate at	Small bottles, or occasionally glass vials, of clear gold-coloured liquid that is inhaled (sniffed) from the bottle or from a cloth soaked in it. Fresh poppers smell sweet and fruity, but the	Poppers are inhaled from the bottle or a cloth soaked in it.	Rapid, but short-lived high. A burst of energy, and a rushing sensation because the heart starts beating faster. Light-headedness as blood pressure is reduced; dizziness, loss of balance and fainting; a sense that time has	Chills; hallucinations and depression, anxiety; delirium; headaches; muscular cramps; abdominal pains and hostile outbursts.	• Damage to the brain, liver, kidneys, respiratory tract and heart. • Respiratory depression, suffocation and death. • Cardiac arrest. • Nitrites are caustic, which means they will burn skin if spilt.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
room temperature and are inhaled. They are stimulants but the rush lasts minutes, hence the name poppers. **Street name:** *Amyl, Rush, Rave, Stage, Liquid Gold, Stud and Ram.*	stale chemical smells like old socks.		slowed down; lowering of sexual inhibition and possibly sexual arousal.		• Increased sexual arousal and decreased sexual inhibitions. The risk of contracting HIV/AIDS and other sexually transmitted diseases. • Inhaling vapours increases the pressure on eyeballs so it is very dangerous if you suffer from an eye condition, such as glaucoma. • Regular use can lead to skin problems around the nose and mouth.
Solvents Most solvents are volatile substances, which means they give off a vapour and evaporate when	Some of the most commonly abused and most dangerous substances are: Liquid petroleum gases (butane and propane)	There are several ways in which solvents are abused and they all amount to inhaling the vapours they	Euphoria; excitement; talkativeness; clumsiness; perceptual distortion; delusions; hallucinations; emotional	Chills; hallucinations and depression; anxiety; delirium; headaches; muscular cramps; abdominal	• Chronic headaches and nervousness. • Severe damage may occur to the brain, liver, kidneys, respiratory tract and heart. • Short-term memory loss.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
in contact with air. The most common term associated with solvent abuse is "glue-sniffing," but glue is just one of many products that are "sniffed". A whole range of household items, such as aerosols, correcting fluid and nail polish are abused. **Street name:** *Glue, Gas Huff and Aerosols*.	found in many aerosols, fuel for camping stoves and lamps as well as in gas refills for cigarette lighters. Solvents (benzene and hexane) in nail polish and its remover, correcting fluid and dry-cleaning fluids. Solvent-based glues (toluene and hexane) often used for model building.	give of. Inhaled Solvents are poured on to a piece of cloth or into a plastic bag. Most dangerous, is spraying the aerosol straight into the mouth which can freeze up the throat and the air passages so that breathing stops.	outbursts; aggressive behaviour; feeling of detachment; emotional disinhibition; vomiting; coughing; sneezing; salivation; convulsion, drowsiness; and coma. Duration: Minutes to hours depending on substance source	pains; hostile outbursts; mood swings and skin rashes (the skin around the mouth and nose becomes irritated).	• Respiratory depression and suffocation may occur if the user loses consciousness whilst inhaling from a rag or plastic bag. • Death, due to the above. • Cardiac arrest. • Accidents or serious injury because of risk-taking behaviour or suicides.

D. Central Nervous System Narcotic analgesics

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Heroin Heroin ***(diamorphine hydrochloride)*** is produced by processing raw opium, a natural substance found in oriental opium poppies. Because heroin is a narcotic analgesic, it numbs the brain and body and kills pain. **Street name (Colloquial name):** *"H", Dougee, Horse, Smack, Heroin, China white, Thai white, Scag, Brown sugar and Mexican brown.*	Heroin comes in three forms: brown, china white and pharmaceutical heroin. Brown The most common form of heroin. This is in fact a *diamorphine* base, in other words the *hydrochloride* bit has been removed. It is a brown powder, although the colour can vary from creamy white to dark coffee. The lighter the colour, the higher the heroin content. Brown is low-	Heroin is taken orally, smoked, snorted or injected - intravenously (mainlining), intra-muscularly or subcutaneouly (under the skin). Orally Chewing heroin gum is not a common way of administering the drug. Injected Injection is the practical and efficient way to administer low-purity heroin.	Euphoria and waves of incredible well-being. All pain – physical and mental – disappears. In small quantities heroin makes people very talkative, energized, impassioned and confident. Larger quantities send people into a trancelike state – they lose themselves in an interior world and they can't and don't want to communicate with anyone. A mellow, chilled-out feeling that makes the world look rosy follows	Develop within 3 – 48 hours Peak at 72 hours Duration 7 – 10 days. 8 – 12 hours Diaphoresis (sweating); nausea; anxiety; lachrymation (shed tears); nasal irritation and cold-like symptoms; yawing; and irritability. 12 – 48 hours Vomiting; loss of appetite; gooseflesh; dilated pupils; sneezing; abdominal spasms; diarrhoea; chills; flushing;	• Nausea and vomiting. First-time users could easily be sick and pass out, there's a real risk to choke on vomit. • Abscesses, sores and open wounds. With heavy use, these develop at injection sites. • Crime: Often the only way to pay for a habit is to steal, and addicts will steal from just about anywhere. • Mental deterioration. • Impotence. • Sterility. • Menstrual irregularity. • Can harm developing foetus. • Threat of spreading diseases (sharing needles).

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
	grade, messy, dirty stuff. The heroin content varies from 10 - 60 per cent. Brown is smoked and should never be injected. China white Found as grey granules that look a little like instant coffee. China white is smoked but can also be injected. Pharmaceutical heroin: This is pure heroin for medical use. It comes as a pure white powder or tablets, or as ampoules of clear liquid.	Heroin is mixed with water and citric acid in a spoon and heated until it becomes a clear brown solution. The solution is drawn up in a syringe, often using a cigarette filter to filter out impurities. Snorted Higher purity heroin can be snorted like cocaine. Smoked "Chasing the dragon" or "puff the white dragon" is street terms to describe a way of smoking heroin. It	the initial rush. The heroin effect starts to wear off after 1 - 2 hours, depending on tolerance levels. It will have worn of completely after anything from 3 - 6 hours.	yawning - more intense; elevated temperature, pulse, respirations, and blood pressure; lower back pain, pain in neck and extremities; weight loss; dehydration; acid-base imbalance and depression.	• Liver, kidney, heart problems. • Impairment of nervous system. • Overdose – coma and death.

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
		usually involves placing powdered heroin on aluminium foil and heating it from below with a lighter. The heroin turns to a sticky liquid and wriggles around like a Chinese dragon. Fumes are given off and are inhaled sometimes through a rolled up newspaper, magazine or tube. Heroin can also be smoked by using a pipe (Hubble Bubbly) or a glass tube, much like the use of crack.			

Drug	Form	Mode of use	Effects	Withdrawal	Dangers
Methadone Methadone is a man-made chemical that has similar properties to opiates such as heroin. Most of the information on heroin goes for methadone as well. It is often used by doctors to wean addicts off heroin on a controlled regimen. **Street name:** *Dolly, Doll, Red Rock, Phy-Amps and PHY.*	Methadone comes as tablets and ampoules of clear, injectable liquid. Both are prescribed under the trade name Physeptone. It's also found as brown, orange or green linctus of varying strengths or as a mixture known as DTF, which comes in the same colours as the linctus, but is stronger.	Swallowed This drug is taken orally, i.e. swallowed. Injected It can also be injected.	The effects of methadone are similar to heroin, but it is not as powerful. There is no intense hit, which is why heroin users don't like it as much. The effects are longer lasting than heroin – pain relief and feelings of well-being can last up to 24 hours. However nausea and vomiting, severe constipation, stomach and back pain and loss of sexual drive follows.	Methadone withdrawal is similar to heroin withdrawal. Duration: Up to six weeks or more. .	• Cardiac arrest. • Risk of becoming infected with HIV/AIDS and hepatitis B or C from sharing needles and other equipment. • Vein blockage can occur from injection, leading to abscesses, ulcers and blocked blood vessels. • Overdose – coma and death.

5. Theories of adolescent substance use and abuse

There is a plethora of theories that attempt to account for the reason why adolescents use/abuse substances. In fact, several hundred theories purporting to explain substance use by both youth and adults have been published during the last decades of the twentieth century (Pagliaro & Pagliaro, 1996: 31). According to Boyd, Howard and Zucker (1995: 199) many of these theories use concepts that may have different labels but reflect conceptually similar underlying constructs. In fact, many etiological theories provide elements for a comprehensive meta-theory of substance use/abuse, including: theory of dynamic lifetime interplay, psychological theory, cognitive-affective theories, cognitive-behavioural theory, problem behaviour theory, economic theory, social cognitive/ learning theory, symbolic interactionism theory, social control theory and availability theory. Dimensions of all these theories are reflected in the model of substance use and abuse as shown in Figure 2 (page 117).

A comprehensive review of all these theoretical approaches is beyond the scope of this study. Hence the core propositions from those theories that most influenced the researcher's approach to youth substance use/abuse are briefly reviewed.

5.1 Theory of dynamic lifetime interplay

Tarter and Mezzich (1992) proposed the theory of dynamic lifetime interplay and focus on genetic and social environmental effects on the development of substance abuse among children, adolescents and adults.

According to Tarter and Mezzich (1992: 149-177), a genetic predisposition (ranging from low to high) is assumed to be normally distributed in the general population. Substance abuse, as a complex behavioural disorder, is thought to have its genetic basis in the addictive effects of many genes located on several chromosomes. (Compare Pagliaro & Pagliaro, 1996: 93; Schaffer, 1994: 3; Velleman, 1992: 11.) This concurs with genetic theorists that believe that substance abuse is an inherited disease. (Compare Daley & Raskin, 1991: 16; Winger, Hofmann & Woods, 1992: 7.) That is, it affects a large number of people, and it has a cluster of symptoms, a predetermined outcome and a prescribed treatment. However, Tarter and Mezzich (1992) emphasize that genetic susceptibility is neither a necessary nor a sufficient condition for an adverse outcome. Genetic linkage shows that some individuals might be more vulnerable to developing substance dependence, not that they certainly would develop dependency.

In fact, a person who has high genetic vulnerability (i.e. who has many of the genes) can be protected from a substance abuse outcome by a protective social environment (e.g. low drug availability, cultural sanctions, and strong social support). On the other hand, a person who has low genetic susceptibility may have such an adverse outcome where drug exposure is high and the social environment is conducive (Pagliaro & Pagliaro, 1996: 93).

Tarter and Mezzich (1992: 161) argue that a substance abuse outcome can theoretically occur at any stage in life because it is contingent on the dynamic interplay among genetic and social environmental factors: Not only does the individual predisposed to drug abuse react to social environmental contingencies, but such persons seek out specific social

environmental circumstances (e.g. high stimulus intensity and/or non-normative peers). The quality of these interactions additionally determines outcome throughout the life span. Therefore, there is some degree of risk for an adverse outcome at any stage in life. Depending on the changing contingencies involved in gene-environment interactions, the triggering of a drug abuse disorder at one stage in the life span (e.g. adolescence) may be different from the precipitating factors at another stage (e.g. late adulthood).

This theory emphasizes genetic individuality, idiosyncratic developmental history, and unique micro and macro- social environmental effects, the theory implies also that everyone in a given population is theoretically at risk for substance abuse, an outcome contingent on changes in either the individual or the social environment.

The implication of this theory on prevention can thus be to change the social environmental conditions. In other words incorporating a community-change strategy.

5.2 Psychological theory: Life Process Programme (LPP) Theory of Natural Recovery

Psychological theories attempting to explain adolescent substance use and abuse cover a very wide range of theoretical perspectives (Bukstein, 1995: 11). The researcher chooses to discuss only one late modern period (1961-1995) psychological theory, i.e. Peele, Brodsky and Arnold's (1991) **Life Process Programme (LPP) Theory of Natural Recovery**.

This cognitively based psychological theory addresses the use of alcohol and other substances in addition to other "destructive habits", e.g. co-dependence, gambling, overeating, excessive exercise, love, sex and shopping. The focus is on self-help and, in regard to children and adolescents, the role of parents in instilling (directly or by example) healthy rather than addictive habits in their children (Pagliaro & Pagliaro, 1996: 84).

The Life Process Programme Theory proposes the following:

(a) Belonging to a supportive social group, one with pro-social values that do not support addictive excesses makes it unlikely that a person will get addicted.

(b) Having a job and a family provides most people with a structure in life and a sense of value; conversely, addictions result when people's lives are structured and made to seem worthwhile by activities that harm them or those close to them, detract from their environments and relationships, and deepen their feelings of self-doubt.

(c) Addictive activities, although a part of essential human experiences, subvert and substitute for genuine satisfactions.

(d) The addictive cycle is the self-feeding reliance on feelings that the addiction makes harder to get in any other way (masking anxieties with substance use and not dealing with them constructively and depending more and more on the substance of abuse for this purpose as health is undermined).

(e) Addiction is not an accident, but a consequence of the confluence of forces in people's lives, of their needs and available ways of satisfying them (Pagliaro & Pagliaro, 1996: 85).

A non-disease self-help or therapist-assisted approach is thus provided whilst the natural processes of recovery, including building on individual strengths and developing and using those offered by the community is empathized. Rather than lifelong, treatment is finite. People are seen as evolving beings that require individualized treatment that is client centred. The development of coping abilities is seen as essential to the process of becoming non-addicted. In this regard, the goal of treatment is personal efficacy, which is developed through motivation, identification of personal values, and development of life skills and life involvements, including those inherent in family, work and community (Peele, Brodsky & Arnold, 1991: 167).

The Life Process Programme (LPP) draws on the personal strengths and resources available to the addicted person. In essence the LPP is a values-based approach (Pagliaro & Pagliaro, 1996: 85). Developing and living by a set of values, expanding connections to the world, and aiming for and accomplishing worthwhile goals are key factors in the LPP. As described by Peele, Brodsky and Arnold (1991: 168): "The Life Process Programme presents a recipe for change through toning down overblown and frightening rhetoric about addictions and by instead appealing to the strength, intelligence, and instinct for self-preservation in every person".

The clear prevention implication of this theory is thus to build on protective factors as protective factors mediate or moderate the effects of exposure to risk (Hawkins, Catalano & Miller, 1992: 86). Building on the adolescent's individual strengths (e.g. increasing social- and self-competency skills) and developing and using those offered by the community can deter drug use/abuse.

5.3 Cognitive-affective theories of substance use

Cognitive-affective theories of substance use focus on how perceptions about the costs and benefits of substance use contribute to adolescents' decisions to use various substances (Petraitis, Flay & Miller, 1995: 68). These theories share the assumptions that (a) the primary causes of decisions to use substances lie in the substance-specific expectations and perceptions held by adolescents, and (b) the effects of all other variables – including, for example, adolescents' personality traits or involvement with peers who use substances – are mediated through their effects on substance-specific cognitions, evaluations, and decisions (Boyd, Howard & Zucker, 1995: 200).

Among the most encompassing of these theories is the Theory of Reasoned Action. According to Ajzen and Fishbein's (1980) Theory of Reasoned Action (TRA), substance use is determined exclusively by an adolescent's decisions or reasoned intentions to engage in substance-specific behaviour (Petraitis, Flay & Miller, 1995: 69). In turn, these decisions are determined exclusively by two cognitive determinants. First, the theory of reasoned action claims that intentions are affected by adolescents' attitudes regarding their own substance use. Adapting a

value-expectancy approach to attitudes, Ajzen and Fishbein (1980) posited that substance-specific attitudes are a mathematical function of both the personal consequences (i.e. costs and benefits) that adolescents expect from substance use and the affective value they place on those consequences. (Compare Bukstein, 1995: 14.) Presumably, youth should hold positive attitudes toward substance use if the expected benefits of substances are valued more than the expected costs. Secondly, the theory of reasoned action claims that decisions are affected by an adolescent's beliefs regarding the social norms surrounding substance use (Petraitis, Flay & Miller, 1995: 69). According to this theory, social normative beliefs are based on an adolescent's perception that others want him or her to use substances and on the adolescent's affective motivation to comply with (or desire to please) the substance-specific wishes of those people. Presumably, youths will feel strong pressure to use substances if they believe, rightly or wrongly, that important friends and family members endorse substance use. They might also feel strong pressure to use substances if they overestimate the prevalence of substance use among peers and adults in general (Petraitis, Flay & Miller, 1995: 69). The roots of substance use are thus found in adolescents' beliefs about substances.

The key to preventing use/abuse can thus be through persuasive messages that directly target substance specific beliefs. Four beliefs are particularly important. First, persuasive messages should increase adolescents' expectations regarding the adverse consequences of substance use (e.g. health dangers) and decrease their expectations regarding the potential benefits of substance use (e.g. social approval or coping with stress). Second, messages should alter adolescents' evaluations of the apparent costs and benefits of substance use,

somehow giving more potent evaluations of the costs and less potent evaluations of the benefits. For instance, messages could present the health risks of substance use as "more costly" and evaluate them more strongly by graphically depicting substance-specific risks. Third, messages should challenge adolescents' perceptions concerning the normative nature of substance use, perhaps challenging any inflated estimates of the prevalence of substance use among peers. Finally, messages should provide adolescents with information and skills that directly promote feelings of refusal self-efficacy and, as a result, indirectly prevent substance use/abuse (Boyd, Howard & Zucker, 1995: 201).

5.4 Cognitive-behavioural theory of adolescent chemical dependency

According to Ross's (1994: 7) cognitive-behavioural theory, substance use, abuse and dependency among adolescents occur when a distinct set of priori beliefs (i.e. beliefs around a perception of the environment that helps people make sense of their external experience) results in a multitude of self-defeating emotional responses. These responses activate a distinct set of posteriori beliefs (i.e. beliefs around autonomically mediated responses, or emotions, that helps people to make sense out of their internal experiences) that, in turn, activate a distinct set of self-defeating behavioural responses. (Compare Pagliaro & Pagliaro, 1996: 94.)

Hence critical factors in the adolescent's environment (e.g. family, peer culture, media and ready availability of substances of abuse) influence his priori beliefs. These beliefs and subsequent feelings create a distinct mind

set conducive to substance use, abuse and when left unchallenged, habitual substance usage (Pagliaro & Pagliaro, 1996: 95). Over time, the behaviour of substance use reinforces a set of posteriori beliefs. According to these beliefs, substance use is a way to seek stimulation, gain self- and peer acceptance and avoid/escape responsibility (Ross, 1994: 7). With repeated substance use, the adolescent eventually develops an erroneous obsessive thinking pattern (what was once "a way" eventually becomes "the only way" to seek stimulation, gain self- and peer acceptance and avoid/escape responsibility). As use continues, the adolescent also finds that he or she is faced with such behavioural consequences as the violation of well-learned ethical, value and legal standards; deterioration of cognitive, affective and behavioural functioning; and the emergence of more pronounced psychological defences (Ross, 1994: 7). As the addictive personality develops, an added set of priori beliefs emerge that concern the fear of discovery and possible punishment. This additional internal dialogue significantly increases the adolescent's anxiety level and creates an increased demand for emotional relief. The obsession becomes greater as the temporary emotional relief provided by substance use reinforces the erroneous, a posteriori belief that the only way to find relief from unpleasant feelings is to get high (Pagliaro & Pagliaro, 1996: 95). As this addictive process continues to repeat itself, a distinct personality pattern and cognitive structure emerge. The latter ultimately maintains a cauldron of emotional pain and self-defeating behaviour patterns that culminate in physical deterioration of the body, emotional instability and spiritual bankruptcy. (Compare Pagliaro & Pagliaro, 1996: 95; Ross, 1994: 8.)

The implication of the cognitive-behavioural theory of adolescent chemical dependency on prevention can be cognitive "reprogramming" (Boyd, Howard & Zucker, 1995: 201) so that the beliefs that constitute a self-defeating personality and cognitive structure are changed and alternative methods is provided to achieve valued states.

5.5 Problem behaviour theory

Jessor and Jessor's (1977) problem behaviour theory is classified as an eclectic theory integrating psychological (personality/learning/social psychology) and sociological (anomie) orientations (Pagliaro & Pagliaro, 1996: 54). According to Petraitis, Flay and Miller (1995: 76) this theory not only addresses the causes of substance use but also addresses the causes of myriad behaviour that are considered especially problematic for adolescents, including sexual activity, political protest, alcohol use, illicit drug use and criminal behaviour. (Compare Pagliaro & Pagliaro, 1996: 54.) Because many of these behaviour are accepted among adults but forbidden among adolescents, they might "appeal to many adolescents as a rite of passage that constitutes a symbolic assertion of maturity" (McGuire, 1991: 181). Problem behaviour theory asserts that adolescents who are prone to one problem behaviour (e.g. delinquency) are also prone to other problem behaviour (e.g. cannabis use) (Schinke, Botvin & Orlandi, 1991: 15).

This theory starts with the assumption that susceptibility to problem behaviour results from the interaction of the person and the social environment (Bukstein, 1995: 14). The social environment is divided into proximal and distal structures. Within the distal structure of perceived

social environment, the variables that indicate whether a youth is parent oriented or peer oriented are the most significant (Pagliaro & Pagliaro, 1996: 56). Problem behaviour theory contends that adolescents are at risk for substance use if they are unattached to their parents, are close to their peers, and are more influenced by their peers than their parents (Petraitis, Flay & Miller, 1995: 76). In the proximal structure of perceived social environment, the variables referring to peer models and support for problem behaviour are most important. (Compare Jessor & Jessor, 1977: 237; Pagliaro & Pagliaro, 1996: 56; Petraitis, Flay & Miller, 1995: 76.) Together they suggest the character of a problem-prone environment; adolescents who are likely to engage in problem behaviour perceive less compatibility between the expectations that their parents and their friends hold for them, they acknowledge greater influence of friends relative to parents, they perceive greater support for problem behaviour among their friends, and they have more friends who provide models for engaging in problem behaviour. (Compare Jessor & Jessor, 1977: 237; Pagliaro & Pagliaro, 1996: 56.) Problem behaviour theory thus asserts that adolescents are at risk for substance use if they have friends who use substances or they believe their friends and parents approve of substance use.

Problem behaviour theory then divides characteristics of the person into distal, intermediate, and proximal categories. The most distal characteristics are grouped in the personal belief structure, a structure that contends that adolescents will be at risk for substance use if they:
a) Are socially critically and culturally alienated (i.e. committed to conventional values), (b) have low self-esteem and feel they have little to risk through deviant behaviour, and (c) they have an external locus of control, believing that their conventional behaviour are not socially

rewarded and their deviant behaviour are not socially punished. More intermediate causes of substance use are grouped in the motivational instigation structure and concern the direction of adolescents' dominant goals, expectations and personal values. Through this structure, problem behaviour theory contends that adolescents will be at risk for substance use if they (d) highly value their involvement with peers, seek independence from parents, and devalue academic achievement, or (e) have low expectations for academic achievement. (Compare Pagliaro & Pagliaro, 1996: 56; Petraitis, Flay & Miller, 1995: 77.) Finally the most proximal of the intrapersonal causes of substance use falls into the personal control structure. This structure focuses on attitudes toward deviant behaviour and proposes that adolescents will be at risk for substance use if they are generally tolerant of any deviant behaviour or believe that the benefits of substance use outweigh the costs (Petraitis, Flay & Miller, 1995: 77).

Hence, in relation to the personality system as a whole, the adolescent who is less likely to engage in problem behaviour is one who values academic achievement and expects to do well academically, who is not concerned much with independence, who treats society as unproblematic rather than as deserving of criticism and reshaping, who maintains a religious involvement and is more uncompromising about transgression, and who finds little that is positive in problem behaviour relative to the negative consequences of engaging in it. (Compare Jessor & Jessor, 1977: 237; Pagliaro & Pagliaro, 1996: 56.) The adolescent who is more likely to engage in problem behaviour shows an opposite personality pattern – a concern with personal autonomy, a relative lack of interest in the goals of conventional institutions (such as school and

church) a jaundiced view of the larger society and a more tolerant attitude about transgression (Pagliaro & Pagliaro, 1996: 56).

Problem behaviour theory sharply focuses on how environmental and intrapersonal, i.e. personality traits, affect adolescent substance use. One-way to deter substance use/abuse can thus be to:

(a) Promote conventional behaviour and perceptions that substance use is unacceptable and unsupported by significant others,
(b) Family enrichment,
(c) Evaluation of the costs and benefits of substance use, and
(d) Development of self-efficacy.

5.6 Economic theory of alcohol use

According to Boyd, Howard and Zucker (1995: 201) the economic theory of alcohol use state that individuals make rational decisions to consume products in which they find utility. Consumers do not consume an infinite amount of alcohol, but rather they make decisions on whether to consume a drink on the basis of a balance of the expected utility from consuming it and the costs of doing so (Grossman, Chaloupka, Saffer & Laixuthai, 1994: 340). Thus, consumption of alcohol is tied to (a) a decision to drink, and (b) the costs of the product in relation to the amount of disposable income available.

Adolescents take many things into account in making the decision to drink alcohol, and many of those considerations are related to social expectations and influences concerning substance use, not just direct economic costs and benefits (Boyd, Howard & Zucker, 1995: 202).

According to Fischhoff and Quadrel (1994: 229) adolescents frequently make decisions that do not appear rational to an outside observer. They do not know all alternatives available to them, do not fully understand the expected consequences of each alternative, and do not always choose the action that optimises their gain at minimum cost. (Compare Boyd, Howard & Zucker, 1995: 202.) Yet, for the most part, adolescent behaviour is functional and not arbitrary or capricious.

However alcohol consumption is price elastic and young people are the most responsive to an increase in price by reducing consumption (Grossman, Chaloupka, Saffer & Laixuthai, 1994: 347). According to Boyd, Howard and Zucker (1995: 229) a fundamental principle of this theory is that of the downward sloping demand curve, i.e.: As the price of any goods rises, consumption of those goods falls. Some economists have argued that the consumption of potentially addictive goods, such as alcohol, might be an exception to that rule. Numerous studies confirm, however, that this principle does apply to the demand for alcoholic beverages. (Compare Manning, Blumberg & Moulton, 1992.)

The studies just mentioned focus on the consumption of alcoholic beverages by adults or by all segments of the population. Yet there are reasons to believe that alcohol consumption by young people may be more sensitive to price than alcohol consumption by adults (Boyd, Howard & Zucker, 1995: 229). One factor is that the fraction of disposable income that a youthful drinker spends on alcohol probably exceeds the corresponding fraction of an adult drinker's income. A second factor is that bandwagon or peer effects are much more important in the case of youth drinking than in the case of adult drinking. Thus, a rise in price would curtail youth consumption directly and indirectly through its impact

on peer consumption. Finally, youths are more likely to discount the future consequences of their current actions than adults (Grossman, Chaloupka, Saffer & Laixuthai, 1994: 341). Youth are thus the most responsive to an increase in price by reducing their consumption.

Prevention efforts based on such an economic or decision-making model must recognize the functionality of substance use/abuse from an adolescent's perspective and encourage a broader awareness of the negative consequences of use/abuse and of normative expectations that not using/abusing substances has positive outcomes (Boyd, Howard & Zucker, 1995: 202). Finally, an important way to reduce youth alcohol use may be to increase its direct cost through increased taxes and prices as well as to increase its indirect cost by reducing its accessibility to youth (Grossman, Chaloupka, Saffer & Laixuthai, 1994: 345).

5.7 Social cognitive/learning theory of substance use

As with cognitive-affective theories, Bandura's (1986) social cognitive/learning theory (in Petraitis, Flay & Miller, 1995: 70) assumes that substance-specific cognitions are the strongest predictors of adolescent substance use. However, the social cognitive/learning theory does not assume that the roots of substance use originate in an adolescent's own substance specific cognitions. Rather, social cognitive/learning theory assumes that substance use originate in the substance-specific attitudes and behaviour of people who serve as an adolescent's role models, especially close friends and parents who use substances (Botvin, Schinke & Orlandi, 1995: 179).

Specifically, social cognitive/learning theory asserts that an adolescent's involvement with substance-using role models is likely to have three sequential effects, beginning with the observation and imitation of substance-specific behaviour, continuing with social reinforcement (i.e. encouragement and support) to substance use, and culminating in an adolescent's expectation of positive social and physiological consequences from future substance use. (Compare Bukstein, 1995: 13; Petraitis, Flay & Miller, 1995: 70.) Thus, observing parents use alcohol to relax or observing peers smoke cannabis to smooth social interaction will shape adolescents' beliefs about the consequences of, and their attitude toward, their substance use (Lewis, Dana & Blevins, 1994: 173).

This theory, include the concept of self-efficacy. Bandura as quoted by Petraitis, Flay and Miller (1995: 71) has posited that role models can shape both use self-efficacy and refusal self-efficacy. For instance, observing peers buy and inhale cannabis cigarettes can provide adolescents with the necessary knowledge and skills to obtain and use cannabis. Conversely, observing a close friend resist the pressures to use alcohol can boost an adolescent's refusal skills and self-efficacy by displaying the necessary skills to avoid using alcohol (Boyd, Howard & Zucker, 1995: 202).

Moreover, adolescents probably do not have to observe substance use among influential role models for substance use to be socially modelled and reinforced. In fact, simply hearing influential role models speak favourably about substance use and people who use substances might promote the onset of substance use. Therefore, the causes of substance use might be found among (a) substance use by parents, close friends and other role models, and (b) favourable statements or attitudes towards substance use by such role models, especially close friends and

admired peers who endorse substance use. (Compare Bukstein, 1995: 13; Petraitis, Flay & Miller, 1995: 70.)

The social cognitive/learning theory thus assume that substance specific beliefs are the most immediate and direct causes of adolescent substance use and that expectations about the personal consequences of substance use are critical beliefs. However, unlike the cognitive-affective theories, which suggest that the key to prevention is to alter adolescents' substance-specific beliefs, the social cognitive/learning theory suggest that a key to prevention lies in (a) making substance-using role models less salient and substance-abstaining role models more salient, (b) focussing on social skills training, and (c) emphasising the negative social consequences of substance use (Boyd, Howard & Zucker, 1995: 203).

5.8 Symbolic interactionism theory of substance use/abuse

This theory posits that people respond to events and objects in terms of the meanings they attribute to them (Pagliaro & Pagliaro, 1996: 66). Socialization (both childhood and lifelong) is the process of learning the socially shared sets of meanings attached to events, objects and language. Humans have the capacity for role taking – for imagining the attitudes and perceptions of others and being able to anticipate how they will respond to specific actions. One's behaviour is directly affected by such anticipated actions on the part of others (Boyd, Howard & Zucker, 1995: 204). The meanings attached to specific behaviour are acquired from society as a whole (i.e. the generalized other) as well as specific reference to others or reference groups. Social norms affecting substance

use/abuse are derived from interaction with individuals and groups in society, as well as from role models for appropriate behaviour in specific settings (Bukstein, 1995: 13). Role models and other dimensions of the social environment that define norms around substance use/abuse are not only reflected in interactions between individuals, they are also reflected in a wide range of community and societal structures and practices related to substance use. (Compare Boyd, Howard & Zucker, 1995: 203; Bukstein, 1995: 13.) The presence and active marketing of legal substances (i.e. alcohol, tobacco) throughout the social environment experienced by youth through family, friends, advertising, and media programming therefore help define socially shared meanings that substance use is an expected behaviour (Boyd, Howard & Zucker, 1995: 204).

This theory suggests that efforts to reduce substance use/abuse must involve multiple social structures, including the youths themselves, that are both proximal and distal to the adolescent, including the family, local community, mass media, marketing practices and institutional and public policies related to specific substances (Hawkins, Catalano & Miller, 1992: 87).

5.9 Social control theory of substance use among adolescents

Like social learning theories, Elliott's (1985) social control theory (in Petraitis, Flay & Miller, 1995: 71) assume that emotional attachments to peers who use substances is a primary cause of adolescent substance use. However, unlike social learning theories, this theory focuses on the causes of those attachments, specifically targeting weak conventional bonds to society

and institutions and individuals who discourage deviant behaviour, including substance use. (Compare Boyd, Howard & Zucker, 1995: 204.)

This theory is based, in large part, on classic sociological theories of control, which argue that the deviant impulses that all people presumably share are often held in check or controlled by strong bonds to conventional society, families, schools, and religions (Pagliaro & Pagliaro, 1996: 50). However, for some adolescents, such controlling influences are missing. Consequently, adolescents who have weak conventional bonds will not feel controlled by or compelled to adhere to conventional standards of behaviour (Boyd, Howard & Zucker, 1995: 204).

The social control theory focuses on three possible causes of weak commitment to conventional society and weak attachment to conventional role models (Hawkins, Catalano & Miller, 1992: 87). One of those causes is strain, which is defined as the discrepancy between adolescents' aspirations (e.g. academic or occupational goals) and their perceptions of the opportunities to achieve those aspirations (Petraitis, Flay & Miller, 1995: 72). Social control theory asserts that adolescents who feel that their academic or career aspirations are being frustrated by their educational and occupational options will feel uncommitted to conventional society and, consequently, will become more attached to deviant peers who use substances and encourage substance use (Hawkins, Catalano & Miller, 1992: 87). Furthermore, some adolescents might feel strain at home because they want but are not receiving closer relationships with their parents. According to this theory, strain at home will (a) weaken attachments with parents who generally oppose substance use, and (b) encourage attachments with peers who more frequently encourage substance use (Petraitis, Flay & Miller, 1995: 72).

Thus, social control theory includes school strain, occupational strain, and home strain among the first causes of weak commitment to conventional society.

A second cause is social disorganization, which represents "the weakness or breakdown of established institutions", or the inability of "local institutions to control the behaviour of the residents" (Farrington, Loeber, Elliott, Hawkins, Kandel, Klein, McCord, Rowe & Tremblay, 1990: 310). As such, social control theory implies that adolescents feel uncommitted to conventional society if they come from disorganized neighbourhoods where crime and unemployment are common, where schools are ineffective, and where failed social institutions offer adolescents little hope for the future. They might also feel less attachment to parents if they come from disorganized families where, for instance, only one parent is present or the parents have divorced. (Compare Hawkins, Catalano & Miller, 1992: 87; Pagliaro & Pagliaro 1996: 50.)

Finally, social control theory asserts that conventional commitments and attachments to conventional role models are the result of effective socialization into conventional society. Even if adolescents (a) do not feel strain because of frustrated interpersonal, educational, and occupation opportunities, and (b) do not come from disorganized neighbourhoods and families, they might still become attached to substance-using peers if they have not been socialized (presumably by parents) to adopt conventional standards. (Compare Boyd, Howard & Zucker, 1995: 204; Hawkins, Catalano & Miller, 1992: 87; Petraitis, Flay & Miller, 1995: 72.)

Attachment to substance using peers (and by implication substance use) is thus caused by (a) frustrated academic and occupational

expectations, (b) inadequate social and academic skills, (c) weak attachment to and inadequate reinforcement from parents and other conventional role models, (d) disorganized neighbourhoods and families, and (e) improper socialization.

Consequently all of these factors can be potential pieces of adolescent substance use/abuse prevention programmes. For instance, programmes might deter adolescent substance use by teaching parents how to reinforce and socialize their children.

5.10 Availability theory of substance use

The availability theory of substance use focus on how the availability of addictive substances contributes to substance use (and by implication abuse) (Velleman, 1992: 13). This theory contends that adolescents are at risk for substance use/abuse because drugs are available, (compare Ghodse & Maxwell, 1990: 26; Schaffer, 1994: 3) directly affecting their opportunities to use. Accordingly, Boyd, Howard and Zucker (1995: 205) state that the amount and pattern of substance use is affected by the degree to which substances are accessible to people. Rocha-Silva (1998: 3) supports this view, and states that the level of availability of and demand for (particular) drugs in a community tends to positively correlate with the general level of drug use in that community. Consequently availability may vary and is usually associated with substance use.

Boyd, Howard and Zucker (1995: 205) divide substance availability into three categories: physical availability, economic availability, and legal availability. Physical availability is described as the amount, diversity and

proximity of substances in the environment. Economic availability is defined as the degree to which acquisition and consumption of substances requires expenditure of resources in relation to resources available (e.g. the cost/price of substances in relation to disposable income). Legal availability is set forth as the degree to which purchase and consumption of substances is limited by law. (Compare Hawkins, Catalano & Miller, 1992: 81; Schaffer, 1994: 3.) Through this division, availability theory suggest that adolescents will be at risk for substance use/abuse if (a) substances are physical available in the youth's social-environment, (b) substances are affordable, and (c) laws and social norms express tolerance for substance use.

The availability theory thus assumes that substance availability is the strongest predictor of substance use, were availability is seen as: (a) a direct cause of substance use, and (b) an indirect cause of substance use as availability creates substance-specific perceptions.

The implication of this theory on prevention can be to create barriers to young people's substance use by reducing access and availability through public policies, excise taxes and physical restraints.

(Also see Chapter 3, page 180 were availability of substances is described as a risk factor for adolescent substance use/abuse.)

5.11 Integration of theories

The preceding review discussed ten theories purporting to explain adolescent substance use. These were:

(a) Dynamic Lifetime Interplay theory, that links genetic and social environmental effects to the development of substance abuse;

(b) The Life Process Programme theory, which presents substance use and dependence as a consequence of the confluence of forces in people's lives, i.e. their needs and available ways of satisfying them;

(c) Cognitive-affective theory; which describes how decision-making processes contribute to adolescent substance use;

(d) Cognitive behavioural theory, which details how beliefs that constitute a self-defeating personality and cognitive structure, effects substance use;

(e) Problem behaviour theory, that focuses on environmental and personality traits that affect adolescent substance use;

(f) Economic theory, which ties substance use to (i) a decision to use the substance, and (ii) the costs of the product in relation to the amount of disposable income available;

(g) Social cognitive/learning theory, which emphasizes the effects of substance-using role models;

(h) Symbolic interactionism theory, which searches for the roots of substance use in the adolescent's interaction with multiple social structures;

(i) Social control theory, which details how various factors promote withdrawal from conventional society, detachment from parents, and attachment to substance-using peers; and

(j) The availability theory that links adolescent substance use to substance availability (physical, economic and legal).

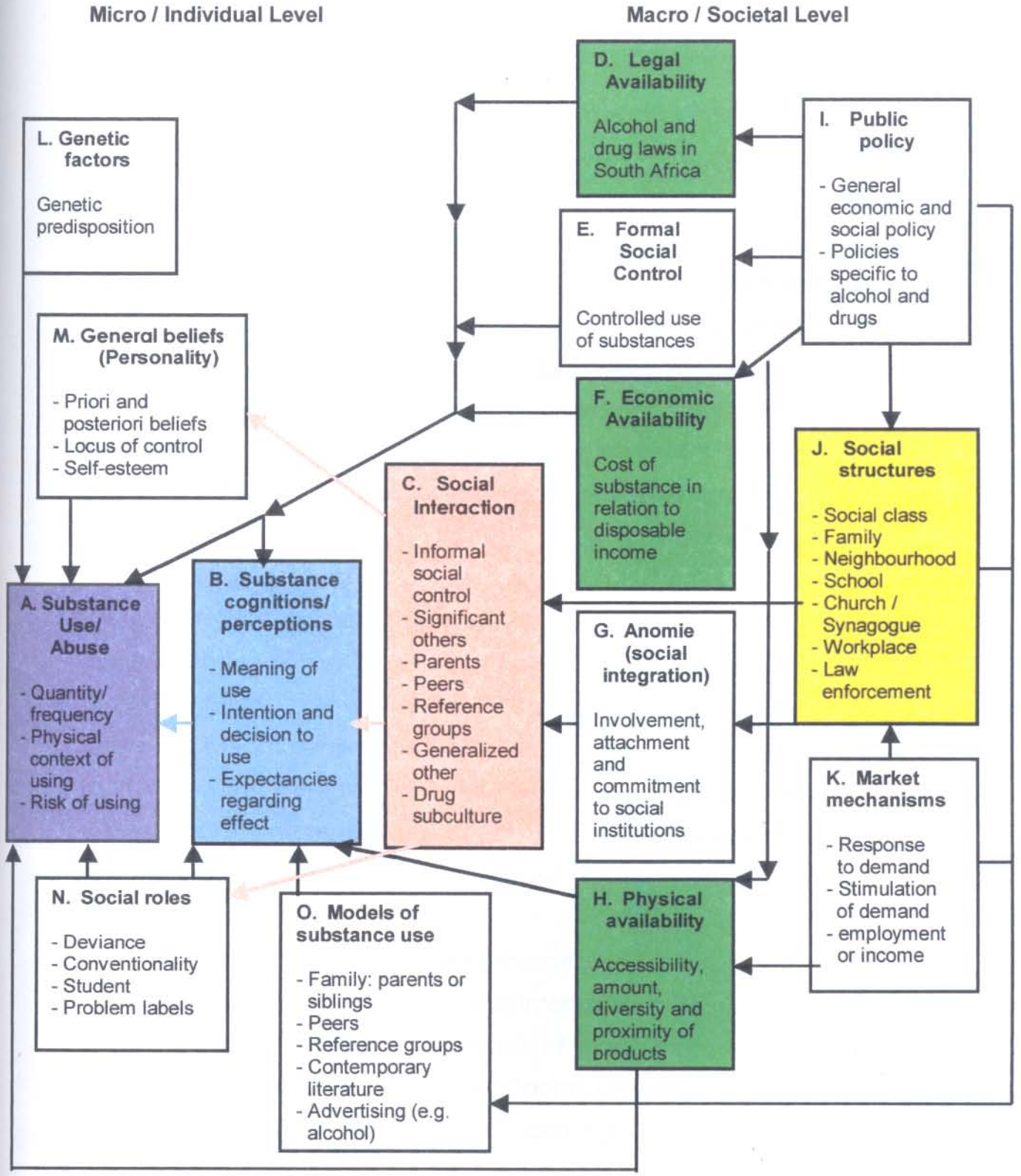
These theories all implicate a long and diverse list of causal and contributory factors, that theoretically lead to adolescent substance use

and abuse. However the diversity of theories and causes is not surprising given that substance use/abuse has a complex etiology. In fact, the more research findings allow us to understand about the nature of adolescent substance use/abuse, the more complex the factors underlying its development appear to be. Schinke, Botvin and Orlandi (1991: 14) concur with this by stating: "there is a multitude of interrelated causes for substance abuse with no single factor both a necessary and sufficient condition for the initiation of substance use or abuse". (Compare Roper & Bartlett, 1994: 11.) Moreover Petraitis, Flay and Miller (1995: 79) argue that a thorough understanding of any behaviour must be based on a comprehensive and integrative analysis of: (a) the broad social environment surrounding the behaviour, (b) the more immediate social situation or context in which the behaviour occurs, (c) the characteristics of the person performing the behaviour, (d) the behaviour itself and closely related behaviour, and (e) the interaction among all of these. (Compare Pagliaro & Pagliaro, 1996: 91.)

In partial alignment with this argument, Wagenaar and Perry's (1994: 319-345) integrated theory of drinking behaviour was adapted and changed by the researcher in an effort to explain the etiology of youth substance use and abuse. The resulting model is the researcher's superimpositions on Wagenaar and Perry's (1994: 319-345) material and propose that substance use/abuse is the result of reciprocal effects among the individual person and the person's environment by focussing on the centrality of social interaction.

Figure 2 illustrates the proposed model.

Figure 2: An integrated model of adolescent substance use/abuse



Road map to Figure 2: An integrated model of adolescent substance use/abuse

In this integrated model, substance abuse is directly affected by the adolescent's personal cognitions and perceptions regarding substances (path B-A in Figure 2). This is in line with cognitive-affective and social learning theories, that all assume that the roots of adolescent substance abuse are found in the adolescent's beliefs and expectations about substances. Suggesting that adolescents will abuse substances if they expect the substance to have reinforcing positive effects, high in relation to costs. These perceptions about substances are a direct result of social interactions with significant others in the youth's environment (path C-B), observation of environmental models (path O-B) and formal social controls (path E-B).

Furthermore, factors affecting substance use/abuse do not all operate through the mediating influence of cognitive/perceptual variables; they have direct effects as well. In accordance with the availability theory, it is stated that legal availability (path D-A and D-B), economic availability (path F-A and F-B) and physical availability (path H-A and H-B) of substances therefore directly affect substance use/abuse; and also operate indirectly by creating perceptions.

Social structures, that is modified by the degree to which the adolescent are integrated into them, affect social interaction patterns (paths J-C and J-G-C) and affect exposure to models of substance use (path J-O). In addition, however, exposure to substance using models is importantly affected by: (a) public policy concerning media advertising and

depiction of substance use/abuse in media programming (path I-O) and (b) market mechanisms that respond to and stimulate demand for substances (path K-O). Public policy also directly affects formal social controls (I-E), as well as the legal, economic, and physical availability of substances (I-D, I-F, I-H, respectively), all of which in turn affect substance use/abuse directly (path D-A, E-A, F-A and H-A) as well as through their influence on the meanings and perceptions of substance use (path D-B, E-B, F-B and H-B).

Genetic factors also play a direct role (L-A) on substance use/abuse, although such effects are minor for the majority of substance users. Substance use/abuse is contingent on the dynamic interplay among genetic and environmental factors, i.e. low drug availability (path D-A, F-A & H-A), cultural sanctions and strong social support (E-A).

In addition, social interaction influences the adolescent's social roles (path C-N). Herewith social roles, such as deviant or problem, as well as other widespread social roles (e.g. student) affect substance use/abuse directly by offering more opportunities to use substances (N-A), and they affect substance use indirectly by occupying such roles on substance-related cognitions and perceptions (N-B-A).

General beliefs (priori and posteriori beliefs) and eventually personality characteristics, may be correlated with substance use/abuse (path M-A). These beliefs are primarily the result of the cumulation of past and current socialization (path C-M); in other words, they result from past and current experience in social interactions (e.g. family and peer culture), which are in turn influenced by a variety of social and institutional structures (J-C-M; I-J-C-M and K-J-C-M). Hence critical factors in the youth's environment

(e.g. family, peer culture, media and ready availability of substances of abuse) influences his beliefs and they (the beliefs) affect substance use/abuse.

6. Magnitude of the problem

6.1 Global illicit drug consumption trends

Reliable, systematic and comparable data to assess the global drug problem, and to monitor progress is not readily available. The following information is based on data obtained primarily from the annual reports sent by Governments, from Europe, Australia, United States of America, Africa, Russian Federation, Asia and China, to the United Nations International Drug Control Programme in 1999, supplemented by other sources when necessary and where available (United Nations Office for Drug Control and Crime Prevention, 2000: 1). However this should contribute to a scientifically valid assessment of the global drug consumption trends.

- Abuse of opiates has become a global phenomenon. Almost two thirds of the countries reporting trends to the United Nations Office for Drug Control and Crime Prevention in 1999 indicated rising consumption. Developing countries and countries in transition are notably affected. In developed countries, by contrast, opiate abuse is stable or even declining.

- The main opiates markets are still in and/or close to the countries of production in Asia and the "traditional" consumer markets of Europe,

Australia and, to a lesser extent North America. Consumption in Latin America and in Africa, though rising, still appears to be comparatively low.

- More than two thirds of all countries reporting abuse trends to the United Nations Office for Drug Control and Crime Prevention in 1999, witnessed an increase in cocaine consumption, most of the rest indicated a stabilisation. Declines in cocaine abuse are reported by the United States of America, the world's largest cocaine market, and by a few countries in Southeast Asia and Western Africa.

- Abuse of cocaine is still concentrated in the Americas, though it has also started to spread more widely in Europe, Australia and Western and Southern Africa. In most parts of Asia, by contrast, it is still very limited.

- Cannabis remains the most widespread drug of abuse and its consumption is reported to be increasing globally, although there are some recent reports of stabilisation or declines, notably in North America, the Russian Federation, China and other Asian countries.

- Abuse of amphetamine-type stimulants shows first signs of stabilisation in Western Europe and North America but is increasing in East and South East Asia.

- Diffusion of drug injecting to an increasing number of developing countries and the accompanying risk of HIV infection remains a serious global concern. Injecting drug use appears to be the main, or a major, mode of transmission for HIV infection in North Africa and the

Middle East, East Asia and the Pacific, Latin America, Eastern Europe, Central Asia, Western Europe, and North America (United Nations Office for Drug Control and Crime Prevention, 2000:7).

6.2 Substance abuse in South Africa

South Africa's drug problems are nothing new. According to Gonet (1994: 3) they are merely the latest versions of old scenarios. Locally recorded statistics reveal that 2 out of every 3 children are currently using drugs (Fourie, 2001: 8). In fact, about one in four Grade 7, 10 and 11 learners in a school survey undertaken by UNISA reported getting drunk occasionally during the course of a typical month (Parry, Pluddemann, Bhana, Matthysen, Potgieter & Gerber, 2000: 1).

Moreover, Brewis (2001: 6) emphasizes that alcohol is the dominant substance of abuse in South Africa and has a major impact on individuals and society, particularly in the area of violence and traffic-related trauma. (Compare Rocha-Silva, Mokoko & Malaka, 1998: 2.) Herewith, alcohol dominates treatment admissions with between 51% and 79% across Cape Town, Durban, Port Elizabeth, Mpumalanga and Gauteng involving alcohol as the primary substance of abuse. Added to this, between 4% and 25% of psychiatric patients in selected psychiatric hospitals in Cape Town, Gauteng and Port Elisabeth had alcohol-related psychiatric discharge diagnoses. In Port Elizabeth, 92% of trauma patients had positive breath-alcohol (up from 79% in the first half of 2000). Likewise, the proportion of mortuary cases in 2000 with blood alcohol concentrations 0.05 g/100ml ranged from 37% in KwaZulu Natal, to 48% in Cape Town to 64% in Port Elizabeth. Also, between 6% (Gauteng) and 23% (Cape Town) of persons arrested for a variety of crimes reported

being under the influence of alcohol at the time of their arrest (Parry, Pluddemann, Bhana, Matthysen, Potgieter & Gerber, 2000: 1).

In addition to this, Brewis (2001: 6) emphasizes that the use of cannabis and Mandrax alone or in combination ("white-pipes"), are the most prevalently abused illicit drugs in South Africa. (Compare Rocha-Silva, Mokoko & Malaka, 1998: 2.) This trend, however, is not necessarily reflected in the demand for treatment as a total of 13% (Mpumalanga) and 32% (Cape Town) of patients attending specialist treatment centres had cannabis and/or Mandrax as primary drugs of abuse. Whilst, likewise, about 20% of trauma patients in Port Elizabeth tested positive for cannabis (down from 43% in 1999) and 11% tested positive for Mandrax (Parry *et al.*, 2000: 1). However, note also needs to be taken, that the proportion of arrests for dealing in cannabis showed an increase in Port Elizabeth and Gauteng but declined in KwaZulu Natal and Mpumalanga. Arrests for dealing in Mandrax increased in Durban, Port Elizabeth and Mpumalanga, but decreased in Cape Town and Gauteng (Parry *et al.*, 2001: 1). Seizures of cannabis (dealing and possession) increased in KwaZulu Natal, Gauteng and Port Elizabeth. In Durban 11.5 tons of hashish was seized. Mandrax seizures increased as well, and over 2 million tablets were seized nationally in the second half of 2000. The price of cannabis has remained stable at R1-R2/stop, while the price of Mandrax has increased slightly in KwaZulu Natal and Port Elizabeth. In Durban and Mpumalanga, over 90% of the value of drug seizures by SANAB and the Organized Crime Unit (in Port Elizabeth) can be attributed to cannabis. (Compare Parry *et al.*, 2000: 1; Parry *et al.*, 2001: 2.) Notwithstanding, the use of drugs tend to intertwine with a lifestyle of crime. Parry *et al.*, (2000: 2) confirm this by stating that cannabis and Mandrax use is high among persons arrested for a range of crimes in Cape Town, KwaZulu Natal and

Gauteng. They explain that between 24% (Gauteng) and 50% (Cape Town) of arrestees tested positive for cannabis, and between 5% (Gauteng) and 32% (Cape Town) of arrestees tested positive for Mandrax. Moreover, Fourie (2001: 31) points out that the number of 12 – 17 year olds using cannabis has doubled during the past four years. (Compare Brewis, 2001: 7.) Whilst the average age of risk for a boy to experiment with cannabis is presently 11 years old, to an age of 15 years in the past (Fourie, 2001: 31). Accordingly, a UNISA school survey, found that about one-third of respondents admitted having smoked cannabis, 23% of them being under the age of 12 (Parry *et al.*, 2001: 2). Confirmative of this, a "Rave Safe" survey in Johannesburg found that three-quarters of respondents had tried cannabis and 13% had tried Mandrax at least once (Parry *et al.*, 2000: 2). It seems, Fourie (2001: 31) concludes, that at the end of their school career 65% of all South African teenagers would already have encountered cannabis in one form or another.

Fourie (2001: 9) also notices that over-the-counter and prescription medicines, such as slimming tablets (e.g. Nobese), headache medications and analgesics (e.g. Stopayne, codeine products) and benzodiazepines (e.g. Valium, Ritalin) appear to be the most commonly abused medicines in Cape Town, KwaZulu Natal, Port Elizabeth, Gauteng and Mpumalanga. (Compare Parry *et al.*, 2001: 3; Rocha-Silva, Mokoko & Malaka, 1998: 2.) In general the proportion of persons having the named medicines as their primary drug of abuse across the mentioned provinces ranged from 0% to 4% of treatment admissions for the first part of 2001. Of persons arrested for a range of crimes, across Cape Town, KwaZulu Natal, Port Elizabeth, Gauteng and Mpumalanga, 4% tested positive for benzodiazepines (up from 1% in the first half of 2000). Yet, the biggest increase was noted in Cape Town where 13% of arrestees tested positive

for benzodiazepines compared to 2% in the first half of 2000 (Parry *et al.*, 2001: 3).

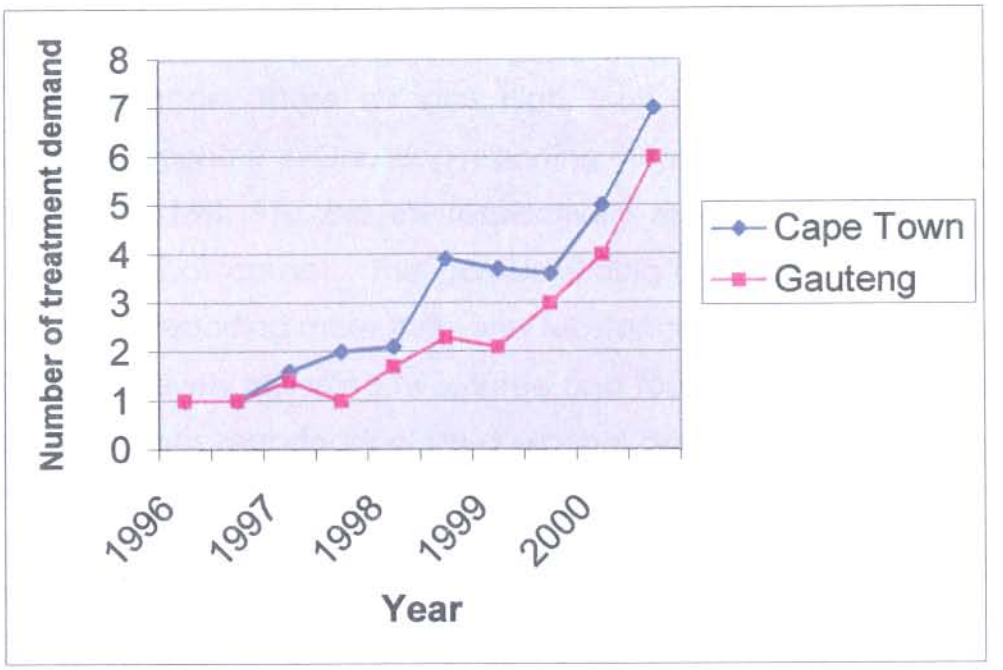
With regard to cocaine, the United States Drug Enforcement Administration (CDEA) identified cocaine/crack as the fastest growing drug of abuse in South Africa at the moment. This estimation is confirmed by statistics of the South African Police. The cocaine mass the South African Narcotics Bureau (SANAB) confiscated in 1994 was 69 563 kilograms powder and in 1998 a total of 635 208 kilograms powder and 3 825 crack/rocks, i.e. a refined form of cocaine (Fourie, 2001: 23). Accordingly there is a noticeable increase in the proportion of people in treatment whose primary substance of abuse is cocaine or crack (Fourie, 2001: 23). Herewith the SAPS Forencis science laboratories receive an estimated average of 600 samples a month to analyse. In 1993 cocaine cases formed 1% of the total number of cases. In 1998 it was 10%. One amphetamine-related case was investigated in 1993 compared to 200 cases in 1998. The magnitude of the problem is further illustrated by Fourie's (2001: 9) statement that ecstasy and cocaine related cases is especially a problem in Cape Town as is the growing number of clandestine factories, i.e. illegal laboratories. Ecstasy has been available to South African youth since 1993 as part of the rave scene. Use and dealing in ecstasy has increased during the last 5 years by approximately 70% (Fourie, 2001: 77). According to Parry *et al.*, (2000: 2) 20% of ravers studied in Gauteng report weekly use of Ecstasy. However, the treatment demands for Ecstasy as the primary drug of abuse is low and fairly stable (under 2%), but like LSD it often appears as the secondary drug of abuse. One change of note is the decrease in the mean age of persons in treatment whose primary drug of abuse is Ecstasy in Cape Town from 23 to 19 years and in KwaZulu Natal from 24 to 21 years. Herewith 11% of the

rave party attendees studied in Gauteng reported weekly use of LSD (Parry *et al.*, 2000: 3). The use of LSD in Rave clubs is common among 18 – 23 year olds (Fourie, 2001: 47). According to Parry *et al.*, (2000: 3) the Forensic Science Laboratory, Police nationally seized over 2900 units of LSD during the second half of 2000.

Furthermore, heroin abuse is escalating and becoming a serious problem in South Africa. (Compare Fourie, 2001: 54; Roper & Bartlett, 1994: 31.) Statistics of the South African Narcotics Bureau (1999) of confiscation and arrests on heroin confirms this by showing an upward curve over the last 5 years (Fourie, 2001: 52). According to Parry *et al.*, (2000: 2) the amount of heroin seized during January to June 2000 increased from 1.2 kilograms to over 14 kilograms in the second half of the year. Accordingly the South African Police Forensic Science Laboratory (FSL) in Pretoria reported an increase in heroin-related cases in all the provinces (Fourie, 2001: 31). In fact, there has been a dramatic increase in treatment demand for heroin as a primary drug of abuse over time in Cape Town and Gauteng (Figure 3), particularly among persons less than 20 years of age. Most heroin is sniffed ("chasing the dragon"), but between 31% (Gauteng) and 47% (Cape Town) of persons having heroin as their primary drug of abuse report some injection use (Parry *et al.*, 2001: 2).

Figure 3 shows the treatment demand for heroin in Cape Town and Gauteng.

Figure 3: Treatment demand for heroin (%)



Club drugs in general appear to be entrenched in the youth culture. Most concerns relate to the quality of the drugs being sold, and the possibility of ecstasy users using other drugs in combination, or moving on to other harder drugs. Other drugs used to varying degrees by ravers include LSD, cannabis, poppers, cocaine, diet pills, magic mushrooms, Speed and Mandrax (Parry *et al.*, 2000: 1). Persons attending rave parties appear to be aware of the negative consequences associated with use of club drugs but use them anyway.

Solvent use is also quite common among the South African youth, especially within certain subgroups such as street children (Brewis, 2001: 7). Enjoyment/fun, mood-change and coping are common reasons for using

solvents except that the very poor also use it to counter hunger pains and the cold in winter. The age of onset tends to be earlier than in the case of other drugs i.e. 6 - 12 years (Compare Brewis, 2001: 7; Roper & Bartlett, 1994: 14.)

Poly-substance abuse remains high, with 31% of patients in specialist treatment centres in Gauteng reporting more than one primary substance of abuse (16%, 9% and 6% respectively reporting two, three and four substances of abuse). The corresponding percentages for Cape Town were 40% reporting more than one substance of abuse with 26%, 12% and 2% respectively reporting two, three and four substances of abuse. Drug combinations reported included alcohol and various illicit drugs, alcohol and analgesics and benzodiazepines, cocaine and cannabis, and Speed and Ecstasy (in a single pill) (Parry *et al.*, 2001: 2).

The following regional differences were noted:

- The level of substance use, as well as the range of drugs used, is higher in Cape Town and Gauteng as compared to KwaZulu Natal, Port Elizabeth and Mpumalanga.
- Alcohol-related mortality is substantially higher in Port Elizabeth than in Cape Town, Gauteng and KwaZulu Natal.
- The use of Mandrax is more common in Cape Town and Port Elizabeth than in Gauteng, Mpumalanga and KwaZulu Natal.
- In more rural Mpumalanga the main substances abused are alcohol and dagga (Parry *et al.*, 2001: 3).

Most importantly, in the light of the above-mentioned prevalence of substance use/abuse, the next step is to move from this wider context of

substance use in South Africa to substance use/abuse patterns and trends in KwaZulu Natal.

6.3 Substance abuse in KwaZulu Natal

The following research findings on substance abuse patterns and trends among KwaZulu Natal youth is primarily based on data obtained from the surveillance reports of: (a) Rocha-Silva's (1998) recent study on substance use among young South Africans (10 - 24 years); and (b) the South African Community Epidemiology Network on Drug Use (SACENDU), i.e. an alcohol and other drug sentinel surveillance system operational in South Africa, and more specifically in KwaZulu Natal. The system, operational since 1996, monitors trends in substance use and associated consequences on a six-monthly basis using multi-source information from specialist treatment centres (50+), psychiatric hospitals, mortuaries, trauma units, and the police (SA Narcotics Bureau), Organised Crime Units and Forensic Science Laboratories (FSL). Other data sources are included when available (Parry *et al.*, 2001: 1).

Herewith, a few background notes on data restrictiveness are also appropriate. Indeed, where data is restrictive, a special attempt is made to "extrapolate", e.g. from licit to illicit drug- taking patterns/trends or from adult to youthful drug use. This is done in the light of indications that in KwaZulu Natal as in South Africa and in many other countries (World Drug Report, 1997), (a) drug taking is dominated by licit drugs (e.g. alcohol and tobacco use), (b) licit and illicit drug use frequently intertwine and indeed, generally reflect one another, and (c) youthful drug use generally emulates adult patterns/trends (Rocha-Silva, 1998: 1). The information on

substance use/abuse patterns and trends among KwaZulu Natal youth thus follows.

- Alcohol in general appears to be the most popular substance of abuse among the youth in KwaZulu Natal. However, youngsters who drink tend to concentrate in the older age group, i.e. mid- to late adolescence. Furthermore, as is the case among adults, drinking tends to be mainly a male phenomenon among young people. Paralleling adult patterns, drinking seems to have been more common among historically advantaged than disadvantaged youth (Flisher, Ziervogel, Chalton & Robertson, 1993: 481). Furthermore, although there is reason to believe that, in line with adult trends, drinking rates among historically advantaged youth remained fairly stable during the 1980s, it is not possible to tell whether this trend is still intact, and what the position is regarding disadvantaged youth, specifically because of incomplete information (Rocha-Silva, 1998: 5). However, the prevalence of drinking among historically disadvantaged youth may have increased given the progressive increase in the prevalence of drinking among adults and indications that youthful drinking tends to parallel, at least in general terms, adult patterns. Thus, as among adults, alcohol remains the most popular drug of abuse among KwaZulu Natal youth.

- Tobacco use is also fairly common among KwaZulu Natal youth, although generally to a lesser extent than drinking. Paralleling drinking patterns, tobacco use appears to be mainly a male phenomenon, to be more common among historically advantaged than disadvantaged (African) youth to increase in popularity in the

late teens and to be markedly less common among youth than among adults.

- Herewith, cannabis is the most commonly used illicit drug among KwaZulu Natal youth. Accordingly, research in, for example, the United Kingdom (Plant & Plant, 1992: 40-48), the United States of America (Steinberg, 1993: 428-432) and countries in Africa (Mwenesi, 1995, Selassie & Gebre, 1995) reflects a more or less similar pattern. Indeed, in terms of studies that have been conducted more or less between the mid-1970s and mid-1980s among final-year high school pupils in Durban and among historically advantaged males of more or less the age category mid-adolescence to mid-twenties, the prevalence for lifetime cannabis use (used it at some time in their life) may be between 10% and 20% (Du Toit, 1991). Studies conducted between 1989 and 1991 (a) in the Cape Peninsula (Flisher *et al.*, 1993) among high school pupils, and (b) among Std. 8 and Std 10 pupils of historically advantaged background (Department of Education and Culture, 1990), however, suggest a prevalence below 10% (between 4% and 8%) with regard to lifetime use of cannabis. This lower prevalence may relate to the lower age group in the latter studies. This possibility makes sense in the light of evidence that the prevalence of cannabis use (e.g. lifetime use) among young people increases with age and educational level. However, it is also possible that the prevalence of lifetime cannabis use among the youth declined during the 1980s and beginning of the 1990s, particularly if cognisance is taken of the mid- to late- 1980s trend in countries such as the United States of America towards a lowering in the prevalence of youthful cannabis use (Rocha-Silva, 1998: 7). It is

important to note, though, that the latter trend in the United States of America seems to have turned upward at the beginning of the 1990s. Fourie (2001: 31) confirms this trend by pointing out that the number of 12 – 17 year olds using cannabis in South Africa, and thus KwaZulu Natal, has doubled during the past four years.

- Apart from cannabis and to some extent in line with trends overseas and in the rest of South Africa (World Drug Report, 1997) the use of solvents seems fairly common among young people in KwaZulu Natal. Indeed, available studies (Flisher *et al.*, 1993; Rocha-Silva *et al.*, 1996) showed that the prevalence for lifetime solvent use was generally in the order of between 5% and 10%, studies between the mid-1970s and mid-1980s among final-year high school pupils in Durban generally pointed towards a somewhat higher rate. For example the 1989 study (Department of Education and Culture, 1990) among Std 8 and Std 10 pupils of historically advantaged background reported 8% lifetime users of solvents; a more or less similar figure (7,4%) was documented in the 1994 Human Science Research Council (HSRC) survey (Rocha-Silva *et al.*, 1996). However, in Du Toit's (1991) 1985 survey among final-year high school pupils in Durban nearly one-quarter (23%) of the pupils of historically advantaged background admitted lifetime solvent use. In line with reports in other African countries, the use of solvents has been found to be most common among street children (Rocha-Silva, 1998: 8).

- The use of substances other than alcohol, tobacco, cannabis and solvents is also not uncommon among KwaZulu Natal youth, although to a lesser extent (generally lower than 5%) than in the

case of cannabis and solvents. According to Parry *et al.*, (2001: 2) the abuse of over-the-counter medicines, such as slimming tablets, analgesics (especially products containing codeine), and benzodiazepines (e.g. valium) continues to be a problem. Rocha-Silva (1998: 8) also noted: "The drugs most commonly used seem to be from the tranquilo-sedative group as well as stimulants such as amphetamines and to a lesser extent LSD." For example, in a study (Van der Burgh, 1984) of young historically advantaged males, 4% admitted to lifetime use of barbiturates/sedatives, 3% to the use of stimulants (amphetamines), 2% to LSD and 1% to heroin and/or opium and/or pethidine use. In Du Toit's (1991) study among final-year high school pupils in Durban in 1985, between 2% and 8% (particularly historically advantaged pupils) admitted the use of stimulants (amphetamines) and between 1% and 2% the use of LSD. The Department of Education and Culture's (1990) study among historically advantaged Std 8 and Std 10 pupils found that 2% had used barbiturates/sedatives at some time in their life.

- There has been a dramatic increase in treatment demand for cocaine over time in KwaZulu Natal, particularly among persons less than 20 years of age.

- Finally, little is known about the extent of <u>drug injection</u> among KwaZulu Natal youth. The findings of a 1991/1992 national survey (Rocha-Silva, 1993) among persons in drug-related treatment (metropolitan centres), however, suggest that with regard to at least historically advantaged South African youth, the injection of drugs, if it occurs, mostly manifests during late adolescence to early adulthood and generally as part of polydrug use. Indeed, the

injection of drugs generally seems to go hand in hand with the use of alcohol, cannabis, white pipe (mixture of cannabis and methaqualone) and, to a lesser extent, sedatives and tranquilizers. Several pain relievers (e.g. opium, pethidine and particularly wellconal) and, to a lesser extent, cocaine and heroin seem to be particularly popular as injection drugs.

7. Summary

Substance abuse is a public health concern that has reached epidemic proportions; two out of every three children is currently using drugs in South Africa.

This chapter underscores the multifaceted and complex nature of adolescent drug use and abuse. More specifically a basis for a definition of substance abuse was provided and specific effects and consequences of certain substances of abuse reviewed. Hereafter different theories attempting to explain the causes of substance abuse was discussed. Indeed attempting to integrate some of the existing theories, by proposing a model to explain the interaction between these factors. Lastly information about the magnitude of substance abuse in KwaZulu Natal, South Africa as well as abroad was provided, confirming that alcohol is still the most popular drug of abuse in KwaZulu Natal, South Africa.

Chapter 3 will focus on adolescence: development, risk and consequences.

Chapter 3

Development, risk and consequences of adolescent substance use and abuse

1. Introduction

As the biological and psychosocial path to adulthood, adolescence can be a creative, dynamic and exciting time of life (Gonet, 1994: 21). However, when drug use enters the developmental picture, adolescence can be stifling and painful, and the move into adulthood greatly impeded (Perkinson, 1997: 163).

The consequences of adolescent substance abuse are serious on both a personal and a societal level. For the developing young adult, substance abuse undermines motivation, interferes with cognitive processes, contributes to debilitating mood disorders, and increases the risk of accidental injury or death. For the society at large, adolescent substance abuse extracts a high cost in health care, educational failure, mental health services, drug and alcohol treatment, and juvenile crime. (Compare Hawkins, Catalano & Miller, 1992: 64; Sancho, 1994: 3.)

Added to the immediate personal and social costs of adolescent drug abuse are the longer-range implications for youngsters who continue to abuse substances into adult life (Hawkins, Catalano & Miller, 1992: 64). Drug abuse is involved in one third to one half of lung cancer and

coronary heart disease cases in adults. Alcohol and other drugs are major factors in acquired immunodeficiency syndrome (AIDS), violent crimes, child abuse and neglect, and unemployment. The problems associated with substance abuse carry costs in lost productivity, lost life, destruction of families, and a weakening of the bonds that hold the society together. (Compare Perkinson, 1997: 118; Rocha-Silva, De Miranda & Erasmus, 1996: 3; World Drug Report, 1997: 7.)

Herewith it seems that the greatest risk for substance abuse occur during the teenage years and early 20s (World Drug Report, 1997: 49). Perkinson (1997: 119) states that substance abuse typically begins in adolescence (compare Lowinson Ruiz, Millman & Langrod, 1992: 832), and it is estimated that 5,8% of the South African population over the age of 15 years are alcohol dependent and that there is a progressive increase in the general level of drug and especially alcohol intake. These considerations inevitability stimulated interest in the prevention of substance abuse among the youth by investigation of the development and risk of adolescent substance use.

The aim of this chapter then is not an exhaustive review of existent research on adolescence and substance abuse. Rather it is limited to an examination of the development, risk and consequences of adolescent substance use and abuse.

2. Typical characteristics of adolescent development

Adolescence is the development phase between childhood and adulthood. The term adolescence is derived from the Latin verb

adolescere, meaning to "grow up" or "to grow to adulthood" (Louw, Van Ede & Louw, 1998: 384). According to Zigler and Stevenson (1993: 492) many researchers use chronological age to define adolescence, but due to individual and cultural differences, adolescence is most often considered as the time spanning the years between 11 and 13 to 17 and 21. However, age limits for the division of adolescence differ, and therefore adolescence is better described in terms of specific development characteristics. From this perspective, the Social Work Dictionary (1999: 9) describes adolescence as "The life cycle period between childhood and adulthood, beginning at puberty and ending with young adulthood". (Compare Bukstein, 1995: 1.) The onset of adolescence is thus marked by puberty, i.e. a period of accelerated physical growth, maturation of the reproductive organs and the appearance of secondary sexual characteristics (Pagliaro & Pagliaro, 1996: 138). However, the end of adolescence has less striking characteristics. From a social perspective, adolescence ends when the individual is independent and self-supporting, able to fulfil adult roles, for instance to follow a profession, to marry and start with a family (Zigler & Stevenson, 1993: 492). Legally adolescence comes to an end when an individual is entitled to vote (18 years) or when the necessity of parental consent expires (21 years), or when an individual can be held responsible for legal contracts (21 years). (Compare Pagliaro & Pagliaro, 1996: 138.) From a psychological viewpoint the end of adolescence occurs when the individual is fairly certain of his own identity, values and relationships, whilst separating from his parents and family as he increasingly assumes adult responsibilities and roles. Suggesting different criteria which can all be taken into account in determining the end of this transition period. Hence, adolescence is divided into three sub phases (compare Louw &

Amorim, 1999: 17; Louw, Van Ede & Louw, 1998: 385), i.e. early, middle and late adolescence:

- According to Bukstein (1995: 53), early adolescence, ages 11 to 14, is characterized by the onset of puberty, a physiological event culminating in sexual maturity that causes a series of physical and physiological changes. (Compare Louw, Van Ede & Louw, 1998: 385.) These developments include a growth spurt (i.e. a period of rapid physical growth), changes in body proportions/dimensions (for instance growth of the hands, feet and legs), maturation of the sex organs, and the appearance of secondary sex characteristics (for example development of breasts, head and body hair growth and lowering of voice). (Compare Perkinson, 1997: 164; Zigler & Stevenson, 1993: 517.) Developments that are triggered by an increase in the levels of hormones secreted (compare Bukstein, 1995: 53) into the bloodstream by the pituitary gland often referred to as the master gland, which lies at the base of the skull (Zigler & Stevenson, 1993: 517).

  As the developing adolescent increases in size and shape, he or she becomes both quantitatively and qualitatively different than their younger, pre-pubertal peers. (Compare Bukstein, 1995: 53; Perkinson, 1997: 164.) This change in physical identity produces explicit evidence that the adolescent is no longer a child and becomes manifest to both the adolescent and to most adults, including parents (Bukstein, 1995: 53). However, individuals who mature late or early are likely to be distressed by their physical development or lack of it. Hence, they may develop a negative self-concept and/or fits of depression (Pagliaro & Pagliaro, 1996:

141). Yet, the changes in physical and secondary sexual characteristics open the adolescent to changes in social relations, especially the increased focus on opposite gender peers and heterosexual interests. (Compare Louw & Amorim, 1999: 17; Perkinson, 1997: 164.) Herewith social changes and expectations may be further reinforced by changes in the early adolescent's social environment, including transfer from elementary to middle or secondary school and increased exposure to "mature," older adolescents (Bukstein, 1995: 54).

- Yet, middle adolescence, ages 15 to 17, is a time of increasing independence (Louw, Van Ede & Louw 1998: 385). Adolescents of this age group experience a great deal of ambivalence and conflict and they often blame the outside world for their discomfort (Perkinson, 1997: 164). As they struggle to develop their own identity, dependence on parents gives way to a new dependence on peers (Louw & Amorim, 1999: 17). Adolescents struggle to avoid dependence and may disparage their parents, devaluating past attachments. These early teens often find a new ego ideal that leads to idealization of sports figures or entertainers. At this stage adolescents are particularly vulnerable to people they would love to emulate (Perkinson, 1997: 164).

This is also a period when the development of a self-concept is crucial (Pagliaro & Pagliaro, 1996: 138). The adolescent must explore his or her own morals and values, questioning the accepted ways of society and family to gain a sense of self (Louw & Amorim, 1999: 17). Consequently they make up their own mind as to who they are and what they believe in. Middle adolescents reassess the

facts that were accepted during childhood, and accept, reject, or modify these societal norms as their own. Hence here-and-now thinking of earlier childhood gives way to a new capacity for abstract thought. These adolescents may spend long periods abstractly contemplating the "meaning of life" and the question of "Who am I?" (Compare Perkinson, 1997: 164.)

- Amid all these changes the physical manifestations of approaching adulthood require numerous psychological adjustments; in particular the development of how one views self in relation to others (Louw, Van Ede & Louw 1998: 385). The vast majority of adolescents attain their adult size and physical characteristics by the age of 18, i.e. late adolescence. During this phase, ages 18 to 21, the process of abstract thinking changes along with physical development, becoming more complex and refined. A sense of time emerges where the individual can recognize the difference between past, present and future. This age group can adopt a future orientation that leads to the capacity to delay gratification. They develop a sense of equality with adults and by age 19, most adolescents are considering occupational choices and have begun to develop intimate relationships. (Compare Perkinson, 1997: 164; Louw & Amorim, 1999: 17.)

The mentioned sub phases of adolescence thus show subtle development differences, but all have a dual commonality in that they belong to a stage of life distinct from either childhood or adulthood. With puberty marking the beginning of adolescence and social, legal and emotional independence, defining entry into adulthood. (Compare Bukstein, 1995: 53; Feldman & Elliott, 1990: 3.) However, as the target group of this study is

the adolescent, and more specifically the early adolescent, it is important to consider the following typical characteristics of this age group, i.e. practice of adult roles, reliance on peers, cognitive changes and risk taking.

Lowinson, Ruiz, Millman and Langrod (1992: 832) subsequently assert that adolescence, as a developmental stage, is characterized by dramatic change and readjustment. Moreover, Louw and Amorim (1999: 16) add, that adolescence is a time of consolidating a personal identity (compare Perkinson, 1997: 164; Pagliaro & Pagliaro, 1996: 138) and practicing new roles (Lowinson, Ruiz, Millman & Langrod, 1992: 832). From early childhood, youngsters practise adult roles through pretend play e.g. dressing up. But during adolescence, this practise of adult roles and behaviour shifts from pretend play to actual behaviour. After 11 years of age the early adolescent begins experimenting with a range of new behaviour, and for many regardless of culture and throughout the world, cigarettes, alcohol and other drugs have become a normal part of coming of age (Louw & Amorim, 1999: 17).

Herewith, adolescence is marked by increased autonomy from parents, and increased reliance on peers for validation and direction. (Compare Perkinson, 1997: 164; Roper & Bartlett, 1994: 11.) Consequently conformity to the peer group rapidly increases during pre- and early adolescence when it peaks and then gradually declines. Roper and Bartlett (1994: 13) state that adolescents assess themselves and their behaviour through the reactions of their peers. (Compare Nowinski, 1990: 20.) Peers are thus vital to the early adolescent's emotional and psychological development, and acceptance by peers is critically important, more than at any other age, rejection can be devastating (Louw & Amorim, 1999: 17).

In addition, Perkinson (1997: 164) stresses that adolescence is a critical period of cognitive changes. Although the timing of cognitive changes during adolescence and the universality of various models coupled with the effects of environment on cognitive development remain less than firmly established, there are definite changes in the adolescent's ability to assimilate data and understand the world and its phenomena (Bukstein, 1995: 54). The final stage of intellectual development is reached during early adolescence when the adolescent shifts from concrete operational thinking to formal operational or abstract thinking, which is much more flexible (Lowinson, Ruiz, Millman & Langrod, 1992: 832). The adolescent is able to think hypothetically, and for the first time in development the young person can appreciate literary metaphors and is capable of complex mathematical operations such as in calculus. (Compare Bukstein, 1995: 54; Perkinson, 1997: 164.) In contrast the younger child is more anchored in concrete reality and in what is immediately available to perception and, when presented with a problem, will begin directly trying to solve the problem before considering all the possibilities (Louw & Amorim, 1999: 17). Given more sophisticated reasoning capabilities, the adolescent is able to consider many possibilities and can deal with proposition and theory (Perkinson, 1997: 164). While remarkable and exciting, these cognitive shifts also can result in new tensions between adolescents and authority figures and institutions. (Compare Louw & Amorim, 1999: 16; Roper & Bartlett, 1994: 11.) Early adolescents are able to begin questioning rules that had previously been taken for granted, and novel and alternative life-styles are considered or experienced (Lowinson, Ruiz. Millman & Langrod, 1992: 832). Thought also becomes more introspective during early adolescence, but it remains egocentric relative to adults (Louw & Amorim, 1999: 18). More specifically, adolescents have developed to the point that they understand that other

people have lives independent of them and that other people have internal thoughts of their own. (Compare Lowinson, Ruiz, Millman & Langrod, 1992: 833; Perkinson, 1997: 164.) However this age group have more difficulty separating their own thoughts from the thoughts of others, and they often assume that others are as preoccupied with their behaviour as they themselves are.

Risk-taking also increases during adolescence, and while exploring any new behaviour or role involves risk-taking, adolescents also appear to engage in risk taking just for the exhilaration of the dare (Louw & Amorim, 1999: 18). Sensation seeking and risk taking appear to be related to hormone levels, particularly testosterone, and it may be that some risk taking is the result of the surging, poorly modulated hormones of puberty. (Compare Bukstein, 1995: 53; Nowinski, 1990: 15.) In addition, however, cognitive changes may also contribute to increased risk taking. Adolescents want to impress their peers, but they are not yet adept at assessing risks (Roper & Bartlett, 1994: 13). Adolescent thought is more anchored in the "here and now" than is adult thought, so that they are less concerned with the far future. (Compare Louw & Amorim, 1999: 36; Lowinson, Ruiz, Millman & Langrod, 1992: 833.) Given their immediate time orientation, immediate consequences may outweigh longer-term risks. With smoking, for example, the potential long-term negative health consequences may seem less important than the short-term effects, which may actually be satisfying and pleasurable, fulfilling the adolescent's immediate needs (Lowinson, Ruiz, Millman & Langrod, 1992: 833). Also, some risks may have more salience than others. The norms of the peer group have a very strong influence over the individual adolescent, and affiliation with and acceptance by peers is paramount during this period. (Compare Bukstein, 1995: 54; Roper & Bartlett, 1994: 13.)

Thus, the risk of losing status with peers, being rejected or ridiculed, or of appearing immature or inexperienced may seem more dangerous or aversive than the possible risks of taking a drink or smoking a joint.

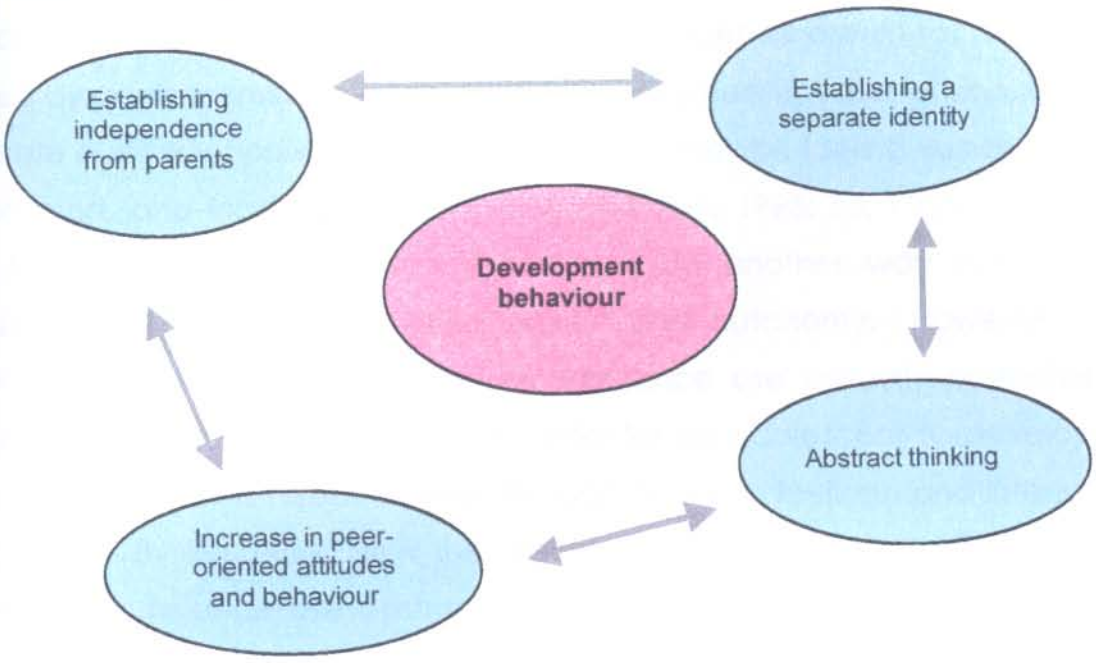
Finally, (early) adolescence should thus be understood as a transitional stage that allows the adolescent to gradually adjust to growth, development and change (Perkinson, 1997: 164). A cycle of life, which brings new challenges and opportunities but also tangible risk and significant harm, if substance use/abuse enters the picture.

3. Adolescent development tasks that can promote substance use

Beyond the basic biological, physical imperative of achieving adult physical maturity and physiological functional development, cognitive development and social/emotional development has traditionally all formed the interconnected spheres of adolescent development. (Compare Bukstein, 1995: 54; Gonet, 1994: 20.) Within the cognitive-social development spheres, there are specific developmental tasks for adolescents. Developmental tasks that can, however also promote adolescent substance use (Louw & Amorim, 1999: 19).

Figure 4 provides a summary of these developmental tasks and conclude that: Successful adolescents are able to achieve a separate identity, independence from their parents, and prepare themselves for appropriate relations to achieve the adult developmental tasks of job, marriage, and family. (Compare Bukstein, 1995: 55; Gonet, 1994: 19-31.)

Figure 4: Adolescent developmental behaviour which can promote substance use



Within the context of the mentioned tasks the adolescent needs to establish independence from his parents. This is not a simple process, but one that takes place over time and is marked by paradox (Gonet, 1994: 21). During this time the adolescent engages in behaviour (e.g. questioning rules or parental values) that asserts independence from parents (Bukstein, 1995: 55). Conflicts with parents provide a rationale for much of this behaviour (Gonet, 1994: 21). What complicates this struggle towards independence is that many adolescents look like adults, and, therefore, many adults expect independent, adult like behaviour from them, equating physical with psychological maturity. (Compare Gonet, 1994: 21; Fieldman & Elliott, 1990: 4.) Strong dependency needs remain, however, and are often transferred from parents to peers, heroes, or other significant people in the adolescent's life (Perkinson, 1997: 164). In fact, adolescents hide their dependency needs, and much of their surface

behaviour denies or conceals true dependency (Gonet, 1994: 22). Hence provocative behaviour, rebellion, engaging in adult actions, expressing shocking values, and openly asserting independence are all techniques used by adolescents to mask true dependency needs, ease tension, and create a sense of power at a time when they may be feeling vulnerable, confused, and inadequate. (Compare Bukstein, 1995: 55; Gonet, 1994: 22.) Added to this, substance use can be another way in which adolescents try to assert independence and autonomy. However, it brings about quite the opposite as substance use actually promotes dependence (Gonet, 1994: 22). In order for an adolescent to develop independence, he needs to work through conflicts, feelings, and intense emotion. By interfering with this process, so necessary for growth into maturity, substance use obstructs the development of independence. Consequently substance use becomes a coping mechanism whereby adolescents alter their feelings with substances, rather than struggle with conflict or work through painful emotions (Perkinson, 1997: 165).

Similarly, the establishment of a sense of identity is a crucial developmental task of the adolescent. (Compare Bukstein, 1995: 55; Perkinson, 1997: 164.) Meaning that the adolescent needs to develop an adult identity by means of exploring and trying out "new identities." This goal results not so much from the early adolescent's question, "Who Am I?" But rather from "Who Shall I Become?" (Compare Gonet, 1994: 24; Louw & Amorim, 1999: 17.) The best way to accomplish this developmental work is through interaction with peers who are not only engaging in the same behaviour but also struggling with equivalent emotional and psychosocial issues (Gonet, 1994: 24). Yet, when young people turn to drugs to feel better about themselves, serious identity problems begin as substance use covers up true feelings. Severely

distorting a young person's perception of reality, and therefore of ones self (Perkinson, 1999: 165).

Another important development task for the adolescent is to try out new identities among his or her peers (Roper & Bartlett, 1994: 13). Just as playing with toys and pretending is the work of childhood, testing out new, behaviour, values and ideas with peers is the work of adolescence (Gonet, 1994: 27). Adolescents are developing their self-images, coping styles, mastery skills, intra-psychic feelings about themselves and future life roles. They go through a variety of intra-psychic changes at a very rapid rate and shed their styles and/or roles almost daily. However, adolescents need to sift through all of this and determine what "fits" and what does not. Peer groups are thus the vital arenas in which young people explore, practice styles and receive feedback (Gonet, 1994: 27). Herewith, peer groups form the young person's reference group. These are not necessarily circles of friends, but rather age-mates that provide the adolescent with a wide range of responses and behaviour from which to evaluate his or her own new ideas, values, roles and behaviour (Bukstein, 1995: 55). In addition, adolescents transfer their dependency needs from parents to peers as a major step in the process of individuation (Perkinson, 1997: 164). Leaving the adolescent with a sense of alienation on the one hand, but also an alternative sense of belonging on the other whilst proving the peer group to be a dominant force (Gonet, 1994: 28). Not surprisingly, then, many have identified adolescent peers as perhaps the most important single factor in the use of licit and illicit drugs.

Along with psychological and social development, adolescence is also a time of intellectual growth, particularly in the area of abstract thinking. The development of abstract thinking, the ability to think about thoughts,

appears during early adolescence and allows the young person to manipulate thought and to think about the interrelationships among facts, ideas, and problems (Perkinson, 1997: 164). Piaget as quoted by Gonet (1994: 30) described adolescence as the final period of intellectual development, when the child moves from an ability to abstract only on concrete images to an ability to abstract on abstractions. This cognitive development allows the young person to achieve a clearer differentiation between his own thoughts and perceptions and those of others. The egocentrism present in childhood and early adolescence begins to diminish and is almost non-existent by age 16. Young people no longer believe they are the centre of the universe, but rather take part in the world around them (Louw & Amorim, 1999: 17). Acquiring the ability to think abstractly requires full presence of mind. Thus the young person who has been using substances compromises this important life skill (Gonet, 1994: 31). Moreover, certain drugs affect the brain by interfering with learning. Cannabis, for example, is especially detrimental to short-term memory and learning (Stoppard, 2000: 48). This loss may not necessarily be reflected in a student's academic achievement record. A young person still will be able to function adequately with previously acquired conceptual schemes. Refining basic learning skills and new facts still will occur. The problem is that higher levels of thinking, conceptualising and understanding will be stifled (Gonet, 1994: 31).

From this mentioned cognitive-social development tasks, it is clear that the adolescent is especially vulnerable to substance use during this period of his or her life. Based on this knowledge, the developmental patterns of adolescent substance use and substance involvement, combined with age related trends in substance abuse, needs to be examined.

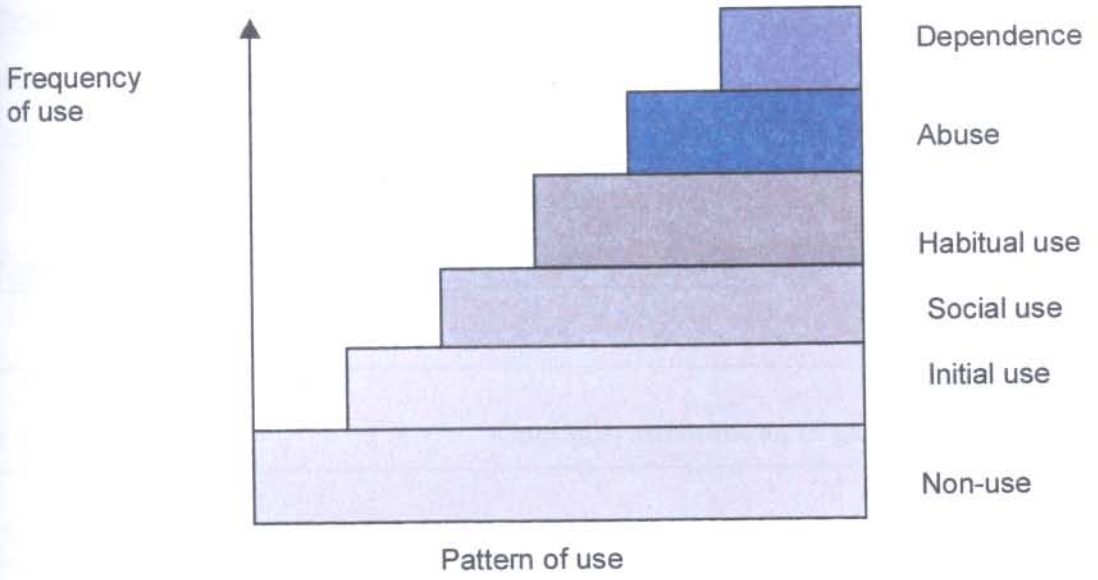
4. Developmental patterns of adolescent substance use

Substance use can and does affect all children and adolescents directly or indirectly, regardless of age, gender, culture, ethnic background, education, race or socio-economic status (Pagliaro & Pagliaro, 1996: 1). Moreover, Pagliaro and Pagliaro (1996: 24) note that: "Over the past decade, children and adolescents have experimented increasingly with and have come to widely use such substances of abuse as alcohol, cannabis, and cocaine." In fact, the frequency of more serious patterns of use, such as abuse and compulsive use and their associated harmful effects are also increasing. Yet, the situation is expected to worsen as the decade comes to an end and substance use continues to increase annually (Pagliaro & Pagliaro, 1996: 25). Consequently, attention is brought to the following patterns of substance use as it will help to guide the development of prevention strategies that are tailored to meet the needs of adolescents who have not yet begun to abuse substances.

There are six recognized patterns of adolescent substance use that represent a continuum of increasingly more compulsive and harmful substance use, i.e.: (a) non-use, (b) initial use, (c) social use, (d) habitual use, (e) abuse, and (f) dependence (Figure 5). (Compare Bukstein, 1995: 56; Gonet, 1994: 16; Lewis, Dana & Blevins, 1994: 4; Pagliaro & Pagliaro, 1996: 25; Roper & Bartlett, 1994: 7; World Drug Report, 1997: 45.)

Figure 5 illustrates this continuum, starting with non-use or abstinence and continuing to abuse and dependence, which are indicative of patterns of problem use.

Figure 5: Patterns of adolescent substance use



Clearly, adolescent substance abuse and dependence does not occur instantaneously, but can develop in accordance with the named patterns of substance use.

According to Pagliaro and Pagliaro (1996: 25) the first time use or initial use of a particular substance of abuse generally involves some degree of curiosity and experimentation, and it does not usually develop into a pattern of abuse or dependence. However, research indicates that there may be a typical sequence of drug initiation in adolescence, i.e. that licit drugs, cigarettes and alcohol, are used before cannabis, and cannabis used before other illicit drugs. (Compare Botvin, Schinke & Orlandi, 1995: 107; Bukstein, 1995: 56; Schaffer, 1994: 3.) Herewith another factor related to substance use initiation is age. Winger, Hofmann and Woods (1992: 10) notice that there are certain ages, at which the use of particular

substances, are most likely to start. According to Botvin, Schinke and Orlandi (1995: 107) the risk for initiating substance use increases to a peak during mid- to late adolescence and decreased thereafter. Consequently a tabulate representation of age-related trends in substance abuse, abroad and in the Republic of South Africa, is shown in Table 6.

Table 6: Age-related trends in substance abuse

Age in years	Common substances of abuse
6 – 12	Household volatiles, e.g. glue or aerosols are inhaled
12 – 13	Cigarettes, alcohol and cannabis are used occasionally
13 – 16	Cigarettes, alcohol, cannabis and cannabis together with Mandrax are used
16 – 25	Cigarettes, alcohol, cannabis, cannabis-plus-Mandrax, Wellconal, barbiturates, LSD, cocaine, heroin, appetite suppressants and cough mixtures are used regularly and in many cases, obsessively

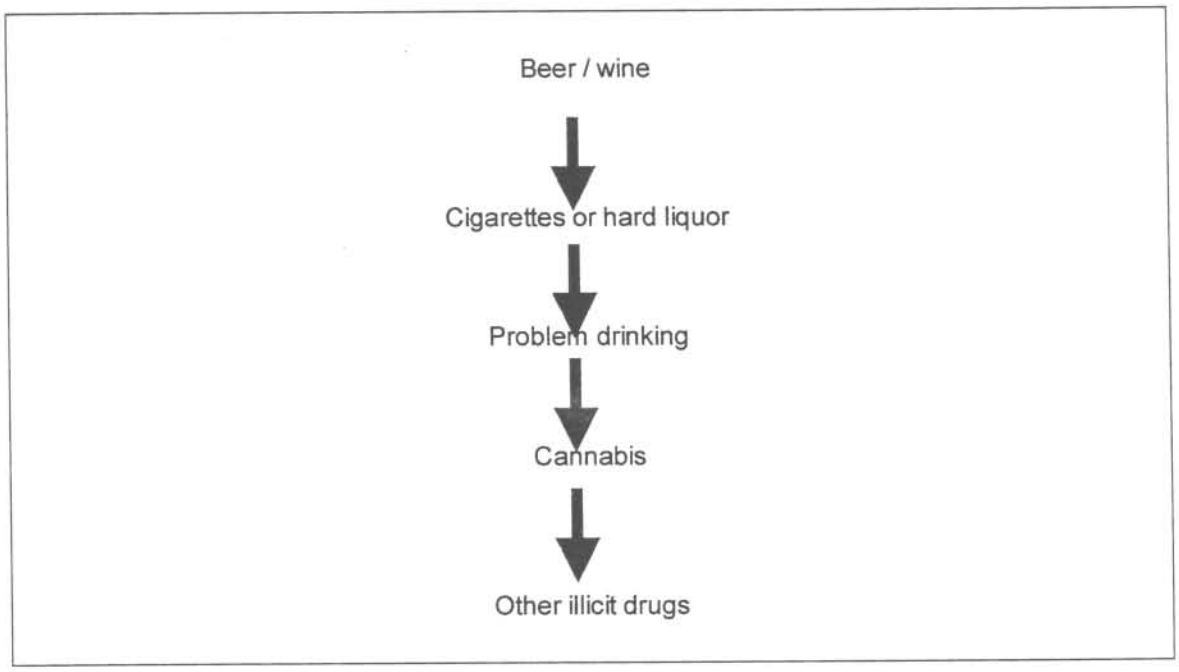
(Compare Roper & Bartlett, 1994: 13; Winger, Hofmann & Woods, 1992: 11.)

Similarly, NIDA (2001: 6) asserts that studies indicate that children most often begin to use drugs at about age 12 or 13, moving from the illicit use of legal substances to the use of illegal drugs. Thus implying a fairly consistent sequence of drug initiation among adolescents. Similarly Bukstein (1995: 56) is of opinion that data from other longitudinal and cross-section studies has confirmed this sequence. However the fact that

there is a sequence does not necessarily mean that there is a causal relationship, or that the use of substances at one stage will mean an individual will necessarily progress beyond that stage. Accordingly, Bukstein (1995: 57) argues that the age of entry into the sequence and the time of progression or time spent in each stage of the sequence are highly variant between groups of adolescents with differing characteristics. In fact, most children and adolescents are curious about the effects of a particular substance of abuse and use it only once as an experiment when the opportunity presents itself and suffer no long-term adverse effects. (Compare Pagliaro & Pagliaro, 1996: 25; Stoppard, 2000: 13.)

Figure 6 illustrates the proposed sequential pattern of substance involvement among adolescents.

Figure 6: Pattern of adolescent substance involvement



(Compare Botvin, Schinke &Orlandi, 1995: 107; Bukstein, 1995: 57; Rocha-Silva, Mokoko & Malaka, 1998: 2.)

In this sequence, adolescents first try substances that are legal for adults, i.e. alcohol (beer and wine) and cigarettes. Beer and wine precede the use of hard liquor or spirits (Botvin, Schinke & Orlandi, 1995: 107). The use of alcoholic beverages precedes the use of cannabis, followed by other illicit or "hard" drugs, such as opiates and stimulants. (Compare NIDA, 2001: 6; Rocha-Silva, Mokoko & Malaka, 1998: 2.) Adolescents are unlikely to initiate cannabis or hard drug use without prior use or experimentation with alcohol and/or cigarettes (Stoppard, 2000: 13). Based on these studies, alcohol and cigarettes, legal and accessible drugs for adults, are established as "gateway" drugs. Almost all adolescents advance through this sequence of substance use; they continue to use "gateway" drugs, adding the other drugs (polydrug use) to an expanding repertoire, as opposed to replacing the "gateway" drug (Bukstein, 1995: 56). Problem drinking or regular alcohol use also follows cannabis use and precedes the use of all other illicit drugs. (Compare Ellickson, Hays & Bell, 1992: 444; NIDA, 2001: 6.) This sequence thus provides an important conceptual model with which to approach substance abuse prevention because gateway drugs can be identified and targeted.

The second pattern of adolescent substance use is <u>social use</u>. Although the substance of abuse typically is actively sought, use is limited, and there are no major adverse effects associated with its use (Pagliaro & Pagliaro, 1996: 25). In many instances social use for teenagers connotes going to a party and drinking for the mood-altering effects (Gonet, 1994: 16). Another example of this pattern of use is drinking an alcoholic beverage "for fun" at a friend's house when the parents are away. In

these situations, the adolescent did not primarily go to these social situations for alcohol, but once there, sought it and used it (Pagliaro & Pagliaro, 1996: 25). However there is no absolute definition of social use, thus the term must be used cautiously. In reality many young people do use drugs but outgrow immature using behaviour and develop appropriate adult substance use behaviour (Gonet, 1994: 16).

The third pattern of use is habitual use and involves the establishment of a definite pattern of substance use, for instance smoking cannabis every day after school or drinking every Friday and Saturday night. The characteristics of this pattern of use include the absence of addiction (physical dependence) and the infrequent occurrence of major adverse effects. However, habituation (psychological dependence) is an integral feature of this pattern of substance use (Pagliaro & Pagliaro, 1996: 26).

Yet, in the abuse pattern, the substance of abuse is actively sought and continues to be used despite well-recognized harmful effects. Examples of this pattern of substance use include an adolescent who has been charged with driving a motorcycle under the influence of alcohol but who continues to drink alcohol and drive, and a pregnant teenager who continues to use crack cocaine even though she has been warned about the dangers to her unborn baby. (Compare Gonet, 1994: 17; Pagliaro & Pagliaro, 1996: 26.) In this pattern of use, the negative consequences associated with the use of a particular substance are generally recognized, but it continues to be actively sought and used (Gonet, 1994: 17).

However the most serious pattern of substance use is dependence. This pattern is characterized by (a) compulsive use, (b) a complete lack of

control over limited use and loss of the ability to predict control over use of the substance of abuse; and (c) continued use of the substance despite adverse consequences, e.g. conflict with school, parents, friends and law enforcement officers. Adolescents who display this pattern of use generally indicate that they simply cannot help themselves (Gonet, 1994: 18). The substance of abuse, whether it is alcohol, cannabis, or cocaine becomes the major focus of concern. Dependence thus refers to the adolescent's relationship to the substance, rather than the frequency of use. Dependent users spend most of their time thinking about, obtaining and using the substance of abuse. These children and adolescents feel a lack of control over its use and continue use despite expected and predictable harmful effects (Pagliaro & Pagliaro, 1996: 26).

Given the variation in patterns of adolescent substance use and substance involvement combined with age related trends in substance abuse, the identification of risk and protective factors for the initiation, maintenance and progression of substance use may allow an improved understanding of the role of substance use in adolescent development.

5. Risk and resiliency factors related to adolescent substance use and abuse

The influences that generate substance use and abuse among adolescents are many, varied and far from clearly understood (Botvin, Schinke & Orlandi, 1995: 105). Pagliaro and Pagliaro (1996: 138) confirm this by stating, that no single biological, psychological or sociological factor has been found to account for the significant patterns of substance use among adolescents. (See Chapter 2, page 93.) Within this myriad of

possible factors, there is, however, certain risk and protective factors that have been associated with adolescent substance use and abuse. In an attempt to identify these factors, the terms "risk" and "resiliency" needs to be clarified first.

Risk factors are defined by Gonet (1994: 32) as the "factors in an adolescent's life experiences and personality structure that make him more likely to use or abuse substances." Factors associated with greater potential for drug use are thus called risk factors (NIDA, 2001: 1). Hence identifying risk factors can help predict which adolescents may be susceptible to substance abuse. As a result, the more risk factors present in a young person's life, the more likely involvement with drugs is. (Compare Botvin, Schinke & Orlandi, 1995: 109; NIDA, 2001: 1.) Risk factors can thus be considered the predictors of substance abuse. They exist before substance abuse begins, and those who subscribe to a risk-focused approach seek to eliminate or lessen risk factors as the chief means of preventing adolescent substance abuse (Gullotta, Adams & Montemayor, 1995: 37).

The converse of risk factors for substance use is protective factors that reduce the likelihood and level of substance use and abuse. Protective factors as described by Botvin, Schinke and Orlandi (1995: 109) are those psychosocial influences that have a direct effect on limiting or reducing substance involvement. However protective factors may also operate in a different manner than simply having a direct effect on reducing drug involvement. They may, in fact, buffer or moderate the association between risk factors and substance use/abuse by building a sense of resiliency in individual adolescents. Thus, resilience is seen as the factors and processes enabling sustained competent functioning, even in the

presence of major life stressors (Gullotta, Adams & Montemayor, 1995: 19). Hence others in the field have variously defined resilience as: 'the ability to withstand or surmount risk (compare Hawkins, Catalano & Miller, 1992: 86; NIDA, 2001: 1); "successful adaptation following exposure to stressful life events" (Werner and Smith in Gullotta, Adams & Montemayor 1995: 19); and "successful adaptation under adverse conditions" (Luthar & Ziegler, 1991: 8). However, Hawkins, Catalano and Miller (1992: 86) stress that it is important to distinguish between resiliency and vulnerability as the latter intensified susceptibility to risk whereas resiliency is the ability to withstand or surmount risk. From this perspective, those who subscribe to a resiliency-focused approach will thus seek to protect the adolescent by enhancing resilient responses to risk exposure, as the chief means of preventing substance abuse.

With the distinction made between risk and resiliency factors it is best to identify and review these factors in terms of the following three integrated categories:

- Constitutional/personal factors;
- Interpersonal factors: family and peers, and
- The social-environmental and cultural milieu in which the youth is embedded. (Compare Botvin, Schinke & Orlandi, 1995: 106; Hawkins, Catalano & Miller, 1992: 65; Louw & Amorim, 1999: 43-45; World Drug Report, 1997: 46.)

5.1 Constitutional/Personal factors

Certain characteristics of the individual adolescent are associated with greater risk or greater resiliency to substance use/abuse.

5.1.1 Personal attributes related to risk

Focussing on the most salient personal attributes related to risk for adolescent substance use/abuse, several predictive factors were identified from the work of the following authors, i.e.: Botvin, Schinke and Orlandi (1995), Bukstein (1995), Gullotta, Adams and Montemayor (1995), Hawkins, Catalano and Miller (1992), Pagliaro and Pagliaro (1996) and Winger, Hofmann and Woods (1992). Personal attributes related to risk thus include:

- *Physiological, i.e. genetically based personal factors* that include potential heritability of drug abuse vulnerability and psycho physiological susceptibility to the effects of substances. This places individuals with high genetic vulnerability at a high risk to develop substance abuse as this complex behavioural disorder is thought to be an inherited disease.

- Possessing *a difficult childhood temperament* with irritable, anxious mood states; temper tantrums; and social withdrawal is predictive of substance use/abuse in adolescence.

- Other personal factors associated with risk are continuing *behaviour problems*, most usually hyperactive, aggressive and seemingly rebellious activity that reflects poor impulse control; and inability to delay gratification; sensation seeking and low harm avoidance are all predictive of adolescent substance use/abuse.

- *Antisocial behaviour*, such as theft and chronic fighting in childhood also increase the risk of adolescent substance use/abuse.

- Psychological factors such as *childhood emotional distress*, often manifested as depression and high anxiety, may also signal later substance abuse.

- A *low degree of commitment to education* in general, manifested as school failure, poor academic performance and a lack of attachment to the school also increase the risk of adolescent substance use/abuse.

- *Early onset of substance use* is predictive of substance abuse in adolescence.

- *Alienation from*, non-acceptance of, or outright rejection of the *dominant values of society* has been shown to be associated with greater risk of alcohol and other drug–use problems. This might include rejection of religious beliefs and values as well.

5.1.2 Personal attributes associated with resiliency

From the work of several authors (compare Botvin, Schinke & Orlandi 1995: 110-264; Bukstein, 1995: 62-64; Hawkins, Catalano & Miller, 1992: 82-86; Gullotta, Adams & Montemayor, 1995: 21-25) a number of personal factors associated with resilience can be assembled of which the following is considered to be the most prominent:

- *Genetic and biologically based factors* that consistently emerge as associated with resiliency but are most likely genetically based and, as such, not likely to be responsive to social intervention.

- An *easy temperament and/or disposition* from birth. Pleasant, easygoing, responsive adolescents tend to elicit more positive responses from others and possibly receive greater support from them as a result.

- *Intellectual capabilities*, particularly verbal and communication skills. Masten, Best and Garmezy (1990: 425) confirm this, by stating: "Since these capabilities are generally an index of academic aptitude, they will likely function to protect the youth, particularly disadvantaged adolescents, because of the benefits of academic achievement."

- Likewise the personality characteristic most consistently associated with a resilient outcome is *a sense of self-efficacy*, i.e. a positive perception of one's competence to perform certain tasks. Werner (in Gullotta, Adams & Montemayor 1995: 22) describes it as the confidence that one's external and internal worlds are predictable and hopeful, that life makes sense, and that one has some control over one's fate – that things will work out and odds can be surmounted. In relation to resiliency, self-efficacy, then, involves several things, i.e.: a sense of self-esteem and self-confidence, and a belief in one's own ability to have some influence upon one's internal and external environment.

- An adolescent's *ability to appraise the environment realistically*. In other words, for youth to realistically appraise their own abilities and know what they can and cannot do, and can and cannot change leading to a better appraisal of the consequences of their actions.

- A repertoire of *social problem-solving skills* that positively reinforces a continuing sense of competency and self-esteem.

- *A sense of direction* (e.g. some special talent, passion, faith, or strong interest), a sense of purpose, a sense of meaning or a sense of a compelling future in an adolescent can strengthen his or her resiliency.

- Possessing the enabling skill of *empathy*, i.e. the capacity to understand and respond to another's feelings. This ability helps the adolescent to be more appreciative, gentle, nurturing, and socially perceptive, reflecting a caring and responsible attitude towards others.

- A relationship between resiliency and *humour* are also put forward. Hence adolescents with a greater ability to use humour, appreciated humour more, are more readily able to find the comic in the tragic, and to use humour to reduce tension and restore perspective. These abilities serve the added function of maintaining social relationships.

- *Adaptive distancing*, i.e. a condition in which self-understanding and separateness prevail, will also add to adolescent resiliency. For instance, an adaptive distancing adolescent will see himself as

separate from an ill parent, not the cause of the illness, and not to blame for it.

- *Gender differences* were also found to be associated with resiliency. For instance, societal sex-role expectations help girls to be more resilient in early childhood and boys to be more resilient in adolescence. However, youth (both male and female) who acted in a flexible non-sex-typed, androgynous manner were the most resilient of all. Where the most resilient girls come from households that encourage risk-taking and independence. Resilient boys come from households characterized by structure and rules and by encouragement of emotional responsiveness.

The mentioned personal factors should thus enable the adolescent to withstand substance use and surmount the risk of substance abuse. In other words equipping the adolescent to cope adequately with adversity.

Finally, the identified personal attributes found to be related to risk and resiliency for substance use/abuse has been summarized in Table 7 for easy comparison and greater clarity.

Table 7: Personal attributes related to risk and resiliency for adolescent substance use/abuse

Personal risk factors	Personal resiliency factors
Genetic and biological factors	Genetic and biological factors

Personal risk factors	Personal resiliency factors
Difficult childhood temperament	An easy temperament and/or disposition
Behaviour problems	A sense of self-efficacy
Antisocial behaviour, e.g. theft	Social problem-solving skills
Childhood emotional distress often manifested as depression and high anxiety	An ability to appraise the environment realistically
Low degree of commitment to education	Intellectual capability
Early onset of substance use	Societal sex-role expectations
Alienation from dominant societal values, including low religiousness	Adaptive distancing abilities when faced with a dysfunctional environment
	Empathy
	Humour
	A sense of direction

5.2 Interpersonal factors: Family and Peers

Certain characteristics of the adolescent's personal environment influence substance use. (Compare Gonet, 1994: 3; World Drug Report, 1997: 48.) Hence the most prominent interpersonal factors associated with adolescent risk and resiliency to substance use/abuse will be identified according to two categories, i.e. parent(s)/families and peers.

5.2.1 Parent/Family variables related to risk

According to Botvin, Schinke and Orlandi (1995: 255) family or parents are defined to be whoever fulfils the care taking role for a child, including non-traditional family arrangements that include adoptive, foster or institutional care. Implying that families are responsible for providing physical necessities, emotional support, learning opportunities, and moral guidance, and for building self-esteem and resilience. However, when families fail to fulfil this responsibility, the number of family problems or risk factors can increase. According to these authors, youth generally are able to withstand the stress of one or two family problems in their lives; however, when they are bombarded by family problems, their probability of using/abusing substances increase (Botvin, Schinke & Orlandi, 1995: 259).

In an extensive review of family research, Loeber and Stouthammer-Loeber (in Botvin, Schinke & Orlandi 1995: 260) found that unsatisfactory socialization factors (i.e. lack of supervision, parental rejection of the child and child rejection of the parent and lack of parent/child involvement) were the strongest predictors of delinquency in longitudinal studies. Parental dysfunction, such as criminality or poor marital relations, was a mid-level predictor, and parental health and absence were weak predictors. However, in concurrent comparative studies, the strongest correlates of problem behaviour in adolescents are the child's rejection of the parents and the parent's rejection of the child. The importance of effective parental discipline was higher in these studies than the longitudinal studies and the effect of these risk factors appeared to be the same for boys and girls (Botvin, Schinke & Orlandi, 1995: 261).

From this and other reviews, more specifically Bukstein (1995), Gullotta, Adams and Montemayor (1995), Hawkins, Catalano and Miller (1992), Louw and Amorim (1999) and Perkinson (1997) as well as other primary sources, a list of family correlates of adolescents' use/abuse can be assembled:

- *Parental and sibling substance use/abuse*. As social learning theory predicts, adolescents growing up in families where substance use is the behaviour that is modelled, will have a tendency to adopt that behaviour.

- *Permissive parental beliefs and attitudes* about substances, especially attitudes of tolerance and beliefs in the harmlessness of substances, predict subsequent adolescent substance use/abuse.

- *Poor socialization practices*, including parents substance use norms, disagreement between peer and parent norms, modelling of antisocial values and behaviour, failure to disapprove of youth's substance use, failure to promote positive moral development, and neglect in teaching life, social and academic skills to the child can lead to adolescent substance use/abuse.

- *Parent management practices* characterized by unclear expectations for behaviour, poor monitoring/supervision of behaviour, few and inconsistent rewards for positive behaviour, high levels of negative reinforcement (love withdrawal, yelling) and excessively severe and inconsistent punishment for unwanted behaviour, unrealistic parental expectations for the developmental level of the child (which can create a failure syndrome and low self-

efficacy) and failure to set clear rules with consequences for adolescent substance use is all antecedents or predictive factors of adolescent substance use/abuse.

- Membership in a family where there is little warmth, acceptance, and understanding and much indifference. Characterized by poor parent/child relationships, including rejection of the child by the parents or of the parents by the child, low parental attachment, cold and unsupportive maternal behaviour and lack of involvement and time together is noted to be antecedent to adolescent substance use/abuse.

- Living with *chronic family conflict, marital discord and domestic violence*, which can lead to poor conflict resolution or anger management skills, coercive family processes, youth violence, association with antisocial peers and illicit drug use. Some studies have found that family conflict is a more serious risk factor and therefore a stronger predictor of adolescent substance use/abuse than is divorce or separation per se.

- *Family chaos and stress*, often because of poor family management skills, inadequate life skills, or poverty, resulting in fewer consistent family routines and rituals and inappropriate role modelling and socialization can all lead to adolescent substance use/abuse.

- *Poor parental mental health*, including depression and irritability that cause negative views of the child's behaviour, parental hostility

towards the child and harsh discipline can predict adolescent substance use/abuse.

- *Family social isolation* and lack of community support resources can have a negative influence and lead to adolescent substance use/abuse.

- Living with a *serious or chronic illness* (their own or that of their primary caretaker) can cause vulnerability and subsequent substance use/abuse in a youngster of any age.

- Experiencing *physical or sexual abuse* as a child or adolescent is a major risk factor for substance use/abuse and many other problem behaviour. The younger the age at which a child experiences stress in the family (especially sexual or physical abuse, or death, or life-threatening illness) the more pernicious are the effects and risk of substance use/abuse.

5.2.2 Family variables related to resiliency

Paragraph 5.1.2 (page 159) identified what the most important protective factors are that help to build a sense of resiliency in the individual adolescent. Likewise, significant family variables related to resiliency will now be identified according to the work of Botvin, Schinke and Orlandi (1995) Bukstein (1995), Gullotta, Adams and Montemayor (1995), Louw and Amorim (1999) and World Drug Report (1997).

The family variables related to resiliency thus include:

- Having an *ongoing warm, positive relationship with a caring parent or adult*. Most often, the one caring parent is the mother; hence, maternal characteristics become critical. According to McCord as quoted by Botvin, Schinke and Orlandi (1995: 263), competent mothers are affectionate and self-confident with leadership skills, and thus produce children that are less likely to use/abuse substances. In addition, however, a supportive relationship with one parent can actually offset the negative influence of a dysfunctional parent or of living in a family with a great deal of discord and tension.

- *A positive family environment and bonding*. In reference to the family environment, Gullotta, Adams and Montemayor (1995: 45) emphasize that a cohesive and supportive family clearly offers protection, even when there is also dysfunction, such as substance abuse, by the parents. Herewith Brook, Gordon, Whiteman and Cohen (in Gullotta, Adams & Montemayor 1995: 45) found that children who are attached to their parents and involved in family activities, whatever they may be, were less likely to initiate substance use and less likely to associate with drug using peers. In addition, parental involvement in ways such as influencing peer choice and fostering prosocial activities, also create a strong positive bond.

- *Parental expectations* that are both realistically high and includes non-drug-use values can (a) help to create a protective environment for the adolescent, and (b) help the adolescent to internalise an optimistic attitude about his or her own abilities.

- The *acceptance of family responsibilities or chores*. Family responsibilities serve as a protective factor because it gives the message to youth that they can be counted on to contribute to family life.

- *Positive parental modelling*, particularly in the areas of coping skills and educational level and job satisfaction, have a great influence on building and maintaining resiliency as the message is conveyed from parent to child, that the adolescent can learn to do the same thing.

- *Good parenting skills and supervision* have also emerged as resiliency related. Implying that parents who established good communication patterns and firm family boundaries and provided consistent supervision and discipline generated secure attachment and tended to produce the most competent resilient youth.

- *Maintaining family traditions and having extended family networks* (e.g. grandparents, uncles and aunts), all contribute to adolescent resiliency, as these are important sources of support and protection.

- *Firm routines and rituals* in families foster a sense of independence in the children and serve as a protective factor. For instance, if adolescents can consistently rely on the fact that, no matter what else is going on, everyone will be home for dinner in the evening or they will always go to Grandma's on Sundays, they can feel freer to come and go, because they will have internalised a routine around which they can build a sense of personal freedom. The encouragement of religiousness is another family ritual that can

serve as protection for adolescents. Developing a sense of spirituality, which may be achieved through membership in a religious institution as well as other ways such as meditation or belonging to a positive larger community, can nurture a sense of belonging as well as competence.

- *Parental involvement in and support* of an adolescent's developing talents, competencies and life choices (e.g. school, friends, career) will build resiliency, if at critical turning points in the adolescent's life they influence his choice of prosocial peers and instil prosocial norms.

5.2.3 Peer influences related to risk

As peer influences play a central role in adolescent development, these influences likewise play a critical role in adolescent substance use, especially in the earliest stages of substance involvement (World Drug Report, 1997: 51). According to Pagliaro and Pagliaro (1996: 152) there are a strong relationship between an individual adolescent's substance use and the substance use of his peers, age mates or friends. Herewith, Bukstein (1995: 58) notices that peer influence is especially prominent in predicting the initiation and continuation of cannabis use. Adolescents who frequently use cannabis appear to be more oriented to friends than to parents and have more peer use models. (Compare Botvin, Schinke & Orlandi, 1995: 108.) Added to this, high levels of sociability and involvement with peers, rather than alcohol or other drug involvement per se, predict initiation into the use of beer and wine (Bukstein, 1995: 58). Accordingly active participation in peer-centre social settings, such as

dating and parties, favourable to substance use, may both reinforce and increase the risk to substance use. In addition, as noted by Botvin and Botvin (1992: 293), vulnerability to peer pressure to engage in the use of substances in peer-centered social settings, are greater for adolescents who have fewer effective coping strategies in their repertoire, fewer skills for handling social situations, and greater anxiety about social situations. For these adolescents, the range of options for achieving personal goals are restricted at the same time that discomfort in interpersonal situations are high, motivating them to take some action, for instance use alcohol, in an effort to alleviate that discomfort. (Compare Pagliaro & Pagliaro, 1996: 153.) Another aspect related to risk is the adolescent's perception of peer use and peer support for use (NIDA, 2001: 2). Adolescents who believe that drug use is common among their peer group are likely to accept the idea that drug use is normative behaviour (Gullotta, Adams & Montemayor, 1995: 68). Added to this adolescents may overestimate the extent to which their peers indulge in certain forms of unconventional behaviour, such as drug taking, when in fact they are projecting desires (and possibly concerns) about their own behaviour on to a wider circle (Word Drug Report, 1997: 51). This distortion in perceived norms may influence an adolescent's motivations to use substances. The adolescent's inclination to think in exaggerated terms (i.e. "everybody does it") contributes to this tendency (Gullotta, Adams & Montemayor, 1995: 68) and subsequent substance use/abuse.

However, Botvin, Schinke and Orlandi (1995: 156) assert: "the mechanism of peer influences affecting the initiation of substance use in several stages of adolescent use are likely influenced by another critical risk factor, that is the parent factor." (Compare Bukstein, 1995: 59.) Since peer influences are consistently found to be the final pathway to

adolescent substance use or abuse, research supports family processes as mediators of association with drug-using and deviant peers (Pagliaro & Pagliaro, 1996: 176). This implies that adolescents with greater susceptibility to peer influences are those with greater peer attachment versus parent attachment. Yet, the strength of an adolescent's bonding to his parents and family is probably determined prior to adolescence and exposure to substances and peer substance use. According to Pagliaro and Pagliaro (1996: 153) peer influence seem to play a greater role in the lives of adolescents who lack family support and quality interaction, i.e. positive time spent together in schoolwork and recreational activities. Association with drug-using peers may thus be a peer factor in addition to the influence of peers and the greater socialization seen during adolescence.

Yet, Botvin, Schinke and Orlandi (1995: 107) stress that the best predictor of an adolescent's future behaviour among his peers is his past behaviour. Coming to the conclusion that the strongest predictor of an adolescent's present substance involvement is past substance use. (Compare Pagliaro & Pagliaro, 1996: 146.) Peer influences, such as modelling of substance use behaviour, provision of substances and attitudes and behaviour that encourage substance use, are thus generally viewed as secondary only to prior experience with substances (Gullotta, Adams & Montemayor, 1995: 68).

Peer influences to use or abuse substances thus appear to be a subtle, indirect process.

5.2.4 Peer influences related to resiliency

According to Louw and Amorim (1999: 44) research suggests that there are a number of peer influences associated with resilience. The following is considered to be the most prominent. Starting with the World Drug Report's (1997: 51) suggestion that more adolescents do not take illicit drugs than do so. Implying that the dominant peer group logically ought to be the non-drug-taking peer group, and the prevailing peer pressure working against drug use. Alternatively, it might be the case that adolescents select their friendship circle partly on the basis of existing drug behaviour, rather than the other way around. However, homogeneity in peer groups are often motivated by pressures or support toward conformity to expectations, but it is also common for members of a peer group to be chosen on the basis of possessing similar attitudes and behaviour (Gullotta, Adams & Montemayor, 1995: 68). The process of selection thus predates the friendship, and selection rather than influence produces the association, then the association would merely serve to reinforce the common behaviour. Linked to this, in no uncertain terms, is a strong parent/youth attachment (NIDA, 2001: 2). Brook, Gordon, Whiteman and Cohen (in Gullotta, Adams & Montemayor, 1995: 45) explain this by stating that "children who are attached to their parents were less likely to associate with drug using peers and avoid social and physical environments associated with substance abuse." (Compare Botvin, Schinke & Orlandi, 1995: 263.) Hence, strong parent/youth attachment and adoption of conventional norms about substance use will influence the youth's selection of prosocial peers and inspire prosocial norms leading to more comparability between friends and parents expectations (World Drug Report, 1997: 51). Likewise, strong bonds with prosocial institutions such as the school and religious organizations are also

strongly associated with adolescent resiliency (NIDA, 2001: 2). A resilient adolescent will thus be interested in the goals of conventional society as embodied by conventional institutions like the school and church. Herewith, involvement in drug-free activities and a strong sense of purpose (e.g. faith, or a special talent, or a strong interest) can strengthen adolescent resiliency and protect against peer influences related to risk. (Compare Gullotta, Adams & Montemayor, 1995: 24; Louw & Amorim, 1999: 44.)

This review of peer influences related to adolescent resilience, highlighted the following factors as offering support and protection to enhance the youth's resiliency:

(a) Association with the dominant, non-drug-taking peer group;

(b) Strong parent-youth attachment,

(c) Adoption of conventional norms, and

(d) Attachment with prosocial institutions (e.g. the school and/or religious organizations).

Finally, the identified interpersonal factors associated with adolescent risk and resiliency to substance use/abuse has been summarized in Table 8 for greater clarity.

Table 8: Interpersonal factors related to risk and resiliency for adolescent substance use/abuse

	Interpersonal risk factors	Interpersonal resiliency factors
Family	Parental and sibling substance use/abuse	Positive parental modelling
	Permissive parental beliefs and attitudes about substances	Realistic parental expectations that include non-drug-use values
	Poor socialization practices	Parental involvement in and support of an adolescent's developing talents, competencies and life choices
	Poor parent management practices	Good parenting skills and supervision
	Little warmth, acceptance and understanding within the family	An ongoing warm, positive relationship with a caring parent or adult
	Living with chronic family conflict, marital discord and domestic violence	A positive family environment and bonding
	Family chaos and stress	Family responsibilities or chores
	Family social isolation and lack of community support resources	Maintaining family traditions and having extended family networks
	Poor parental mental health	Firm routines and rituals
	Living with a serious or chronic illness	
	Experiencing physical or sexual abuse	
Peers	Substance use of peers, age mates or friends	Association with the dominant, non-drug-taking

	Interpersonal risk factors	Interpersonal resiliency factors
		peer group
	High levels of sociability and involvement with peers	Strong parent-youth attachment
	Participation in peer-centre social settings	Adoption of conventional norms
	Peer pressure	Peer pressure
	Perception of peer use and peer support for use	Attachment with prosocial institutions

5.3 Social-environmental and cultural factors

Individuals and groups exist within a social-context or environment. Circumstances that can be understood as "situations, social conditions or environments that are relevant to the individual's behaviour and beliefs, i.e. what people perceive, imagine, think, believe, know about life, society and other people" (Rocha-Silva, 1998: 3). With their culture referring to group shared norms, values and customs (Botvin, Schinke & Orlandi, 1995: 233). The social-environment is thus characterized by the values and structure of society, which provide the legal and normative expectations for behaviour (Hawkins, Catalano & Miller, 1992: 65). Leading to the assumption that the individual and social-context are dynamically interrelated, with influences and changes moving in both directions. Although an individual thus has a choice with respect to behaviour (e.g. drug use) and exercise this choice, choice is constrained by a wider social framework. Implying that shifts in cultural norms, or in the legal definitions of certain behaviour, and in economic factors will show

changes in drug-using behaviour and in the prevalence of drug abuse (Rocha-Silva, 1998: 3).

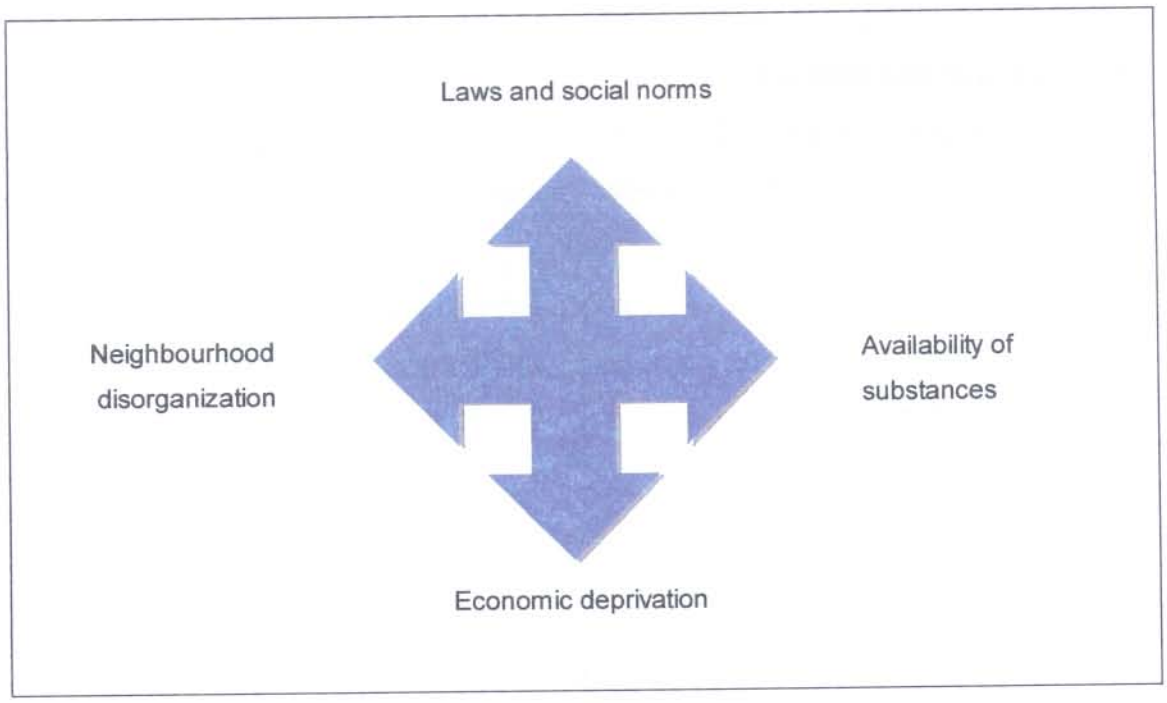
Among the most prominent social-environmental and cultural factors associated with risk to adolescent substance use, are:

- Laws and social norms favourable towards substance use,
- Availability of substances,
- Extreme economic deprivation, and
- Neighbourhood disorganization. (Compare Botvin, Schinke & Orlandi, 1995: 106; Gullotta, Adams & Montemayor, 1995: 56; Rocha-Silva, 1998: 3; World Drug Report, 1997: 54.)

As with the named risk factors, there may be forces within the social-environmental and cultural factors that are protective of substance use/abuse and these can include: (a) normative validation and enforcement of laws concerning substance use; (b) stimulating of socio-economic growth/development; and (c) building of the nation/ strengthening the social fabric (Rocha-Silva, 1999: 15,16). From this perspective, effective combating of youth substance abuse have to be part and parcel of a comprehensive initiative in which agencies in criminal justice, education, health, industry, labour and welfare, work in close collaboration with one another (Rocha-Silva, Mokoko & Malaka, 1998: 1).

Figure 7 illustrates the four most prominent social environmental and cultural factors associated with adolescent substance use/abuse.

Figure 7: Social-environmental and cultural factors associated with substance use/abuse



5.3.1 Laws and social norms related to substance use

All societies function through systems of formal and informal controls. According to the World Drug Report (1997: 155) informal controls arise from consensus, shared norms, values and moral standards, concerns for individual and collective welfare and a common interest in peaceful cohabitation. Logically, informal control will thus use social pressure as a control mechanism to discourage deviant behaviour e.g. youth

substance use/abuse (Boyd, Howard & Zucker, 1995: 204). Yet, according to Rocha-Silva's (1998: 16) research, South African youth find themselves in a social environment conducive to drug use, i.e. an environment in which there is a fair degree of social support for, exposure to and limited discrimination against drug use, especially if of a licit nature. In fact, suggesting that current informal social control poses a definite risk to South African youth. Against this, formal controls are exercised in the form of laws, which in a democracy, also arise from consensus, and are designed to reconcile the goals of individual freedom with the interests of collective welfare (Hawkins, Catalano & Miller, 1992: 65). Adolescent substance use/abuse can thus be addressed and limited by the following:

(a) Prohibitions that are exercised through the criminal law; relying on persuasion and coercion and are intended to motivate compliance by raising the likelihood that those who fail to observe the law will be punished;
(b) Drug regulation, exercised through civil law, that places limits on potency and form, on commercial behaviour and on times and places of sale;
(c) Drug laws that lay down the rules for conduct; and
(d) Drug policy that lays out a programme for public action, which supports and facilitates implementation of the law (World Drug Report, 1997: 155).

However, the contrary is also true, as formal control that express greater tolerance for the use of substances are associated with a greater prevalence of substance use (Hawkins, Catalano & Miller, 1992: 65). Again stressing the necessity of strengthening (in) formal social control structures in the communities (Rocha-Silva, 1999: 15).

Recent research on the effects of laws on alcohol consumption has focused on three interventions by drug regulation: (a) taxation, (b) laws stating to whom alcohol may be sold, and (c) laws regarding how alcohol is to be sold. (Compare Hawkins, Catalano & Miller, 1992: 65; Daley & Raskin, 1991: 3.) Hence, Levy and Velleman (1992: 13) found that alcohol consumption is affected by price, specifically the amount of tax placed on alcohol at purchase. In fact, studies examining the relationship of minimum drinking age and adolescent drinking and driving have generally shown that lowering the drinking age increases adolescent drinking and driving and traffic fatalities and raising it decreases adolescent driving, intoxicated citations and deaths (Gullotta, Adams & Montemayor, 1995: 61). Accordingly, studies of restriction on how alcohol is sold have shown that allowing patrons to purchase distilled spirits by the drink (i.e. one tot) increased the consumption of distilled spirits and the frequency of alcohol-related car accidents. (Compare Hawkins, Catalano & Miller, 1992: 65; Velleman, 1992: 13.) Legal restrictions on the purchase of alcohol and norms unfavourable toward alcohol use clearly are associated with a lower prevalence of alcohol abuse. Underscoring the importance of prioritising preventive laws, policy and legal action related to the youth and substance use.

5.3.2 Availability of substances

A precondition for adolescent substance use, abuse and dependence is substance availability. Implying that substances must be obtainable, accessible and physically available within the community where adolescents live in order to be used/abused. (Compare Gullotta, Adams & Montemayor, 1995: 60; Schaffer, 1994: 3.) Accordingly, the more

available substances are, the easier it is for an adolescent to become a user (Gullotta, Adams & Montemayor, 1995: 60). Availability is thus a *sine qua non* for any form of substance use (World Drug Report, 1997: 54). In addition, however, availability is affected by social norms (e.g. factors within the community conducive to substance use, including level of parental or guardian supervision, lack of consequences for alcohol and drug offences, lack of alternative activities, and portrayals of alcohol and other drug use by friends and the media as a glamorous and healthy activity), prices (economic availability), and personal values i.e. subjective availability. (Compare Roper & Bartlett, 1994: 12; Schaffer, 1994: 3.) The legal status and cost of substances in relation to disposable income combined with physical- and subjective availability are thus important influences on adolescent substance use/abuse.

However, Rocha-Silva (1998: 3) notes that level of availability and demand for (particular) substances in a community tends to positively correlate with the general level of substance use in that community. Consequently availability may vary and is usually associated with use. Accordingly, research has shown that when alcohol is more available, the prevalence of drinking, the amount of alcohol consumed, and the heavy use of alcohol all increase (NIDA, 2001: 2). Easy obtainable and accessible substances are thus strong determinants of adolescent substance use and abuse whilst difficult attainable and more inaccessible substances will probably have the reverse effect (Hawkins, Catalano & Miller, 1992: 81). Availability reduction is thus an important protective factor to consider and can be accomplished by:

(a) General community participation in the formulation and implementation of restrictions on the production/distribution of alcohol and other drugs;

(b) Legal and other control measures with regard to access and exposure to drug use; and

(c) Sustainable measures (within and across countries) for comprehensively monitoring the nature, the extent, development and consequences of drug use, building on existing information-gathering systems (Rocha-Silva, 1999: 16).

Leading to the conclusion that the risk of availability can be countered by means of community-based preventive strategies in which optimal use of existing infrastructure is made and preventive agents collaborate closely at all levels within and across countries.

5.3.3 Extreme economic deprivation

According to Perkinson (1997: 165) socio-economic disadvantage is associated with an increased risk of childhood conduct problems, delinquency and substance use/abuse. An assumption that links substance use with economic deprivation, i.e. a combination of various debilitating socio-economic factors such as unemployment, lack of basic necessities (e.g. water, sanitation, health care, safety), high mortality and morbidity, and population density. (Compare Hawkins, Catalano & Miller, 1992: 81; Rocha-Silva, 1998: 18.) Indeed, in line with what has been reported in other African and overseas countries (United Nations International Drug Control Programme, 1998). Rocha-Silva (1998: 18) suggests that youth exposed to extreme economic deprivation are vulnerable to substance use and particularly to comparatively "heavy" use. For example, regular drinking (at least one a week) and a high volume of alcohol intake seem to have emerged among youthful drinkers,

specifically those residing in peri-metropolitan shack areas and rural settlements in the former "homelands" (areas with the lowest household income in South Africa and with limited access to basic necessities such as clean water, sanitation, transport, health care and electrification (Central Statistics, 1997).

Within the context of the substance use-economic deprivation link, other issues also come to the fore. Indeed, cognisance needs to be taken of indications that although traditional normative structures may still reserve substance use and specifically regular use and high volume intake for (mainly) male adulthood, there is reason to believe that female youth within deprived households in South Africa, especially in the older age groups, may be at an increasing risk of substance use (Rocha-Silva, 1998: 18). This is also highlighted by overseas research (Farmer, Connors & Simmons, 1996: 99): "Extreme poverty destabilizes lives, crushes self-esteem and creates an apartheid between those who have economic power and those who do not... (in these circumstances) drug use and drug trafficking may become the most viable way of surviving...(especially in the case of women because women generally) fare far worse than men, not because of their gender, but because of sexism; unequal power relations between the sexes. More often that not, assertion of power (no matter what the context) is not an even option for poor women."

Against this background, social workers and researchers will have to adopt as broad and integrative a focus as possible, if they want to contribute meaningfully to understanding and promoting the well being of youth. Cognisance will have to be taken of risk and support for individuals as well as environmental supports/risks (e.g. extreme economic deprivation), stimulating socio-economic growth/development as well as

empowering/strengthening the youth (e.g. through educational development). (Compare Rocha-Silva, 1998: 19; Rocha-Silva, 1999: 16.)

5.3.4 Social structure: Neighbourhood disorganization

Neighbourhoods with high population density, high residential mobility, physical deterioration, low levels of attachment to the neighbourhood and high rates of adult crime also have high rates of juvenile crime and illegal drug trafficking (Bukstein, 1995: 66). Simcha-Fagan and Schwartz (in Hawkins, Catalano & Miller 1992: 81) assessed the contextual effect of neighbourhoods on delinquency and found that community economic level and community disorder-criminal subculture were significantly related to officially recorded delinquency. (Compare Rocha-Silva, 1998: 18.) Added to this, research suggests that rapid population changes within neighbourhoods, also increased victimization rates, even after accounting for race and age differences (Hawkins, Catalano & Miller, 1992: 81). Neighbourhood disorganization has thus been hypothesized to contribute to deterioration in families and their ability to transmit prosocial values to children (Rocha-Silva, 1998: 18). However, few studies of neighbourhood disorganization have explicitly examined its relationship with drug abuse, deterioration in parental socialization could also be expected to produce high rates of youth substance involvement. (Compare Louw & Amorim, 1999: 44; Roper & Bartlett, 1994: 12.) Suggesting that youth in poverty-stricken disorganized neighbourhoods can be vulnerable to substance use/abuse. Once again underlining the importance of socio-economic growth/development as well as building the nation/strengthening the social fabric as protective measures against youth substance use/abuse.

Finally, in recognition of the named adolescent risk- and resilience factors as critical issues imperative to understanding youth substance abuse, the consequences or substance related harm needs to be determined.

6. Substance related harm/consequences of adolescent substance abuse

Concern about substance-related harm/general consequences derives in part from its pervasiveness and its tendency to amplify (Rocha-Silva, 1999: 2). If left unchecked, substance-related harm to a user's physical and mental life, apart from progressively intensifying, tends to impact on, interact with and spread to other spheres of life and other persons, close to as well as distanced from the user in space and time (World Drug Report, 1997: 71). In fact the type(s) of harmful consequences associated with substances vary over time and place and across type/dimension of substance use, which variation is supported by the multifacetness and dynamics of the context within which usage arises and prevails (Rocha-Silva, 1999: 3). Implying a complexity of damaging consequences for impressionable youth in the midst of their development to adulthood. However, a significant minority of young people do experiment with illicit drugs during a phase of rebellion or as part of a process of seeking identity and independence, and give up spontaneously when a particular stage of maturity has been reached without any permanently damaging consequences. (Compare Bukstein, 1995: 69; World Drug Report, 1997: 83.) But because the young are less able to evaluate the dangers and judge the likely consequences of their behaviour, their lack of caution may make them more vulnerable to dependence. Most

studies of drug dependence suggest that there is a correlation between problematic or dependent substance use and age of initiation, the earlier illicit drug use of any kind begins, the more likely it is that the individual will take other types of drugs and will consume them more frequently, with correspondingly more severe long-term consequences for health, for educational, and emotional maturity and for the likelihood of creating a stable adult life (World Drug Report, 1997: 83). Accordingly, Bukstein (1995: 69) suggests that adolescent substance use is associated with early involvement in family creation, including marriage, and having children, although use also predicted divorce and increased unhappiness in these relationships. Herewith use reduced college involvement and the use of hard drugs lowered the chances of graduating from high school. Bukstein (1995: 68) also notices that adolescent substance users appear to enter the work force earlier than nonusers and, thus, earn more money into early adulthood. Eventually, however, nonusers surpass their using peers in income, suggesting that the earlier educational limitations imposed by substance use may limit later income potential. Similarly, adolescent substance use is predictive of lower job stability (Bukstein, 1995: 69).

Yet, general substance use by adolescents appeared to increase involvement in drug crimes, whilst users showed lower levels of violent crime except for substances such as cocaine (World Drug Report, 1997: 75). Added to this, substance use had no general influence on mood or affective states, although the use of hard drugs, especially stimulants, hypnotics, inhalants, and narcotics predicted increased suicidal ideation and other self-destructive thoughts as well as reduced social support and increased loneliness in young adulthood. (Compare Bukstein, 1995: 69; World Drug Report, 1997: 71-77.) The use of hard drugs also appears to

lead to unusual beliefs, bizarre thoughts, and disorganized thinking (Bukstein, 1995: 69).

Added to this, illicit substance use in young people is associated with other risk-taking behaviour such as unsafe sex and high levels of delinquent behaviour. Later, the wish to return to education and to a non-deviant lifestyle may be barred by the health consequences of dependence, by a criminal record or by the economic or educational impossibility of recouping lost ground. Even more than with adults therefore, it is reasonable to assume that the effects of powerful drugs upon young, impressionable individuals who have not developed their own coping mechanisms or problem-solving resources, will be proportionately greater, and may delay or even prevent the evolution of such skills (World Drug Report, 1997: 83).

The potential enormity of substance-related harmful consequences is thus illustrated in a wide range of sectors within which it manifests. The researcher suffice with Rocha-Silva's (1999: 2-3) summary of the following substance related harm/consequences:

- *Physical and psychological debility*, that is premature death, injury and illness, including liver cirrhosis, cancer, tuberculosis, hepatitis, HIV infection/AIDS and other sexually transmitted diseases, foetal alcohol syndrome, psychosis, child/spouse abuse, rape, suicide, disability and drowning. (See Chapter 2, page 57 for a detailed discussion of the consequences of specific substances of abuse.)

- *Social isolation*, exclusion, disintegration, conflict and erosion of values/norms, e.g. school, work and church/mosque/synagogue/

temple dropout; "community" breakdown/disintegration; homelessness; parent-child conflict; family breakdown and disintegration; crime and corruption in government, business and other societal institutions.

- *Environmental degradation*, e.g. detritus from cigarettes, liquor cans/bottles, broken glass and syringes, forest depletion through fires and drug cultivation; the dumping of illicit drug-processing waste into sewerage systems/rivers or underground; the use of environmentally hazardous chemicals in the cultivation and eradication of (il)licit crops.

- *Economic debility*, e.g. lowered productivity in the workplace; an increase in unemployment; reduced tax revenues through inter alia the diversion of human resources from licit to illicit economic activities; increased economic, physical and social strain on institutions responsible for environmental and health care as well as on the security system, social welfare, criminal justice and business. (Compare World Drug Report, 1997: 70-103.)

Harmful consequences that necessarily call for comprehensive and integrated measure against it.

7. Summary

In this chapter substance abuse by adolescents was considered within a developmental context given the physical, social and cognitive tasks of adolescence and the drive towards maturation and adulthood.

At the same time various areas of substance related risk and resiliency were considered with respect to the developing adolescent and some harmful consequences outlined.

In brief, this chapter underscores the importance of adolescence as developmental phase within the developmental context of risk- and resiliency factors. Indeed, suggesting important aspects to consider in the prevention of substance abuse in adolescence.

Consequently Chapter 4 will focus on the prevention of substance abuse among early adolescents and entail (a) a clarification of the term prevention, (b) different strategies/approaches and models of adolescent substance abuse prevention, (c) school based substance abuse prevention principles and (d) promising prevention programmes for the youth.

Chapter 4

Substance abuse prevention among adolescents

1. Introduction

Exposure to and use of substances of abuse are related to significant harm among children and adolescents and call for active measures against it. In addition, available research findings on the nature and extent of substance use and related problems, relating to more or less the past thirty years in South Africa, point to:

- The complex and dynamic nature of substance use and related problems;
- A general social and psychological "climate" in South Africa that is fairly supportive of alcohol, tobacco and to a lesser extent, other drug use;
- Various areas of risk/vulnerability with respect to the development of substance related problems; and
- An increase in the general prevalence of substance related problems (Rocha-Silva, Mokoko & Malaka, 1998: 1).

Indeed underscoring the importance and necessity of effective substance abuse preventive services in South Africa, and more specifically in relation to youth substance use or abuse. However the literature on prevention of adolescent substance abuse is extensive, diverse, uneven, and difficult to summarize. It encompasses intensive

reviews of drug education research in general, well-documented experiments with specific school-based interventions, more cursory articles promoting a programme but lacking any outcome data, pamphlets advertising curricula, and assorted other materials. Herewith, Botvin, Schinke and Orlandi (1995: 169) state that the development and testing of approaches for preventing adolescent substance abuse have largely focused on school populations and have, until recently, been limited to white, middle-class students. This chapter then will mainly focus on school-based prevention research, with an emphasis on what is currently known about effective prevention approaches, programmes and models. Although most of the extant substance abuse prevention research literature consists of studies conducted with predominantly white populations, this literature is important because it provides a starting point for the development and testing of approaches and programmes that may be effective with other populations or may lead to the identification of approaches and/or programmes that are particularly effective with specific racial/ethnic groups in South Africa.

Aspects covered in this chapter include:

(a) Clarification of the term prevention,

(b) Identification of different strategies/approaches and models of adolescent substance abuse prevention,

(c) School based substance abuse prevention principles, and

(d) Promising prevention programmes for the youth.

By examining these different components of prevention the researcher will be able to identify ingredients for the development of a prevention programme for early adolescents that may hold promise for success in KwaZulu Natal.

2. The term prevention

According to Lewis, Dana and Blevins (1994: 193) prevention is any activity, which avoids, deters, averts or reverses the development of an event or process, which leads to an undesirable outcome. Herewith, Louw and Amorim (1999: 55) describe prevention as: "A proactive process that empowers individuals and systems to meet the challenges of life events and transitions by creating and reinforcing conditions that promote healthy behaviour and lifestyles." Two perspectives, which validates and concurs with the Social Work Dictionary's (1999: 374) stance of prevention as: " Actions taken by social workers and others to minimise and eliminate those social, psychological or other conditions known to cause or contribute to physical and emotional illness and sometimes socio-economic problems. Prevention includes establishing those conditions in society that enhance the opportunities for individuals, families, and communities to achieve positive fulfilment." Prevention is thus seen as a process aimed at minimising the impact of conditions that may lead to social malfunctioning. However, using a multilevel approach to prevention, i.e. an approach that operates on a primary, secondary and tertiary level, Rocha-Silva (1999: 11) asserts that it is important to differentiate between primary, secondary and tertiary prevention.

The Social Work Dictionary (1999: 181) formulates the following definition of primary prevention: "Actions taken to keep conditions known to result in disease or social problems from occurring." Applying this definition to the substance abuse field, Rocha-Silva (1999: 11) describes primary prevention as: "Prevention directed at reducing initial individual and environmental risks of developing drug-related harm." Implying that primary prevention is undertaken to prevent the onset of substance use in order to preserve abstinence. (Compare

Bukstein, 1995: 185; World Drug Report, 1997: 203.) Pagliaro and Pagliaro (1996: 229) subsequently explicate that this appears to be the ideal goal. Accordingly, many of the efforts at primary prevention have involved preschool and elementary school programmes. However, Gonet (1994: 77) elaborates further by stating that primary prevention should continue across the life span for those who have not yet started to use a particular substance of abuse. For example, just because a 15-year-old began to drink alcohol at 10 years of age and smoke tobacco at 11 years of age does not preclude the use of primary prevention techniques in relation to preventing cocaine use. (Compare Pagliaro & Pagliaro, 1996: 229.) The goals for the primary prevention of substance use should thus include reducing the number of antecedent risk factors, reducing the acquisition of vulnerabilities, and increasing the number of protective factors (Bukstein, 1995: 185). Added to this some trait like variables associated with substance use (e.g. conduct disorder and external locus of control) are not amenable to primary prevention as they cannot be predicted or controlled prior to their occurrence, and once they have occurred, it is too late for primary prevention (Pagliaro & Pagliaro, 1996: 230). Other variables (e.g. serious early childhood losses, family substance use, peer pressure, physical and sexual abuse, and previous psychiatric inpatient treatment) are only partially amenable to primary prevention techniques (Gonet, 1994: 78). Herewith most of the attempts to achieve the mentioned goals of primary prevention have ended in failure. As expressed in many studies and reports (e.g. Bukstein, 1995: 185; Gonet, 1994: 78; Lewis, Dana & Blevins, 1994: 198; Pagliaro & Pagliaro, 1996: 231), the emphasis on abstinence is one reason so many primary prevention programmes have been seemingly ineffective, since any use of a substance following completion of the programme or activity would be construed as a negative outcome. Thus implying

that secondary and even tertiary prevention may show greater promise of being successful than abstinence-oriented prevention.

As far as secondary prevention is concerned, Pagliaro and Pagliaro (1996: 245) mention that this level of prevention involves early detection of risk-proneness with regard to the development of drug-related harm. Gonet (1994: 89) casts more light on this. She writes that secondary prevention is concerned with early intervention among children and adolescents who have already begun substance use but for whom the serious related adverse effects have not yet occurred – for example, programmes aimed at convincing high school students, most of whom drink alcohol, not to drink and drive or providing intravenous substance users with sterile injection equipment or with bleach kits to clean their needles to eliminate or decrease the risk of spreading HIV (Human Immunodeficiency Virus). In other words, secondary prevention is aimed at the minimization of substance related harm and prevention of the onset of substance abuse, rather than on abstinence from substance use. (Compare Bukstein, 1995: 185; World Drug Report, 1997: 203.) Secondary prevention also covers actions taken to alleviate the problem or to reduce its severity or duration. These actions may take in motivational counselling, group counselling, and/or crisis intervention (Gonet, 1994: 89). Also included is a student placed in a school-based programme or referred to a community agency. For example, a young girl, "who drinks only with friends," whose mother has recently died in a motor vehicle crash, and who is now living with her alcoholic father should be recognized as being at risk for the subsequent development of problematic patterns of substance use. This child could be preventively monitored for grief resolution and provided, along with her father, with appropriate counselling and other services as needed (Lewis, Dana & Blevins, 1994: 198). This form of prevention

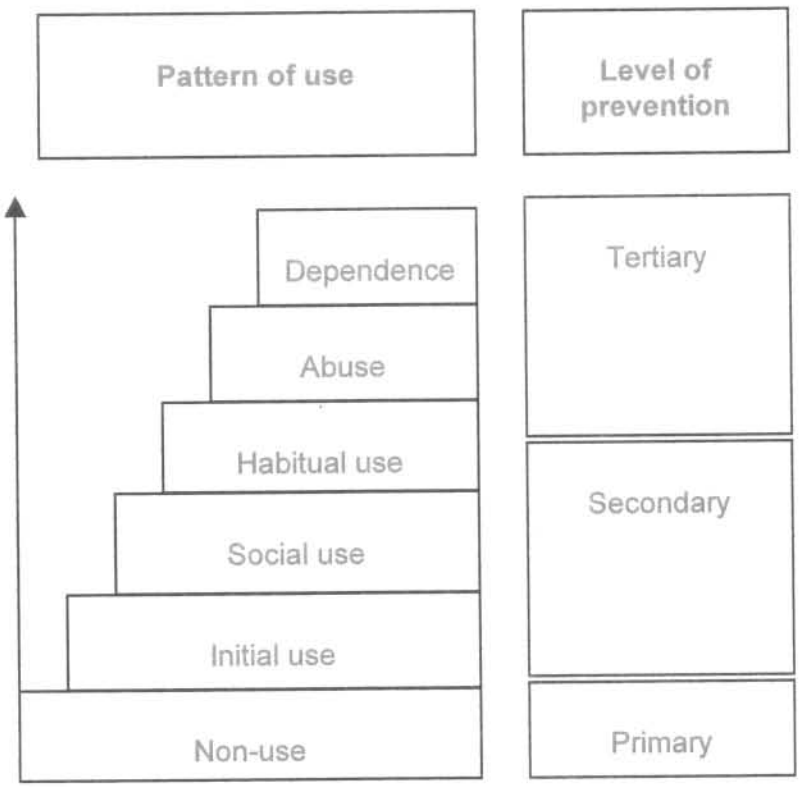
(i.e. secondary prevention) could be used for all of the variable risk factors identified in Chapter 3 (page 155).

Similarly, tertiary prevention (usually called "treatment") is defined as: "Rehabilitative efforts by the social worker or other professional to assist a client who has already experienced a problem to recuperate from its effects and develop sufficient strengths to preclude its return. Most forms of clinical intervention can be considered forms of tertiary prevention" (Social Work Dictionary, 1999: 236). In other words, tertiary prevention thus involves risk reduction focused on the avoidance of a chronic condition. (Compare Gonet, 1994: 103; Rocha-Silva, 1999: 11.) Implying that this level of prevention involves the prevention of secondary sequel or consequences among children and adolescents who have already engaged in problematic patterns of substance use, i.e. abuse or compulsive use. (Compare Bukstein, 1995: 185; Lewis, Dana & Blevins, 1994: 199.) Hence providing advice and treatment for problem or dependent users whereby the harm to the users themselves and to society can be limited (World Drug Report, 1997: 203). Aspects of tertiary prevention typically involve active medical or psychological treatment, including residential treatment and rehabilitation involving relapse prevention (Pagliaro & Pagliaro, 1996: 246). This level of prevention obviously aims for the cessation of substance use and the full recovery of the dependent users, but implicitly recognizes that substance dependence can be a chronic, relapsing disorder (World Drug Report, 1997: 203). However, this disease/disorder is controllable with abstinence. Along with abstinence, of course, lifestyle changes plus understanding the disease and the problems related to its treatment are additional keys to the control of addiction (Gonet, 1994: 103). Finally, tertiary prevention can thus be seen as prevention that primarily occurs in the realm of treatment, as it is directed at reducing

individual and environmental risks related to problematic patterns of substance use.

These three forms/levels of prevention are illustrated in Figure 8 according to the different patterns of adolescent substance use.

Figure 8: Different levels of prevention in relation to the patterns of adolescent substance use



Primary, secondary and tertiary prevention thus show anticipated differences in their objectives and methodologies, within the framework of prevention as specific intervention mission. Against this background and within the context of this particular research study, the prevention level for the development of this intervention is identified as secondary (prevention). In other words, the development of an innovative *substance abuse* prevention programme for early

adolescents in KwaZulu Natal, rather than developing a prevention programme focussed on obtaining early adolescent *abstinence from substance use*.

Finally, bearing in mind that most prevention strategies (e.g. alternatives strategy or information dissemination) can (a) be applied on all three levels of prevention, and (b) ultimately shape all decisions about programme design and development, it is important to review the different approaches to the prevention of adolescent substance use/abuse.

3. Prevention strategy/approach to adolescent substance use/abuse

As noted in Chapters 2 and 3, substance use and abuse among adolescents is a long-standing, complex and pervasive human concern. Implying an implicit need for prevention, and more specifically effective prevention strategies. Subsequently the term strategies is understood as: "carefully designed and implemented procedures an individual or group uses to bring about long-term changes in another individual or group " (Social Work Dictionary, 1999: 228). From this, drug abuse prevention strategies, thus refers to the long-range approaches and ultimate goals of adolescent substance abuse prevention, with a range of activities (programmes) that refer to short-term or day-to-day manoeuvres. Yet, as asserted by Pagliaro and Pagliaro (1996: 228), it is illogical and naïve to expect that a singular, and often simplistic, prevention strategy/approach (e.g. knowledge concerning the dangers associated with substance use) will be effective. Botvin and Botvin (1992: 299) elaborate further in their review of this issue by stating: "Traditional approaches to substance abuse

prevention relying on the provision of factual information about the adverse consequences of substance use/abuse or attempting to foster the development of self-esteem and responsible decision making have produced disappointing results. These approaches are ineffective because they are based on faulty assumptions about the causes of substance abuse. The existing literature suggests that substance abuse is the result of the complex interaction of a number of etiologic determinants. Knowledge concerning the dangers of substance use appears to play a much less prominent role than previously believed. Considerably more important are the social influences that promote substance use and the psychological factors that help determine susceptibility to these influences." (Compare Taylor, 2001: 1.) Botvin and Botvin (1992) subsequently express the opinion that the previous decade brought an evolvement of prevention strategies targeting the youth. Currently several prevention strategies utilizing a wide range of activities (programmes) to achieve strategic outcomes in the context of primary, secondary and tertiary prevention are used effectively, especially in combination (Pagliaro & Pagliaro, 1996: 228). The following strategies merit attention and are reproduced from the Fact and Question Sheet on Prevention (1999: 2-3), i.e.:

- *Information dissemination*. This strategy provides awareness and knowledge of the nature and extent of substance use, abuse and addiction and their effects on individuals, families, and communities, as well as information to increase perceptions of risk. It also provides knowledge and awareness of prevention policies, programmes and services; ultimately helping to set and reinforce norms (for example, underage drinking and drug dealers will not be tolerated in this community).

- *Prevention education*. This strategy aims to affect critical life and social skills, including decision-making, refusal skills, critical analysis (for example, of media messages) and systematic and judgement abilities.

- *Alternatives strategy*. This strategy provides for the participation of targeted populations in activities that exclude substance use by youth. Constructive and healthy activities offset the attraction to, or otherwise meet the needs usually filled by, substance use.

- *Problem identification and referral strategy*. This strategy calls for identification, education, and counselling for those youth who have indulged in age-inappropriate use of substances. Activities under this strategy would include screening for tendencies towards substance abuse and referral for preventive treatment for curbing such tendencies.

- *Community-based strategy*. This strategy aims to enhance the ability of the community to provide prevention and treatment services to substance use disorders more effectively. Activities include organizing, planning enhancing efficiency and effectiveness of services implementation, interagency collaboration, coalition building and networking. Building healthy communities encourages healthy lifestyle choices.

- *Environmental approach*. This strategy sets up or changes written and unwritten community standards, codes and attitudes – influencing incidence and prevalence of substance use problems in the general population. Included are laws to restrict availability and access, price increases and community-wide actions.

In short, the mentioned strategies/approaches to the prevention of adolescent substance use and/or abuse is thus largely oriented towards goals that are inherently positive and salutary.

The selected strategy for this research study is identified as a combination of **information dissemination and prevention education**. This particular combination is appropriate due to the following reasons:

(a) The hypothesis of the study, i.e.: *If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way.*

(b) The focus of information dissemination, namely awareness and knowledge of the phenomenon of substance abuse. However for the purpose of this study, drug knowledge is approached as an integral part of (a) shaping the participants attitudes to drugs and drug users, and (b) the development of personal and social skills within which to apply that knowledge.

(c) Lastly, the focus of prevention education that aims to affect critical personal/life- and social skills.

By means of this approach to youth substance abuse prevention the researcher is thus able to test the hypothesis, i.e. If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way, and sub-hypotheses of the study, i.e.: (a) If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way; (b) If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase; and

(c) If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.

It is also important to remember that most prevention programmes can and should be classified into a prevention model, as application of models provide a way to test and implement interventions. In fact, intervention researchers have studied the effectiveness of the mentioned prevention approaches by using rigorous research designs and testing and implementing substance abuse prevention interventions by applying one of four models. Models of adolescent substance use/abuse, which are discussed in the subsequent paragraphs.

4. Models of adolescent substance use/abuse

According to Botvin, Schinke and Orlandi (1995: 170) most prevention programmes can be classified into one of four models:

(a) The information-only model,

(b) The alternatives model,

(c) The affective educational/social competency model, and

(d) The social environmental/learning model or social influences model. (Compare Dryfoos, 1990: 152; Pagliaro & Pagliaro, 1996: 232.)

These models are listed in their chronological order of predominant use (the information-only model was the first widely used model and the social environmental/learning model is the most recent). However, each of these models continue to be used in various contexts and will be briefly discussed.

4.1 The Information-only model

The information-only model was the first model widely used to prevent substance use by children and adolescents (Botvin, Schinke & Orlandi, 1995: 170). It was the predominant model of the 1960s and 1970s and was predicated on two assumptions: (a) youth were ignorant of the harmful effects of the substances of abuse, and (b) if aware of the harmful effects, youth would refrain from substance use (Pagliaro & Pagliaro, 1996: 232). Unfortunately, both assumptions tended, in large measure, to be incorrect. While the model positively affected knowledge acquisition, attitudes and behaviour were, for the most part, not significantly affected. In some cases, experimentation reportedly increased as a result of increased knowledge, and hence curiosity. (Compare Botvin, Schinke & Orlandi, 1995: 171; Bukstein, 1995: 189.) In an effort to counteract this "curiosity effect" and associated youthful experimentation with the substances of abuse, teacher-led information programmes were emphasized (Pagliaro & Pagliaro, 1996: 233). However, as a result of poorly prepared and scientifically inaccurate training materials, teachers often found themselves (in most cases unknowingly) exaggerating the negative effects of substance use (claiming, e.g. that cannabis use is addictive and causes insanity) or using fear tactics (e.g. showing a picture of a black, tarry, cancerous lung from a deceased tobacco smoker) that were later found to be largely ineffective. (Compare Bukstein, 1995: 187; Dryfoos, 1990: 153.) For example, students who had already experimented with cannabis quickly recognized that their teachers did not know what they were talking about or assumed that teachers were lying. In this context, misinformation about even one of the negative consequences associated with even one substance of abuse tended to undermine the teacher's credibility in regard to everything else that was subsequently said in the programme, whether or not it was correct

(Gonet, 1994: 78). In response to the growing concern about the lack of efficacy of these programmes, drug information material that used scare tactics, stereotyping of drug users, and dogmatic statements, e.g. use of substance X always causes problem Y was terminated. (Compare Boyd, Howard & Zucker, 1995: 126; Bukstein, 1995: 189.) In addition, attention was given to ensuring that the information provided was age-appropriate and not inadvertently directed at teaching students how to acquire, make, or use the substances of abuse. (Compare Gonet, 1994: 78; Roper & Bartlett, 1994: 53.)

Critics contended further that another major flaw of this model was its restricted focus, which discounted or ignored other significant variables e.g. parent, peer and media influences or individual personality characteristics. Inadequacies that were addressed by replacing the information-only programmes with programmes that focused on the characteristics of the child or adolescent user, particularly self-esteem. As noted by Boyd, Howard and Zucker (1995: 127) this shift in the focus of programmes aimed at preventing substance use was so complete that most later programmes never mentioned substances of abuse at all. These later programmes were based in large part on the humanistic psychology movement of the 1970s and its general philosophy that if children and adolescents could just be happy with themselves, they would have no reason to use substances of abuse (Pagliaro & Pagliaro, 1996: 233).

The researcher concludes that programmes based on the information-only model should be implemented with great caution, if implemented at all. However, if enhancement of substance specific knowledge and information is approached by an expert in the field as an integral part of (a) shaping children's attitudes to drugs and drug users, whilst (b) developing the personal and social skills within which to apply that

knowledge the results of programmes based on this model can be more positive.

4.2 Alternatives model

The alternatives model, primarily used during the late 1970s, was designed to provide adolescents with alternatives to drug use and the activities that may lead to drug use (Botvin, Schinke & Orlandi, 1995: 240). This model had seven basic assumptions:

(a) People take drugs because they want to.

(b) People use drugs to "feel better" or to "get high." Individuals experiment with drugs out of curiosity or hope that using drugs can make them feel better.

(c) Cultural example and the media have taught people that drugs are an effective way to make them feel better.

(d) "Feeling better" encompasses a huge range of mood or consciousness change, including such aspects as oblivion-sleep, emotion shift, energy modification and visions of the Divine.

(e) With many mind or mood-altering drugs, taken principally for that purpose, individuals may temporarily feel better. However, drugs have substantial short and long-term disadvantages related to the motive for their use. These include possible physiological damage, psychological deterioration and cognitive breakdown. Drugs also tend to be temporary, relatively devoid of satisfying translations to the ordinary non-

drug state of life, and siphon off energy for long term constructive growth.

(f) Basically, individuals do not stop using drugs until they discover "something better".

(g) The key to meeting problems of drug abuse is to focus on the "something better," and maximize opportunities for experiencing satisfying non-chemical alternatives. The same key can be used to discourage experimentation or, more likely, keep experimentation from progressing to dependency. (Compare Dryfoos, 1990: 153; Pagliaro & Pagliaro, 1996: 233-234.)

The alternatives model consequently sought to provide alternative activities for children and adolescents that would meet their needs, and which, in turn, would presumably alleviate their need to use substances of abuse (Dryfoos, 1990: 153). Hence most alternative programmes focused on physical and recreational activities (e.g. mountain climbing, skydiving, or sports) to help children and adolescents build self-confidence as well as be busy and productive, while others focused more specifically on increasing self-esteem and the development of prosocial community values (Botvin, Schinke & Orlandi, 1995: 240). An example of one of the more comprehensive applications of alternative programmes was developed by A.Y. Cohen as quoted by Pagliaro and Pagliaro (1996: 235) and is reproduced in Table 9.

Table 9: A comprehensive alternatives model

Level of experience	Examples of corresponding motives for substance use	Examples of possible alternatives
Physical	Physical satisfaction; physical relaxation; relief from sickness; more energy; maintenance of physical dependency	Athletics; dance; exercise; hiking; diet; health training; carpentry or outdoor work
Sensory	To stimulate sight, sound, touch, taste; sensual-sexual stimulation; to magnify sensorium	Sensory awareness training; sky diving; experiencing sensory beauty of nature
Emotional	Relief from psychological pain; to solve personal perplexities; relief from bad mood; escape from anxiety; emotional insight; liberation of feeling; emotional relaxation	Competent individual counselling; well-run group therapy; instruction in psychology of personal development
Interpersonal	To gain peer acceptance; to break through interpersonal barriers; to "communicate," especially nonverbally; to defy authority figures; to cement two-person relationships; to relax interpersonal inhibition; to solve interpersonal hang-ups	Expertly managed sensitivity and encounter groups; well-run group therapy; instruction in social customs; confidence training; social-interpersonal counselling; emphasis on assisting others in distress via education
Social	To promote social change; to find identifiable subculture, to tune out intolerable environmental conditions, e.g. poverty	Social service; community action in positive social change; helping the poor, aged, infirm, young; tutoring handicapped; ecology action
Political	To promote political change; to identify with antiestablishment subgroup; to change drug legislation; out of desperation with the social-political order; to gain wealth	Political service; political action; non-partisan projects such as ecological lobbying; field work with politicians and public officials
Intellectual	To escape mental boredom; out of intellectual curiosity; to solve cognitive problems; to gain new understanding in the world of ideas; to study better; to research one's own awareness;	Intellectual excitement through reading, through discussion; creative games and puzzles; self-hypnosis; training in concentration; synectics- training in

Level of experience	Examples of corresponding motives for substance use	Examples of possible alternatives
	for science	intellectual breakthroughs
Creative-aesthetic	To improve creativity in the arts; to enhance enjoyment of art already produced, e.g. music, to enjoy imaginative mental productions	Non-graded instruction in producing and/or appreciating art, music, drama, crafts, handiwork, cooking, sewing, gardening, writing, singing
Philosophical	To discover meaningful values; to grasp the nature of the universe; to find meaning in life; to help establish personal identity; to organize a belief structure	Discussions, seminars, courses in the meaning of life; study of ethics, morality, the nature of reality; relevant philosophical literature; guided exploration of value systems
Spiritual-mystical	To transcend orthodox religion; to develop spiritual insights; to reach higher levels of consciousness; to have divine visions; to communicate with God; to augment yogic practices; to get a spiritual shortcut; to attain enlightenment; to attain spiritual powers	Exposure to non-chemical methods of spiritual development; study development; study of world religions; introduction to applied mysticism, meditation; yogic techniques
Miscellaneous	Adventure, risk, drama, "kicks," unexpressed motives; pro-drug general attitudes	"Outward Bound" survival training; combinations of alternatives above; pro-naturalness attitudes; brain-wave training; meaningful employment

From Table 9 it seems clear that this comprehensive alternatives model could be implemented with success. Unfortunately, most alternative programmes were not this extensive and did not, in general, prove effective in preventing substance use among children and adolescents. (Compare Botvin, Schinke & Orlandi, 1995: 240; Pagliaro & Pagliaro, 1996: 234.)

4.3 Affective educational or social competency model

Another common approach to substance abuse prevention has been referred to as affective education/social competency model (Botvin, Schinke & Orlandi, 1995: 171), primary used during the mid-1970s to the mid-1980s (Pagliaro & Pagliaro, 1996: 235). The development of this model was based, in large part, on the problem behaviour theory advanced by Jessor and Jessor (1977). According to this theory,

> Adolescents engage in problem behaviour such as substance use and premature sexual behaviour, because it helps them to achieve their desired personal goals. To the extent that adolescents perceive this behaviour as functional, they will be motivated to engage in it. For example, problem behaviour may serve as a way of coping with real or anticipated failure, boredom, social anxiety, unhappiness, rejection, social isolation, low self-esteem, and a lack of self-efficacy. This behaviour may also serve as a way of gaining admission to a particular peer group. For adolescents who are not achieving academically, the use of psychoactive substances may provide a way of achieving social status. Adolescents may believe that smoking, drinking, or using drugs will enhance their public image by making them look "cool" or by demonstrating independence from authority figures. Adolescents at the greatest risk of becoming substance users are those who perceive that alternative ways of achieving these same goals are unavailable. (Compare Botvin & Botvin, 1993: 293; Bukstein, 1995: 188; Pagliaro & Pagliaro, 1996: 234.)

Consequently the affective educational/social competency model is based on the belief that the risk of using substances could be reduced through programmes designed to promote affective education. Implying a different set of assumptions than the information-only model, which has a cognitive orientation. Instead of focusing on cognitive factors, affective education emphasizes the personal and social development of children and adolescents (Bukstein, 1995: 189). In this context social competency was thus defined as the ability of

children and adolescents to disagree, refuse, make requests, and initiate conversations (Pagliaro & Pagliaro, 1996: 235). Moreover, the model was based on two assumptions:

(a) Children and adolescents use substances of abuse because of low self-esteem and inappropriate social values, and

(b) If self-esteem is increased and children and adolescents are taught "values clarification" and related problem-solving, decision-making, and communication skills, then they will, of their own volition, choose not to use substances of abuse. (Compare Botvin, Schinke & Orlandi, 1995: 172; Dryfoos, 1990: 153.)

Thus, affective education takes a somewhat broader approach to the problem of substance abuse than the information-only model by implicitly recognizing the role of psychosocial factors. Hence, as with the alternatives model, the issue of non-use of the substances of abuse was generally not directly addressed by programmes based on this model (Pagliaro & Pagliaro, 1996: 235). Instead, the focus of these programmes was on: (a) Choosing an alternative after having carefully considered all other available behaviour together with their related consequences, (b) publicly affirming the alternative selected and feeling positive about ("prizing") it, and (c) acting on one's own positive beliefs and choices consistently and regularly (Dryfoos, 1990: 153). A values clarification process, which was often reinforced by the use of classroom role-playing and a private "values journal," which was maintained by each child or adolescent (Pagliaro & Pagliaro, 1996: 235).

In addition, however, Boyd *et al.*, (1995: 129) are of opinion that, the affective education model of substance abuse has many weaknesses. These include a focus on a narrow and incomplete set of etiologic determinants, the use of ineffective methods to achieve goals (such as classroom role-play and activities rather than skills-training methods), a lack of domain-specific information related to substance abuse, and the inclusion of "responsible use" norm-setting messages that may be counterproductive. Botvin, Schinke and Orlandi (1995: 172) concur with this and subsequently claim that: "Overall, the affective education programmes demonstrated a poor success rate." They attribute this lack of success to the inadequate training of teachers with regard to the methods inherent in this model and relate that the high school teachers involved in these programmes were, generally not particularly experienced or competent in teaching self-esteem and values clarification. Implying that the results of these programmes may have been significantly different had they been provided by specially trained school social workers or school psychologists. (Compare Bukstein, 1995: 188; Pagliaro & Pagliaro, 1996: 235.)

4.4 Social environmental/learning model or Cognitive/behavioural model or Social influences model

The social environmental/learning model, also referred to as a cognitive/behavioural model or social influences model, is largely based upon cognitive social learning theory and has been used from the mid-1980s to date with an overall moderate degree of success (Botvin, Schinke & Orlandi, 1995: 172). However it has clearly been demonstrated to be more successful in preventing substance use among children and adolescents than the information only,

alternatives, or affective educational/social competency models (Pagliaro & Pagliaro, 1996: 238). The assumptions of the social environmental/learning model are that:

(a) Social influences (e.g. parents, peers and media) have a significant effect on substance use; and

(b) Children and adolescents can be trained to become aware of and resist social situational pressures (e.g. user-parent, peer pressure, and media messages) to use substances of abuse. (Compare Botvin, Schinke & Orlandi, 1995: 174; Pagliaro & Pagliaro, 1996: 238.)

Using the primary prevention metaphor that children and adolescents can be "inoculated" against subsequent substance use, this approach has been generally referred to in the literature as psychosocial inoculation or social inoculation training, that is, training that will protect children and adolescents from "infection" by future social influences to use substances of abuse (Boyd, Howard & Zucker, 1995: 129). Examples of the numerous programmes based on this model include: Project ALERT, Life Skills Training and Project Star (Pagliaro & Pagliaro, 1996: 238).

Table 10 provides a short compilation of the named programme examples based on the work of the following authors: Bukstein (1995: 190-191), National Institute on Drug Abuse (2001), Taylor (2001: 2-9), and the Center for Substance Abuse Prevention (2001).

Table 10: Programme examples based on the social environmental/learning model

Name	Description	Goals	Content	Efficacy
Project ALERT	Project ALERT is a drug prevention programme for middle-grade students (11 – 14 years old) that focus on alcohol, cannabis, cigarettes, and inhalants. It is grounded in an understanding of drug use as a social phenomenon – a response to pro-drug messages and models presented by peers, adults and the media. This programme attempts to provide the motivation for saying "no" by identifying the pressures to use drugs and countering pro-drug arguments. The programme builds and reinforces group norms against drug use and dispels beliefs that use is widespread, desirable, and harmless.	The goals of Project ALERT are: (a) To prevent adolescents from beginning drug use, (b) To prevent those who have experimented with drugs from becoming regular users, and (c) To prevent or curb risk factors demonstrated to predict drug use.	The curriculum of Project ALERT consists of 11 lessons in sixth or seventh grade and three booster lessons 12 months later. The curriculum is cumulative and progresses from motivating non-use to providing multiple opportunities to practice resistance skills and identifying the benefits of resistance. Following up with reinforcement is contained in the booster lessons.	Project ALERT is a credible and effective drug prevention programme.
Life Skills Training (LST)	The Life Skills Training programme (LST) addresses a wide range of risk and protective factors by teaching general	The goal of the Life Skills Training programme is to prevent tobacco, alcohol and drug abuse among adolescents.	The designated programme consists of a three-year prevention curriculum intended for middle	Life Skills Training is an effective drug prevention programme.

Name	Description	Goals	Content	Efficacy
	personal and social skills in combination with drug resistance skills and formative education. LST is a universal, primary, school-based drug abuse prevention programme that targets individual adolescents, typically in school classrooms. The underlying rationale of this programme is based on the premise that preventing drug use with younger populations will ultimately reduce the prevalence of drug use among these same individuals as they become older.		school and junior high school students. The three major content areas are personal self - management skills, general social skills, and drug resistance skills and information.	
Project STAR	Project STAR is a universal prevention programme for sixth or seventh grade students with a one-year booster. However, scheduled one-on-one meetings that are part of the programme is adapted to meet the needs of specific subgroups of students, notably social isolates, who are at increased risk for drug use onset. The core concepts that ground the programme are pro-social ideals, group norms and normative	The goal of the programme is to prevent substance use and other high-risk behaviour by changing risk and protective factors that statistically account for the emergence of the behaviour. Specific objectives are: (a) to increase students' beliefs about peer norms which consider abstinence from drug use to be normal, acceptable, and expected by peers; (b) to increase students' perceptions that substance use and abuse and other high risk behaviour will interfere with their preferred lifestyles; (c) to increase	Small groups, games and class discussions form the curriculum of this programme.	Project STAR demonstrates promising positive impacts, primarily on cognitive, risk and protective factors.

Name	Description	Goals	Content	Efficacy
	beliefs, pro-social bonding, commitment, and parental attentiveness.	students personal commitment to avoiding the use of drugs and other problem behaviour; (d) to increase the degree to which students are bonded to positive friendship groups and socially attached to the school; and (e) to increase opportunities for positive parental attentiveness.		

As illustrated by the above-mentioned examples, much of the focus of programmes based on the social environmental/learning model has been directed at: (a) socially normed education (e.g. "It's *not* true that everybody does drugs" and "Most people do *not* smoke tobacco"); and (b) cognitive-behavioural training, i.e. strategies to resist the pressure to use substances of abuse that are developed, modelled and rehearsed. Also, Pagliaro and Pagliaro (1996: 238) emphasize, that student peers is often used in these programmes as co-leaders with a teacher or school counsellor. In addition to teaching students about the adverse consequences of substance use, the peer-focused programmes have generally attempted to integrate the following objectives:

- Create a school climate that encourages the development of responsible independence and a positive identity;
- Create opportunities for students to learn how to actively and intentionally use their experiences to gain new levels of confidence and competence;
- Encourage opportunities for early intervention to deal with adolescent difficulties; and

- Involve students in identifying and meeting student-perceived needs.

Pagliaro and Pagliaro (1996: 239) add that student peer facilitators, if appropriately trained and committed to the goals of the programme, serve as important role models for the other students in the programme and contribute significantly to its success. However, peers do not take the place of well-trained, well-qualified teachers or counsellors and, if not appropriately monitored, may do more harm than good: "A peer leader does not make a peer programme. Peer leaders may or may not be able to facilitate the necessary interaction. In many cases, the peer leader benefits more from his more active role than do the group members" (Tobler, 1992: 21).

Notwithstanding, Boyd, Howard and Zucker (1995: 140) contend that this model is not universally successful, even though it has been demonstrated in a number of studies to be effective in preventing or decreasing the use of selected substances of abuse among children and adolescents, including alcohol, tobacco and poly-substance use. In fact, Botvin, Schinke and Orlandi (1995: 174) assert that the most success demonstrated with this model to date has been in relation to tobacco smoking. However, of the four different models, the social environmental/learning model seems to have the largest effect on preventing adolescent substance abuse.

Within the context of this research study the social environmental/learning model is thus selected as theoretical base for the development of a prevention programme. (See Chapter 5, page 233.)

5. School based substance abuse prevention principles

In spite of the existence of various strategies/approaches and models of substance abuse prevention, which may support the social worker in the development or evaluation of a prevention programme, the need for specific prevention principles is seen as a prerequisite for any related scientific endeavour. One of the most directive attempts to consciously identify basic prevention principles was traced to the National Institute on Drug Abuse (2001) whose principles derived from 20 years of drug abuse prevention research. Principles that -

(a) Reflect current and comprehensive information in simple, yet direct, terms; and

(b) Provide an approach to conduct a structured review of current prevention programmes to determine whether these incorporate the basic principles of prevention that have been identified in research.

The National Institute on Drug Abuse's (2001: 1-3) substance abuse prevention principles are as follows:

- Prevention programmes should be designed to enhance protective factors and move towards reversing or reducing known risk factors.

- Prevention programmes should target all forms of drug abuse, including the use of tobacco, alcohol, marijuana and inhalants.

- Prevention programmes should include skills to resist drugs when offered, strengthen personal commitments against drug use, and increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use.

- Prevention programmes for adolescents should include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone.

- Prevention programmes should include a parent or caregiver component that reinforces what the children are learning – such as facts about drugs and their harmful effects – and that opens opportunities for family discussions about use of legal and illegal substances and family policies about their use.

- Prevention programmes should be long-term, over the school career with repeat interventions to reinforce the original prevention goals. For example, school-based efforts directed at elementary and middle school students should include booster sessions to help with critical transitions from middle to high school.

- Family-focused prevention efforts have a greater impact than strategies that focus on parents only or children only.

- Community programmes that include media campaigns and policy changes, such as new regulations that restrict access to alcohol, tobacco, or other drugs, are more effective when school and family interventions accompany them.

- Community programmes need to strengthen norms against drug use in all drug abuse prevention settings, including the family, the school and the community.

- Schools offer opportunities to reach all populations and also serve as important settings for specific subpopulations at risk for drug

abuse, such as children with behaviour problems or learning disabilities and those who are potential dropouts.

- Prevention programming should be adapted to address the specific nature of the drug abuse problem in the local community.

- The higher the level of risk of the target population, the more intensive the prevention effort must be and the earlier it must begin.

- Prevention programmes should be age-specific, developmentally appropriate, and culturally sensitive.

- Effective prevention programmes are cost-effective. For every dollar spent on drug use prevention, communities can save 4 to 5 dollars in costs for drug abuse treatment and counselling.

To sum up, the above-mentioned scientific principles are seen as a great contribution to social work research as it provides a recognized way to judge or evaluate the effectiveness of different prevention efforts. Accordingly, these principles will thus be applied in the researcher's review of substance abuse prevention programmes for early adolescents in KwaZulu Natal. (See Chapter 6, page 259.)

6. Promising Prevention Programmes

Since young people are a particularly vulnerable at-risk population for substance abuse, they are the prime focus of this study as a prevention effort. In the substance abuse field, there are literally thousands of programmes that have diverse objectives, prevention strategies and outcomes. Yet, few programmes appear to be really effective and/or

promising as they produce an inconsistent positive pattern of results. This lack of success might be due to a lack of organization, comparison and integration of existing programmes. In the past, prevention programmes generally stood in isolation from one another and were rarely taken together. The programmes posed by social workers, for instance, have emphasized different pieces from the puzzle, and presented different pictures of prevention than the programmes posed by social psychologists. Social psychologists, in turn, have offered programmes that have emphasized different factors and presented different pictures of prevention than those emphasized by theorists oriented toward personality or biology (Petraitis, Flay & Miller, 1995: 68).

The researcher thus believes that a clear picture of effective and/or promising South African based prevention programmes, cannot emerge until existing programmes are first compared, organized, and, where possible, integrated. If prevention programmes are to be effective, we need to understand in what ways they are similar, in what ways they are different, in what ways they overlap, and where there are gaps among them. This, however, is beyond the scope of this study as the goal of the research is principally to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal. From a social work perspective, the primary focus of this section then, is not a comprehensive summary and/or comparison of empirically supported prevention programmes, but rather to provide useful and scientifically defensible information about two promising prevention programmes that can be implemented within the South African school environment, i.e. the Lion's-Quest Skills for Adolescence, and The Student Assistance Programme.

Also, recognizing that South African youth has unique qualities that must be addressed if prevention programmes are to succeed the selection of the named programmes was done on the basis of:

- Their integrated focus on (a) the individual, (b) the environment in which the individual lives, and (c) on the use of drugs.
- Divers strategies and actions that reach out to the youth, not as objects to be acted upon, but as subjects who can contribute ideas and actions on their own, who make their history although not as they please.
- Their different strategies and actions that rest on a firm support base within the (wider) community within which they are applied.

The Lion's-Quest Skills for Adolescence, and The Student Assistance Programme are thus discussed in the subsequent paragraphs.

6.1 Lion's-Quest Skills for Adolescence

- **Programme description**

Lion's-Quest Skills for Adolescence is a comprehensive youth development programme that brings together educators, parents, and members of the community to support the development of life and citizenship skills in young adolescents in Grades 6 - 8 (Dryfoos, 1990: 165). The programme comprises five key components that address different aspects of young people's lives: (a) school curriculum; (b) parent involvement; (c) positive school climate; (d) community involvement; and (e)

school staff training and follow-up support. A programme that is clearly school-based and intended for use in a variety of school settings, with youth of diverse ethnicity and socio-economic status (Centre for Substance Abuse Prevention, 2001: 15). Subsequently the programme is based on the rationale that a nurturing environment, in which young people can learn critical life skills, supports the development of positive behaviour and reduces the risk for problem behaviour such as substance abuse.

The Centre for Substance Abuse Prevention (2001: 15) elaborates further by stating that the classroom curriculum consists of 103 skill-building sessions that are offered in 12 configurations and formats, from a minimum implementation model of a nine-week, 40-session mini-course to a maximum implementation model of a multi-year programme with all 103 sessions expanded to 160 class periods. The 45-minute sessions are recommended for delivery no less than every other day during the duration of one of the implementation models. Materials for the programme include: (a) Skills for adolescence teachers' resource guide; (b) changes and challenges student book; (c) the surprising years parent book; (d) and supporting young adolescents parent meeting guide. A programme evaluation kit provides strategies and tools for conducting a needs assessment and assessing positive youth development. (Compare Dryfoos, 1990: 166.)

- **Professional development resources and programme costs**

To ensure successful implementation of Lion's-Quest Skills for Adolescence, participation in either the two-or three-day staff development workshop is required for those teaching the

programme. Follow-up professional development opportunities are offered in the form of workshops that teach "best practices" for instruction in life skills. An extensive, ten-day training of trainers programme prepares local personnel to conduct their own staff development. In the first year, the cost for Lion's-Quest Skills for Adolescence is $435 per teacher, including a two-day pre-service workshop, a grade-specific curriculum set, and student materials for a class of 25 children. After the first year, the costs are only for additional student materials at a rate of $5.76 per student (Centre for Substance Abuse Prevention, 2001: 16).

- **Programme quality and efficacy**

Reviewers rated this programme highly for its clear goals and strong rationale. They also noted that the skill building activities in the programme tie to research and clearly contribute to the attainment of the stated goals. According to reviewers, programme content and examples take into consideration the diverse needs of students, and content delivery takes into account multiple learning styles. Similarly reviewers agreed that the Lion's-Quest Skills for Adolescence programme reported relevant evidence of efficacy based on a methodologically sound evaluation. They noted that the programme used an evaluation design that controlled for pre-test differences and reliable and valid outcome measures. (Compare Centre for Substance Abuse Prevention, 2001: 16; Dryfoos, 1990: 166.)

Subsequently, concluding that the Lion's-Quest Skills programme for Adolescence is an effective substance abuse prevention programme for early adolescents with high programme quality.

6.2 The Student Assistance Programme (SAP)

The Student Assistance Programme focuses on behaviour and performance at school, using a process to screen junior and/or senior high school students for alcohol, tobacco and other drug problems (Dryfoos, 1990: 159). They are modelled on Employee Assistance Programmes used at many workplaces and represent a partnership between community health agencies and schools, often relying on community agencies for assessment and treatment services (Gonet, 1994: 98).

Like their industry counterparts, some Student Assistance Programmes do not limit their activities to alcohol, tobacco and other drug problems. Instead, they focus on identifying, referring and assisting students with all issues causing problems that hinder a student's development. According to Gonet (1994: 98) this programme has four basic components:

- Group counselling sessions (8 to 20 sessions) for students with alcoholic parents. These focus on increased self-esteem and improved academic, behavioural, social and emotional functioning.
- Individual, family or group counselling services for students who are using alcohol or drugs dysfunctionally. Referral to community treatment programmes, if available.
- Counselling services for students who exhibit poor school performance (and are therefore at risk for substance abuse).
- Work with parent and community groups to develop ways of dealing with substance abuse problems.

The purpose of Student Assistance Programmes is thus to provide school staff with a mechanism for helping youth with a range of problems that may contribute to substance use. Teacher and other school staff receive training on how to identify youths experiencing problems. However, they are not expected to intervene personally. Students are referred to appropriate assessment and assistance resources (National Clearinghouse for Alcohol and Drug Information, 2001: 1).

Elements common to most Student Assistance Programmes include: Early identification of student problems; referrals to designated helpers; in-school services, such as support groups and individual counselling; referral to outside agencies; and follow-up services (Gonet, 1994: 99-102).

Yet, successful Student Assistance Programmes require the commitment of school boards, principals and community members. This level of commitment, as well as appropriate training, provides school personnel with a valuable mechanism for helping students experiencing problems (Taylor, 2001: 7).

In general, however, the Student Assistance Programme is very effective in preventing adolescent substance use/abuse. Success that could be attributed to the use of trained social workers (Student Assistance Counsellors) who are accessible to the students, to the independence of the programme from the school, and to the collaborative spirit that has developed between the schools and the programme (Dryfoos, 1990: 160).

Finally, moving from the Lion's-Quest Skills for Adolescence, and The Student Assistance Programme as promising prevention interventions,

that might be adapted to different circumstances and different populations, to a review of accessible substance abuse prevention programmes for early adolescents in KwaZulu Natal.

7. Review of substance abuse prevention programmes for early adolescents

As stated earlier, a thorough review of current substance abuse prevention programmes was conducted. Data collection was executed with a sample of 8 representatives from purposefully selected governmental departments, specialized treatment providers and other social welfare service providers in KwaZulu Natal. The research approach was qualitative/quantitative, utilizing a structured interview with a schedule. The objective:

> *To review the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.*

In Chapter 6 (page 253) the empirical review will be described in greater detail.

8. Summary

Much effort has been directed towards finding effective programmes and techniques to prevent substance use/abuse among adolescents. However, to date, only marginal success has been achieved in this area, as demonstrated by the increasing numbers of children and adolescents who engage in problematic patterns of substance use.

This chapter presented an overview of different strategies, models and promising prevention programmes together with general guidelines (principles) to assist social workers in the development of similar or different types of interventions. In other words the researcher attempted to find and become familiar with the various types of school-based prevention efforts in order to identify an approach that will be best suited to the specific goal of this particular study.

Chapter 5 will consequently present the researcher's planning and design of a substance abuse prevention programme for early adolescents in KwaZulu, Natal (i.e. Project Skills Development).

Chapter 5

A substance abuse prevention programme ("Project Skills Development")

1. Introduction

Substance abuse is a serious public health problem, and regarded as one of the most alarming issues of our era. A present-day reality that underlines the urgent need for prevention programmes in the field of youth substance abuse. Subsequently, it is imperative for preventive agents and researchers to continue with efforts to develop and implement intervention programmes to combat adolescent substance use/abuse problems.

Within this context, a meaningful contribution to promoting the well being of South African youth would be to develop, implement and evaluate a substance abuse prevention programme for early adolescents. Moreover, what is proposed corresponds with the goal and essence of this study, i.e. the planning and development of a substance abuse prevention programme for early adolescents in KwaZulu Natal.

Chapter 5 is thus mainly set out in terms of the planning and design of a substance abuse prevention programme for early adolescents in KwaZulu Natal (i.e. Project Skills Development). In fact, the chapter opens with the programme outline, followed by a purposive limitation of the research project and specification of key issues. Here after the

setting of risk/protective, factors take place and capacity is determined. In addition, the identification of key elements of the substance abuse prevention programme and outlining of aspects regarding the evaluation of the programme takes place whilst ending with a short summary of the total programme.

In brief, Chapter 5 commences with the planning and design of Project Skills Development and concludes with a short summary of the most important issues touched on in the chapter.

2. Planning the programme

The planning of this programme mainly includes the identification of the following aspects as proposed for application in the design of the substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development), i.e.:

- Programme outline (Vision statement, the researcher's role, priority activities, and key partners);
- Defining the target group;
- Specifying key issues (Theory base and delivery setting);
- Setting risk and protective factors (Targeted risk factors and targeted protective factors);
- Determine capacity (Internal capacity and external resources); and

- Evaluation of the programme.

2.1 Programme outline

Key aspects addressed in this programme outline, is limited to:

(a) A vision statement,
(b) Identification of the researcher's role,
(c) Accomplishment of priority activities, and
(d) Selection of key partners.

2.1.1 Vision statement

To develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.

2.1.2 The researcher's role

From a practitioner-researcher paradigm that forms the bridge between research and social work practice activities in problem solving, the researcher's roles is identified as consumer, knowledge creator and disseminator, contributing partner and integrator. (Compare De Vos, 1998: 13-14.) Implying that this study, based on the researcher's knowledge of the substance abuse field, is an effort to:

(a) Address youth substance abuse,
(b) Determine effective practice methods, and
(c) Inform other social workers about it.

Roles that will ultimately enable the researcher to attain the goal of the study, i.e. to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.

2.1.3 Priority activities

The researcher's aim with the development of this substance abuse prevention programme (Project Skills Development) is to prevent substance abuse among early adolescents in KwaZulu Natal. Priority activities within this substance abuse prevention programme development should thus keep the study's focus and hypothesis with sub-hypotheses in mind. Priority activities for the programme planning and design are identified as:

(a) Influencing participants attitudes to substances and substance users in a positive way,
(b) Increasing participants' substance specific knowledge, and
(c) Enhancement of participants' personal and social skills.

2.1.4 Key partners

Prevention programmes are often complex and require teamwork (Centre for Substance Abuse Prevention, 2001: 9). Subsequently, key partners need to be selected from those within the community of KwaZulu Natal, that have a vested interest in the prevention and treatment of youth substance abuse, as well as those from the mentioned province who represent the people and constituencies the researcher will be working with. Through this identification and selection of key partners, the researcher hope to build support for the

project, as this may be what gets it off the ground and also what sustains it over the long run.

Table 11contains a list of potential community players in KwaZulu Natal, with the type of support expected from the latter and their envisioned role in this project marked with an **X**.

Table 11: Key partners

Key partners	Role envisioned			Type of support expected			
	Primary	Secondary	None	Resource support	Population access	Program advocate	Data access
Youth		X			X		
Parents		X			X	X	
Business community			X				
Media			X				
Schools: public or private	X			X	X	X	X
Youth-serving organizations			X				
Institutions of higher learning			X				
Law enforcement agencies		X					X
Faith-based organizations			X				

Key partners	Role envisioned			Type of support expected			
	Primary	Secondary	None	Resource support	Population access	Program advocate	Data access
Civic and volunteer groups			X				
Health care professionals			X				
State, local or tribal government agencies		X		X	X	X	X

Key partners in this project thus include: (a) schools, (b) youth, (c) parents, (d) law enforcement agencies, and (e) state, local or tribal government agencies. The excluded key partners, however, do not necessarily play a core role in this particular study but can be of great value for other social work research.

2.2 Defining the target group

As noted in Chapter 1 (page 33), the target group is:

(a) Early adolescents, i.e. children from the age range 11 - 14 years old,

(b) From a relative safe, peaceful and accessible area in KwaZulu Natal,

(c) From one race/ethnicity group, i.e. Black youth from both genders (male and female),

(d) With no obvious substance use/abuse problems.

A purposive limitation of the research project, as no programme can effectively address prevention issues for all members of a diverse community. Hence, allowing the programme greater specificity and more direction in programme development.

2.3 Specifying Key Issues

Key issues of this project are set out according to (a) theory base, and (b) delivery setting.

2.3.1 Theory Base

The term, theory is defined as "a set of interrelated concepts from which testable propositions can be deductively derived" (Centre for Substance Abuse Prevention, 2001: 17). Inevitably, theories can help to describe problem "causation" which may be used to guide a prevention programme's design and implementation. The theoretical foundation links the problems the programme is attempting to address, how it will address them, and what the expected result is (Daugherty & Leukefeld, 1998: 42). In this context, any structured way of thinking about prevention thus contains two elements, i.e.: (a) one or more assumptions of causality, and (b) logical steps to prevent the problem. If applied, the causal and contributory factors that theoretically lead to adolescent substance abuse, as captured in *Figure 2: An integrated model of adolescent substance use /abuse* (See Chapter 2, page 117.) propose that substance abuse is the result of reciprocal effects among the adolescent and his environment by focussing on the centrality of social interaction. This provides a solid theoretical base for the researcher's choice of prevention model, i.e. the Social

environmental/learning model or Social influences model. A model, demonstrated in a number of studies, which is effective in preventing or decreasing substances of abuse among children and adolescents (Pagliaro & Pagliaro, 1996: 239). As discussed in Chapter 4 (page 210), this model is largely based upon cognitive social learning theory. More specifically the assumptions of the Social environmental/learning model are that:

(a) Social influences have a significant effect on substance use; and

(b) Children and adolescents can become aware of and resist social situational pressures to use substances of abuse (Pagliaro & Pagliaro, 1996: 238).

Socially normed education and cognitive-behavioural training consequently direct the focus of most substance abuse prevention programmes based on this model. However, for the purpose of this study, a conceptual-cum-methodological framework, characterized by the following premises, informs the Social environmental/learning model:

Based on the ideas of Joubert (Mouton, 1994) and Denzin (1989) in (Rocha-Silva, 1998: 3), *triangulation* is employed to facilitate conceptual and methodological integration. The various facets of this conceptual/methodological framework are, thus, viewed as complementing or informing one another. Conceptual consideration is given too:

- The assumption that social reality comprises three triangularly interrelated ontic components, namely "behaviour, beliefs and

circumstances". (Beliefs are "what people perceive, imagine, think, believe, know about life, society and other people ... circumstances are understood as situations, social conditions or environments that are relevant to behaviour and beliefs".)

- The assumption that the individual and socio-economic/ demographic structures are dynamically interrelated, with influences and changes moving in both directions. People are seen as "active, creative beings who make their history, though not 'just as they please.'"

The Social environmental/learning model is further framed, within a *public health (PH) perspective* on the nature and development of drug use and the prevention of related bio psychosocial impairment (Bukoski 1991: 12-13, Rocha-Silva, 1998: 3). In line with the view that social reality comprises a trinity of ontic components, the Public Health model conceptualises the occurrence of drug use and related impairment within a context of three triangularly interrelated factors, namely:

- *Drugs* (agents) and, thus, drug use,
- *Individuals* using drugs (hosts), and
- The *contexts* within which people live and drugs are used (environments) (Daugherty & Leukefeld, 1998: 96).

The model assumes that although an individual has a choice with respect to behaviour (e.g. drug use) and exercises this choice, choice is constrained by a wider (social) framework. The model also acknowledges that all three components are necessary for a problem to occur, action to prevent the problem can thus be taken at any of the three levels. For example, individuals using drugs (hosts) can be removed from exposure or "strengthened" by inoculation or

fluoridation. The drugs (agents) can be removed and the environment can be altered so that the drugs (agents) and individuals using drugs (hosts) are not "brought together" by, for example changing laws to make alcohol or drugs less accessible. (Compare Daugherty & Leukefeld, 1998: 96; Rocha-Silva, 1998: 3.)

The Public Health assumptions are supplemented by the Rocha-Silva model's premises that:

(a) Certain socio-cultural/structural variables (i.e. social support for substance use, opportunity for engaging in substance use, lack of or limited social discrimination against substance use, as well as exposure to such use), and

(b) Psychological variables (e.g. being tolerant towards substance use, believing that the chances of discrimination against substance use are small or non-existent), or

(c) As put by Joubert (in Mouton, 1994: 237), social conditions and beliefs, contribute to drug use and consequently to various bio psychosocial impairments.

This assumption ties in with major premises of various theoretical perspectives and more specifically the Social environmental/learning model. Botvin as quoted by Bukstein (1995: 189), conceptualises substance abuse, "...as a socially learned and functional behaviour, resulting from the interplay of social and personal factors, learned through modelling and reinforcement, which is influenced by personal factors such as cognitions, attitudes and beliefs." More importantly, programmes based on this model thus include peer resistance training, teaching awareness of media influences, and activities to change perceptions of the norm. In addition to including substance refusal or resistance skills, the Social environmental/learning model includes the teaching of many generic skills involving improving interpersonal communication and problem solving (Bukstein, 1995: 190).

Daugherty and Leukefeld (1998: 77) indicate further that social workers using this model usually include two or more of the following key elements in their intervention:

- The first is general problem-solving and decision-making skills using brainstorming and systematic decision-making techniques.
- The second is cognitive skills for resisting interpersonal or media influences by identifying the message and developing counterarguments.
- The third is skills for increasing self-control and self-esteem such as self-instruction, self-reinforcement and goal setting as well as self-change.
- The fourth is adaptive coping strategies for relieving stress or anxiety with cognitive coping skills or behavioural relaxation techniques.
- The fifth is interpersonal skills such as initiating social interaction, complimenting or conversation skills; and
- The sixth is assertiveness skills such as making requests, saying "no," and expressing feelings and opinions.

Accordingly, individual and group training programmes strongly rely on social worker role modelling, role playing, and homework assignments to help adolescents develop effective methods of dealing with frustration, reducing high levels of social anxiety, communicating with other people, being assertive, and avoiding peer pressure (Pagliaro & Pagliaro, 1996: 261). Other therapeutic techniques also include

instruction, demonstration, feedback, reinforcement, and behaviour rehearsal during class and extended practice through behavioural homework assignments (Bukstein, 1995: 90). All worthwhile activities and techniques that provide substantially better insight into the dimensions and complexity of social work prevention programmes.

The Social environmental/learning model thus provides a useful and solid theoretical base for the development of the researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development).

2.3.2 Programme Delivery setting

Identifying the programme delivery setting is important in the determination of the perceived structure and outcome of the prevention programme. The geographic delivery setting is thus identified as ***urban*** (metropolitan area), with the ***school*** as programme delivery setting (i.e. the location in which the researcher expect to run the programme).

2.4 Setting risk/protective factors

The substance abuse prevention programme's primary focus is on individual and interpersonal factors, as opposed to contextual factors. Accordingly, the next identification of individual and interpersonal factors that are associated with greater risk or resiliency will form potential targets for the preventive intervention, i.e. the substance abuse prevention programme for early adolescents in KwaZulu Natal.

2.4.1 Targeted risk factors

As discussed in Chapter 3 (page 155), risk factors are those factors present in a young person's life that makes him more likely to use substances. By systematically comparing the chosen theoretical framework with the identified risk factors in Chapter 3, the researcher targeted the following risk factors to manage through the substance abuse prevention programme activities, i.e.:

Interpersonal factors: Family and Peers

- Adolescent attitudes towards substance use/abuse, and
- Peer influences.

2.4.2 Targeted protective factors

Protective factors are those factors that reduce the likelihood and level of substance use and abuse. Despite the risk the individuals experience in certain environments, some people are able to resist substance abuse. As described in Chapter 3 (page 155) protective factors balance risk factors by either reducing the impact of the risk factors or changing the way a person responds to these risk factors. By identifying specific protective factors to focus on in the programme (Project Skills Development), the researcher can thus identify programme activities that will build on these strengths.

The selected protective factors are:

Constitutional / personal factors

- Communication skills; and
- Social problem-solving skills.

2.5 Determine Capacity

To ensure that the substance abuse prevention programme (Project Skills Development) is part of a cohesive and interlocking plan, the researcher needs to determine the internal and external capacity to bring about the desired results. In the next section, the capacity to implement the programme is described.

2.5.1 Internal capacity

Available internal resources include:

- ***Internal capacity (Human):*** Human resources comprise of (a) the researcher, and (b) Prof. C.S.L. Delport (study leader). With the researcher capable and responsible for fulfilment of the following roles: (a) management, (b) planning, (c) fund raising, (d) implementation, and (e) evaluation. Roles executed under the advisement, support and supervision of Prof. C.S.L. Delport.

- ***Internal capacity (Technical):*** The researcher has the capacity to fulfil the general technical needs of the project. Implying that the researcher is (a) capable of instituting strategies for working with school staff, and (b) can devise strategies for reorganizing the programme to match available funding resources. However, formal technical support in the form of a Management Information System (MIS) is not available.

- ***Internal capacity (Administrative):*** The administrative component of this project includes the means to: (a) Communications (phone, fax), (b) the Internet, (c) office activities such as keyboarding, filing and other office functions.

- ***Internal capacity (Funding):*** Even though programme funds are sufficient for this research effort, funding resources are inadequate for the effective sustainability of the programme.

2.5.2 External Resources

The external resources this programme (Project Skills Development) require, comprise:

- ***Stakeholders:*** Principal stakeholders needed to move forward with this effort include the involvement of:
    - Social Welfare Service leaders (e.g. South African National Council on Alcoholism and Drug Dependence (SANCA); and Newland Park Rehabilitation Centre);
    - School leaders – (e.g. Dr. M.J. Lötter - Department of Education and Culture); and
    - Community leaders – School board.

- ***Volunteers:*** Volunteers will not be involved to move forward with the programme.

- ***Technical:*** External technical resources, donated by the involved primary school, include the provision of a meeting space and technical equipment.

- ***Funding:*** Funds from local initiatives (e.g. private donations) and regional and national initiatives (i.e. state, federal and foundation grant programmes) are not available to the programme (Project Skills Development).

2.6 Evaluate the programme

Evaluation of the designed programme is essential and includes monitoring of (a) the process, and (b) the outcomes.

(a) Process evaluation

Process evaluation involves: (a) monitoring of programme strategies and activities, and (b) measurement of the quality of programme implementation (De Vos, 1998: 372). The Centre for Substance Abuse Prevention (2001: 6) concurs strongly with this view, and write that process evaluation is important for maintaining programme fidelity and is determined by assessing which activities were implemented, the quality of the implementation and the strengths and weaknesses of the implementation. (Compare MacDonald & Patterson, 1991: 11.)

Process evaluation executed in this study, thus involves:

- *Participant feedback* by completion of a simple evaluation form after each programme session(s) (See Appendix 4, page 516), and
- *Social worker (presenter) observer data* regarding programme process and implementation using the following questions, as proposed by De Vos (1998: 372):

  - Did the participants arrive as scheduled?

- Did the participants accept the goals and methods of the programme?
- Did the participants have an opportunity to formulate their own goals for participating in the programme?
- Did the social worker share the planning process beforehand with prospective participants?
- Did the social worker carry out the implementation as planned or were there alterations?
- Were there problems in interpersonal relationships among the participants?
- Were there unique and intense experiences within the group?
- Were there unique events occurring in the society or community during the programme implementation (e.g. a television special on the topic of concern, or an unique tragedy in the community affecting the participants)?

(b) Outcome evaluation

Outcome evaluation on the other hand determines if the programme has accomplished its objectives, focusing exclusively on outcomes, i.e. changes that occur as result of the programme intervention (De Vos, 1998: 374). In short, outcome evaluation studies the immediate or direct effects of a programme on participants. Within this study, a comparison group pretest-posttest design is used as quasi-experimental/associative design. In other words, the effect of the intervention (i.e. Project Skills Development) is determined by comparing differences between pre-intervention and post-intervention measures.

The self-constructed questionnaire is attached as Appendix 5 (page 517).

3. A substance abuse prevention programme for early adolescents in KwaZulu Natal

The proposed prevention programme is named:

Project Skills Development.

Project Skills Development is a comprehensive substance abuse prevention programme for students in Grades 6 - 9 (11 - 14 years old). A programme primarily designed for social workers involved in the substance abuse prevention field, but also relevant and useful to other students of the helping and caring professions. Grounded in the development of personal and social skills, Project Skills Development address:

(a) Interpersonal risk factors (i.e. adolescent attitudes towards substance use/abuse, and peer influences), and
(b) Individual protective factors (i.e. communication skills; and social problem-solving skills).

In other words, Project Skills Development is a primary school-based substance abuse prevention programme that targets individual adolescents and provides personal and social skills training. The

underlying rationale of this programme is based on the premises that the strengthening of these skills will ultimately reduce the prevalence of substance abuse among these individuals as they become older. The goal of project Skills Development is thus to prevent substance abuse among early adolescents.

Furthermore, the programme is set out in a way, which generally reflects the learning experience as a continuous process, which starts with attitudes; moves to knowledge and information enhancement; and then to skills development.

With this outline in mind, the work of authors, such as Lindenfield (1990), Louw and Amorim (1999), MacDonald and Patterson (1991), Perkinson (1998), Sancho (1994) and Stoppard (2000) are primary sources used in the compilation of the proposed programme. For the sake of easy comparison, Table 12 summarizes the programme sessions according to topic and goal.

Table 12: Project Skills Development – Programme sessions according to topic and goal

Session	Topic	Goal
Session 1 – 2	Changing adolescent attitudes about drugs and drug users	Change adolescent attitudes
Session 3 – 4	Understanding drugs and their effects	Knowledge and information enhancement
Session 5	Resisting peer pressure	Personal and social skills

Session	Topic	Goal
		development
Session 6 – 7	Social problem-solving • Techniques to promote self-control • Relieving stress, anxiety and pressure	Personal and social skills development
Session 8 – 9	Developing assertiveness skills	Personal and social skills development
Session 10	Communication skills	Personal and social skills development

Project Skills Development thus comprises (a) ten consecutive group work sessions, and (b) the following key elements:

- Influencing adolescent attitudes to drugs and drug users in a positive way,
- Enhancement of substance specific education (knowledge), and
- Skills development (i.e. resisting peer pressure, problem-solving, assertiveness and communication.)

In short, Project Skills Development entails:

- Adolescent attitudes to substances and substance users, as a starting point of the programme. Covering aspects like: (a) the importance of examining adolescent attitudes, (b) the origin of attitudes, (c) the media as attitude source, and (d) attitudes exercises.

- Drugs and their effects, positioned as the third and fourth sessions of the programme, as drug knowledge is approached as an integral part of: (a) shaping the participants attitudes to substances and substance users, and (b) the development of personal and social skills within which to apply that knowledge.
- A session on peer-group relationships aimed at the enhancement of the participants' awareness and social skills within their peer relations. Covering aspects like (a) the evolvement and risks of peer pressure, and (b) the skills to cope with unwanted pressure in peer relations.
- The enhancement of participant social problem solving skills by specifically focussing on: (a) techniques to promote self-control, and (b) adaptive coping strategies to relief stress, anxiety and pressure. An approach grounded on the premises, that the strengthening of adolescent social problem solving skills as important protective factor will reduce the likelihood and level of substance use. Covered aspects include: (a) delayed gratification, (b) rules, (c) problem solving, (d) responsibility, (e) stress, (f) relaxation, (g) exercise, and (h) lifestyle.
- The development of assertiveness as important personal and/or social skill for early adolescents include: (a) the defining of assertiveness, (b) the essence of assertiveness, (c) knowing your rights, (d) fundamental assertive skills, and self-protective skills.
- The development and/or enhancement of effective communication skills as a constitutional factor of the individual adolescent are the final session of the programme. Aspects that are covered include: (a) empathy, (b) validation, (c) "I feel" statements, (d) positivism, (e) physical proximity, (f) touch, (g) eye contact, (h) reinforcement, and (i) the practice of communication skills.

The complete description of Project Skills Development, which is of tremendous importance to this study, is contained in Appendix 3 (page 415) of this report.

4. Summary

In brief, the reviewed chapter suggests the planning and design of a comprehensive substance abuse prevention programme, named Project Skills Development, for students in Grades 6 – 9 (11 – 14 years old) in KwaZulu Natal. The Social environmental/learning or Social influence approach theoretically grounds the design of Project Skills Development. A programme that seeks the development and/or enhancement of participants' personal and social skills, to address interpersonal risk factors and individual protective factors related to substance use/abuse. The underlying rationale of the programme is based on the premises that the strengthening of these skills will ultimately reduce the prevalence of substance abuse among early adolescents as they become older.

Summing-up, Chapter 5 essentially presents the researcher's planning and design of a substance abuse prevention programme (Project Skills Development) for early adolescents in KwaZulu Natal.

In Chapter 6 the empirical findings and research results with regard to (a) the qualitative/quantitative data (review of substance abuse prevention programmes in KwaZulu Natal) and, (b) all quantitative data (i.e. the implementation and evaluation of the developed substance abuse prevention programme) will be given.

CHAPTER 6

EMPIRICAL RESEARCH FINDINGS

1. Introduction

The problem of youth substance abuse has existed from time immemorial. This is reflected in publications by such authorities as Flisher, Ziervogel, Chalton, Leger and Robertson, (1993) as well as Terblanche and Venter (1999: 161). In fact, the physical and psycho-social consequences of youth substance abuse make it imperative to implement intervention programmes to combat these problems. Such programmes, however, should be supported by research-based information.

In a contributory attempt for prevention of youth substance abuse in South Africa, the researcher formulated the goal of this study:

> *To develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.*

Accordingly, study objectives included:

- *To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.*

- *To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.*
- *To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.*
- *To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.*
- *To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.*
- *To evaluate the substance abuse prevention programme for early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.*

Against this background the following research questions were formulated:

- *What is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal?*
- *What is the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal?*

The researcher continued by moving from this exploratory and descriptive study organised around the above-mentioned research questions to more definite, hypotheses-testing research.

The following hypothesis was thus formulated:

If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way.

From this, three sub-hypotheses was worded:

- *If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way.*
- *If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase.*
- *If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.*

The selected research approach was the combined quantitative-qualitative approach and in the context of Cresswell's three models of combination the dominant-less-dominant (i.e. dominant quantitative and less dominant qualitative) design was used.

Quantitative data was gathered by means of a group administered self-constructed questionnaire, and qualitative/quantitative data respectively through (a) Internet access to the data of SACENDU, and (b) structured interviews with a schedule.

In this chapter the researcher presents dominant quantitative findings (Section B) based on the evaluation of the self developed substance abuse prevention programme for early adolescents in KwaZulu Natal (i.e. Project Skills Development), combined with qualitative/quantitative findings (Section A) from the review of the state of existing substance abuse prevention programmes in KwaZulu Natal.

The chapter is thus set out in terms of two objectives, i.e.:

- To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal (Section A, page 253), and
- To evaluate the self developed and implemented substance abuse prevention programme for early adolescents in KwaZulu Natal (Section B, page 288).

The primary aim of this chapter is to present, analyse and interpret the qualitative and quantitative data respectively collected by structured interviews with a schedule and questionnaires. Pie charts, bar- and column graphs as well as tables have been utilized for the presentation of data.

2. Qualitative findings based on the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal

The magnitude of substance abuse among early adolescents in KwaZulu Natal was discussed in the last part of Chapter 2 (page 129). However, to examine and answer the research question that was formulated as follows: *"What is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal?"* the researcher accessed the research data of the South African Community Epidemiology Network of Drug Use (SACENDU). SACENDU is an alcohol and drug surveillance system that is operational in KwaZulu Natal. As SACENDU had all the necessary statistics and information at their disposal, the researcher accessed their research findings that are available to the public, on the Internet (http;//www.mrc.ac.za). The available data confirmed that alcohol

was still the most popular legal drug among the youth in KwaZulu Natal with cannabis the most popular illegal substance.

As mentioned before a more detailed discussion of these important findings is contained in Chapter 2 (page 129) of this report.

3. Section A: Qualitative/Quantitative findings based on the review of the substance abuse prevention programmes for early adolescents in KwaZulu Natal

The need for comprehensive and effective prevention programmes for adolescents within South Africa cannot be overstated. Morojele, Knott, Myburg and Finkelstein (1999: 46) note: "Despite the presence of a range of disparate prevention programmes operating in South Africa, there is no clarity on the number of such programmes, their approaches and activities, the extent of their coverage of all areas of need, and their potential appropriateness and effectiveness." Yet, international and regional calls for preventive action have intensified (Rocha-Silva, 1999: 1).

In an effort to synchronise prevention efforts in South Africa, a National Strategic Action Plan (NSAP) for the prevention of substance abuse among the youth was developed by the South African Alliance for the Prevention of Substance Abuse (SAAPSA), and set in motion at a national forum during March 1999. The aim was to encourage networking amongst all organizations – government and civil society – concerned with preventing substance abuse in South Africa, and in this way promote peace and development in South Africa. Currently, the National Strategic Action Plan serves as a framework or point of reference for the implementation of primary prevention projects and

actions at national, provincial and community level. Providing a basis for local and international preventive agents to communicate with one another democratically and inclusively, and for new initiatives in South Africa to systematically link with and build on existing preventive efforts. (Compare Brewis, 1999: 5; Network of Practitioners and Researchers on Drug and Other Social Issues, 2001: 1-2.)

Prevention programmes covered in this section will thus strongly lean, on (a) information provided by the National Strategic Action Plan (Brewis, 1999), and (b) empirical data collected with a schedule, during structured interviews with 8 representatives from 8 core Social Welfare organizations in KwaZulu Natal.

3.1 Research methods

3.1.1 Respondents

The respondents were 8 representatives from 8 core Social Welfare organizations in KwaZulu Natal, namely: Department of Social Welfare and Population Development, Department of Education and Culture, South African National Council on Alcoholism and Drug Dependence (SANCA), South African Police Service: South African Narcotics Bureau (SANAB) and other Social Welfare Non-Governmental organizations (i.e. Durban Children Society, "Natal Christelike Vroue Vereniging" and "Christelik-Maatskaplike Diens") in KwaZulu Natal. All the named organizations were put together by means of availability sampling, i.e. a non-probability sampling technique that selects available elements, which contain the most typical attributes of the population for the sample. In other words the 8 representatives were mainly selected on grounds of their availability, from the Social Welfare sector in KwaZulu

Natal. Other aspects taken into consideration included: (a) probability of rendering substance abuse prevention services to early adolescents in KwaZulu Natal, (b) accessibility, and (c) interest to participate in the research study.

The study was explained to each of the representatives. Participation was voluntary and data was gathered during structured interviews with a schedule.

3.1.2 Structured interviews with a schedule

Structured interviews with a schedule were used to review al the available substance abuse prevention programmes for early adolescents in KwaZulu Natal. The interview guideline (schedule) contained questions on the following:

- Identifying particulars
  - Name of representative
  - Occupation (e.g. social worker, nurse or teacher)
  - Represented organization
  - Substance abuse prevention programme name (e.g. Lion's-Quest Skills for Adolescence or Life Orientation)

- Critical review of the presented prevention programme(s)
  - Programme setting (location and geographic setting)
  - Programme respondents/target group (age range, gender, race and special characteristics e.g. conduct disordered children)
  - Underlying programme theory (prevention strategy and prevention model)

- Programme structure (type of prevention service provided, frequency of prevention service within a period of one year, length of each service, duration of each service, method of delivery for each service, group participation in the programme and measurement/evaluation of programme success)

- Implementation problems and programme changes

- Programme staff (programme staff qualifications and staff satisfaction with the programme)

- Programme effectiveness

- Additional information

(See Appendix 2, page 396 for the complete schedule used as guideline during the structured interviews.)

The researcher completed the schedule during an interview with each representative. All information on the schedule was treated with confidentiality.

3.2 Data analysis and interpretation

Analysis of the qualitative/quantitative data was done by means of:

(a) A description of the available prevention programmes (qualitative), and

(b) An evaluation of the latter according to the National Institute on Drug Abuse's (2001) prevention principles (quantitative). (See Chapter 4, page 216.)

Validation of the qualitative descriptions of the available prevention programmes for early adolescents in KwaZulu Natal were executed against Guba's model of trustworthiness. (Compare De Vos, 1998: 348.) This was achieved by applying the following criteria to the assessment of qualitative data, i.e. truth- value, applicability, consistency and neutrality. This model is now set out.

3.2.1 Truth value

According to De Vos (1998: 349) truth value asks whether the researcher has established confidence in the truth of the findings for the subjects or informants and the context in which the study was undertaken. It establishes how confident the researcher is with the truth of the findings based on the research design, informants and context. Within this context the researcher considers the qualitative part of the study credible as it presents with accurate descriptions of the relevant substance abuse prevention programmes in KwaZulu Natal, so that other social workers in the alcohol and drug field would immediately recognise these descriptions.

3.2.2 Applicability

Applicability refers to the degree to which the findings can be applied to other contexts and settings or with other groups. It is the ability to generalize from the findings to larger populations (De Vos, 1998: 349). The researcher concurs with Guba's (1981) perspective on applicability in qualitative research by referring to fittingness, or transferability, as the

criterion against which applicability of qualitative data is assessed. In this study the criterion is meet as the descriptions of the substance abuse prevention programmes are enforceable and transferable into contexts outside the study situation.

3.2.3 Consistency

The third criterion of trustworthiness considers the consistency of the data, i.e. whether the findings would be consistent if the enquiry were replicated with the same respondents or in a similar context. De Vos (1998: 350) explains: "It is the extent to which repeated administration of a measure will provide the same data or the extent to which a measure administered once, but by different people, produced equivalent results". In this study, the descriptions of the available substance abuse prevention programmes can vary from informant to informant. Yet, programme contents should remain unchanged. If one assumes, however, that there are multiple realities, the notion of reliability is no longer as relevant.

3.2.4 Neutrality

The fourth criterion of trustworthiness is neutrality, i.e. the freedom from bias in the research procedures and results. Neutrality refers to the degree to which the findings are a function solely of the informants and conditions of the research and not of other biases, motivation and perspectives. In qualitative research the emphasis of neutrality is shifted from the researcher to the data, so that rather than looking at the neutrality of the investigator, the neutrality of the data was considered (De Vos, 1998: 350). Confirmation is thus the criterion of neutrality and this was achieved in this study when truth value and applicability were established.

In summary, according to Guba's model the presented descriptions of available substance abuse prevention programmes are trustworthy.

3.3 Review of the substance abuse prevention programmes of 8 core Welfare organizations in KwaZulu Natal

Next, the content of the substance abuse prevention programmes from the Department of Social Welfare and Population Development, Department of Education and Culture, South African National Council on Alcoholism and Drug Dependence (SANCA), South African Police Service: South African Narcotics Bureau (SANAB) and other Non-Governmental organizations in KwaZulu Natal are reviewed.

Table 13 presents a summary of important aspects regarding the empirical data collection method, according to the study's objective and selected research approach.

Table 13: Empirical data collection – Structured interview with a schedule

Objective	Target group	Number of representatives	Data collection method	Research approach
Review the state of	Department of Social Welfare and	1	Structured	Qualitative/

Objective	Target group	Number of representatives	Data collection method	Research approach
existing substance abuse prevention programmes for early adolescents in KwaZulu Natal	Population Development • Newland Park Rehabilitation Centre	1	interview with a schedule	Quantitative
	Department of Education and Culture	1		
	South African National Council on Alcoholism and Drug Dependence (SANCA)	1		
	South African Police Service: South African Narcotics Bureau (SANAB)	1		
	Other Non-Governmental organizations			
	• Durban Children Society	1		
	• NCVV ("Natal Christelike Vroue Vereniging")	1		
	• CMD ("Christelik-Maatskaplike Diens")	1		
	Total	8		

Evaluation of the effectiveness of each programme is done according to the basic prevention principles of the National Institute of Drug Abuse (2001: 1-3).

These principles are as follows:

- Prevention programmes should be designed to enhance protective factors and move towards reversing or reducing known risk factors.

- Prevention programmes should target all forms of drug abuse, including the use of tobacco, alcohol, marijuana and inhalants.

- Prevention programmes should include skills to resist drugs when offered, strengthen personal commitments against drug use, and increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use.

- Prevention programmes for adolescents should include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone.

- Prevention programmes should include a parent or caregiver component that reinforces what the children are learning – such as facts about drugs and their harmful effects – and that opens opportunities for family discussions about use of legal and illegal substances and family policies about their use.

- Prevention programmes should be long-term, over the school career with repeat interventions to reinforce the original prevention goals. For example, school-based efforts directed at elementary and middle school students should include booster sessions to help with critical transitions from middle to high school.

- Family-focused prevention efforts have a greater impact than strategies that focus on parents only or children only.

- Community programmes that include media campaigns and policy changes, such as new regulations that restrict access to alcohol, tobacco, or other drugs, are more effective when school and family interventions accompany them.

- Community programmes need to strengthen norms against drug use in al drug abuse prevention settings, including the family, the school and the community.

- Schools offer opportunities to reach all populations and also serve as important settings for specific subpopulations at risk for drug abuse, such as children with behaviour problems or learning disabilities and those who are potential dropouts.

- Prevention programming should be adapted to address the specific nature of the drug abuse problem in the local community.

- The higher the level of risk of the target population, the more intensive the prevention effort must be and the earlier it must begin.

- Prevention programmes should be age-specific, developmentally appropriate, and culturally sensitive.

- Effective prevention programmes are cost-effective. For every dollar spent on drug use prevention, communities can save 4 to 5 dollars in costs for drug abuse treatment and counselling. (See Chapter 4, page 216.)

The following discussion summarizes and elaborates on the findings of the study.

3.3.1 Department of Social Welfare and Population Development

This section discusses some of the youth oriented substance abuse prevention services provided by the Department of Social Welfare and Population Development, mainly focusing on KwaZulu Natal as Provincial Department, without losing sight of the wider context within which the Department of Social Welfare and Population Development renders substance abuse prevention services in South Africa.

Indeed, in KwaZulu Natal various initiatives for countering substance abuse among the youth exist. Table 14 provides an overview of some of these services provided by the Department of Social Welfare and Population Development, KwaZulu Natal.

Table 14: Substance related services engaged in by the Department of Social Welfare and Population Development, KwaZulu Natal

Nr.	Name of Department	Number of representatives	Range of services being rendered	Substance abuse prevention
1.	National and Provincial Department of Social Welfare and Population Development	One	School based education	"I am addicted to life"
2.	Provincial House of Delegates and House	None	○ Provision of social work services at schools	Substance abuse

Nr.	Name of Department	Number of representatives	Range of services being rendered	Substance abuse prevention
	of Representatives (School social work services)		○ Provision of drug counselling services to learners and their families ○ Referrals to appropriate resources, e.g. SANCA. ○ School based education	education
3.	Newland Park Rehabilitation Centre	One	Treatment/rehabilitation services	None
4.	Provincial Department of Social Welfare and Population Development	One	○ Treatment/rehabilitation services ○ Community education ○ School based education	Drug abuse prevention programme (DAP)

Using the table above as broad guideline, the different prevention initiatives of the Department of Social Welfare and Population Development in KwaZulu Natal is now briefly discussed.

In May 1995 the National and Provincial Department of Social Welfare and Population Development embarked upon a national school-based education initiative "I am addicted to life," aimed at teenagers between the ages of 11 and 20 years. It has been evaluated by the Department of Communication and will soon be continued in a reformulated format and with greater applicability to rural youth (Brewis, 1999: 28). This, however, is a programme that merits recognition for its high quality and solid efforts at intense programme evaluation. It is well worth implementing in KwaZulu Natal and throughout South Africa.

School social work services in the House of Delegates and House of Representatives was terminated in 1997 thus, discontinuing a drug-related preventive effort that was part and parcel of the school system, whilst working closely together with health, and welfare agencies in the government and non-government sector. In short, a decision representing a retrogressive step in (a) the early prevention, identification and insurance of youth substance abuse intervention, and (b) optimal use of existing infrastructure.

Also, data obtained from the representative of Newland Park Rehabilitation Centre indicates that the primary thrust of services appear to be counselling or treatment/rehabilitation of substance abusers. Consequently all efforts to drug education and prevention services are referred to the Provincial Department of Social Welfare and Population Development in Durban.

In fact, the Provincial Department of Social Welfare and Population Development prioritised substance abuse prevention among the youth, as one of KwaZulu Natal's most serious social-health challenges. However, focussing on prevention services to early adolescents only, the investment in a preventive initiative, called "Drug Abuse Prevention Programme" (DAP) is satisfying.

The Drug Abuse Prevention Programme (DAP) addresses a healthy lifestyle by relying on the provision of factual information about the adverse consequences of substance use/abuse and attempting to foster the development of self-esteem and responsible decision-making. DAP is a primary, school-based substance abuse prevention programme in KwaZulu Natal that targets all school going adolescents, typically in the school classrooms. The goal of the programme is to prevent substance use/abuse among early adolescents. The

programme consists of substance abuse related information for continuous school-based substance abuse prevention services to early adolescents. The two major content areas are general social skills and drug information.

The underlying rationale of this initiative is based on the premise that preventing substance use with younger populations will ultimately reduce the prevalence of drug use among these same individuals as they become older.

DAP programme material consists of a guide for the presenter, i.e. the social worker, only. The programme is designed to be delivered in 1-6 sessions of more than 90 minutes each. The entire programme is conducted on consecutive weekdays. In addition, service providers in as many fields as possible (especially those in primary health care, in generic welfare services and in specialized drug-related and treatment/preventive services) as well as (where feasible) those who have recovered from drug-related problems are involved in didactic instruction to the youth.

Programme success is determined or measured by one variable only, i.e. a decrease in the amount of children that drop out of school because of substance abuse. At the moment no formal form of evaluation exists. Yet, so far, no problems were encountered whilst implementing the DAP programme in various primary schools in KwaZulu Natal. The programme staff describes (a) their satisfaction with the programme, and (b) the children's involvement and participation in the DAP as good.

Finally, programme effectiveness of DAP is addressed.

Table 15: Programme effectiveness – Drug Abuse Prevention Programme (DAP)

Nr.	Question	Yes	Uncertain	No
1.	Is the prevention programme designed to enhance protective factors and move toward reversing or reducing known risk factors?		X	
2.	Does the prevention programme target all forms of drug abuse, including the use of tobacco, alcohol, cannabis and inhalants?	X		
3.	Does the prevention programme include skills to resist drugs when offered?			X
4.	Does the prevention programme strengthen personal commitments against drug use?		X	
5.	Does the prevention programme increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use?	X		
6.	Does the prevention programme include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone?			X
7.	Does the prevention programme include a parent or caregivers' component that reinforces what the children are learning, such as facts about drugs and their harmful effects?			X
8.	Is the prevention programme(s) long-term, in other words implemented over the child's school career with repeat interventions to reinforce the original prevention goals?			X
9.	Is the prevention effort family-focused, i.e. focused on both parents and children?			X
10.	Is the prevention effort focused on parents only?			X

Nr.	Question	Yes	Uncertain	No
11.	Is the prevention programme focused on children only?	X		
12.	Is the prevention programme developmentally appropriate?	X		
13.	Is the prevention programme culturally sensitive?	X		
14	Is the prevention programme(s) cost-effective?	X		
	TOTAL	6	2	6

The Drug Abuse Prevention programme (DAP) seems reasonably effective as it conforms to 42.8% of the above mentioned substance abuse prevention principles that are based on the work of the National Institute on Drug Abuse's prevention principles (2001: 1-3). Herewith it is noted that the goals for this programme are clear and based on the theoretical prevention strategy of information dissemination. The researcher also found the programme materials well matched to the intended audience. However, the programme could possibly engage the learners more actively by using a wider variety of teaching tools, strategies and reinforcement activities rather than just engaging in didactic instruction. The programme shows much strength, of which the focus on social skills is very prominent. The evaluation methodology can, however, be formalised.

3.3.2 Department of Education and Culture - Life Orientation (Curriculum 2005)

Schools have served as the primary locus of substance abuse prevention efforts for several decades (Botvin, Schinke & Orlandi, 1995:

169). Although there has been considerable debate about whether schools should provide programmes dealing with health and social problems, particularly at a time when there is renewed concern about academic standards, the simple truth is that schools offer the most efficient access to large numbers of children or adolescents (Gonet, 1994: 89). Moreover, many educators are gradually recognizing that problems such as substance abuse are a significant barrier to the achievement of educational objectives. Thus, despite their traditional educational mission, schools have been asked to assume responsibility for a variety of social and health problem, int. al. substance abuse. Accordingly, South Africa's, Curriculum 2005, i.e. an outcomes-based curriculum, includes Life Orientation as core subject within the prescribed learning areas/fields of knowledge (i.e. Languages; Mathematics; Natural Sciences; Technology; Social Sciences; Arts and Culture; Economic and Management sciences; and Life Orientation).

Wherein the phrase Life Orientation captures the essence of what this learning area aims to achieve. It guides and prepares learners for life and its possibilities. Life Orientation equips learners for meaningful and successful living in a rapidly changing and transforming society (National Curriculum Statement, 2001: 63). More specifically, "Life Orientation" can be understood as "skills, insight, awareness, knowledge, values, attitude and qualities that are necessary to empower individuals and their communities to cope and engage successfully with their life and its challenges in South Africa" (Louw & Amorim, 1999: 77). Life Orientation is thus central to the all-round development of learners as it is concerned with the social, personal, intellectual, emotional, spiritual and physical growth of learners, as well as the way in which these facets are interrelated.

The Life Orientation Learning Area Statement (2001: 63) develops skills, knowledge, values and attitudes that empower children to make informed decisions and take appropriate actions regarding:

- Health promotion, i.e. nutrition, environment health, diseases including HIV/AIDS and Sexually Transmitted Diseases (STD's), safety, abuse, violence and substance abuse.

- Social development. This focus area covers belief systems, religious and constitutional rights and responsibilities, relationships and cultural understanding.

- Personal development. Children are given the opportunity to develop life skills, and reflect on and understand their emotional development, spiritual awareness, self-knowledge, self-concept and self-worth.

- Physical development and movement, i.e.: (a) fine and gross motor development, (b) games and sport, (c) physical growth and development, and (d) recreation and play.

- Orientation to the world of work, i.e.: (a) career information gathering and planning skills, (b) personal evaluation skills, and (c) a positive attitude to work and work ethics (National Curriculum statement, 2001: 14-15).

These five focus areas of the Life Orientation curriculum address the human and environmental rights outlined in the South African Constitution.

3.3.2.1 Unique features and scope of Life Orientation (Curriculum 2005)

- Life Orientation focuses on the holistic development of children, and makes a unique contribution to General Education and Training (GET) as it:

  (a) Enables learners to make informed decisions regarding personal, community and environmental health promotion.

  (b) Enables learners to form positive social relationships, respect different worldviews and exercise their Constitutional rights and responsibilities.

  (c) Empower learners to achieve and extend their personal potential to contribute positively to society and cope with and respond to the challenges in their world.

  (d) Promotes physical development as an integral part of social, cognitive and emotional development form early childhood through the General Education Training band.

  (e) Develops a positive orientation to study and work, and the ability to make informed decisions regarding further study and careers (National Curriculum Statement, 2001: 64).

- The learning outcomes (i.e. what – knowledge, information, skills, attitudes and values - learners should know and be able to do at the end of a grade) of Life Orientation equip children to live productive and meaningful lives in a transforming society. The focus is the development of self-in-society. The features of contemporary South Africa and the nature of the personal challenges children encounter within this society, consequently guide the choice of the content of this learning area.

- South African society is characterised by socio-political change. Implying that we have to develop ways of living together in an emerging democracy and to realise the civil and human rights and responsibilities, which are not yet widely evident. Prejudice, often in the form of racism, is still present in post-apartheid South Africa. In addition, the country faces the challenge of socio-economic development, which includes an increasingly global economy, unemployment and environmental degradation. The learning outcomes of Life Orientation empower the youth to find a place for themselves in a world increasingly different from that in which their parents lived and worked.

- Environmental issues are affecting communities' well being' yet an awareness of these issues and how to address them is largely absent. Despite political change, the world in which the children live is often harshly challenging. Crime and violence affect virtually every school, community and individual child. Within such contexts Life Orientation enable children to develop a sense of confidence and competence in order to live well and contribute productively to the shaping of a new society (National Curriculum Statement, 2001: 65).

3.3.2.2 Learning outcomes of Life Orientation (Curriculum 2005)

(a) The learner is able to make informed decisions about personal, community and environmental health.

(b) The learner is able to demonstrate an active commitment to constitutional rights and social responsibilities and show sensitivity to diverse cultures and belief systems.

(c) The learner is able to use acquired life skills to achieve and extend personal potential to respond effectively to challenges in his/her world.

(d) The learner is able to demonstrate an understanding of and participate in activities that promote movement and physical development.

(e) The learner is able to make informed choices and decisions about further study and career choices (National Curriculum Statement, 2001: 67).

Curriculum 2005 therefore makes a unique contribution to (a) general Education in South Africa, and (b) to substance abuse prevention, as the latter is included in health promotion and personal development (life skills) as an important part of the school curriculum (Brewis, 1999: 28).

Hence, Life Orientation's effectiveness is addressed by means of Table 16.

Table 16: Programme effectiveness of Life Orientation (Curriculum 2005)

Nr.	Question	Yes	Uncertain	No
1.	Is the prevention programme designed to enhance protective factors and move toward reversing or reducing known risk factors?	X		
2.	Does the prevention programme target all forms of drug abuse, including the use of tobacco, alcohol, cannabis and inhalants?	X		
3.	Does the prevention programme include skills to resist drugs when offered?	X		
4.	Does the prevention programme strengthen personal commitments against drug use?	X		
5.	Does the prevention programme increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use?	X		
6.	Does the prevention programme include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone?	X		
7.	Does the prevention programme include a parent or caregivers' component that reinforces what the children are learning, such as facts about drugs and their harmful effects?	X		
8.	Is the prevention programme(s) long-term, in other words implemented over the child's school career with repeat interventions to reinforce the original prevention goals?	X		
9.	Is the prevention effort family-focused, i.e. focused on both parents and children?			X
10.	Is the prevention effort focused on parents only?			X

Nr.	Question	Yes	Uncertain	No
11.	Is the prevention programme focused on children only?			X
12.	Is the prevention programme developmentally appropriate?	X		
13.	Is the prevention programme culturally sensitive?	X		
14	Is the prevention programme(s) cost-effective?	X		
	TOTAL	11	-	3

Life Orientation as core field of knowledge and skills seems highly effective as it conforms to 78.5% of the above-mentioned substance abuse prevention principles.

Focussing on programme quality, the researcher is of opinion that the goals of Life Orientation are (a) clearly focussed, (b) reasonable, and (c) appropriate for the youth of South Africa. The subject content and materials are culturally and ethnically sensitive and encompass urban, suburban, and rural communities. The rationale for the subject (i.e. Life Orientation) is based on the affective educational/social competency model. Herewith, substance abuse related activities highlight the consequences of drug use that are immediately relevant to children whilst avoiding didactic lecturing and scare tactics that might cause learners to avoid or block out the message. In other words, the participatory nature of Life Orientation successfully motivates and engages children in the learning process.

Life Orientation thus provides convincing evidence of a credible and effective life skills programme through (a) extremely well-designed training material, and (b) formal assessment and/or evaluation

methodology. The school curriculum is consequently considered to be the foundation or starting point for the social development of any additional or supporting school based substance abuse prevention effort.

3.3.3 South African National Council on Alcoholism and Drug Dependence (SANCA)

The South African National Council on Alcoholism and Drug Dependence – SANCA – is a Non-Governmental Welfare Organization whose major objectives are to prevent and treat alcohol and other drug dependence. Currently, SANCA Alcohol and Drug Centres are established in all the provinces of South Africa. Treatment facilities in KwaZulu Natal include: (a) Durban Alcohol and Drug Centre/Lulama Treatment Centre, (b) Penthouse Clinic, (c) Zululand Alcohol and Drug Help Centre, (d) Newcastle Alcohol and Drug Centre, (e) Pietermaritzburg Alcohol and Drug Centre, and (f) Nongoma Alcohol and Drug Help Centre.

With prevention (more specifically adolescent substance abuse prevention) as one of the main goals of the mentioned service provider, Louw and Amorim (1999: 81) assert the following: "Specialized treatment providers such as SANCA Alcohol and Drug Centres place a lot of emphasis on peer counselling training, i.e. TADA (Teenagers Against Drug Abuse), the so-called youth-on youth approach." TADA was initiated in 1986 and has since grown so that TADA groups exist in at least half of the high schools in the greater Durban area and in several primary schools as well.

TADA is unique in that it is a teenager-to-teenager campaign. The people who are advocating a healthy lifestyle, free from the abuse of drugs, are not adults, "preaching" to young people, many of who feel that older people no longer have any idea of what it is like to be young. TADA members know exactly what it feels like to be a teenager today, and are faced with the same pressures as any other young person. They have simply decided that abusing drugs can only cause, rather than solve, problems in the long run, and wish to convey this message to their peers.

The TADA programme addresses substance use/abuse by forming a drug abuse movement (i.e. a drug action group) in schools, and among other projects undertook the following:

- Requested, (and received) training from SANCA
- Elected a committee and various sub-committees
- Educated their parents at a special parents' evening
- Decided on the name "Teenager Against Drug Abuse" a slogan: "Bend the Trend: Jol Without Zol" and a logo for the group
- Arranged for T-shirts with the TADA logo and slogan to be printed, and sold these at school
- Visited the grade 7 classes at schools traditionally linked with Girls' College, in order to educate the pupils; and
- Addressed pupils at other schools in order to encourage them to form TADA groups.

The TADA programme sharply focuses on positive peer groups as protective factor against adolescent substance use/abuse. It is a primary school-based substance abuse prevention programme that targets and empowers individuals between the ages of 11 – 17 years old, typically in school classrooms. The type of prevention service that SANCA provide is (a) awareness, and (b) provision of factually correct

information. The method of service delivery is group work sessions executed in 1 – 4 weeks. Measurement of programme success is done by means of the following:

- Requests for more information;
- Early identification of substance abusers;
- Fewer children that drop out of school because of substance abuse;
- More open discussion between children and teachers;
- Increased self-referrals;
- Increased referrals by concerned friends;
- Increased knowledge of signs, symptoms and dangers of substance abuse;
- Increased awareness of community resources that can help them; and
- Awareness of option in dealing with peers, decision making, problem solving and resisting peer pressure.

The programme personnel of SANCA are limited to qualified social workers and professional nurses who are of opinion that this programme is well worth implementing. The TADA programme is well received at schools in KwaZulu Natal.

Finally, the programme's goals greatly concur with the National Institute on Drug Abuse's (2001: 1-3) prevention principles and are explained in Table 17.

Table 17: Programme effectiveness: TADA

Nr.	Question	Yes	Uncertain	No
1.	Is the prevention programme designed to enhance protective factors and move toward reversing or reducing known risk factors?	X		
2.	Does the prevention programme target all forms of drug abuse, including the use of tobacco, alcohol, cannabis and inhalants?	X		
3.	Does the prevention programme include skills to resist drugs when offered?	X		
4.	Does the prevention programme strengthen personal commitments against drug use?	X		
5.	Does the prevention programme increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use?	X		
6.	Does the prevention programme include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone?	X		
7.	Does the prevention programme include a parent or caregivers' component that reinforces what the children are learning, such as facts about drugs and their harmful effects?	X		
8.	Is the prevention programme(s) long-term, in other words implemented over the child's school career with repeat interventions to reinforce the original prevention goals?			X
9.	Is the prevention effort family-focused, i.e. focused on both parents and children?	X		
10.	Is the prevention effort focused on parents only?			X

Nr.	Question	Yes	Uncertain	No
11.	Is the prevention programme focused on children only?			X
12.	Is the prevention programme developmentally appropriate?	X		
13.	Is the prevention programme culturally sensitive?	X		
14	Is the prevention programme(s) cost-effective?	X		
	TOTAL	11	-	3

The TADA programme holds much potential and conforms to 78.5% of the above mentioned substance abuse prevention principles. Herewith it is noted that the goals for this programme are clear and based on the theoretical social environmental or learning model. Programme material is well matched and sensitive to the intended audience. The programme shows much strength but has as yet, not been formally evaluated.

3.3.4 South African Police Services – South African Narcotics Bureau (SANAB): Community Education

The South African Narcotics Bureau – SANAB – is a unit of the South African Police Services whose major objectives are to investigate and prosecute substance related incidents throughout all the provinces of South Africa. However, as a small subdivision of community related services, SANAB provides awareness and knowledge of the nature and extent of substance use, abuse and dependence to the community to increase perceptions of risk and enhance awareness of substance related policies, programmes and services. Accordingly, youth

substance abuse prevention can occur in all primary and secondary schools, throughout KwaZulu Natal, if so requested.

The key activities/methods employed by the South African Narcotics Bureau (SANAB) in community education to the youth include: (a) provision of drug information (e.g. talks, slide shows to display drugs), (b) discussion groups, and (c) referrals and interventions. The main aim of this service, however, is to raise awareness about the negative effects of substance abuse and to bring about a reduction in this behaviour. The programme structure (e.g. number of sessions, time span) varies and by using didactic instruction, SANAB facilitators can address groups of between three and 600 respondents at a time. This service is available and implemented throughout South Africa, and is based on the information-only prevention model.

Programme success is measured by means of (a) Feedback that indicates change in substance related attitudes, (b) requests for more information, (c) early identification of substance abusers, and (d) fewer children that drop out of school because of substance abuse. In addition, however, the Bureau (SANAB) found that very few schools request this community service, despite the fact that they have been informed of it through their Department of Education and Culture. Notwithstanding, the only conclusion to come to is a possible lack of interest.

Members of SANAB, responsible for this community service, are qualified police officers who describe their satisfaction with their service as good.

Programme effectiveness is described in Table 18.

Table 18: Programme effectiveness – SANAB

Nr.	Question	Yes	Uncertain	No
1.	Is the prevention programme designed to enhance protective factors and move toward reversing or reducing known risk factors?			X
2.	Does the prevention programme target all forms of drug abuse, including the use of tobacco, alcohol, cannabis and inhalants?	X		
3.	Does the prevention programme include skills to resist drugs when offered?			X
4.	Does the prevention programme strengthen personal commitments against drug use?	X		
5.	Does the prevention programme increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use?			X
6.	Does the prevention programme include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone?			X
7.	Does the prevention programme include a parent or caregivers' component that reinforces what the children are learning, such as facts about drugs and their harmful effects?			X
8.	Is the prevention programme(s) long-term, in other words implemented over the child's school career with repeat interventions to reinforce the original prevention goals?			X
9.	Is the prevention effort family-focused, i.e. focused on both parents and children?			X
10.	Is the prevention effort focused on parents only?			X

Nr.	Question	Yes	Uncertain	No
11.	Is the prevention programme focused on children only?	X		
12.	Is the prevention programme developmentally appropriate?	X		
13.	Is the prevention programme culturally sensitive?	X		
14	Is the prevention programme(s) cost-effective?	X		
	TOTAL	6		8

Community education, as a secondary function of the South African Narcotics Bureau (SANAB), conforms to 42.8% of the above-mentioned substance abuse prevention principles. Herewith it is noted that this service clearly articulates its goals and spells out its expected behavioural changes. The researcher also identified the programme content and material as culturally and ethnically sensitive, which has been successfully implemented in highly diverse primary and secondary schools that encompassed urban, suburban and rural communities. The rationale for the programme is based on information dissemination. The programme shows much strength but has as yet, not been formally evaluated.

3.3.5 Other Social Welfare Non-Governmental Organizations

Over the years the entire social welfare sector has established a range of services to address the problem of drug abuse. Services that include (a) drug prevention, (b) early intervention, (c) treatment, (d) rehabilitation, and (e) after care services. South African facilities thus

make provision for substance abuse prevention and treatment of dependency on a short and long-term basis with multi-disciplinary professional teams providing the service.

In an effort to strengthen substance-related preventive efforts the majority of Non-Governmental Organizations in South Africa use school based substance abuse prevention programmes that they developed themselves. The content of these programmes concur greatly and focus on the development of life skills. This include (a) decision making, (b) communication, (c) problem solving, (d) feelings – management of emotions, (e) self-awareness and self-esteem, (f) values clarification, (g) risk factors (consequences), (h) responsibility, (i) stress management, (j) conflict management, (k) dealing with peer pressure, (l) importance of recreation, (m) resistance skills, and (n) providing relevant, honest facts regarding substance abuse (Louw & Amorim, 1999: 81). Programme activities and methods employed by these programmes include:

- Drug information;
- Discussion groups;
- Referrals and interventions;
- Provision of written policy framework;
- Multiple teaching methods (e.g. case studies, experiential learning, role plays, group work and community projects);
- Inclusion of teachers and parents as well as students as target recipients;
- Parental and community participation, and
- Provision of healthy alternatives to substance use (Louw & Amorim, 1999: 82).

To date, none of these programmes have been subjected to formal evaluation.

However, in KwaZulu Natal, there is a partnership forged between the Non-Governmental Welfare Sector (e.g. Durban Children Society, "Natal Chistelike Vroue Vereniging" and "Christelik-Maatskaplike Diens") to refer all substance related services to the South African National Council on Alcoholism and Drug Dependence (SANCA). On mutual agreement SANCA is thus responsible for all Non-Governmental substance abuse prevention efforts in KwaZulu Natal.

3.3.6 Other South African Prevention programmes and interventions

3.3.6.1 National Drug Recognition Programme

One of the major problems in combating and preventing drug abuse is a lack of field workers trained in recognizing signs and symptoms of drug abuse. Against this background, Christo Mynhardt (CSIR) initiated in 1996 contact with the Los Angeles Police Department to access their successful Drug Recognition Expert Programme. As a result a South African national steering group was mobilized and a similar programme launched, namely the South African Drug Recognition Programme. The programme makes it possible for a non-medical person (law enforcement, officer, social or health worker, teacher) to recognize effectively the signs and symptoms of drug use. Drugs are classified into seven main categories and it is possible to differentiate the signs and symptoms of the different categories and also identify multiple drug use. The programme is in the process of being implemented in South Africa among arrestees. Care will be taken to

monitor and evaluate it and accommodate lessons learnt (Brewis, 1999: 26).

3.3.6.2 Drug-Free Marshals (DFM)

The Drug-Free Marshals is a national anti-drug campaign aimed at teens and pre-teens with the purpose of helping the youth to make the important decision to remain drug-free and to assist others to make the same decision. The programme began with an original group of 200 children who were sworn in as "Drug-Free Marshals" by the Drug Demand Reduction Office of the FBI in Los Angeles and from that beginning has come a grassroots campaign of kids and adults across the world. Accordingly, in South Africa, "Drug-Free Marshals" are co-ordinated by the Church of Scientology, who tries to involve the youth in creating a drug-free society. The main purpose is to give children the task to encourage others to be drug free in their pre-teens (5 – 12 years). This age group was chosen because they are more susceptible to education on refraining from drug use. Although this campaign has not yet been evaluated, improvements have been introduced. (Compare Brewis, 1999: 26; Drug-Free Marshals, 2002: 1-2.)

In South Africa, there are now more than 7000 Drug-Free Marshals, with the programme spreading all the time.

3.3.6.3 Soul City

Soul City is a multi-media health education and information initiative addressing a range of risk-behaviour such as alcohol use and smoking through the television and radio (in the vernacular), and via the print

media (handbooks serialised in newspapers). These initiatives are regularly formally evaluated (Brewis, 1999: 27).

3.3.6.4 Lion's-Quest Skills for Adolescence

Lion's-Quest Skills for Adolescents is an acknowledged standardized life skills substance abuse prevention programme, available and implemented in South Africa (Louw & Amorim, 1999: 81). The programme was developed by Quest National Centre (a Non-Profit Educational Organization) and has been endorsed by Lions International (Dryfoos, 1990: 165). This programme is currently running in various parts of the country, including KwaZulu Natal, and is designed to combat alcohol and drug abuse among young people by teaching them life skills (Brewis, 1999: 28).

See, Lion's-Quest Skills programme description, Chapter 4 (page 220).

In conclusion, empirical data collected with a schedule during structured interviews with 8 representatives of 8 core organizations in KwaZulu Natal suggest that two programmes, namely: Life orientation (Curriculum 2005) and Teenagers Against Drug Abuse (TADA) programme from SANCA seem to be more effective on preventing adolescent substance abuse than the DAP (Drug Abuse Prevention programme) of the Department of Social Welfare and Population Development or Community Education programme by the South African Narcotics Bureau (SANAB). Other Social Welfare Non-Governmental Organizations in KwaZulu Natal (e.g. Durban Children Society, "Natal Christelike Vroue Vereniging" and "Christelik-Maatskaplike Diens") do not render any substance abuse prevention

services to the youth as this is seen as a core function of SANCA. Finally, please note that *all* prevention efforts strengthen our communities, schools, families and individuals; some attempts are just more effective than others.

4. Section B: Quantitative findings based on the evaluation of the researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development)

4.1 Research methods

4.1.1 Respondents

The respondents were 50 early adolescents between 11 and 14 years old from Sizani Primary School in Umhlali, a sub-urban area in the North coast of KwaZulu Natal. The school consists of black youth and draw a large portion of their learners from an informal settlement in Umhlali. Sizani Primary School was purposively selected, from all the schools in the North coast, on grounds of the following factors: (a) accessibility, (b) number of black youth in the school, and (c) interest to participate in the research study. Throughout the whole study the school principle, teachers and respondents gave their full cooperation and support to the researcher.

The study was explained to all the grade 6 learners in the school and a sample was drawn for both the experimental and comparison group according to the purposive procedure, without randomisation. This

implied that the study only included respondents that were judged to contain the most characteristics or typical attributes of all early adolescents. In order to address subjectivity as a real danger of this method the researcher and Life Orientation teacher identified respondents that conformed to the following requirements:

- Development phase: Early adolescence (between 11-14 years old)
- Permanent residence: North coast, KwaZulu Natal
- Population group: Black
- Youth with no obvious substance use/abuse problems. (See Chapter 1, page 32 for a more detailed description.)

These respondents could voluntarily participate with their parents/guardian's informed consent. (See Appendix 7, page 571.) A total of fifty learners that agreed, completed the self-constructed questionnaire in a group administered way.

4.1.2 Self-constructed questionnaire

The self-constructed questionnaire was used to evaluate the respondents' general attitude to substances and substance users, their knowledge of drugs, and their personal and social skills. (See Appendix 5, page 517.) The questionnaire consisted of 61 questions. Besides biographical information, statements were made about:

(a) Adolescent attitudes to drugs and drug users,

(b) Drugs and their effects,

(c) Peer pressure,

(d) Social problem solving,

(e) Assertiveness, and

(f) Communication.

The respondents completed the questionnaires in a group in a classroom with the researcher and an interpreter (i.e. the Life Orientation teacher) present. The questionnaire was presented in English – one of the main languages spoken by the learners. Although the questions were formulated in simple language, the interpreter was available to children who did not understand some of the questions. The participants' identities were not displayed on their responses and anonymity assured by the use of a number system for comparison of the pre- and post-test results. This system ensured confidentiality and a true reflection of attitudes, knowledge and skills.

The researcher utilized a comparison group pretest-posttest design. In other words the group-administered questionnaire was used in the pre-test, i.e. before implementation of the prevention programme (Project Skills Development), and post-test with both the experimental and comparison group. Eventually hundred (100) questionnaires were distributed with a 100% response rate.

4.2 Data analysis and interpretation

According to De Vos *et al.*, (2002: 222) quantitative data can either be analysed manually or by computer. In this study, the analysis of the quantitative data was done, in cooperation with the University of Pretoria's Statistical Department, by means of the computer. Herewith, the collected data (quantitative) is displayed by means of tables and graphic presentations.

Next, all quantitative data is presented, analysed and interpreted according to biographical details and personal and social skills development (i.e. general attitude to drugs and drug users, knowledge of drugs and skills development).

4.2.1 Biographical details

Biographical factors such as respondents' age, gender, race, home language, level of education, church affiliation and family variables such as marital state of parents and living arrangements are discussed below.

4.2.1.1 The respondents' age group

For most children, research has shown that the vulnerable periods are transitions, when they grow from one developmental stage to another (NIDA, 2001: 5). The first big transition for children is when they leave the security of the family and enter school. Later on, when they advance to early adolescence, children are likely to encounter substance use for the first time. Accordingly, when young people enter high school, they face social, psychological and educational challenges as they prepare for the future. Transitional challenges that can all lead to substance abuse.

However, to establish support during early adolescence as a high-risk period for substance use, information on the respondents' **age** was sought to (a) affirm age-specific and developmentally appropriate assistance during this period of transition, and (b) to insure participant homogeneity.

Table 19 demonstrates the age composition of the respondents.

Table 19: Age composition of respondents participating in the study

AGE		Respondents		TOTAL
		Experimental group	Comparison group	
11 years old	Frequency	5	7	12
12 years	Frequency	5	10	15
13 years	Frequency	4	6	10
14 years	Frequency	11	2	13
TOTAL	Frequency	25	25	50

The researcher comes to the following conclusions:

(a) The development phase for all the respondents is early adolescence. In other words, all the respondents are in the age range 11 to 14 years.

(b) There is a reasonably equal representation and distribution of respondents for the ages: 11 years (24%), 12 years (30%), 13 years (20%) and 14 years (26%).

(c) The majority (30%) of respondents are 12 years old. The latter's representation in the experimental and comparison group is reproduced as the relation (5:10). For the category 12 years old,

the comparison group thus contains twice as much (50%) respondent's as the experimental group.

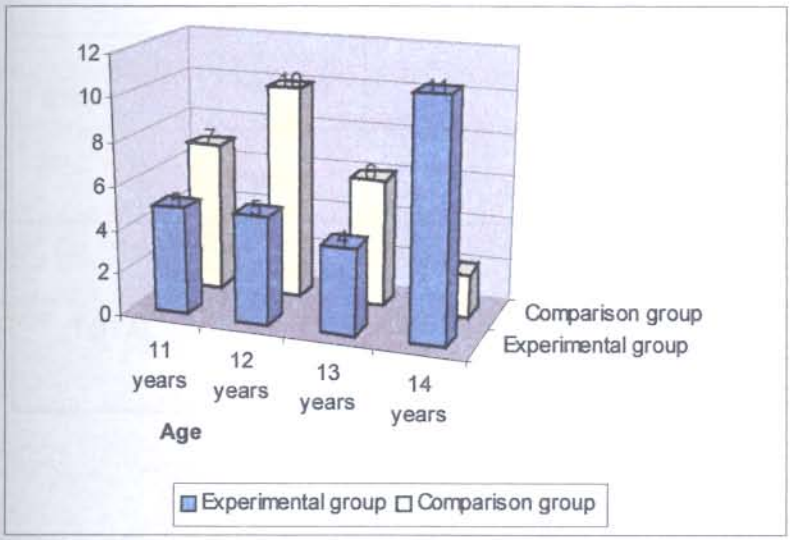
(d) The age 11 years old account for 24% (12 respondents) of the sample (N = 50) whereof 5 respondents are in the experimental group and 7 in the comparison group.

(e) The age 14 years old account for 26% of the sample (N = 50). Representation in the experimental group is 11 and comparison group 2. The majority of 14 year old respondents is thus in the experimental group.

(f) The minority (20%) of the learners are 13 years old, with 4 respondents in the experimental group and 6 in the comparison group.

A column chart of the data in Table 19 is given in Figure 9.

Figure 9: A column chart of the age of respondents participating in the study



4.2.1.2 The respondents' gender

The target population of this study is youth, and more specifically early adolescents in KwaZulu Natal. Information on the respondents' **gender** was thus sought to show that both sexes (male and female) was represented in the target group.

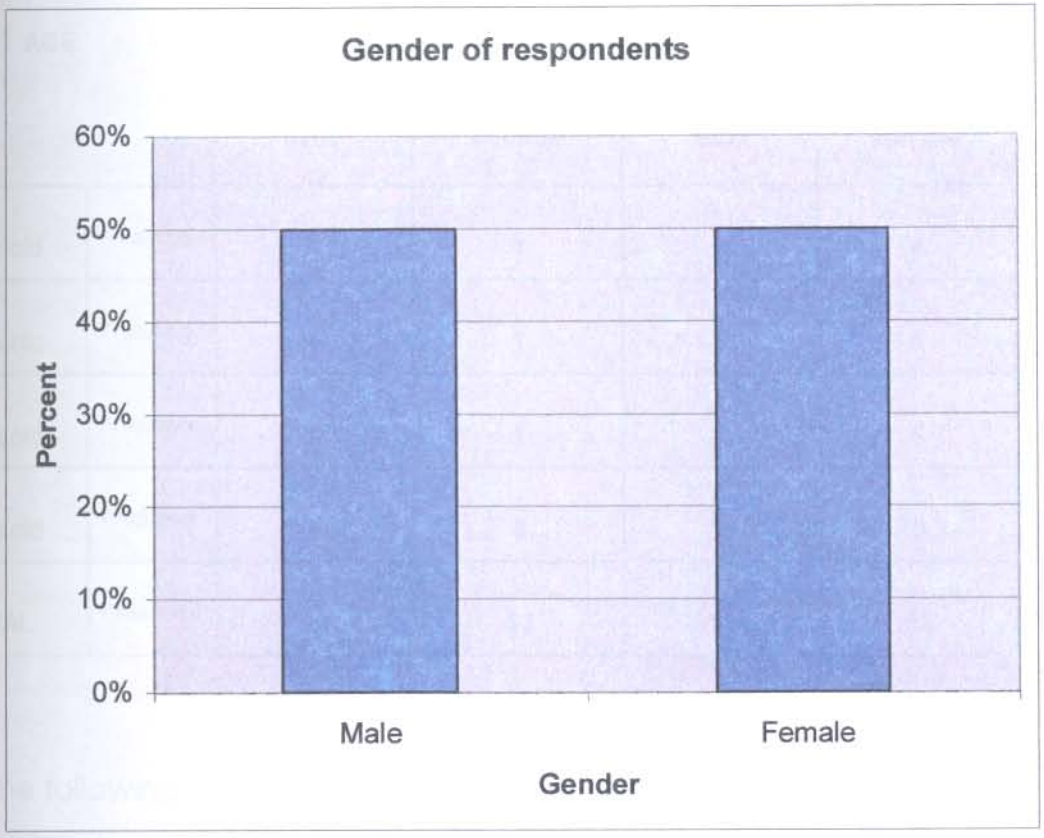
Table 20 reflects an equal representation of the respondents' according to their gender.

Table 20: Gender of respondents participating in the study

GENDER		Respondents		TOTAL
		Experimental group	Comparison group	
Male	Frequency	13	12	25
	Percent	52%	48%	100%
Female	Frequency	12	13	25
	Percent	48%	52%	100%
TOTAL	Frequency	25	25	50
	Percent	100%	100%	200%

The same data, as presented in the above table, are now visually displayed. Figure 10 below is a bar graph of the gender distribution of respondents participating in the study.

Figure 10: A bar graph of the gender of respondents participating in the study



The above figure indicates that there were 25 (50%) boys and 25 (50%) girls participating in the study. In the experimental group 13 respondents were male and 12 female. In the comparison group12 respondents were male and 13 female.

The researcher, however, was also interested in the relationship or correlation between the variables age and gender.

The scores for these variables are summarized in Table 21.

Table 21: The respondents' age by their gender

AGE		Experimental group		Comparison group		TOTAL
		GENDER				
		Male	Female	Male	Female	
11 years old	Frequency	1	4	3	4	12
12 years old	Frequency	4	1	5	5	15
13 years old	Frequency	3	1	2	4	10
14 years old	Frequency	5	6	2	0	13
TOTAL	Frequency	13	12	12	13	50

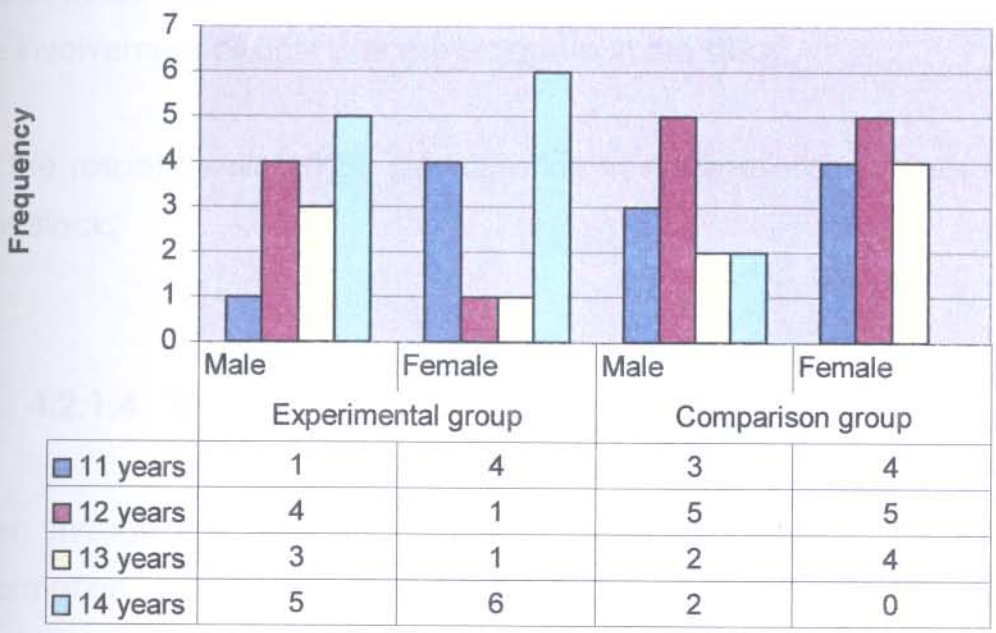
The following is thus concluded:

- In the age category 11 years old, 4 respondents are male and 8 female. Female representation in the experimental- and comparison group is exactly the same whereas male representation is lower in the experimental group (1:3).
- From the youth that are 12 years old, 9 respondents are male (4:5) and 6 female (1:5). This makes male representation in this age category higher for males than females. In other words the distribution for 12-year-old males in the experimental and comparison group are nearly the same, against female representation that include only 1 female respondent in the experimental group against 5 female respondents in the comparison group.

- In the age category 13 years old, 5 respondents are male (3:2) and 5 female (1:4). Comparatively speaking, the proportion of 13-year-old males and females are thus even.
- The age category 14 years old consists of 7 males and 6 females. Note that female representation for this age is limited to the experimental group (6:0). In other words there is no 14-year-old female respondents in the comparison group. Male representation is in a relation of (5:2) and thus the highest for this age.

Figure 11 shows a column chart of the age distribution of respondents participating in the study by their gender.

Figure 11: A column chart of the respondents age by their gender



	Male	Female	Male	Female
	Experimental group		Comparison group	
11 years	1	4	3	4
12 years	4	1	5	5
13 years	3	1	2	4
14 years	5	6	2	0

Age by Gender

Note that the biggest number of male and female respondents in the experimental group is in the category of 14 years old, whilst the smallest number of respondents is also present in the age category 14 years old of the comparison group. Herewith, female representation is especially low for ages 12 and 13 of the experimental group that is measured against much higher numbers of female representation in the comparison group. Finally, low male representation is also identified for the age category 11 years old of the experimental group, unlike the higher numbers of male representation in the comparison group.

4.2.1.3 The respondents' race/ethnicity

There is ethnic and inherited cultural differences in substance use and abuse among adolescents. Accordingly, prevention programmes should be culturally sensitive (NIDA, 2001: 2). Information on the respondents' **race/ethnicity** was thus necessary to show and confirm the involvement of only one ethnic group in the study.

All the respondents (100%) participating in this research project were thus Black.

4.2.1.4 The respondents' home language

Even though the respondents are all from the same ethnic group, information on their **home language** was sought to (a) affirm participant cultural homogeneity, and (b) insure further description of the target group.

Table 22 reflects that the majority of respondents were Zulu speaking youth.

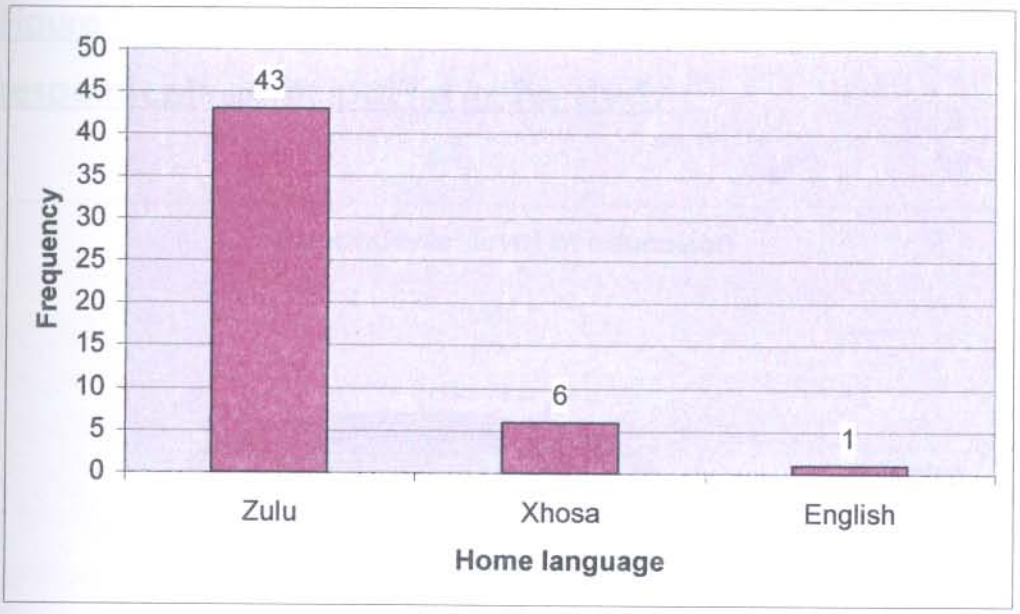
Table 22: Home language of respondents participating in the study

HOME LANGUAGE		Respondents		TOTAL
		Experimental group	Comparison group	
Zulu	Frequency	23	20	43
	Percent	92%	80%	172%
Xhosa	Frequency	2	4	6
	Percent	8%	16%	24%
English	Frequency	-	1	1
	Percent	-	4%	4%
TOTAL	Frequency	25	25	50
	Percent	100%	100%	200%

It is clear that from the experimental group, 23 (92%) respondents speaks Zulu, and only 2 (8%) Xhosa. Whilst the comparison group included the following: 20 (80%) Zulu speaking respondents, 4 (16%) Xhosa speaking respondents and 1 (4%) English speaking respondent.

Figure 12 provides a graphic display of this variable for al respondents participating in the study.

Figure 12: A bar graph of the home language of respondents participating in the study



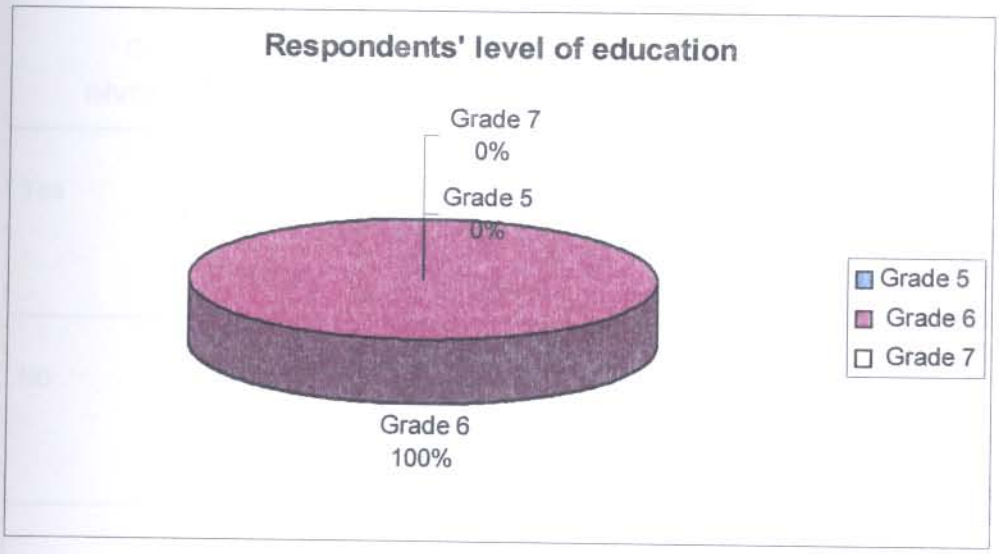
The home language distribution is thus as follows: 43 (86%) of respondents were Zulu speaking; 6 (12%) were Xhosa speaking; and 1 (2%) reported English as their home language.

4.2.1.5 The respondents' level of education

The researcher's intervention (i.e. a substance abuse prevention programme for early adolescents in KwaZulu Natal) is a primary school-based substance abuse prevention programme that targets individual adolescents in the classroom. The respondents' (i.e. early adolescents') level of education within a developmentally sensitive and pedagogic correct, context is thus of interest.

Figure 13 shows that all the respondents, whose ages fluctuate between 11 to 14 years old, are currently in grade 6.

Figure 13: A pie chart of the level of education of respondents participating in the study



The school grade distribution is thus limited to grade 6 learners.

4.2.1.6 The respondents' church affiliation

Strong bonds with prosocial institutions such as the family and religious organizations have been identified as a protective factor (i.e. a factor associated with reduced potential for substance use) against youth substance use/abuse. (See Chapter 3, page 155.) Information on **church affiliation** was thus sought to show participant involvement or lack of involvement with a prosocial institution like the church.

Table 23 gives an indication of the respondents' church affiliation.

Table 23: Church involvement of the 50 respondents participating in this study

CHURCH INVOLVEMENT		Respondents		TOTAL
		Experimental group	Comparison group	
Yes	Frequency	20	23	43
	Percent	80%	92%	172%
No	Frequency	5	2	7
	Percent	20%	8%	28%
TOTAL	Frequency	25	25	50
	Percent	100%	100	200%

The majority of respondents (86%) belonged to a church/religious group. From which 20 respondents are represented in the experimental group and 23 in the comparison group. Yet, a total of 7 (14%) respondents (5 in the experimental group and 2 in the comparison group) indicated a lack of or limited integration with a social regulatory institution such as the church.

The researcher concludes that through church affiliation most of the respondents (86%) are more protected against the use of substances, than the remaining 14%, which are probably at risk for substance use/abuse.

4.2.1.7 Family unit

The family unit often plays a significant role in the development and maintenance of problematic patterns of substance use among children and adolescents. As noted in Chapter 3 (page 163), parent/family variables can either put a child at risk or build a sense of resiliency in the individual adolescent. Indeed, underscoring the need to consider the following information on the family unit or more specifically marital state of the respondents' parents and corresponding living arrangements.

4.2.1.7.1 Marital state of respondents' parents

Table 24 gives an indication of the respondents' parental marital state.

Table 24: Marital state of respondents' parents

MARITAL STATE		Respondents				TOTAL
		Pre-test		Post-test		
		Experimental group	Comparison group	Experimental group	Comparison group	
Married	Frequency	5	5	5	4	19
	Percent	20%	20%	20%	16%	76%
Single parent	Frequency	5	4	9	9	27
	Percent	20%	16%	36%	36%	108%

MARITAL STATE		Respondents				TOTAL
		Pre-test		Post-test		
		Experimental group	Comparison group	Experimental group	Comparison group	
Not married but living together	Frequency	15	16	11	12	54
	Percent	60%	64%	44%	48%	216%
TOTAL	Frequency	25	25	25	25	100
	Percent	100%	100%	100%	100%	400%

From the above table we can see at a glance that most of the respondents' caretaker(s) or parents (54%) are not married but living together. A total of 19% are married and 27% single parents.

Of interest are the different responses in the pre-test and post-test results for both experimental and comparison groups. Participant responses to the categories "single parent" and "not married but living together" shows the greatest change. The category "single parent" increase from 9 to 18 and the category "not married but living together" decrease from 31 to 23. This may reflect uncertainty or confusion of respondents about:

(a) This particular question, or
(b) Their parent's marital state.

At this age, however, early adolescents (11–14 years old) should be quite certain about their parent's marital status. The only conclusion to

come to is that this question (i.e. marital state of respondents' parents) confused some of the respondents.

The researcher is also interested in the following relationships between the variables:

(a) Marital state and gender,
(b) Marital state and age, and
(c) Marital state and living arrangement.

Tables 25, 26 and 27 give the distribution of scores.

Table 25: Marital state by gender of respondents' participating in the study

MARITAL STATE		Experimental group		Comparison group		TOTAL
		GENDER				
		Male	Female	Male	Female	
Married	Frequency	1	4	2	3	10
Single parent	Frequency	1	4	3	6	14
Not married but living together	Frequency	11	4	7	4	26
TOTAL	Frequency	13	12	12	13	50

The following is concluded from the above table:

- From the 10 respondents who indicated their parents are married, 3 are male and 7 female. For this category the relation male to female in the experimental group is (1:4) and (2:3) in the comparison group. Females are thus better represented in this category.

- In the category "single parent," 4 respondents were male and 10 female. The relation male to female in the experimental group is (1:4) and (3:6) in the comparison group. Making female representation in this category higher than male representation.

- From the 26 respondents who indicated their parents are not married but living together, 18 are male and 8 female with the highest representation of males (11) in the experimental group. The relation male to female in the experimental group is (11:4) and (7:4) in the comparison group. In this category female representation in the experimental and comparison group is thus equal. However, male representation is high in this category.

The researcher concludes that although female representation is consequently high in all three categories of marital state (i.e. married, single parent and not married but living together), male representation is highest for the category "not married but living together."

Table 26 gives the distribution of scores for the variables marital state and age.

Table 26: Marital state by age of respondents' participating in the study

MARITAL STATE		Experimental group				Comparison group				TOTAL
		AGE								
		11 years	12 years	13 years	14 years	11 years	12 years	13 years	14 years	
Married	Frequency	3	-	-	2	-	4	1	-	10
Single parents	Frequency	-	-	1	4	3	3	2	1	14
Not married but living together	Frequency	2	5	3	5	4	3	3	1	26
TOTAL	Frequency	5	5	4	11	7	10	6	2	50

The researcher interprets the data as follows:

- In the "married" category, respondents indicated: 3 eleven year olds, 4 twelve year olds, 1 thirteen year old, and 2 fourteen year olds. The ages 11 to 14 is thus represented in this category. Included in the experimental group are 3 eleven year olds and 2 fourteen year olds. The comparison group contains 4 twelve year olds and 1 thirteen year old. Ages that are represented in the category "married" of the experimental group are absent in the comparison group.
- Respondents from single parent families show a fairly even age distribution with 3 eleven year olds, 3 twelve year olds, 3 thirteen year olds, and 5 fourteen year olds. From the 5 respondents in the experimental group 1 is 11 years old and 4 are fourteen years

of age. The comparison group contains 3 eleven year olds, 3 twelve year olds, 2 thirteen year olds, and 1 fourteen year old. Consequently the researcher concludes that even though there is no representation of the ages 11 and 12 in the category "single parent" of the experimental group, ages 11 to 14 are well represented in the comparison group.

- The "not married but living together" category contains the majority of respondents aged 11 to 14 years. The age distribution includes 6 eleven year olds, 8 twelve year olds, 6 thirteen year olds, and 6 fourteen year olds. Represented in the experimental group are 2 eleven year olds, 5 twelve year olds, 3 thirteen year olds, and 5 fourteen year olds. The comparison group contains 4 eleven year olds, 3 twelve year olds, 3 thirteen year olds, and 1 fourteen year old.

Table 27 give the distribution of scores for the variables marital state by living arrangement (i.e. living with both parent, one parent or grandparents).

Table 27: Marital state by living arrangement of respondents' participating in the study

MARITAL STATE		Experimental group			Comparison group			TOTAL
		LIVING ARRANGEMENT						
		Mother and father	One parent	Grandparents	Mother and father	One parent	Grandparents	
Married	Frequency	5	-	-	4	1	-	10

MARITAL STATE		Experimental group			Comparison group			TOTAL
		LIVING ARRANGEMENT						
		Mother and father	One parent	Grandparents	Mother and father	One parent	Grandparents	
Single parents	Frequency	-	4	1	-	7	2	14
Not married but living together	Frequency	12	-	3	10	1	-	26
TOTAL	Frequency	17	4	4	14	9	2	50

The data is interpreted as follows:

- In the category "married," 9 respondents live with both their mother and father whilst 1 lives with one parent only. In the experimental group 5 respondents indicated that they live with their mother and father. Similarly, 4 respondents in the comparison group indicated that they live with their mother and father. From the comparison group 1 respondent also lives with one parent only. Where respondents' parents are thus married (N = 10), a high percentage (90%) of them live with both their biological parents.
- Respondents from single parent families (N = 14) mostly (78,5%) live with one parent. From the 14 respondents in this category, 3 live with their grandparents. Comparatively speaking, the comparison group has a higher response rate in this category (9:5). Four and 7 respondents, respectively from the

experimental and comparison group, live with one parent only. To a lesser extent (1:2), grandparents thus provide accommodation to their grandchildren, as single parents provide the living themselves.

- In the "not married but living together" category it is indicated that the majority of respondents (22, i.e.12 in the experimental group, and 10 in the comparison group) live with their mother and father. Herewith, one respondent from the comparison group live with a single parent, and 3 respondents from the experimental group live with their grandparents. Children thus live with both their parents, even though the latter is not legally married.

Statistical significance – Parents marital state by living arrangement

To determine the statistical significance of the correlation between parents marital state by living arrangement, the use of the chi-square test of statistical significance needs to be mentioned. This test that has been developed to answer the question whether any results obtained by data analysis are statistically significant, i.e. are they meaningful and not caused by chance. In theory this test levels can be arbitrarily chosen, but in practice conventions have been developed which prescribe that the test are usually performed on either the 0,05 or the 0,01 level of significance (De Vos, 1998: 233). For the purpose of this study the test is performed at 0,05 level of significance. This means, that there is a 95% chance that the results are due to a combination of independent variables, and not to chance. So, to answer the question whether the respondents' family unit differs significantly from marital state by living arrangement, the chi-square test was performed. A table (Table 28) was compiled displaying the degrees of freedom,

value and probability. In fact, for the experimental group (sample size 25) there is 4 degrees of freedom and the table indicates that the chi-square of 0,003 is significant at the 0,05 level of significance. That is, that 89% of the cells have expected counts less than 5. Accordingly, for the comparison group, with 4 degrees of freedom and a value of 18,4351, the chi-square of 0,0010 is also significant. Implying that 78% of the cells have expected counts less than 5.

Table 28: Chi-square test of significance

	Degrees of Freedom	Value	Probability (P-Value)
Experimental group	**4**	**21,4706**	**0.0003**
Comparison group	**4**	**18,4351**	**0,0010**

The researcher concludes that there is statistically speaking a **significant difference on the 0,05 level of significance between the variables: marital state and living arrangement.**

4.2.1.7.2 Living arrangements

Living arrangements create a family context or living environment for the adolescent that can either put the child at risk or build a sense of resiliency and protect him/her against substance use/abuse. This parent/family variable should thus be considered.

Table 29 gives an indication of the living arrangements for respondents.

Table 29: Living arrangements of respondents participating in this study

LIVING ARRANGEMENTS		Pre-test		Post-test		TOTAL
		Experimental group	Comparison group	Experimental group	Comparison group	
Mother and father	Frequency	17	14	17	13	61
	Percent	68%	56%	68%	52%	244%
Mother only	Frequency	3	8	3	9	23
	Percent	12%	32%	12%	36%	92%
Father only	Frequency	1	1	1	1	4
	Percent	4%	4%	4%	4%	16%
Grandparents	Frequency	4	2	4	2	12
	Percent	16%	8%	16%	8%	48%
TOTAL	Frequency	25	25	25	25	100
	Percent	100%	100%	100%	100%	400%

The following is thus clear:

- Most of the respondents (61%) live with both their parents or with their mother (23%) only. A small portion lives with their

grandparents (12%) and hardly any with their father as single parent (4%).

- The pre-test and post-test results for the categories "mother and father" and single parent (i.e. mother only and father only) differ for the comparison group. The initial or pre-test for the category "mother and father) of the comparison group is 14, but measured again (post-test) it is 13. Accordingly, the pre-test for the category "mother only" of the comparison group is 8, and at the post-test 9.

The researcher is also interested in the following relationships between the variables: (a) Living arrangement and gender, and (b) Living arrangement and age.

Tables 30 and 31 give the distribution of scores.

Table 30: Living arrangement by the gender of respondents participating in this study

LIVING ARRANGEMENT		Experimental group		Comparison group		TOTAL
		GENDER				
		Male	Female	Male	Female	
Mother and father	Frequency	9	8	7	7	31
	Percent	36%	32%	28%	28%	124%
One parent	Frequency	1	3	5	4	13
	Percent	4%	12%	20%	16%	52%

LIVING ARRANGEMENT		Experimental group		Comparison group		TOTAL
		GENDER				
		Male	Female	Male	Female	
Grandparents	Frequency	3	1	-	2	6
	Percent	12%	4%	-	8%	24%
TOTAL	Frequency	13	12	12	13	50
	Percent	52%	48%	48%	52%	200%

The researcher concludes the following

- A total of 16 male and 15 female respondents live with their mother and father. This category comprises the majority of male and female respondents for both the experimental and comparison group. The distribution of the respondents' gender in the category "mother and father" is nearly equal.
- Six males and 7 females live with one parent only. A reasonably even distribution for gender, even though the relation, male to female for the experimental and comparison group is respectively (1:3) and (5:4). Male and female representation in the comparison group is thus greater than that in the experimental group.
- The living arrangement for respondents with grandparents includes 3 males and 3 females living with their grandparents. Four of these 6 respondents is represented in the experimental group (3 male and 1female respondent) and 2 in the

comparison group. Male representation in the comparison group for the category "grandparents" is nought.

- From a total of 25 male respondents and 25 female respondents the majority (62%) live with both their parents. Only 26% of the respondents (6 males and 7 females) live with one parent. Living arrangements with grandparents constituted only 12% of the population.

The respondents' living arrangement according to their age is reflected in Table 31.

Table 31: Living arrangement by the age of respondents participating in this study

LIVING ARRANGEMENT		Experimental group				Comparison group				TOTAL
		AGE								
		11 years	12 years	13 years	14 years	11 years	12 years	13 years	14 years	
Mother and father	Frequency	5	3	2	7	3	6	4	1	31
One parent	Frequency	-	-	1	3	3	3	2	1	13
Grandparents	Frequency	-	2	1	1	1	1	-	-	6
TOTAL	Frequency	5	5	4	11	7	10	6	2	50

The following is thus displayed:

- In the category "mother and father" respondents indicated representation of 8 eleven year olds, 9 twelve year olds, 6

thirteen year olds, and 8 fourteen year olds. Included in the category "mother and father" of the experimental group are 5 eleven year olds, 3 twelve year olds, 2 thirteen year olds, and 7 fourteen year olds. The comparison group contains 3 eleven year olds, 6 twelve year olds, 4 thirteen year olds, and 1 fourteen year old. The researcher concludes that there is a reasonably equal representation between the ages 11 to 14 years old in the category "mother and father" of the variable living arrangement.

- A living arrangement with <u>one parent</u> according to the age of respondents comprises: 3 eleven year olds, 3 twelve year olds, 3 thirteen year olds, and 4 fourteen year olds. Representatives from ages 11 and 12 years old are absent in the experimental group. The latter include 1 thirteen year old and 3 fourteen year olds. The comparison group include most of the representation for this category with 3 eleven year olds, 3 twelve year olds, 2 thirteen year olds, and 1 fourteen year old.
- Respondents' representation in the category "<u>grandparents</u>" is low (12%). Two twelve year olds, I thirteen year old and 1 fourteen year old forms the experimental group. In the comparison group representation of the ages 13 and 14 is absent and includes only 1 eleven and twelve year old respectively.
- The researcher concludes that the majority (62%) of respondents aged 11 to 14 years old, live with both their mother and father.

4.2.2 <u>Personal and Social Skills Development</u>

The focus of this section is on the respondents' personal and social skills development. A focus derived from the theoretical base of Project Skills Development, namely the Social environmental/learning model or

Social influences model. In other words the researcher's approach to substance abuse prevention through personal and social skills development is generally referred to in the literature as psychosocial inoculation or social inoculation training, that is, training that will protect adolescents from "infection" by future social influences to abuse substances. (See Chapter 4, page 210.) Furthermore, this section on personal and social skills development is set out in a way, which generally reflects the learning experience as a continuous process, which starts with attitudes, moves to knowledge and information enhancement and then to skills development. It focuses on building on the knowledge, information and skills that adolescents already have.

Also note that the researcher concurs with Dielman (1995: 125) who indicates that: "Changes in attitudes or knowledge do not correlate with subsequent behaviour changes." Yet, the underlying premises of this study is not to establish negative attitudes concerning substance use/abuse, but rather to empower, i.e. increase respondents' personal and interpersonal power, by (a) shaping attitudes in a positive way, (b) enhancing substance specific knowledge, and (c) improving their skills to prevent the adoption of substance abuse.

Important aspects regarding the area "Personal and Social Skills Development" are set out below.

4.2.2.1 Goal

To show strengthening of the experimental group's personal and interpersonal power by utilizing a comparison group to compare differences in the experimental group's attitudes, knowledge, and

personal and social skills, before (pre-test) and after (post-test) participation in Project Skills Development.

4.2.2.2 Key elements of the programme (Project Skills Development)

a) General attitude to drugs and drug users
b) Knowledge of drugs, and
c) Skills development.

4.2.2.3 Programme topics

The following programme topics (and programme content) are based on the literature of this study and include:

a) Adolescent attitudes to drugs and drug users (i.e. the importance of examining adolescent attitudes; the origin of attitudes; the media as attitude source; and attitude exercises.)
b) Understanding drugs and their effects (i.e. what I need to know about drugs and their effects; what drugs are; types of drugs; drugs and their effects; what affects the effect; costs and benefits of drugs; and will you or won't you take drugs?)
c) Peer pressure (i.e. why it is important to include peer pressure in the programme; how peer pressure evolved; the importance of peer pressure for adolescents; how peer pressure can put you at risk for substance use/abuse; and how to cope with peer pressure.)

d) Social problem solving: Techniques to promote self-control (i.e. delayed gratification; rules; how to solve problems; and responsibility.)

e) Social problem solving: Relieving stress, anxiety and pressure (i.e. stress; relaxation; physical exercise; and lifestyle)

f) Developing assertiveness skills (i.e. what is assertiveness; the essence of assertiveness; knowing your rights; fundamental assertive skills; and self-protective skills.)

g) Communication skills (i.e. empathy; validation; "I feel" statements; positivism; physical proximity; touch; eye contact; reinforcement; and the practice of communication skills).

(See Appendix 3, page 415 for the content of the complete programme.)

4.2.2.4 Targeted risk factors and targeted protective factors

a) Targeted risk factors

Risk factors are those factors present in an adolescent's life that makes him more likely to use/abuse substances. (See Chapter 3, page 155.) By comparing the chosen theoretical framework with the identified risk factors in Chapter 3, the researcher targeted the following risk factors to manage through Project Skills Development, i.e.

- Adolescent attitudes towards substance use/abuse, and
- Peer influences.

b) Targeted protective factors

As discussed in Chapter 3 (page 155) protective factors are those factors that reduce the likelihood and level of substance use and abuse. Despite the risk youth experience in certain environments, some adolescents are able to resist substance abuse. Protective factors balance risks by either reducing the impact of the risk or changing the way a person responds to the risks. By identification of specific protective factors to focus on in Project Skills Development, the researcher hoped to build on strengths that can reduce the likelihood of substance abuse.

The selected protective factors are:

- Communication skills, and
- Social problem-solving skills.

The researcher concludes that the respondents' attitude, knowledge and skills can thus be measured according to (a) key elements, (b) programme topics, and/or (c) risk and protective factors.

Table 32 provides a summary in this regard.

Table 32: Measurement according to key elements, topic and/or risk and protective factor(s)

Nr.	Key element	Topic	Risk factor	Protective factor
1.	General attitude to drugs and drug users	Adolescent attitudes to drugs and drug users	X	

sub-hypothesis: **If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way.**

Based on the literature, eleven general statements about adolescent attitudes to drugs and drug users were thus included in the self-constructed questionnaire. These statements are summarized, with the respondents' responses to them, and ranked in three categories, i.e. Agree, Uncertain and Disagree in Table 33.

Table 33 presents a frequency distribution of the respondents' general attitudes to drugs and drug users by utilizing a pre-test and post-test for both experimental and comparison group.

Table 33: Frequency distribution of the respondents' general attitude to drugs and drug users

Statement	Adolescents' general attitudes to drugs and drug users											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
My attitude to drugs and people who use drugs, come from personal experience.	-	4	21	1	5	19	3	17	5	3	13	9
People who use drugs are evil sinners.	17	4	4	12	4	9	18	1	6	12	3	10
My view of drugs and people who use drugs come from my friends.	9	7	9	11	4	10	10	6	9	10	8	7

Statement	Adolescents' general attitudes to drugs and drug users											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
Newspapers mostly focus people's attention on the dangers of illegal drugs, like cannabis.	19	5	1	19	5	1	23	1	1	19	5	1
I got my ideas about drugs and people who use drugs form the media, for instance newspapers, TV and/or radio.	24	-	1	22	1	2	25	-	-	22	1	2
People who use drugs are dangerous.	21	1	3	21	2	2	20	2	3	18	3	4
My ideas about drugs and people who use drugs come form reading and/or studying library books.	11	5	9	10	6	9	14	9	2	7	11	7
My ideas about drugs and people who use drugs come from my school teacher(s).	14	3	8	15	2	8	20	1	4	16	4	5
Drug addiction is a disease/illness.	13	7	5	9	10	6	20	4	1	14	7	4
Drug users are "normal" people who use drugs to cope with the pressures of everyday life.	7	12	6	15	6	4	20	2	3	13	6	6
My view of drugs and people who use drugs come from my relatives.	2	2	21	1	7	17	5	2	18	1	5	19
TOTAL	137	50	88	136	52	87	178	45	52	135	66	74

The following is indicated:

- The sum of the pre-test scores on "Agree", "Uncertain" and "Disagree" are rather similar for both the experimental and comparison group. Compare:

(a) Experimental group	(b) Comparison group
Agree (137)	Agree (136)
Uncertain (50)	Uncertain (52)
Disagree (88)	Disagree (87)

- The most obvious change between pre-test and post-test results is the increased frequency of "agree" responses by the experimental group. The sum of the pre-test scores are 137 and post-test results 178. In other words an increased frequency of 41. In contrast, the comparison groups' pre-test and post-test results for this variable are nearly similar, i.e. a pre-test of 136 and post-test of 135.

- The total amount of the experimental groups' scores on "uncertain," decreases from a pre-test score of 50 to a score of 45 in the post-test. The comparison groups' scores however, increase from a frequency of 52 (pre-test) to 66 in the post-test.

- On adding the scores of disagree, the results indicate another change between pre-test and post-test results as there is a decrease in frequency of "disagree" in the experimental group. The sum of the pre-test results are 88 and post-test results 52. The comparison groups' pre-and post-test results, however also shows a decline, i.e. from 87 to 74, but not to the same extent as the experimental group.

From the next table, Table 34, the mean scores of respondents' attitudes to drugs and drug users can be seen.

Table 34: Mean scores of respondents' attitudes to drugs and drug users

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**0,51**	**0,37**	**-0,09**	**1,45**
Comparison group	**25**	**0,20**	**0,30**	**-0,18**	**1,00**

The mean for the experimental and comparison group is respectively calculated as 0,51 and 0,20. The standard deviation of both groups is 0,37 and 0,30.

Test of Statistical significance: The researchers utilized the Kruskal-Wallis test, i.e. a test used for multiple-sample comparisons in the social sciences and are based on the chi-square sampling distribution. Accordingly, the Kruskal-Wallis test is implemented to test if there is any significant differences between the average differences (pre- and post-test) for the experimental and comparison group.

For the variable "attitudes to drugs and drug users" the Kruskal-Wallis test statistic is 8,98 with a P-value of 0,0027 using a chi-square distribution with 1 degree of freedom. This compares favourably with the 0,05 level of significance as a P-value smaller as 0,05 indicates a statistical significant difference. The researcher concludes that **there is a statistical significant difference in the experimental groups' attitudes to drugs and drug users, with a 95% chance that the results are due to Project Skills Development and not to chance.** The sub-hypothesis is therefore confirmed.

4.2.4 Knowledge of drugs

Another key element of Project Skills Development is drug information or knowledge of drugs. This variable was addressed to test the following sub-hypothesis: **If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase.**

Ten general statements about drugs and drug users were included in the self-constructed questionnaire. These statements were all based on drug facts that were dealt with in the literature and information provided in Project Skills Development. The statements were all formulated to be true or correct. In other words, respondents were expected to finally agree with all the statements, as they were all correct. The latter is summarized in Table 35, with the respondents' responses to them in the earlier mentioned categories, i.e. (a) Agree, (b) uncertain, and (c) disagree.

Table 35 thus reflects a distribution of the respondents' responses to the substance specific statements.

Table 35: Frequency distribution of the respondents' knowledge of drugs

Statement	Knowledge of drugs			
	Pre-test		Post test	
	Experimental group	Comparison group	Experimental group	Comparison group

	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
Most illegal drugs started life in a laboratory as legal medicines.	9	8	8	9	8	8	19	3	3	7	12	6
People take drugs because it is an exiting thing to do.	6	8	11	6	12	7	3	14	8	7	13	5
After taking drugs, you always have to come down; and the higher you go, the harder you fall.	9	10	6	14	7	4	13	6	6	9	11	5
Some medicines prescribed by doctors are just as harmful as some of the illegal street drugs.	14	6	5	14	7	4	15	6	4	10	12	3
Drinking one or two glasses of alcohol, for example beer or wine, is socially acceptable for adults.	14	4	7	17	4	4	23	2	-	19	2	4
Alcohol, for example beer or wine, relaxes you.	11	7	7	9	7	9	15	2	8	5	12	8
Some drugs numb the brain and body and kills pain.	19	5	1	10	8	7	19	4	2	13	11	1
A drug called "magic mushrooms" is illegal in South Africa.	-	10	15	2	12	11	12	11	2	6	11	8
Some drugs make you see, hear and feel things that are not real.	14	7	4	14	6	5	23	2	-	16	2	7
Some drugs can make a person more alert and energetic.	11	7	7	9	10	6	13	7	5	9	12	4
TOTAL	107	72	71	104	81	65	155	57	38	101	98	51

This table indicates the following:

- In the category "Agree" the sum of the pre-test scores for the experimental and comparison group is respectively 107 and 104. After participation in Project Skills Development the post-test results for the experimental group is 155. The comparison groups' post-test results are 101. The experimental groups drug knowledge was enhanced from 107 to 155 correct answers,

whilst the comparison groups' drug knowledge basically stayed the same with a decline from 104 to 101 correct answers.

- The total number of "Uncertain" responses to substance specific statements by the experimental group during the pre-test are 72 and post-test 57. For the comparison group pre-test results are 81 and post-test results 98. This indicates that the experimental groups' uncertainties declined whilst the comparison groups' uncertainties increased.
- The sum of the pre-test scores for the category "Disagree" of the experimental and comparison group are 71 and 65. Post-test results for the experimental group show a sharp decline from 71 to 38. Post-test results for the comparison group also decline from 65 to 51. This indicates a clear increase in the drug knowledge of the experimental group with an inferior noticeable increase in the drug knowledge of the comparison group.

From Table 36 the mean scores of respondents' knowledge of drugs can be seen.

Table 36: Mean scores of respondents' knowledge of drugs

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**0,32**	**0,46**	**-0,80**	**1,00**
Comparison group	**25**	**0,04**	**0,28**	**-0,60**	**0,90**

This table reflects the mean scores of respondents' knowledge of drugs.

Analysis of the mean scores for the experimental group (0,32) and comparison group (0,04) indicates significant differences in the average between the two groups. The standard deviation of both groups is 0,46 and 0,28.

According to the Kruskal-Wallis test the P-value for this variable is 0,0113 using a chi-square distribution with 1 degree of freedom. This compares favourably with the 0,05 level of significance as a P-value smaller as 0,05 indicates a statistical significant difference. The researcher concludes that **there is a statistical significant difference in the experimental groups' drug knowledge, with a 95% chance that the results are due to Project Skills Development and not to chance**. The sub-hypothesis is thus confirmed.

4.2.5 Skills development

In this section data on skills development is presented, analysed and interpreted. The researcher's goal with this variable was to test the following sub-hypothesis: **If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.**

Skills development includes discussion of the following:

(a) Peer pressure,

(b) Social problem solving: Techniques to promote self- control,

(c) Social problem solving: Relieving stress, anxiety and pressure,

(d) Developing assertiveness skills, and

(e) Communication skills.

4.2.5.1 Peer pressure

Peer pressure is a risk factor for adolescent substance abuse. A focus derived from the theoretical base of Project Skills Development, namely the Social environmental/learning model or Social influences model. The researcher thus assumes that:

(a) Social influences, namely peers, poses a risk to substance abuse, and that

(b) Adolescents can be trained to become aware of and resist social situational pressures (i.e. peer pressure) to use substances of abuse.

Peer pressure is thus addressed to show strengthening of respondents' awareness and skills within peer group relationships.

Five general statements about peer group relations were included in the self-constructed questionnaire. These statements are based on the literature and information presented to respondents in the session on peer pressure covered in Project Skills Development. The statements are summarized in the Table 37, with the respondents' responses to them in the earlier mentioned categories, i.e. Agree, Uncertain and Disagree.

Table 37 reflects a distribution of the respondents' responses to the peer related statements.

Table 37: Frequency distribution of peer pressure

Statement	Peer pressure											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
My friends can get me to do things I would not normally do, for instance to drink beer.	3	5	17	2	10	13	6	5	14	3	9	13
Once I have made a decision I believe in, I usually stick to it.	13	5	7	18	3	4	19	5	1	19	2	4
I am lonely.	7	5	13	8	7	10	9	3	13	6	6	13
I have enough friends.	22	3	-	22	1	2	24	-	1	22	1	2
I am able to go against the group sometimes.	20	1	4	17	5	3	21	2	2	19	5	1
TOTAL	65	19	41	67	26	32	79	15	31	69	23	33

The researcher concludes the following:

- On adding the pre-test scores of "Agree," the results for the experimental and comparison group is respectively 65 and 67. After participation in Project Skills Development the post-test results for the experimental group is 79. The comparison groups' post-test results are 69.

- The sum of the scores on "Uncertain" responses to substance specific statements by the experimental group during the pre-test are 19 and post-test 15. For the comparison group pre-test results are 26 and post-test results 23. Both the experimental group and comparison group show a decline in their uncertainties about peer relationships.
- The total number of pre-test results for the category "Disagree" of the experimental and comparison group are respectively 41 and 32. Post-test results for the experimental group show a decline from 41 to 31. Post-test results for the comparison group basically stayed the same, i.e. 32 to 33.

Table 38 shows the mean scores for peer pressure.

Table 38: Mean scores for peer pressure

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**-0,13**	**0,52**	**-1,20**	**0,60**
Comparison group	**25**	**-0,20**	**0,40**	**-1,00**	**0,60**

The mean for the experimental and comparison group is respectively calculated as –0,13 and -0,20. The standard deviation of both groups is 0,52 and 0,40.

The Kruskal-Wallis test statistic is 0,66 with a P-value of 0,4157. Compared with the 0,05 level of significance **there is not a statistical**

significant difference in the experimental groups' awareness of peer group relations.

4.2.5.2 Social problem solving: Techniques to promote self-control

Skills development is an important element of Project Skills Development. Social problem solving, or more specifically techniques to promote self control is thus addressed to show strengthening of respondents' awareness of techniques to promote self-control.

Five statements about self-control were included in the self-constructed questionnaire. These statements are based on information presented to respondents in the session on techniques to promote self-control covered in Project Skills Development. The literature based statements and the respondents' responses to them are summarized in Table 39.

Table 39 reflects a distribution of the respondents' responses to the statements on self-control.

Table 39: Frequency distribution of techniques to promote self-control

Statement	Self-control			
	Pre-test		Post test	
	Experimental group	Comparison group	Experimental group	Comparison group

	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
I am regularly bothered by a guilty conscience.	17	3	5	18	5	2	23	2	-	19	4	2
I usually do my homework, even when I don't feel like it.	20	3	2	17	6	2	15	4	6	22	1	2
I usually do things at the spur of the moment.	5	7	13	8	5	12	15	6	4	9	10	6
I usually solve problems by carefully thinking things through before making any decisions.	19	4	2	22	3	-	21	3	1	19	5	1
I set limits on what I will and will not do.	22	2	1	14	4	7	24	1	-	19	3	3
TOTAL	83	19	23	79	23	23	98	16	11	88	23	14

From the above table the following is clear:

- In the category "Agree" the sum of the pre-test scores for the experimental and comparison group is respectively 83 and 79. After participation in Project Skills Development the post-test results for the experimental group is 98. The comparison groups' post-test results are 88.

- The sum of the scores on "Uncertain" responses to substance specific statements by the experimental group during the pre-test are 19 and post-test 16. For the comparison group pre-test results are 23 and post-test results 23. The experimental groups' uncertainties about self-control declined whilst the comparison groups' uncertainties stayed the same.

- The total number of pre-test scores for the category "Disagree" of the experimental and comparison group are both 23. Post-test results for the experimental group show a decline from 23 to

11. Post-test results for the comparison group also lessen from 23 to 14.

Table 40 summarizes the mean scores of respondents' techniques to promote self-control.

Table 40: Mean scores of respondents' techniques to promote self-control

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**0,28**	**0,34**	**-0,40**	**0,80**
Comparison group	**25**	**0,34**	**0,50**	**-0,80**	**1,00**

The mean score for the experimental and comparison group is respectively calculated as 0,28 and 0,34 with the standard deviation of both groups 0,34 and 0,50.

The Kruskal-Wallis test statistic is 0,53 with a P-value of 0,4648. Compared with the 0,05 level of significance **there is not a statistical significant difference in the experimental groups' techniques to promote self-control.**

4.2.5.3 Social problem solving: Relieving stress, anxiety and pressure

Another aspect of social problem solving that was addressed by Project Skills Development is techniques or ways to relieve stress, anxiety and pressure. This is addressed to show strengthening of respondents' awareness of adaptive coping strategies.

Five related statements were included in the self-constructed questionnaire. Statements that were all based on the literature and the information presented to respondents in the session on techniques or ways to relieve stress, anxiety and pressure. The statements are summarized in Table 41, with the sum of the respondents' responses to them in the categories Agree, Uncertain and Disagree.

Table 41 reflects a distribution of the respondents' responses to the statements.

Table 41: Frequency distribution of ways to relieve stress, anxiety and pressure

Statement	Relieving stress, anxiety and pressure											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
I get a natural high from exercise.	21	2	2	20	1	4	24	1	-	21	3	1

Statement	Relieving stress, anxiety and pressure											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
An enjoyable activity, like swimming in the sea, makes me feel good.	24	-	1	19	2	4	18	5	2	14	3	8
I am usually a calm person.	19	1	5	13	7	5	16	5	4	18	4	3
I am easy-going.	18	2	5	17	4	4	15	7	3	17	5	3
I am easily discouraged by new challenges.	6	8	11	5	10	10	11	5	9	7	11	7
TOTAL	88	13	24	74	24	27	84	23	18	77	26	22

- In the category "Agree" the sum of the pre-test scores for the experimental and comparison group is respectively 88 and 74. After participation in Project Skills Development the post-test results for the experimental group is 84. The comparison groups' post-test results are 77.
- The sum of the scores on "Uncertain" responses to substance specific statements by the experimental group during the pre-test are 13 and post-test 23. For the comparison group pre-test results are 24 and post-test results 26. Both the experimental and comparison groups' uncertainties about self-control declined whilst the comparison groups' uncertainties increased.
- The total number of pre-test scores for the category "Disagree" of the experimental is 24 and comparison group 27. Post-test results for the experimental group show a decline from 24 to 18. Post-test results for the comparison group also lessen from 27 to 22.

In Table 42 a distribution of the mean scores of respondents' techniques to relieve stress, anxiety and tension is presented.

Table 42: Mean scores of respondents' techniques to relieve stress, anxiety and tension

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**-0,06**	**0,42**	**-1,00**	**0,60**
Comparison group	**25**	**-0,02**	**0,47**	**-1,20**	**0,80**

The mean score for the experimental group is –0,06 and comparison group –0,02 with the standard deviation of both groups respectively 0,42 and 0,47.

The Kruskal-Wallis test statistic is 0,24 with a P-value of 0,6246 using a chi-square distribution with 1 degree of freedom. Compared with the 0,05 level of significance **there is not a statistical significant difference in experimental groups' techniques to relieve stress, anxiety and tension.**

4.2.5.4 Developing assertiveness skills

Another important aspect of skills development that was addressed in Project Skills Development is assertiveness. This variable was included to show a strengthening of respondents' communication-, i.e. assertiveness skills.

Ten general statements about assertiveness were included in the self-constructed questionnaire. These statements are based on the information provided to the respondents during the assertiveness session(s) of Project Skills Development. The literature based statements and the respondents' responses to them are summarized in Table 43.

Table 43: Frequency distribution of assertiveness skills

Statement	Assertiveness skills											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
I get what I want without fighting with my brothers and/or sisters.	20	2	3	19	4	2	21	-	4	19	3	3
My friends think I am a leader.	10	9	6	9	12	4	21	3	1	12	10	3
I usually believe people when they compliment me.	22	1	2	23	2	-	22	2	1	17	6	2
I am willing to defend that, which I believe in.	21	2	2	21	2	2	21	3	1	20	2	3
I frequently feel that people ignore the things I say.	10	7	8	11	8	6	16	6	3	15	8	2
I often tell jokes and funny stories to my friends.	24	-	1	21	2	2	23	1	1	20	2	3
Sometimes I keep quiet in conversation because I am afraid people will laugh or criticize me for my views.	15	5	5	14	4	7	22	2	1	16	3	6
I find it easy to criticize (judge) my friends.	15	4	6	16	3	6	20	4	1	20	3	2
I am usually very talkative when I am with people I know well.	25	-	-	23	2	-	24	-	1	24	1	-
I often feel that people disapprove of the things I say	9	8	8	2	11	12	12	5	8	11	6	8

Statement	Assertiveness skills											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
and do.												
TOTAL	171	38	41	159	50	41	202	26	22	174	44	32

The following is thus indicated:

- The sum of the scores on "Agree" responses to the above mentioned statements by the experimental group during the pre-test are 171 and post-test 202. For the comparison group the total number of pre-test results are 159 and post-test results 174. Both the experimental and comparison group show an increase in their responses the category "Agree".
- The sum of the pre-test results for the category "Uncertain" of the experimental and comparison group are 38 and 50. Post-test results for the experimental group show a lessening of uncertainties (from 38 to 26). Post-test results for the comparison group also decreased from 50 to 44.
- On adding the scores of "Disagree" the total amount of pre-test results for the experimental and comparison group are both 41 each. After participation in Project Skills Development the post-test results for the experimental group is 22. The comparison groups' post-test results are 32.

Table 44 reflects the mean scores of respondents' assertiveness skills.

Table 44: Mean scores of respondents' assertiveness skills

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	25	0,30	0,34	-0,50	0,90
Comparison group	25	0,11	0,34	-0,40	0,80

From the above results it can be seen that the mean score for the experimental group is 0,30 and comparison group is 0,11. The standard deviation of both groups respectively is 0,34 and 0,34.

The Kruskal-Wallis test statistic is 4.12 with a P-value of 0,0425 using a chi-square distribution with 1 degree of freedom. This compares favourably with the 0,05 level of significance as a P-value smaller as 0,05 indicates a statistical significant difference. The researcher concludes that **there is a statistical significant difference in the experimental groups' assertiveness, with a 95% chance that the results are due to Project Skills Development and not to chance.**

4.2.5.5 Communication skills

The development of communication skills is an important aspect of Project Skills Development. This variable is thus addressed to show strengthening of respondents' communication skills.

Five statements about this skill were included in the self-constructed questionnaire. These statements are based on the literature and

information presented to respondents in the session on communication skills in Project Skills Development. The statements are summarized as:

- I don't like talking to people who are always complaining about life.
- I am interested in other people's thoughts
- I find it difficult to talk about my feelings
- When I talk to my friends I look into their eyes to show my interest and full attention.
- I try to understand and react to other people's feelings in a caring and responsible way.

The frequency distribution of respondents' communication skills is presented in Table 45.

Table 45: Frequency distribution of communication skills

Statement	Communication skills											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
I don't like talking to people who is always complaining about life.	16	4	5	17	3	5	16	2	7	21	2	2
I am interested in other people's thoughts.	22	1	2	17	7	1	23	-	2	17	6	2
I find it difficult to talk about my feelings.	11	5	9	11	9	5	13	9	3	11	11	3
When I talk to my friends I look into their eyes to show my interest and full attention.	19	3	3	14	8	3	22	1	2	20	4	1

Statement	Communication skills											
	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
I try to understand and react to other people's feelings in a caring and responsible way.	12	6	7	11	11	3	21	3	1	16	5	4
TOTAL	80	19	26	70	38	17	95	15	15	85	28	12

- On adding the pre-test scores of "Agree," the results for the experimental and comparison group is respectively 80 and 70. After participation in Project Skills Development the post-test results for the experimental group is 95. The comparison groups' post-test results are 85.
- The sum of the scores on "Uncertain" responses to the statements on communication by the experimental group during the pre-test are 19 and post-test 15. For the comparison group pre-test results are 38 and post-test results 28. Both the experimental group and comparison group show a decline in their uncertainties about effective communication skills.
- The total number of pre-test results for the category "Disagree" of the experimental is 26 and comparison group 17. Post-test results for the experimental group show a decline from 26 to 15. Post-test results for the comparison group also lessen from 17 to 12.

Table 46 present the mean scores of respondents' communication skills.

Table 46: Mean scores of respondents' communication skills

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**0,24**	**0,45**	**-0,80**	**1,20**
Comparison group	**25**	**0,26**	**0,35**	**-0,40**	**0,80**

It can thus be seen that the mean score for the experimental group is 0,24. The comparison group' mean score is 0,26. The standard deviations for both these groups are 0,45 and 0,35.

The Kruskal-Wallis test statistic is 0,01 with a P-value of 0,9217 using a chi-square distribution with 1 degree of freedom. Compared with the 0,05 level of significance the researcher concludes that **there is not a statistical significant difference in the experimental groups' communication skills after exposure to Project Skills Development.**

4.2.5.6 Collective summary of Skills development

A collective summary of skills development as the third and last key element of Project Skills Development includes the composition of the sum of scores from the following programme combination, i.e.: peer-group relations, social problem solving, assertiveness and communication. Table 47 gives a summary of the results.

Table 47: Frequency distribution of Skills development as a whole

Skills	Pre-test						Post-test					
	Experimental group			Comparison group			Experimental group			Comparison group		
	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree	Agree	Uncertain	Disagree
Peer pressure	65	19	41	67	26	32	79	15	31	69	23	33
Social problem solving: To promote self control	83	19	23	79	23	23	98	16	11	88	23	14
Social problem solving: To relief stress, anxiety and pressure	88	13	24	74	24	27	84	23	18	77	26	22
Assertiveness	171	38	41	159	50	41	202	26	22	174	44	32
Communication	80	19	26	70	38	17	95	15	15	85	28	12
TOTAL	487	108	155	449	161	140	558	95	97	493	144	113

The following is thus clear:

- On adding the pre-test scores of "Agree," the results for the experimental and comparison group is respectively 487 and 449. After participation in Project Skills Development the post-test results for the experimental group is 558. The comparison groups' post-test results are 493.
- The sum of the scores on "Uncertain" responses to substance specific statements by the experimental group during the pre-test are 108 and post-test 95. For the comparison group pre-test results are 161 and post-test results 144. Both the experimental

group and comparison group show a decline in their uncertainties.

- The total number of pre-test results for the category "Disagree" of the experimental and comparison group are respectively 155 and 140. Post-test results for the experimental group show a decline from 155 to 97. Post-test results for the comparison group also lessened from 140 to 113.

In the next table, Table 48 the mean scores of skills development for respondents from the experimental and comparison group can be seen.

Table 48: Mean scores of skills development

	N	Mean	Standard Deviation	Minimum	Maximum
Experimental group	**25**	**0,16**	**0,25**	**-0,37**	**0,70**
Comparison group	**25**	**0,10**	**0,21**	**-0,67**	**0,40**

The mean score for the experimental group is 0,16. The comparison groups' mean score is 0,10. Consequently the standard deviation of both these groups is 0,25 and 0,21.

The Kruskal-Wallis test statistic is 0,16 with a P-value of 0,6901 using a chi-square distribution with 1 degree of freedom. Compared with the 0,05 level of significance **there is not a statistical significant difference in the experimental groups' personal and social skills after exposure to Project Skills Development**. The researcher concludes that even

though the sub-hypothesis that read: "*If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced*" was not confirmed a positive movement (i.e. in the development of assertiveness skills) did occur among the respondents.

Finally, consideration is given to the combined key elements, (i.e. skills development, adolescent drug attitudes and knowledge) of Project Skills Development.

4.2.5.7 Attitude, drug knowledge and skills

The combined mean scores of the key elements of Project Skills Development are summarized in Table 49.

Table 49: Mean scores of Project Skills Development

Key element	Respondents	N	Mean	Standard Deviation	Minimum	Maximum	P-value	Degrees of freedom
Attitudes to drugs and drug users	Experimental group	25	0,51	0,37	-0,09	1,45	0,0027	1
	Comparison group	25	0,20	0,30	-0,18	1,00		
Drug knowledge	Experimental group	25	0,32	0,46	-0,80	1,00	0,0113	1
	Comparison group	25	0,04	0,28	-0,60	0,90		
Skills	Experimental group	25	0,16	0,25	-0,37	0,70	0,6901	1
	Comparison group	25	0,10	0,21	-0,67	0,40		

To summarize:

- Attitudes to drugs and drug users

  There is **statistically a significant difference** in the experimental groups' attitudes to drugs and drug users, with a 95% chance that the results are due to Project Skills Development and not to chance.

- Knowledge of drugs

  There is **a statistical significant difference** in the experimental groups' drug knowledge, with a 95% chance that the results are due to Project Skills Development and not to chance.

- Skills development

  Compared with the 0,05 level of significance, **there is not a statistical significant difference** in the experimental groups' personal and social skills after exposure to Project Skills Development even though **a positive movement** (i.e. in the development of assertiveness skills) **did occur** among the respondents. Exact measurement of the different components of "Skills development" is difficult because the researcher didn't make use of standardized assessment tools, for instance the personality functioning scales that would lead to more precise measures.

Two out of the 3 key elements of Project Skills Development was thus successful in that it strengthened the experimental group's personal and interpersonal power against substance abuse. These results are in the opinion of the researcher in line with the presentation form (i.e. a once off, 2-week intervention) of the programme as a whole. Within a short time span, variables like attitudes and factual knowledge can be

influenced, temporarily. The same holds true for skills development. Skills, however, needs to be practiced continuously to be effective in the long run. Prevention programmes should therefore be part and parcel of a continuous intervention effort throughout the development of the adolescent.

Also, within the context of risk and protective factors, the first key element and identified risk factor, "adolescent attitudes towards substance use/abuse" thus showed a statistical significant difference. The other risk factor (peer influences) however did not. Accordingly, the protective factors (i.e. communication skills and social problem solving skills) also didn't have the impact that was hoped for. The researcher concludes that the only statistical significant difference within the context of risk and protective factors were for "adolescent attitudes towards substance use/abuse."

The researcher is also interested in the following correlations between the variables biographical details (i.e. age, gender, marital state of parents, living arrangement) and personal and social skills.

4.2.6 Correlations between biographical details and personal and social skills

4.2.6.1 Age and personal and social skills

Age and personal and social skills may have an important correlation. Table 50 reflects the mean scores of the relationship between age and personal and social skills.

Table 50: Mean scores of the relationship between age and personal and social skills

PERSONAL AND SOCIAL SKILLS	AGE IN YEARS							
	Eleven		Twelve		Thirteen		Fourteen	
	Mean	Standard Deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Attitude to drugs and drug users	0,36	0,36	0,35	0,42	0,41	0,46	0,31	0,26
Drug knowledge	0,21	0,39	0,11	0,28	0,16	0,39	0,27	0,54
Drug skills	-0,03	0,23	0,16	0,19	0,26	0,14	0,13	0,26
○ Peer pressure	-0,33	0,44	-0,19	0,53	-0,10	0,33	-0,03	0,48
○ Self control	0,18	0,49	0,48	0,46	0,42	0,37	0,14	0,28
○ Stress	-0,17	0,45	-0,04	0,50	0,10	0,46	-0,03	0,34
○ Assertiveness	-0,02	0,19	0,23	0,32	0,44	0,32	0,22	0,41
○ Communication	0,17	0,52	0,28	0,32	0,24	0,30	0,29	0,46

N = 50

The statistical significance between age and personal and social skills are displayed in Table 51.

Table 51: Correlation between Age and personal and social skills

Personal and social skills	P-value	Degrees of Freedom
Attitude	0,9517	3
Drug knowledge	0,6527	
Al the skills together	0,0096	

Personal and social skills	P-value	Degrees of Freedom
○ Peer pressure	0,4603	
○ Self control	0,0370	
○ Stress	0,6210	
○ Assertiveness	0,0148	
○ Communication	0,9800	

The following is deduced from the above:

- Compared with the 0,05 level of significance the researcher concludes that there is not a statistical significant correlation between age and (a) adolescent attitudes to drugs and drug users, (b) drug knowledge, (c) peer pressure, (d) stress, and (e) communication. However, the correlation between age and al the skills together has a P-value of 0,0096 and is as such a statistical significant relationship. Other statistical significant correlations between age are: self-control and assertiveness.

4.2.6.2 Gender and personal and social skills

The researcher is also interested in the correlation between gender and personal and social skills.

The Kruskal-Wallis one-way analysis of variance test results are summarized in Table 52:

Table 52: Correlation between Gender and personal and social skills

Personal and social skills	P-value	Degrees of Freedom
Attitude	0,2354	1
Drug knowledge	0,0140	
Al the skills together	0,1958	
○ Peer pressure	0,6519	
○ Self control	0,9135	
○ Stress	0,2492	
○ Assertiveness	0,3695	
○ Communication	0,5621	

From the above table the following is clear:

- Compared with the 0,05 level of significance there is not a statistical significant correlation between gender and (a) adolescent attitudes to drugs and drug users, (b) peer pressure, (c) self control, (d) stress, (e) assertiveness, and (f) communication. Also, the correlation between gender and all the skills together have a P-value of 0,1958 and is as such not a statistical significant relationship. The only statistical significant correlation is between gender and drug knowledge.

4.2.6.3 Family unit and personal and social skills

Another important correlation may be between the family unit and personal and social skills. Table 53 reflects the mean scores of the relationship between the variables marital state of parents and personal and social skills of respondents.

Table 53: Mean scores of the correlation between Marital state of parents and personal and social skills of respondents

PERSONAL AND SOCIAL SKILLS	MARITAL STATE					
	Married		Single parent		Not married but living together	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Attitude to drugs and drug users	0,36	0,27	0,18	0,31	0,44	0,41
Drug knowledge	0,32	0,35	0,22	0,33	0,11	0,45
Drug skills	0,17	0,23	0,13	0,15	0,11	0,27
○ Peer pressure	0,06	0,41	-0,10	0,46	-0,28	0,46
○ Self control	0,28	0,46	0,37	0,51	0,28	0,37
○ Stress	-0,02	0,43	-0,06	0,38	-0,04	0,49
○ Assertiveness	0,26	0,41	0,14	0,24	0,22	0,38
○ Communication	0,20	0,55	0,27	0,36	0,25	0,37

Herewith the Kruskal-Wallis one-way analysis of variance test results:

Table 54: Correlation between Marital state of parents and personal and social skills of respondents

	P-value	Degrees of Freedom
Attitude	0,1361	2
Drug knowledge	0,4495	
Al the skills together	0,9010	
○ Peer pressure	0,1010	
○ Self control	0,7095	
○ Stress	0,9410	

	P-value	Degrees of Freedom
○ Assertiveness	0,7490	
○ Communication	0,9318	

- Compared with the 0,05 level of significance there is not a statistical significant correlation between the marital state of parents and any of the personal and social skills of respondents, as the latter all have P-values greater than 0,05. In other words, there is not a statistical significant relationship between the variables marital state of parents and personal and social skills of respondents.

4.2.6.4 Living arrangement and personal and social skills

The last correlation the researcher is interested in is between living arrangement and personal and social skills. Table 55 reflects the mean scores of the relationship between the mentioned variables.

Table 55: Mean scores of the correlation between Living arrangement and personal and social skills

PERSONAL AND SOCIAL SKILLS	LIVING ARRANGEMENT					
	Mother and father		One parent		Grandparents	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Attitude to drugs and drug users	0,37	0,32	0,17	0,31	0,67	0,51

PERSONAL AND SOCIAL SKILLS	LIVING ARRANGEMENT					
	Mother and father		One parent		Grandparents	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Drug knowledge	0,17	0,42	0,15	0,41	0,35	0,25
Drug skills	0,12	0,26	0,12	0,16	0,21	0,18
○ Peer pressure	-0,17	0,46	-0,05	0,36	-0,37	0,64
○ Self control	0,25	0,39	0,35	0,50	0,50	0,41
○ Stress	-0,02	0,44	-0,12	0,39	0,03	0,57
○ Assertiveness	0,20	0,37	0,15	0,25	0,37	0,42
○ Communication	0,23	0,42	0,25	0,34	0,33	0,45

The statistical significance between living arrangement and personal and social skills are displayed in Table 56.

Table 56: Correlation between living arrangement and personal and social skills

	P-value	Degrees of Freedom
Attitude	0,0508	2
Drug knowledge	0,4051	
Al the skills together	0,6075	
○ Peer pressure	0,3307	
○ Self control	0,3489	
○ Stress	0,5452	
○ Assertiveness	0,5561	
○ Communication	0,9186	

From the above table the following is clear:

- Compared with the 0,05 level of significance there is not a statistical significant correlation between living arrangement and (a) attitude, (b) drug knowledge, and (c) all of the personal and social skills.

5. Summary

In this chapter the researcher presented, analysed and interpreted dominant quantitative findings (Section B) based on the evaluation of a substance abuse prevention programme for early adolescents in KwaZulu Natal, combined with qualitative/quantitative findings (Section A) from the review of the state of existing substance abuse prevention programmes in KwaZulu Natal.

Chapter 7 will thus focus on a general summary, conclusions and recommendations.

Chapter 7

General summary, conclusions and recommendations

1. Introduction

The unique nature of adolescents, the phenomenon of substance abuse and substance abuse prevention among the youth have been emphasized in this study. As adolescents are not adults and not the same as adults, their problems are also different. While adolescent substance abuse is similar in some respects to substance abuse in adults, this research report attempted to describe its differences. According to Bukstein (1995: 201) one cannot expect to understand adolescent substance use or abuse merely by applying adult standards of assessment and treatment. The problem is that we know adolescent substance abuse is different, but hardly know anything else about it.

Currently, almost all youth have some experience with alcohol. A substantial minority of adolescents use alcohol frequently and many develop problems related to use. Although patterns of use – in terms of types of substances used and prevalence of use – are constantly changing, many adolescents experiment with one or more substances (other than alcohol or tobacco). Whether problems develop, most difficulties do not persist and most adolescents go on to adulthood without persistent substance abuse problems and without treatment (Bukstein, 1995: 201). The researcher concludes that we need to account for such developmental patterns, including time-limited

patterns of problem substance use, in our conceptualisation of what adolescent substance abuse is.

We also need to consider the role of other problems, such as other types of deviant behaviour and coexisting emotional or psychological problems, in the development and persistence of substance abuse in youth. It is becoming increasingly obvious that while substance abuse is a critical problem for an adolescent, it is seldom the only problem. A one-dimensional focus will rarely remedy the multiple ills that plague problem youth.

The presence of multiple problems usually requires multiple interventions, each targeting one or a variety of targets, which represent areas of dysfunction in the adolescent's life. Similarly, prevention efforts need to have multiple targets within their interventions. According to Bukstein (1995: 203) considerations that are similar to those for treatment apply to prevention efforts. The aim of this study was thus to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal. The study objectives included:

- To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.

- To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.

- To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.

- To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.

- To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.

- To evaluate the substance abuse prevention programme for early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.

The study was thus structured to develop, implement and evaluate a comprehensive, but specific, intervention for a specific population group of youth. The following research questions were formulated (qualitative):

- **What is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal?**
- **What is the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.**

Accordingly a hypothesis was worded (quantitative): **If early adolescents undergo a school based substance abuse prevention programme then their attitudes, knowledge and skills towards substance abuse will be influenced in a positive way.**

From this 3 sub-hypotheses were stated:

- **If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way.**
- **If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase.**
- **If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced.**

The investigation inevitably brought certain insights that are now discussed in the form of a general summary, conclusions and recommendations. The latter is presented according to the next discussion points, i.e.:

- Literature study
  - General introduction to the study
  - Adolescent substance abuse
  - Development, risk and consequences of adolescent substance use and abuse
  - Substance abuse prevention among adolescents
  - Development of a substance abuse prevention programme (Project Skills Development)
- Empirical research findings:
  - Qualitative findings based on the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal
  - Qualitative/quantitative findings based on the review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal

- Quantitative findings based on the evaluation of a substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development)

2. Literature study

2.1 General introduction to the study

2.1.1 Summary

Chapter one provides an introduction and general orientation to the study. The chapter is set out in terms of the study's rationale, research methodology, collection and analysis of data. In fact, the researcher starts with the motive for the choice of substance abuse as subject for the study, followed by a formulation of the problem. The goal and objectives of the study are also identified and 2 research questions and a hypothesis with 3 sub-hypotheses formulated. Here after a description of the research approach, the type of research, research design, research procedure and strategy followed. Aspects concerning the pilot study are also explained and a description of the research population and sampling methods given. Ethical aspects are briefly outlined and key concepts, problems and the limitations of the study defined. The chapter ends by highlighting the topics of the subsequent chapters in the thesis.

2.1.2 Conclusions

- From the literature in this chapter the researcher concludes that:

process seeking an effective intervention to prevent substance abuse among early adolescents in KwaZulu Natal.

- The researcher utilized and moved from the exploratory and descriptive design that was organised around 2 research questions to a comparison group pretest-posttest design that is focused on more definite, hypotheses-testing research.
- Choice of quantitative research design: A comparison group pretest-posttest design was used to gather quantitative data and realise the aim of the study. A longitudinal approach to the study, however, is seen as the ideal and could lend itself to fundamental findings in social work practice.
- A major limitation of the study is that the findings are inconclusive and cannot be generalized to the larger population, given the fact that a purposive sample (of 50 respondents) was employed.
- This study can make a valuable contribution to the social work profession as it represents groundbreaking investigation in the youth substance abuse prevention field of KwaZulu Natal.

2.1.3 Recommendation(s)

- Substance abuse prevention research should increase in South Africa. Researchers, however, should be geared to link with the research capacity and perspectives in other African and overseas countries. Herewith research information should be grounded within a comprehensive conceptual framework to sustain a solid information base of national scope, essential for rational and cost-effective national preventive policy/action.

  In other words South African researchers and policy makers/service providers should not operate in isolation. Sporadic and at least, structurally, fragmentary services should be replaced with collaboration/partnerships.

2.2 Adolescent substance abuse

2.2.1 *Summary*

The literature study in Chapter 2 opens with a description of the following basic concepts, i.e.: (a) drug, (b) youth, (c) adolescent substance abuse, and (d) substance dependence. This is followed by a summary of the effects of various substances to explain their abuse potential and to highlight their adverse danger to the abuser. The researcher also provides an overview of 10 theories of adolescent substance use and abuse. Furthermore a model is outlined, to explain the interaction between factors, which are believed to add up, culminating in the development of adolescent substance abuse.
Accordingly, the extent of the substance abuse problem in KwaZulu Natal, the RSA and abroad is discussed. Finally ending with a summary of issues touched on in the chapter.

2.2.2 *Conclusions*

- This chapter underscores the multifaceted and complex nature of adolescent substance use and abuse.
- From the literature it is clear that a wide variety of labels or terminology exist to describe adolescent substance abuse. Yet, clear, concise operational definitions of adolescent substance abuse or dependence, or even specific diagnostic criteria, are rare.
- The DSM-IV represents a reasonable compromise for categorical diagnoses used to define substance abuse disorders in adolescents.

- A wide variety of substances are available to the youth that is guaranteed to alter feelings, thoughts and behaviour but are dangerous to use.

2.2.3 *Recommendations*

- Social workers should achieve consensus as to how one should label or describe adolescent substance abuse.
- People (e.g. social workers or health care workers) who work in the substance abuse field should be knowledgeable about drugs and their effects. Social workers should try to keep up to date with new information about different drugs being used, and to be aware of the effects of current "street drugs".
- Because there is a multitude of interrelated causes for adolescent substance abuse, the social worker's approach to youth substance abuse should rather be based on an integration of theories than on one theory alone.

2.3 Development, risk and consequences of adolescent substance use and abuse

2.3.1 *Summary*

Chapter 3 provides a discussion on the development, risk and consequences of adolescent substance use and abuse. The chapter starts with the typical characteristics of adolescent development and then move to adolescent development tasks that can promote substance use. Hereafter the development patterns of adolescent substance use are identified followed by an explanation of risk and resiliency factors related to adolescent

substance use and abuse. At the same time substance related harm/consequences of adolescent substance abuse is briefly outlined and the chapter ends with a short summary.

2.3.2 *Conclusions*

- The reviewed literature suggests that adolescence is the biological and psychosocial path to adulthood.
- In fact, within a developmental picture, successful adolescents are able to achieve a separate identity, independence from their parents, and prepare themselves for appropriate relations to achieve the adult developmental tasks of job, marriage and family.
- Furthermore, adolescent substance abuse and dependence does not occur instantaneously, but can develop in accordance with the following pattern, i.e. non-use to initial use to social use to habitual use to abuse and dependence. This is also highlighted by the sequential pattern of substance involvement among adolescents. For example, adolescents usually start with beer/wine, and then move to cigarettes or hard liquor, and then to problem drinking, which is followed by cannabis and other illicit drugs.
- Furthermore the reviewed literature points to a multitude of interrelated causes for substance abuse with no single factor (i.e. risk and resiliency factors) both a necessary and sufficient condition for the initiation of adolescent substance abuse.
- Substance-related harm/consequences of adolescent substance abuse is multifaceted and intensifies progressively underlining the need for comprehensive and integrated measures against it.

2.3.3 *Recommendations*

- Substance use/abuse prevention programmes should be age-specific and developmentally appropriate.
- Youth oriented prevention programmes should include skills to resist drugs when offered, strengthen personal commitments against substance abuse, and increase social competency (e.g. in communication or peer relationships) in conjunction with reinforcement of attitudes against drug use.
- Targets for prevention intervention with adolescents could be family relationships, peer relationships, the school environment and the community environment. Each of these domains can be a setting for deterring the initiation of substance abuse through increasing social- and self-competency skills, adoption of prosocial attitudes and behaviour, and awareness of the harmful health, social and psychological consequences of substance abuse.

2.4 Substance abuse prevention among adolescents

2.4.1 *Summary*

Aspects covered in Chapter 4 include: (a) clarification of the term prevention, (b) identification of different strategies/approaches and models of adolescent substance abuse prevention, (c) school based substance abuse prevention principles, and (d) promising prevention programmes for the youth. This enabled the researcher to identify ingredients for the development of a prevention programme for early adolescents in KwaZulu Natal (Project Skills Development). The chapter ends with a short summary.

2.4.2 Conclusions

- The literature on the prevention of adolescent substance abuse is extensive, diverse, uneven and difficult to summarize. It encompasses intensive reviews of drug education research in general, well-documented experiments with specific school-based interventions, more cursory articles promoting a programme but lacking any outcome data, pamphlets advertising curricula, and assorted other materials.
- The development and testing of approaches for the prevention of adolescent substance abuse have largely focused on school populations and have, until recently, been limited to white, middle-class students.
- Most of the extant substance abuse prevention research literature consists of studies conducted with predominantly white populations.
- Existing literature suggests that substance abuse prevention strategies (e.g. community-based strategy, prevention education or alternatives strategy) targeting the youth should be used in combination, as traditional approaches (i.e. to provide factual information about the consequences of drug abuse) have produced disappointing results.
- Most prevention programmes can be classified into one of four models: (a) the information-only model, (b) the alternatives model, (c) the affective educational/social competency model, and (d) the social environmental/learning- or social influence model. However, of the four models, the latter seems to have the largest effect on preventing adolescent substance abuse.
- In the substance abuse field, there are literally thousands of programmes that have diverse objectives, prevention strategies and outcomes. Yet, few programmes appear to be really

effective and/or promising as they produce an inconsistent positive pattern of results.

- The school based substance abuse prevention principles (from NIDA) provide a recognized way to evaluate the effectiveness of different prevention efforts.

2.4.3 *Recommendations*

- Social work research on youthful substance abuse prevention should:

  (a) Not be conducted in an ad hoc and fragmentary way,

  (b) Be "localized" (e.g. restricted to particular regions, groups, or points in time), and

  (c) Be "narrowly" designed (e.g. restricted to particular research procedures/techniques using "narrow" and unstandardized indices of substance use).

- Social work research should be multifaceted, in other words done through the collaborative and incremental mobilization of infrastructure resources.
- The school based substance abuse prevention principles (from NIDA) should be used to evaluate the effectiveness of different prevention efforts.

2.5 Development of a substance abuse prevention programme (Project Skills Development)

2.5.1 Summary

Chapter 5 is mainly set out in terms of (a) programme planning, and (b) programme design. In fact, the chapter opens with the programme outline, followed by a purposive limitation of the research project and specification of key issues. Hereafter the setting of risk/protective, factors take place and capacity is determined. In addition, the identification of key elements of the substance abuse prevention programme and outlining of aspects regarding the evaluation of the programme take place whilst ending with a short summary of the total programme. Chapter 5 thus commences with the planning and design of the substance abuse prevention programme for early adolescents in KwaZulu Natal (i.e. Project Skills Development) and concludes with a short summary of the most important issues touched on in the chapter.

2.5.2 Conclusions

Chapter 5 suggested the planning and design of a comprehensive substance abuse prevention programme, named Project Skills Development, for students in Grades 6 – 9 (11 – 14 years old) in KwaZulu Natal. The social environmental/learning or social influence approach theoretically grounded the design of Project Skills Development. A programme that focused on the development and/or enhancement of participants' personal and social skills, to address interpersonal risk factors and individual protective factors related to substance use/abuse. The underlying rationale of the programme was based on the premises that the strengthening of these skills would ultimately

reduce the prevalence of substance abuse among early adolescents as they become older.

2.5.3 Recommendations

- Training should be provided to social workers that are interested in the implementation of the programme (i.e. Project Skills Development).
- Project Skills Development should be introduced to other Primary schools and relevant organizations in South Africa.
- Future research might include establishment of identifiable subgroups of adolescents differing from other subgroups in a variety of patterns of substance abuse, family factors, coexisting psychopathology, natural history, and treatment response. Research should also focus on relevant differences between individual substances of abuse and whether a broad definition of abuse fits for all substances in adolescents.
- As adolescents are not all the same, the identification of specific risk- and protective factors that are responsive to specific, targeted interventions is the best hope for success in the prevention of youth substance abuse.
- Social workers need to broaden their view as to what they are identifying and treating. Substance abuse may be a part, an important part, of larger behavioural and/or emotional syndromes. Both the component behaviour and symptoms become potential targets for prevention interventions.
- Different prevention approaches may not be effective for all adolescents alike. Youth substance abuse prevention studies therefore need to evaluate efficacy in specific populations of adolescents with regard to age, sex, race, ethnicity and socio-economic status.

3. Empirical research findings

3.1 Qualitative findings based on the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal

3.1.1 Summary

The magnitude of substance abuse among early adolescents in KwaZulu Natal was discussed in the last part of Chapter 2 (page 129). However, to examine and answer the research question that was formulated: *"What is the nature and prevalence of substance abuse among early adolescents in KwaZulu Natal?"* the researcher accessed the research data of the South African Community Epidemiology Network of Drug Use (SACENDU). SACENDU is an alcohol and drug surveillance system that is operational in KwaZulu-Natal. The system monitors trends in alcohol and drug use and associated consequences on a six-monthly basis, using multi-source information, e.g. admissions to specialized drug-related treatment centres, psychiatric facilities, drug-related police arrests and illicit drug seizures. As SACENDU had all the necessary statistics and information at their disposal, the researcher accessed their research findings that are available to the public, on the Internet (http://www.mrc.ac.za). The available data confirmed that alcohol was still the most popular legal drug among the youth in KwaZulu Natal with cannabis the most popular illegal substance.

3.1.2 Conclusions

- In general, alcohol appears to be the most popular substance of abuse among the youth in KwaZulu Natal.

- Tobacco use and the use of solvents are also fairly common but cannabis is the most commonly used illicit drug among KwaZulu Natal youth.
- Herewith the abuse of over-the-counter medicines, such as slimming tablets, analgesics (especially products containing codeine), and benzodiazepines (e.g. valium) continues to be a problem.
- Accordingly there has been a dramatic increase in treatment demand for cocaine in KwaZulu Natal, particularly among persons less than 20 years of age.
- Yet, little is known about the extent of drug injection among KwaZulu Natal youth.

3.1.3 *Recommendations*

- Social workers should be made aware of and have access to National Drug Surveillance systems like SACENDU.

3.2 Qualitative/Quantitative findings based on the review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal

3.2.1 *Summary*

The qualitative/quantitative findings, based on the review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal, was discussed in Chapter 6 (page 253). However, to examine and answer the research question, i.e.: "*What is the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal?*" and to identify functional elements of

successful programmes the researcher reviewed all available prevention programmes in KwaZulu Natal. The empirical data was thus collected with a schedule during structured interviews with 8 representatives of 8 core organizations in KwaZulu Natal. Empirical findings suggest that two programmes, namely: Life orientation (Curriculum 2005) and Teenagers Against Drug Abuse (TADA) programme from SANCA seem to be more effective on preventing adolescent substance abuse than the DAP (Drug Abuse Prevention programme) of the Department of Social Welfare and Population Development or Community Education programme by the South African Narcotics Bureau (SANAB). Other Social Welfare Non-Governmental Organizations in KwaZulu Natal (e.g. Durban Children Society, "Natal Christelike Vroue Vereniging" and "Christelik-Maatskaplike Diens") do not render any substance abuse prevention services to the youth as this is seen as a core function of SANCA.

3.2.2 *Conclusions*

- The Drug Abuse Prevention programme (DAP) of the Department of Social Welfare and Population Development seems reasonably effective as it conforms to 42.8% of the substance abuse prevention principles (National Institute on Drug Abuse).
- Department of Education and Culture: Life Orientation (Curriculum 2005) as core field of knowledge and skills seems highly effective as it conforms to 78.5% of the substance abuse prevention principles. Life Orientation provided convincing evidence of a credible and effective life skills programme through (a) extremely well-designed training material, and (b) formal assessment and/or evaluation methodology.
- The TADA programme from SANCA holds much potential and conforms to 78.5% of the substance abuse prevention principles.

Herewith the goals for this programme are clear and based on the theoretical social environmental or learning model. Programme material is well matched and sensitive to the intended audience. The programme shows much strength but has at yet, not been formally evaluated.

- Community education as secondary function of the South African Narcotics Bureau (SANAB) conforms to 42.8% of the substance abuse prevention principles.
- In KwaZulu Natal, there is a partnership forged between the Non-Governmental Welfare Sector (e.g. Durban Children Society, "Natal Chistelike Vroue Vereniging" and "Christelik-Maatskaplike Diens") to refer all substance related services to the South African National Council on Alcoholism and Drug Dependence (SANCA). On mutual agreement SANCA is thus responsible for all Non-Governmental substance abuse prevention efforts in KwaZulu Natal.

3.2.3 *Recommendations*

- South African based prevention programmes should all be evaluated, compared, organized and where possible integrated, as this will provide a clear picture of the different programmes' effectiveness.

3.3 Quantitative findings based on the evaluation of the researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development)

3.3.1 Summary

The quantitative findings based on the evaluation of Project Skills Development were described in Chapter 6 (page 288) of this research report. Evaluation was done by means of a self-constructed group-administered questionnaire in the pre-test i.e. before implementation of Project Skills Development, and post-test with both the experimental (25 respondents) and comparison group (25 respondents). The sample thus included a total of 50 early adolescents and the empirical data was collected to include 2 measurements, once before and once after the intervention (Project Skills Development).

3.3.2 Conclusions

Biographical details

- All the respondents were between the ages 11 – 14 years old.
- There was equal representation of the respondents' according to their gender.
- All the respondents (100%) were Black.
- The majority (86%) of respondents were Zulu speaking youth.
- All the respondents were in grade 6 of Sizani Primary School.
- From a total of 50 respondents, 43 (86%) of the respondents showed involvement with a prosocial institution like the church.
- Most of the respondents' caretaker(s) or parents (54%) were not married but living together. A total of 19% were married and 27% single parents.
- Most of the respondents (61%) lived with both their biological parents or with their mother (23%) only. A small portion lived with their grandparents (12%) and hardly any with their father as single parent (4%).

Personal and Social Skills Development

- Adolescent attitudes to substances and substance users: With a P-value of 0,0027 using a chi-square distribution with 1 degree of freedom the researcher concluded that there was a statistical significant difference in the experimental groups' attitudes to drugs and drug users, with a 95% chance that the results were due to Project Skills Development and not to chance. The following sub-hypothesis was therefore confirmed: *If early adolescents undergo a school based substance abuse prevention programme then their attitudes towards substances and substance users will be influenced in a positive way.*
- Substance specific knowledge: With a P-value of 0,0113 using a chi-square distribution with 1 degree of freedom the researcher concluded that there was a statistical significant difference in the experimental groups' drug knowledge, with a 95% chance that the results were due to Project Skills Development and not to chance. The next sub-hypothesis was thus confirmed: *If early adolescents undergo a school based substance abuse prevention programme then their substance specific knowledge will increase.*
- Skills development:
    i. Peer group relations - With a P-value of 0,4157 using a chi-square distribution with 1 degree of freedom. The researcher concluded that there was *not a statistical significant difference* in the experimental groups' awareness of peer group relations after exposure to Project Skills Development.
    ii. Social problem solving: Techniques to promote self-control - The Kruskal-Wallis test indicated a P-value of 0,4648. Compared with the 0,05 level of significance

there was *not a statistical significant difference* in the experimental groups' techniques to promote self-control after exposure to Project Skills Development.

iii. Social problem solving: Relieving stress, anxiety and pressure - With a P-value of 0,6246 using a chi-square distribution with 1 degree of freedom. The researcher concluded that *there was not a statistical significant difference* in the experimental groups' techniques to relieve stress, anxiety and tension after exposure to Project Skills Development.

iv. Developing assertiveness skills - The Kruskal-Wallis test indicated a P-value of 0,0425 using a chi-square distribution with 1 degree of freedom. This compares favourably with the 0,05 level of significance as a P-value smaller as 0,05 indicates a statistical significant difference. The researcher concluded that there was *a statistical significant difference* in the experimental groups' assertiveness, with a 95% chance that the results are due to Project Skills Development and not to chance.

v. Communication skills – With a P-value of 0,9217 using a chi-square distribution with 1 degree of freedom the researcher concluded that there was *not a statistical significant difference* in the experimental groups' communication skills after exposure to Project Skills Development.

Skills development as a whole: With a P-value of 0,6901 using a chi-square distribution with 1 degree of freedom the researcher concluded that there was *not a statistical significant difference* in the experimental groups' personal and social skills after exposure to Project Skills Development. Even though, the sub-

hypothesis that read: "If early adolescents undergo a school based substance abuse prevention programme then their personal and social skills will be enhanced" was not confirmed a positive movement (i.e. in the development of assertiveness skills) did occur among the respondents.

3.3.3 Recommendations

- Standardized personality functioning scales should be implemented to measure the specific skills addressed in Project Skills Development. It is thus recommended that personality functioning scales (for instance communication, assertiveness and social problem solving) should become part of similar substance abuse prevention programmes.
- Substance abuse prevention studies need to use more rigorous experimental design and methodology. This includes comprehensive standardized assessments (before, during and after the intervention), thorough inventories of intervention content (i.e. what kind of modalities are used and in what intensity), manual-guided interventions with specific content and procedures for implementing the specific intervention.
- Intervention outcomes must be evaluated more thoroughly, with careful follow-up for several years. Outcome studies not only should consider abstinence or relapse status, but also should include all changes in substance use patterns as well as changes in psychosocial functioning such as mental health and behaviour, school functioning, family functioning and use of prosocial forms of recreation such as sports, music and other hobbies.
- As with adults, it is likely that certain types and levels of prevention intervention may be more suitable for certain types of adolescents. Treatment-matching, that is, matching each

patient to an individual treatment modality, should therefore be a critical element of substance abuse prevention research.

- Further comparative studies should be done with different ethnic groupings.

4. Aim and objectives of the study

Aim of the study: To develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.

Table 57 focuses on how the above aim and resulting objectives of the study were accomplished:

Table 57: Accomplishment of the study objectives

Nr.	Objective	Objective achievement
1.	To conduct the investigation within a theoretically founded reference frame by undertaking a relevant literature study of the phenomenon of substance abuse, substance abuse among early adolescents and substance abuse prevention among the youth.	This aim was achieved as reflected in the discussion presented in Chapters 2 – 5.

Nr.	Objective	Objective achievement
2.	To identify the nature and prevalence of substance abuse as a problematic human condition among early adolescents in KwaZulu Natal.	This aim was attained. Findings in Chapter 2 showed that in KwaZulu Natal substance abuse (e.g. of substances like alcohol and cannabis) is prevalent among the youth.
3.	To undertake a critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.	This aim was accomplished through the presentation of a detailed discussion in Chapter 6 on the substance abuse prevention programmes of 8 core Social Welfare Organizations in KwaZulu Natal.
4.	To develop a substance abuse prevention programme for early adolescents in KwaZulu Natal.	This aim was achieved through the planning and design of a substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development) as explained in Chapter 5 and stated in Appendix 3 (page 415) that contain the content of Project Skills Development as a whole.
5.	To implement the substance abuse prevention programme among early adolescents in KwaZulu Natal.	This objective was met in that Project Skills Development was implemented at Sizani Primary School in Umhlali, a sub-urban area in the North coast of KwaZulu Natal.
6.	To evaluate the substance abuse prevention programme for early adolescents in KwaZulu Natal with a view to recommend further utilisation in practice.	This aim was realized through the presentation of a detailed discussion in Chapter 6 on the quantitative findings of the evaluation of the researcher's substance abuse prevention programme for early adolescents in KwaZulu Natal (Project Skills Development).

5. Closing statement

Adolescents are training to be adults. They copy adults and reflect the choices that adults must also make. It is hardly surprising that both culturally sanctioned substance use in the forms of alcohol and tobacco and illicit use of other substances is prevalent in adults, as well as youth. Our society is struggling to deal with the negative consequences of our involvement with psychoactive substances. As we have had limited success in handling the problem of adult substance abuse, the similar but quite distinct problem of adolescent substance abuse offers difficulty as well (Bukstein, 1995: 203). We must recognise these facts. As we ask our clients and patients to break through their denial, we, too, must identify what the problem of adolescent substance abuse is and how we can best deal with it.

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Appendix 1: Written letter of approval from the Department of Education and Culture

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

DEPARTMENT OF EDUCATION AND CULTURE
UMNYANGO WEMFUNDO NAMASIKO
DEPARTEMENT VAN ONDERWYS EN KULTUUR

HEAD OFFICE | INHLOKO HHOVISI | HOOFKANTOOR

Address: 2nd Floor
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Adres: King Dinizulu Highway
Ulundi
3838

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Isikhwama Seposi: Ulundi
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Telephone: 035-8743681
Ucingo:
Telefoon:
Fax: 035-8743443

Enquiries: Dr M.J. Lötter
Imibuzo:
Navrae:

Reference:
Inkomba:
Verwysing:

Date: 2001-10-09
Usuku:
Datum:

Mrs C. Brandt
11 Sandpiper
MANDENI
4490

Dear Mrs Brandt

Your letter dated 2001-08-14 applying for permission to do research towards improving your qualifications, refers.

Permission is granted subject to the following provisos:

1. That access to schools is at the discretion of the principal/SGB.
2. Similarly for staff at schools during official working hours.
3. That your findings not be used to embarrass the KZNDEC, any of its institutions or personnel.

You are wished success in your studies.

.....

CHIEF DIRECTOR
EDUCATION MANAGEMENT
Wp\mrs c brandt\nn

Appendix 2: Structured Interview with a schedule

Project Skills Development

Researcher:
Carien Brandt

P.O. Box 198
Salt Rock
4391

Tel: (032) 525 5593

Dear representative

My name is Carien Brandt. I am a student at the University of Pretoria, busy with a study on the prevention of youth substance abuse in KwaZulu Natal. As part of the study, I need to conduct interviews with major role players in this field to determine what is currently being done to address the problem of substance abuse among early adolescents in KwaZulu Natal. My objective with this interview is thus to review the state of your existing substance abuse prevention programme(s) for early adolescents in the mentioned province. During the interview, the researcher will make use of a schedule, as guideline, to ensure systematic data. Participation in this endeavour will surely benefit your Organization in that it will provide an opportunity to critically review your prevention services to the youth.

You are therefore kindly invited to partake in this interview.
The interview will take approximately 55 minutes of your time.

Thank you for your cooperation.

Research schedule

For office use

Case number

Q1 [ ][ ] 1- 2

Repetition number

Q2 [ ] 3

1. Identifying particulars

1.1 Name of representative

.....

Q3 [ ][ ] 4 - 5

1.2 Occupation

1	Social worker
2	Nurse
3	Teacher / Educationist
4	School psychologist
5	Other (Specify:.....)

Q4 [ ] 6

For office use

1.3 Represented Organization

(Mark that which apply)

1	Department of Social Welfare and Population Development
2	Department of Education and Culture
3	South African National Council on Alcoholism and Drug Dependence (SANCA)
4	Durban Children Society
5	South African Narcotics Bureau
6	NCVV ("Natal Christelike Vroue Vereniging")
7	CMD ("Christelik-Maatskaplike Diens")
8	Other (Specify:.....)

Q5 ☐ 7

For office use

1.4 Substance abuse prevention programme name(s)

(Mark that which apply)

1	Lion's-Quest Skills for Adolescence
2	Student Assistance Programme
3	Life Orientation (Curriculum 2005)
4	"I am addicted to life"
5	School Prevention and Education Programme
6	Drug-Free Marshals
7	Soul City
8	TADA (Teenagers Against Drug Abuse)
9	Peer counselling
10	Other (Specify:.....)

Q6 [ ][ ]

8 - 9

2. Critical review of the presented prevention programme(s)

2.1 Programme setting

For office use

2.1.1 Location (Mark that which apply)

1	In school
2	After school (At school)
3	Church/Faith-based Organization
4	Community Centre
5	Home
6	Substance Abuse Treatment Centre
7	Youth/Family Services Agency
8	Other (Specify:.....)

Q7 [ ][ ]
10 - 11

2.1.2 Geographic setting (Mark that which apply)

1	Urban
2	Suburban
3	Rural

Q8 [ ] 1

For office use

2.2 Programme participants (target group)

2.2.1 Age range (Mark that which apply)

1	School age (5 – 10)
2	Early adolescent (11 – 14)
3	Teenagers (15 – 17)
4	Young adults (18 – 24)

2.2.2 Gender (Mark that which apply)

1	Male
2	Female
3	Male & Female

2.2.3 Race / Ethnicity (Mark that which apply)

1	Black
2	Coloured
3	Asian
4	White
5	Other (Specify:.....)

Q9 ☐ 13

Q10 ☐ 14

Q11 ☐ 15

Q12 ☐ 16

Q13 ☐ 17

Q14 ☐ 18

Q15 ☐ 19

Q16 ☐ 20

Q17 ☐ 21

Q18 ☐ 22

For office use

2.2.4 Special characteristics

(Mark that which apply)

1	Children who have experimented with substances
2	Children in treatment for substance dependence
3	Delinquent youth
4	Children who occasionally abuse substances
5	Children of substance abusers
6	Aggressive/Violent youth
7	Conduct disordered children
8	Children with academic problems / Special Ed / or Dropout
9	Street / homeless youth
10	All school going youth
11	Other (Specify:.....)

Q19 [ ] 23

Q20 [ ] 2

Q21 [ ] 2

Q22 [ ] 2

Q23 [ ] 2

Q24 [ ] 2

Q25 [ ] 2

Q26 [ ] 3

Q27 [ ] 3

Q28 [ ][ ]
32 - 33

Q29 [ ][ ]
34 - 35

2.3 Underlying programme theory

For office use

2.3.1 Prevention strategy (Mark that which apply)

1	Information dissemination	Q30 ☐ 3
2	Prevention education approach	Q31 ☐ 3
3	Alternatives strategy	Q32 ☐ 3
4	Problem identification and referral approach	Q33 ☐ 3
5	Community-based strategy	Q34 ☐ 4
6	Environmental approach	Q35 ☐ 4
7	Other (Specify: .....)	Q36 ☐ 4

2.3.2 Prevention model (Mark that which apply)

1	Information-only model	Q37 ☐ 4
2	Alternatives model	Q38 ☐ 4
3	Affective educational/social competency model	Q39 ☐ 4
4	Social influence model	Q40 ☐ 4
5	Other (Specify:.....)	Q41 ☐ 4

2.4 Programme structure

For office use

2.4.1 Type of prevention service(s) provided

(Mark that which apply)

1	Awareness and information on drugs and drug use	Q42 ☐ 48
2	Self-management skills (i.e. problem solving, decision making, critical thinking skills, goal setting, stress relief)	Q43 ☐ 49
3	Resistance skills (assertiveness, peer pressure, self reinforcement)	Q44 ☐ 50
4	General social skills (i.e. communication, shyness, meeting new people, developing healthy friendships, relationship with parents)	Q45 ☐ 51
5	Normative education (social norm development)	Q46 ☐ 52
6	Developing policy	Q47 ☐ 53
7	Creating healthy alternatives	Q48 ☐ 54
8	Other (Specify:.....)	Q49 ☐☐ 55 -56

2.4.2 Frequency of prevention service within a period of one year (Mark that which apply)

1	Once of
2	Once, followed by a single booster session
3	Two repeat interventions
4	Three times
5	Bi-monthly
6	Quarterly
7	Other (Specify:.....)

2.4.3 Length of each service (Mark that which apply)

1	30 - 45 minutes
2	46 - 60 minutes
3	61 - 75 minutes
4	76 - 90 minutes
5	More than 90 minutes

For office use

Q50 57

Q51 58

Q52 59

Q53 60

Q54 6

Q55 6

Q56 6

Q57 6

Q58 6

Q59 6

Q60 6

Q61 6

For office use

2.4.4 Duration of each service (Mark that which apply)

1	1 – 6 days	Q62 ☐
2	1 – 4 weeks	Q63 ☐
3	1 – 4 months	Q64 ☐
4	5 – 8 months	Q65 ☐
5	8 - 12 months (1 year)	Q66 ☐
6	Other (Specify:.....)	Q67 ☐

2.4.5 Method of delivery for each service (Mark which apply)

1	One-on-one	Q68 ☐
2	Group work (e.g. group discussion, role plays)	Q69 ☐
3	Peer counsellors	Q70 ☐
4	Experiential learning	Q71 ☐
5	Didactic instruction	Q72 ☐
6	Other (Specify:.....)	Q73 ☐

For office use

2.4.6 Group participation in the programme

(Mark that which apply)

1	Excellent
2	Good
3	Reasonable
4	Poor

Q74 ☐ 81

Q75 ☐ 82

Q76 ☐ 83

Q77 ☐ 84

For office use

2.4.7 Measurement / evaluation of programme success

(Mark that which apply)

1	Formal evaluation	Q78
2	Feedback that indicates change in attitudes	Q79
3	Requests for more information	Q80
4	Early identification of substance abusers	Q81
5	Fewer children that drop out of school because of substance abuse	Q82
6	More open discussion between children and teachers	Q83
7	Increased self-referrals	Q84
8	Increased referrals by concerned friends	Q85
9	Increased knowledge of signs, symptoms and dangers of substance abuse	Q86
10	Increased awareness of community resources that can help them	Q87 (94 - 95)
11	Awareness of option in dealing with peers, decision making, problem solving and resisting peer pressure.	Q88 (96 - 97)
12	Other (Specify:.....)	Q89 (98 - 9)

For office use

2.5 Implementation problems and programme changes

What problems were encountered while implementing the programme? (For example, programme participants may have greater service needs than the planners anticipated; when programme services are accordingly expanded, a different staffing pattern may be required.)

Q90 [ ][ ]
100 - 101

Q91 [ ][ ]
102 - 103

Q92 [ ][ ]
104 - 105

1.....

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2.....

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3.....

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For office use

3. Programme staff

3.1 Programme staff qualifications (Mark that which apply)

1	Qualified social worker
2	Professional nurse
3	Qualified school teacher
4	School psychologist
5	None (Volunteer)
6	Other (Specify:.....)

Q93 ☐ 10

Q94 ☐ 1

Q95 ☐ 1

Q96 ☐ 1

Q97 ☐ 1

Q98 ☐ 1

3.2 Staff satisfaction with the programme (Mark that which apply)

1	Excellent
2	Good
3	Reasonable
4	Poor

Q99 ☐

Q100 ☐

Q101 ☐

Q102 ☐

4. Programme effectiveness

Answer the following part of the schedule by carefully reading the next questions and circling the number that apply to the prevention programme under discussion.

For example

Do you love to read?

Yes	Uncertain	No
1	2	3

This means that you agree with the question, in other words "Love to read".

No.	Question	Yes	Uncertain	No
4.1	Is the prevention programme designed to enhance protective factors and move toward reversing or reducing known risk factors?	1	2	3
4.2	Does the prevention programme target all forms of drug abuse, including the use of tobacco, alcohol, cannabis and inhalants?	1	2	3
4.3	Does the prevention programme include skills to resist drugs when offered?	1	2	3
4.4	Does the prevention programme strengthen personal commitments against drug use?	1	2	3
4.5	Does the prevention programme increase social competency (e.g. in communications, peer relationships, self-efficacy, and assertiveness) in conjunction with reinforcement of attitudes against drug use?	1	2	3

For office use

Q103 ☐

Q104 ☐

Q105 ☐

Q106 ☐

Q107 ☐

For office use

No.	Question	Yes	Uncertain	No	
4.6	Does the prevention programme include interactive methods, such as peer discussion groups, rather than didactic teaching techniques alone?	1	2	3	Q108 ☐ 12
4.7	Does the prevention programme include a parent or caregivers' component that reinforces what the children are learning, such as facts about drugs and their harmful effects?	1	2	3	Q109 ☐ 1
4.8	Is the prevention programme(s) long-term, in other words implemented over the child's school career with repeat interventions to reinforce the original prevention goals?	1	2	3	Q110 ☐
4.9	Is the prevention effort family-focused, i.e. focused on both parents and children?	1	2	3	Q111 ☐

No.	Question	Yes	Uncertain	No
4.10	Is the prevention effort focused on parents only?	1	2	3
4.11	Is the prevention programme focused on children only?	1	2	3
4.12	Is the prevention programme developmentally appropriate?	1	2	3
4.13	Is the prevention programme culturally sensitive?	1	2	3
4.14	Is the prevention programme(s) cost-effective?	1	2	3

For office use

Q112 ☐

Q113 ☐

Q114 ☐

Q115 ☐

Q116 ☐

4. Additional information

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Appendix 3: Project Skills Development

A substance abuse prevention programme for early adolescents in KwaZulu Natal

The following programme is a comprehensive school-based substance abuse prevention programme for children between the ages of 11 - 14 years old. Grounded in the development of personal and social skills, to address: (a) Interpersonal risk factors (i.e. adolescent attitudes towards substance use and peer influences); and (b) individual protective factors (i.e. communication skills and social problem-solving skills). And accordingly based on the underlying rationale that the strengthening of these skills will ultimately reduce the prevalence of substance abuse among these individuals as they become older.

The programme is primarily developed for social workers and largely based on the work of authors, such as Lindenfield (1990), Louw and Amorim (1999), MacDonald and Patterson (1991), Perkinson (1998), Sancho (1994) and Stoppard (2000).

The programme is not meant to be prescriptive; rather its purpose is to stimulate ideas and indeed can and should be adapted, abridged and expanded according to your needs.

The content of Project Skills Development is thus set out in terms of the next 10 consecutive sessions.

Session 1 - 2

Adolescent attitudes to Drugs and Drug users

Adolescent attitudes to Drugs and Drug users

1. Introduction

This section will look at what the participants, irrespective of their personal background and experiences will bring to the learning situation – their attitudes to drugs and drug users. According to MacDonald and Patterson (1991: 16) you do not need to be a drug user, know a drug user personally or work with drug users to have formed a set off attitudes. Saturation media coverage of "drug problems" over the past decade, for example, has ensured that most people will have quite firm ideas about drugs, drug users, and what should be done about the "drug problem", however biased, stereotyped or misinformed they may be.

The adolescent's attitude to substances and substance users is thus the starting point of this programme. Aspects that will be covered, include:

- The importance of examining adolescent attitudes,
- The origin of attitudes,
- The media as an attitude source, and
- Attitude exercises.

Table 1 provides the planned course for Sessions 1 and 2.

Table 1: Adolescent attitudes to Drugs and Drug users

Session 1		Session 2	
09:00- 09:05 *(5 minutes)*	Introduction Exercise 1: "What I'd like to learn"	09:00 –09:05 *(5 minutes)*	Recap
09:05 –09:15 *(10 minutes)*	Why is it important to examine attitudes?	09:05 –09:35 *(30 minutes)*	The media Exercise 4: Perceptions of illegal drug users Exercise 5: Perceptions of drug users
09:15 – 10:00 *(45 minutes)*	Where do attitudes come from? Exercise 2: Origin of attitudes Exercise 3: Circle of harmfulness	09:35 –10:05 *(30 minutes)*	Exercise 6: Dependency exercise
		10:05 – 10:10 *(5 minutes)*	Feedback

Following the introductions, both to the programme and to the other participants, the following exercise is a method to focus participants' thinking.

Exercise 1: "What I'd like to learn"

Ask participants, individually, to write down what they want to learn about the topic, i.e. attitudes to drugs and drug users.

Then participants brainstorm their answers. All the answers are written on a blackboard or flipchart, and referred back to during the two sessions on attitudes.

2. Why is it important to examine attitudes?

There are several reasons why it is important to include adolescent's attitudes towards drugs and drug users in the prevention programme, particularly at the beginning:

- It is a good way for participants to become actively involved in the learning process from the onset. It enables them to look at their own attitudes and beliefs before the social worker introduces ideas and examples that may contradict, challenge or criticise those attitudes and beliefs.
- It is a good way of testing participant's factual knowledge.
- It enables the social worker to gauge the standard of drug-related knowledge of the group she is working with.
- It can normalise ideas of "sick", "deviant" or " criminal" behaviour. Suffice it to say here, that adherence to the narrow view that addiction is something that relates to illicit drugs only has permitted us to maintain the myth that addicts are different. Only "they" – an alien, deviant, shiftless, nasty and rather

dangerous group – use addictive drugs like heroin, and addiction is someone else's problem.

The attitude exercise on dependency (Session 2) specifically looks at commonalities, shared between (a) underlying processes and dynamics, and (b) the drug user and other people. By breaking down barriers between them and us, the social worker demystify and encourage participants understanding of substance users.

3. Where do attitudes come from?

Based on sets of beliefs, including stereotypes that people have about drugs and drug users, attitudes are about feelings and are relatively stable and resistant to change. This means that this part of the session might be quite challenging to participants who have personal investments in maintaining and defending their "own" attitudes.

Exercise 2: Origin of Attitudes

To determine where the participants' information and attitudes about drugs come from, the social worker will:

- Ask participants to pick a substance they have chosen or decided not to use; and
- Ask them what information led them to make that decision and from where that information came.

Keep the three components of attitudes in mind:

- Attitudes are descriptive, e.g. "Drug users look dirty, have long hair and wear earrings."
- Attitudes are evaluative, e.g. "Drug users are sick/bad people." and
- Attitudes are prescriptive, e.g. "Drug users should be given long prison sentences."

People's attitudes, are thus constructed around a complex set of beliefs and values, acquired from early childhood onwards. Subsequently they are part of the way that adolescents experience and react to their world. Yet, when discussing the sources of a participant's attitudes, the social worker needs to (and can) question reliability and validity by exploring underlying facts/theories/ideas.

There are four specific sources of attitudes:

- The mass media and other public information systems,
- The education system,
- Personal contacts like friends, neighbours or relatives, and
- Personal (acquired) experience.

3.1 Exercise 3: Circle of harmfulness

The following exercise will give the participants a chance to explore the origins of their own attitudes to several drugs, both legal and illegal. Do they base their ideas on media information, personal experience or drug taking, or talks with friends and family? It also tests participants' factual knowledge about drugs and their effects and what is meant by the notion, "harmful" drug.

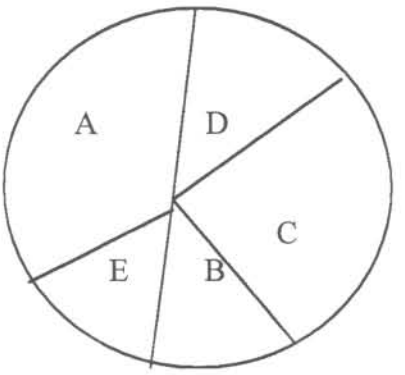
Circle of harmfulness

Each participant has to segment off the large circle as to their perception of the relative harmfulness of each substance listed on the right-hand side. The small circle is an example.

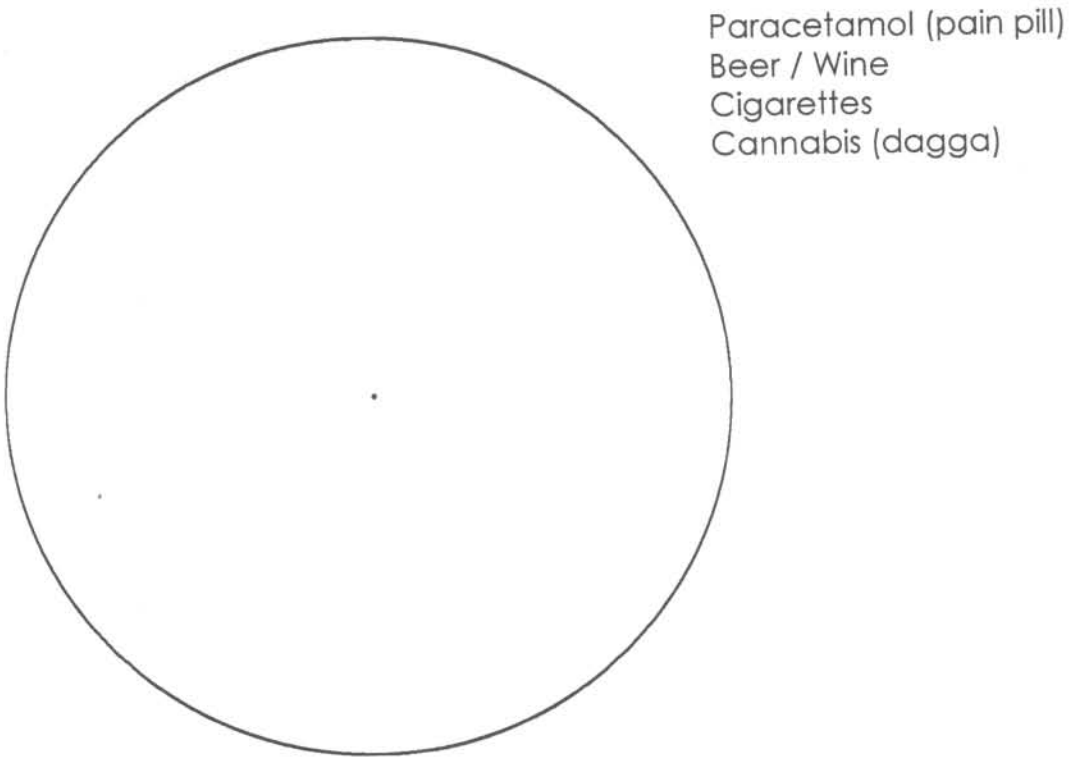
Ten minutes is the optimum time for completion of the exercise although some participants may take longer/shorter time.

Figure 1: Pie chart: "The circle of harmfulness"

A = Stick your finger in an electric socket
B = Watch TV until two in the morning
C = Windsurf if you can hardly swim
D = Ride your bike without a helmet
E = Over-indulge in sweets and cake



Using the substances beneath, segment the big circle to illustrate your opinion of their level of harmfulness. (The small circle is an example.)



Participants, either in pairs or small groups, will then compare and discuss their segments, and the ideas and attitudes on which the segments are based. The following questions will be discussed:

- Do these ideas/attitudes come from the media, personal experience or that of a close friend or relative, talks with other people, or other sources?
- What are the consequences of holding these ideas/attitudes?
- What do people mean by "harm?" Is it based on medical, moral, legal or social criteria? Is it harm to the individual, the family, the community or society in general?

Hereafter participants return to the plenary for feedback from each pair or small group. Feedback is discussed, then written on a flipchart

by the social worker, pinned to the wall, and can be referred to throughout the programme.

4. The media as attitude source

There are several key issues and questions to explore, for example, around the ways that the media presents and portrays illegal drugs and drug users which in turn informs and help to shape people's opinions and attitudes.

The following issues and questions are thus identified for discussion in small groups within the framework of Figure 2 (page 426). As Figure 2 illustrates several conflicting and overlapping ways of perceiving illegal drug users and therefore the "type" of problem we are dealing with. The issues and questions are:

(i) Does the mass media help to create a "moral panic"?

- By presenting a particular case as universal, e.g. reporting that a 13-year-old has died following injecting drugs; implying that all teenagers who are injecting drugs and are at risk are also likely to die?
- By presenting misinformation as the truth, e.g. that experimentation with a drug like cocaine automatically leads to addiction.

(ii) Does the media over-emphasis and exaggerate the dangers of illegal drugs to the exclusion of the danger of alcohol, nicotine, over-the-counter and prescription drugs? As Stoppard (2000: 11) points out:

" It is truly a paradox that the greatest drug problems of any society invariably relate to those substances which are most widely accepted and used. In South Africa, approximately 7 million adults are smokers. An estimated 11,000 – 15,000 deaths are attributable to alcohol (including the innocent victims of road traffic accidents that are caused by drunk-driving), whereas 500 - 600 deaths a year are attributable to the misuse of all types of illegal drugs."

(iii) What is the effect of describing drug problems in war-like terms, e.g. " the war on drugs"; society's fight against the drug pusher"? How far does this promote and support a prohibitionist and law-enforcement stance as the solution to the drug problem, and therefore the area in which resources should be concentrated?

"There is little doubt that the perception that the war on drugs is a failure has spread significantly. It also appears that people are beginning to understand that a war on drugs necessarily breeds violence and corruption" (MacDonald & Patterson, 1991: 20).

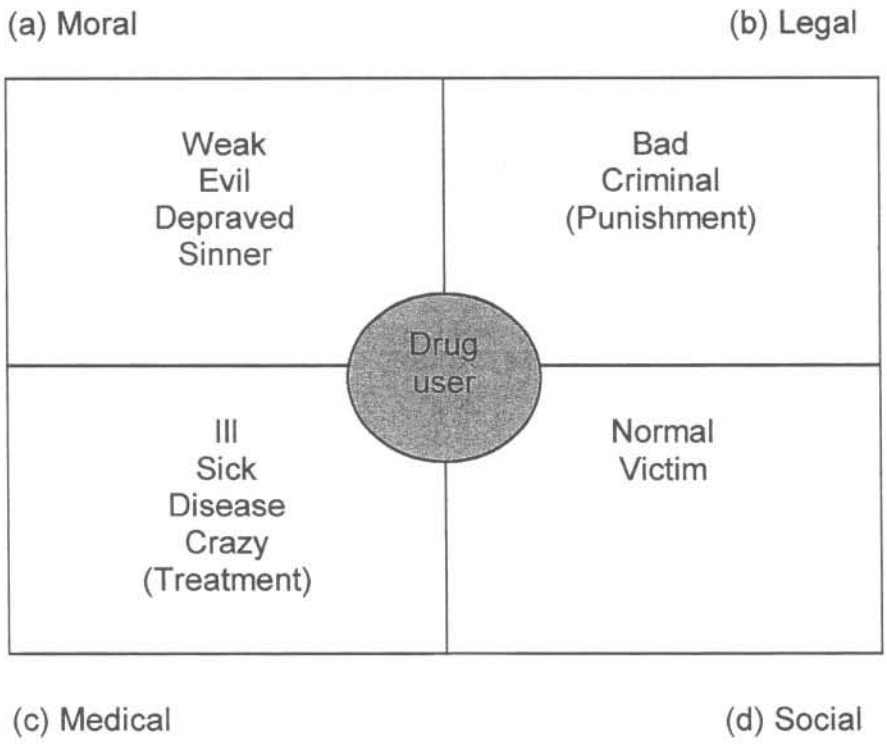
(iv) What is the effect of describing drug problems in terms of medical imagery, e.g. " drug abuse is an epidemic"; "drug addiction is a disease?

As Gossop (in MacDonald & Patterson, 1991: 21) suggests: "In some respects this view of addiction as a sickness may even be positively harmful. In so far as it

perpetuates the myth that the drug addict is a passive and helpless victim of his addiction it contradicts any expectations that the addict can, through his own efforts, learn to live without drugs."

Issues and questions discussed using Figure 2 as outline.

Figure 2: Perceptions of illegal drug users



There is a story from India that further illustrates Figure 2.

Four blind men were confronted with an elephant. Being blind, they obviously did not know what this object was. The first blind man approached the elephant, touched its side, and said, "This is the wall of a house." The second blind man approached, touched the elephant's leg and said, "No it's not, it is a large tree." At that, the third blind man went up to the elephant touched its truck, sprang back and exclaimed, "It's a big snake!" The fourth blind man approached and touched the elephant's tail and said, " You are all wrong, it's simply a length of rope." What they all did, of course, was to mistake part of the elephant for the whole elephant.

Similarly, with the drug problem, it is all too easy to mistake part of the problem for the whole problem.

At this stage, go over the diagram (Figure 2, page 426) on a black board or flipchart and explain what each category means, pointing out the contradictions and complexities.

(a) Moral

Here the drug user is seen as, basically a "weak" person who may even be acting in a "depraved" or "evil" manner, especially if they are selling drugs. This latter view is one quite often favoured by the tabloid press and may engender feelings of shock, anger or moral outrage. The social worker should check with the participants what their feelings are towards any

particular type of drug user, pointing out that it is often not the drug itself that causes this response but the lifestyle of the user or method by which the drug is taken, particularly intravenous use.

Exercise 4: Perceptions of illegal drug users

To illustrate this point more clearly, the participants are asked to close their eyes and imagine a world where the only way to take heroin is to drink it and the only way to take alcohol is to inject it. Which do you think would be seen as the more serious drug problem?

(b) Legal

Here the drug user is perceived as a "bad" or "wicked" person engaged in rational criminal activity, involved with dangerous commodities – drugs. Such a person is, by definition, a criminal who is responsible for their own actions and who may engender fear, mistrust and other such uncomfortable feelings. Punishment, as opposed to treatment, is seen as the solution for dealing with this type of problem.

(c) Medical

Here the drug user is seen as someone who is "sick" or "ill" (physically and/or mentally) who has a disease, and therefore needs medical treatment. People may feel familiar and more comfortable with this approach because historically there has

been a dominance of the medical profession in the treatment and rehabilitation of "drug addicts". However, it has its own problems, e.g. how does the "sick" model reconcile itself with the "criminal" model? If someone has a disease or is sick, how far can they be held criminally accountable and responsible for their own behaviour? Also, as Bakalaar and Grinspoon point out (in MacDonald & Patterson, 1991: 23): "It becomes part of the definition of this illness that the patients may have no right to decide whether they want treatment for it... the treatment need not even be for the drug user's own good if drug abuse is regarded as an epidemic".

(d) Social and political

Here there are several perceptions of the drug user, e.g. as a "normal" person who has developed a strategy, albeit an illegal and potentially dangerous one, for coping with the strains and pressures of everyday life: as a "victim" of a particular social environment, for example, someone who lives in a situation characterised by high social, economic or emotional deprivation. There is also the notion of the "normalisation" of drug taking as an enjoyable recreational human activity within certain social groups.

Adolescents holding these or similar, views may be less judgemental and prejudiced towards drug users and consequently be more at risk for experimentation with substances of abuse.

Exercise 5: Perceptions of drug users

After explaining the diagram (see Figure 2) in plenary session the social worker will ask participants which of the perceptions they most agree with and why.

4. Final attitude exercise

4.1 Exercise 6: Dependency – Self-completion questionnaire

This exercise will enable participants to understand the concept of "dependence" (as well as others such as "withdrawal" and "tolerance") by evaluating their own dependent behaviour.

The social worker introduces this exercise by suggesting that in order to understand the reasons behind drug users' use and dependency on substances we first need to understand our own dependency on substances, things, activities or people. For example a specific TV programme, jogging, chocolate, frequent cups of coffee or the first cigarette of the day.

The individual participants have 10 minutes to fill in the following sheet, and then put into pairs or threes for 10 minutes to compare notes.

Dependency exercise: Self-completion questionnaire

Think about one or two things, which you use, or have used, on a regular basis and on which you think you, are dependent. (These can be legal, illegal or prescribed substances, objects, people or activities. In fact, anything you would miss if it no longer existed tomorrow.) Then answer these questions:

1. List your dependency/dependencies.
2. Why do you think you are dependent upon these things? In fact why do you need them, what do they do for you?
3. If you had to give up your dependency tomorrow, how do you think you would feel? Would it be easy of difficult? Would you have withdrawal symptoms?

On a flipchart or blackboard, the social worker will then list the answers to questions 2 and 3 separately, asking for brief responses from each pair/three. Out of this should come material, which can be related to the reasons why people use and are dependent upon illegal drugs and the problems they face in giving up drugs.

For the second part of the exercise, question two, the social worker will have available her own list of why people use illegal drugs. The following list represents a compilation of reasons given by drug users themselves. This can act as a comparison to the material produced by the exercise, as it is likely that there will be many similarities.

Table 2: List of reasons why people use illegal drugs

Good reasons why I take drugs	
My friends do it	Status
It is exciting/fun	Pleasure
Tastes good	Raises self-esteem
Smells good	Risky
Feels good	Acceptable
Makes me high (life and soul of the party)	Gives me a feeling of well-being
Relieves boredom	Spiritual
Relieves pain	It's like a career when you're unemployed
Alters my perceptions of reality	Instant gratification
Cost-effective	Sociable
"Up yours!"	Gives me confidence/ makes me feel brave
It'll never happen to me	Spiritual

Question three can be dealt with in the same way, but if you are looking for similarities it will tend to be from the point of view of the emotional and psychological withdrawals people experience, e.g. anxiety, unhappiness, pain, loss, etc.

5. Final comment

Although attitudes may not be an accurate indicator of actual behaviour, holding particular attitudes will have real consequences in the practical world. Sessions one and two thus enable and encourage participants to explore, assess and evaluate their attitudes to substances and substance users, whilst providing the social worker and participants themselves, with a clearer idea of their current level of knowledge. Invaluable information for the social worker's move to the next stage of the learning process about substances, i.e. drugs and their effects.

Session 3 - 4

Understanding Drugs and their Effects

Understanding Drugs and their Effects

1. Introduction

Drugs and their effects are positioned as the third and fourth sessions of Project Skills Development, as drug knowledge is approached as an integral part of (a) shaping the participants attitudes to drugs and drug users, and (b) the development of personal and social skills within which to apply that knowledge.

In addition, however, the researcher concurs with Dielman (1995: 125) who indicates, "Changes in attitudes or knowledge do not correlate with subsequent behavioural changes." Yet, the underlying premises is not to establish negative attitudes concerning substance use/abuse, or similarly, pair such behaviour with fear arousal, but rather to empower, i.e. increase participants' personal and interpersonal power, by (a) shaping attitudes, (b) enhancing substance specific knowledge, and (c) improving their skills to prevent the adoption of substance abuse.

The aim of this session is thus to inform and educate participants on "Drugs and their effects" by offering them a basic grounding in the topic.

Aspects that will be covered, include:

- What I need to know about drugs and their effects,
- What are drugs?
- Types of drugs,
- Drugs and their effects,
- What affects the effect,
- Costs and benefits of drugs, and
- Will you or won't you take drugs?

The following Table provides the planned course for Sessions three and four.

Table 3: Drugs and their effects

Session 3		Session 4	
09:00- 09:10 *(10 minutes)*	Introduction Exercise 1: "What I need to know about drugs and their effects"	09:00 –09:05 *(5 minutes)*	Recap
09:10 –09:30 *(20 minutes)*	What are drugs? Exercise 2: "What are drugs?" Exercise 3: Key questions on drugs	09:05 –09:15 *(10 minutes)*	What affects the effect
09:30 – 09:50 *(20 minutes)*	Types of drugs Exercise 4: The windows of four squares	09:15 – 09:55 *(40 minutes)*	The costs and benefits of drugs Exercise 5: Costs and benefits of drugs
09:50 –10:10 *20minutes)*	Drugs and their effects Transparency presentation	09:55 – 10:05 *(10 minutes)*	Will you or won't you take drugs?
		10:05 – 10:10 *(5 minutes)*	Feedback

2. What I need to know about drugs and their effects

The first step to take is to attempt to discover what it is participants need to know, or think they need to know about drugs and their effects.

Exercise 1: "What I need to know about drugs and their effects"

The participants should brainstorm the question, "What I need to know about drugs and their effects" for 5 – 10 minutes. All the answers are written on a blackboard or flipchart, and referred back to during the session to ensure these needs are met.

This exercise is used to develop the flow of the session in line with the participants' identified needs. This is also a useful way of gaining information which can be returned to at the end of the session to establish whether people wanted to learn what has been covered and, if not, what more needs to be done.

3. What are drugs?

Drugs are not new. Man has been experimenting with them for thousands of years for escapism and fun as well as for healing purposes, spiritual enlightenment and ritualistic ceremonies. People today are looking for exactly the same form of escape, but now there is a '90s twist with new refinements of time-honoured, mind-altering chemicals. Nowadays when most people use the word "drug," they are thinking of illegal substances like cannabis, cocaine, crack or acid. Some use the word "poisons" to describe illegal drugs in order to

demonise them, but then alcohol, aspirin and nicotine are poisons too. Even water "poisons" the body when drunk to excess.

Exercise 2: "What are drugs?"

Participants are asked to individually formulate a definition for the term "drug(s)," by describing it in written form on a piece of paper. They are then asked to brainstorm their answers in small groups, and agree on one definition per small group, which is written up on a flipchart/blackboard. The small group definitions are then compared with the social worker's definition. A mutually acceptable definition will finally be formulated and can be referred to throughout the programme.

The social worker has available her own list of definitions for drugs. The following list represents a compilation of three descriptions of the term "drugs" that will act as comparison to the material produced by the participants.

Table 4: Drug definitions

	Drug definitions
1.	Substances used in medicine or as a stimulant or narcotic (Stoppard, 2000:10).
2.	All chemical substances that have biological and psychological/neurological effects on human beings. The term, is therefore used for licit substances (e.g.

	Drug definitions
	alcohol, nicotine, aspirin, cough mixtures, appetite suppressants, sedatives, tranquillisers) and illicit substances (e.g. cannabis, cocaine, heroin, LSD.) (Compare World drug Report, 1997:10; Rocha-Silva, 1998:1.)
3.	A dependence producing substance, i.e. a substance that: • readily enter the brain and spinal cord, i.e. the central nervous system (CNS), • act upon the central nervous system to cause alterations in mood and/or level of consciousness and/or perceptions. The so-called uppers tend to cause stimulation, alertness, self-confidence, appetite suppression and euphoria. Conversely, the so-called downers tend to cause sedation, reduced anxiety, flattening of emotions, drowsiness and withdrawal from the surroundings. Hallucinogens may possess stimulant or sedative properties, but their chief effect is to markedly distort perceptions. The hallucinating individual therefore loses contact with reality by losing his sense of time and position, by seeing, hearing and feeling things which do not exist and by losing his ability to visualise his own body. • possess the ability, because of mood and mind-altering properties, to alleviate unpleasant feelings, induce pleasant feelings and consequently, to cause psychological dependence (Roper & Bartlett, 1994:5).

Next, participants have a chance to explore several key questions regarding drugs and thereby test their factual knowledge on this subject.

Exercise 3: Key questions on drugs

Ask participants, in either pairs or small groups, to discuss the following questions:

(a) What do people mean by legal drug use?
(b) How did drugs become street drugs?
(c) How long have drugs been around?
(d) Why do people take drugs?
(e) What is the problem with drug use?

Hereafter participants return to the plenary for feedback from each pair or small group. Feedback is discussed, then written on a flipchart by the social worker, pinned to the wall, and can be referred to throughout the programme.

It is important that the social worker will explain and point out:

(a) What is meant by legal drug use

- You do not have to use the so-called "street" drugs in order to be a drug user. Tea drinkers and smokers are drug users too. Alcohol, the caffeine in tea and coffee and the nicotine in cigarettes are all drugs – and they are legal substances.

- Drinking alcohol and smoking cigarettes cause far more deaths than the use of illegal drugs. In South Africa, approximately 7 million adults are smokers. The Department of Health is currently conducting research to establish how many smoking-related

deaths occur annually. About 11,000 – 15,000 deaths are attributable to alcohol, whereas 500 – 600 deaths a year is attributable to the misuse of illegal drugs.

(b) How drugs became street drugs

- The traditional use of the word "drug" refers to substances taken for medicinal reasons. In fact, it was not until the 19th century that a distinction began to grow between "medical" and "recreational" drug use.

- Some medicines prescribed by doctors, for example, barbiturates and tranquillizers, are just as harmful and/or addictive as some of the illegal street drugs and indeed find their way into the streets. Various plants and household substances are also being tucked under the drugs umbrella if they are used in certain ways. A common wild fungus called the Liberty Cap (one of the "magic mushrooms") contains a chemical that causes hallucinations when eaten, and butane gas lighter refills and paint thinners give a quick, cheap, but dangerous buzz when sniffed.

- Most illegal street drugs started life in the laboratory as legitimate, respectable medicines; the medical profession developed them as possible remedies for various conditions:
    - Ecstasy started life as an appetite suppressant;
    - LSD (acid) was discovered by mistake by a Swiss chemist in 1943; and
    - It was hoped that heroin would prove to be a powerful non-addictive painkiller when it was discovered in 1874.

(c) How long drugs have been around

- It's a safe bet that ancient man began to smoke plants as soon as he had discovered fire; and long before the invention of modern mind-altering chemicals like acid and ecstasy, he had certainly discovered some natural alternatives of his own. Historical evidence suggests that people have been using cannabis for 8000 years; it was used by many early civilizations as a medicine for anything from anxiety to digestive problems, even period pains. Ancient Sumerian texts (from the Middle East) hailed the opium poppy as a "joy plant" 6000 years ago. Herewith the chewing of coca leaves by natives of South America dates back to at least 2500 BC. Bolivians still use coca leaves as a remedy for altitude sickness. Finally, mescaline (from a Mexican cactus plant) and magic mushrooms – both of which can be hallucinogenic- were used thousands of years ago in an attempt to raise the consciousness and spark of some kind of cosmic "inner journey". Both substances are as central to mystical tribal rituals as ecstasy is to the rave experience.

(d) Why people take drugs

- Whether people are using fire, drums, chanting, flickering lights or music, their aims are the same – to escape feelings of isolation, and to feel a sense of unity with everything and everyone around them. The appeal of drugs has always been that they change the way people feel and how they perceive the world around them. People take drugs to:

  - Have fun and feel happy

- Loosen up and be free of inhibitions
- Feel confident and good about themselves
- Be accepted by a group of friends
- Feel sociable and enjoy people more
- Forget ordinary life and relieve boredom
- Forget problems and escape from worries
- Enjoy music more
- Enjoy dancing more
- Stay up all night
- Experiment and feel the thrill
- Be rebellious
- Relax and chill out
- Reduce the effects of other drugs
- Speed up the effects of other drugs
- Ease "coming down," and
- Get some sleep

(e) What the problem is with drug use

- A substance that is sufficiently active to change your brain chemistry, so that your perception is altered and you see the world differently, is bound to have serious after-effects. Everyone knows about the hangover after drinking alcohol. Nevertheless, people who drink alcohol are prepared to go for the short-term thrill and suffer the longer-term after-effects – that is the trade off. Other drugs are no different; they all trade an immediate high for a downer some time later.

4. Types of drugs

The different types of drugs will be handled with the aid of the following exercise.

Figure 3: The windows of four squares exercise

Exercise 4: The windows of four squares

Draw the following matrix on a blackboard or flipchart and ask participants to (a) brainstorm all the drugs they can think of, and (b) decide where they should be placed within the matrix

Socially acceptable	Over-the-counter
Prescribed	Illegal

As participants are shouting out the names of various drugs, disagreement can occur as to where some drugs should go, e.g. "Should cigarettes be placed in the socially acceptable window?" or, "Are magic mushrooms illegal?"

This will move the social worker into looking at the breadth of the drugs that need to be considered:

Socially acceptable	Over-the-counter
Alcohol, nicotine and caffeine which is included in tea, coffee, drinking chocolate and soft drinks	Solvents and gases, cough medicines, stomach preparations
Prescribed	**Illegal**
Barbiturates like tuinal, nembutal and seconal, tranquillisers like valium, ativan and librium, hypnosedatives like temazepam and painkillers like diconal	Heroin, amphetamines, LSD, ecstasy, cocaine, cannabis and magic mushrooms

Note. How far do you agree with this categorisation? For example, alcohol, while a legal drug, can also be illegal if consumed under age, and is bought over the counter.

5. Drugs and their effects

The social worker will start by showing a transparency, using an overhead projector, with the following statements about the four categories of drugs:

- Stimulants (such as amphetamine) quite literally speed up the body;
- Depressants (such as alcohol) slow the body down;

- Hallucinogens/psychedelics (such as acid) alter the way people perceive the world around them; and
- Narcotics (such as heroin) induce a feeling of passive drowsiness.

These groups are chosen, because the drugs to be classified in each group all have the same overall effect on the central nervous system. Then, referring back to the participants' identified needs regarding drugs and their effects (see Session 3, Exercise 1 "What I need to know about drugs and their effects") and the participants verbalised need regarding certain other substances, information is provided on these drugs in terms of their (a) form, (b) mode of use, (c) effects, (d) withdrawal, and (e) dangers. (See Chapter 2, page 57.) It is also important to show participants what drugs look like. For this reason, the social worker will present examples of the different kinds of drugs, by means of transparencies, to the participants. (See Appendix 6, page 545.)

6. What affects the effect?

As well as knowing the names of drugs and what category they come under, it is important that participants are made aware of the following factors which affect the effect of any drug. The effect may be physical and/or psychological and, in some cases, may be affected by:

6.1 The method of use

- Inject – both intravenous (mainlining) and subcutaneous (under the skin) - e.g. amphetamine and /or heroin.
- Smoke, i.e. to smoke a cigarette or pipe (e.g. nicotine or cannabis)

- Swallow, i.e. to take a substance orally (e.g. cannabis and prescribed drugs)
- Inhale – e.g. inhale solvents that are poured on to a piece of cloth or into a plastic bag
- Snort, i.e. sniffed up the nose (e.g. cocaine and amphetamine)
- Inhale, i.e. sniff from the bottle or a soaked cloth (e.g. of amyl nitrate, Poppers).

6.2 The purity of the drug

Street drugs such as heroin and amphetamines are normally "cut" or adulterated with other substances such as talcum powder or bleach, which lowers the purity of the drug, increases the profit to be made by drug dealers and increases health risks like abscesses and septicaemia.

Participants should recognise that drug users will not normally use a 100% pure drug, like heroin and that problems can arise, from either, the substances used to adulterate the drug, or in some cases, the sudden and rare appearance of a more pure drug for sale. Overdoses and possible death can occur from 100% pure heroin.

6.3 The mixture of drugs

It is normal for many drug users to mix the drugs they take without always being sure of the result. This polydrug use, as it is known, is particularly true of illegal drug use, is often chaotic, and usually based on what is available to be taken.

6.4 Physical and psychological disposition

The effect of a drug can be affected by certain physical characteristics, for example, the weight, height and general health of a drug user. Increasingly, people with a suppressed immune system due to HIV infection are becoming less able to cope with the effects of drugs. Women are unable to use as much as men because of their lesser height and weight. The menstrual cycle also affects drug use and vice versa. A person's mood can affect the effect of a drug as can any predisposition towards mental illness.

6.5 Expectations and experience

Expectations of the effect of a drug may be based on the information already known about that drug, from friends, films or the written word. These expectations can influence initial use, both negatively and positively. This will be the first experience, which will then colour subsequent use of that drug, and so on.

6.6 Social setting and peer-group pressure

The feelings induced by using drugs in a warm, comfortable environment will necessarily be different from those resulting from drugs taken up an alley in the pouring rain. Peer-group pressure may dictate that everyone using the same drug, in the same place, at the same time should experience the same effects, e.g. groups of solvent users

commonly report experiencing similar hallucinations, although this is known not to be true.

6.7 Tolerance/cross tolerance

The body can develop tolerance to a drug through repeated use, which leads to an increased amount of the drug being necessary to achieve the desired effect. This tolerance can also result in cross-tolerance with drugs, which have a similar effect on the central nervous system, e.g. alcohol.

6.8 Date of last use

If someone has not been taking their normal amount of any drug (due to, say, a period of imprisonment or other reason for abstinence) the body's level of tolerance is reduced. This can lead to overdose and possible death if what was their normal amount is suddenly used.

6.9 Knowledge of ritual

Part of the attraction of drug use often surrounds the rituals involved in the preparation of drugs and the method of use, e.g. preparing the cannabis, rolling the "joint" and passing it round offers to some a heightened social experience. Compare this to offering a packet of cigarettes around.

7. The costs and benefits of drugs

At this stage, participants will be involved in more participatory exercises to bring together what they have already learned.

Exercise 5: Costs and benefits of drugs

In this exercise, participants will go into small groups of no more than nine people. Then subdivide each small group into three subgroups, and allocate each one of these three subgroups a specific drug, e.g. alcohol, heroin, cannabis or cocaine. Each participant is given a copy of the summary compiled by the researcher in Chapter 2 (page 59), and each subgroup is asked to read what is said in this about their allotted drug. When completed, ask each subgroup to explain to the rest of their small group the costs and benefits of this specific drug – 10 minutes for each drug, with adequate time left for discussion.

This exercise will encourage participants to assimilate knowledge through reading, and then allow them the opportunity to pass on their learning to others. Participants will gain more detailed knowledge about these drugs and are also given added confidence in their ability to teach others about drugs.

8. Will you or won't you take drugs?

At this stage, you may know exactly how you feel about drugs. You may have seen friends getting high and decided that next time you get the chance you're going to try drugs too. Alternatively, you may be someone who hates the idea of losing control, so much so, that you

are determined never to take drugs – even if it makes you feel like an outsider at times. On the other hand, you may be in two minds: sitting on the fence and weighing up the good and bad points, and wondering which way to jump.

8.1 Be well informed

The best way to explore your feelings about drugs is to find out everything you can about them, and arm yourself with the facts. Talk to people you trust: your best friend, your parents or the adult you get on best with. Share your feelings with older brothers and sisters if you have any. Get advice from a teacher whose opinion you respect, or from a social worker attached to your school. Try talking to people who have tried drugs and are willing to give you an honest account of their experiences – that means the lows as well as the highs. Take your time weighing up all the information and remember it is okay to say "no" whatever your friends say or do. Remember you always have a choice.

8.2 What to think about

There are some important facts to consider when you are thinking about drugs:

- If caught with illegal drugs, you can go to prison.
- Taking drugs is a leap in the dark – you can have as many bad trips as good ones.
- Drugs mess with your mind and body – one bad trip can leave permanent damage.

- You always have to come down, and the higher you go, the harder you fall.
- You can never be sure what is in a dose.
- You can become dependent or addicted to many drugs.
- If you are mentally unstable, drugs will make your condition worse; they can trigger mental illness.

8.3 Standing your ground

If you really don't want to do drugs:

- Make friends who do not take drugs. If your drug-taking friends try to make you feel like a freak because you will not join in, remember that there is plenty of other people who feel like you do.
- Avoid places where drugs are available.
- Focus on something positive that makes you feel good about yourself, such as your studies or your favourite sport.
- Look after your body – exercise boosts self-esteem and gives you a natural high.

Session 5

Peer pressure

Peer pressure

1. Introduction

At the very heart of every adolescent is the intense desire "to belong". Their social development is therefore characterised by an increasing interest in and involvement with the peer group. This increasing interaction with the peer group as well as with friends provide interpersonal contact beyond family relationships and plays an important role in psychosocial development. Not only does peer-group interaction contribute towards the satisfaction of the adolescent's emotional needs, but it also serves as an important source of information and opportunities for socialisation (Louw, Van Ede & Louw, 1998:449). The adolescents' peers are thus an important force to consider in skills training. For the purpose of this study, peer pressure has thus been identified as a risk factor for substance use/abuse.

The session's focus is on peer-group relationships with the aim to enhance participant's awareness and social skills within peer relations. Aspects that will be covered, include:

- Why it is important to include peer pressure in the programme,
- How peer pressure evolved,
- The importance of peer pressure for adolescents,
- How peer pressure can put you at risk for substance use/abuse, and
- How to cope with peer pressure.

The following Table provides the planned course for Session 5.

Table 5: Peer pressure

Session 5	
09:00- 09:10 *(10 minutes)*	Introduction Exercise 1: Expectations
09:10 – 09:15 *(5 minutes)*	Why is it important to examine peer pressure?
09:15 –09:20 *(5 minutes)*	How peer pressure evolved
09:20 – 09:35 *(15 minutes)*	The importance of peer pressure for adolescents Exercise 2: Acceptance by peer group
09:35-09:50 *(15 minutes)*	How peer pressure can put you at risk for substance use/abuse Exercise 3: Peer pressure
09:50 – 10: 05 *(15 minutes)*	How to cope with peer pressure Exercise 4: Ways to say no to drugs
10: 05 – 10:10 *(5 minutes)*	Feedback

Start with the following exercise. It is a good "ice breaker" as it is non-threatening and enables everybody to participate and talk about the subject from the outset.

Exercise 1: Expectations

Participants should brainstorm the following question for 5 –10 minutes. Write all the answers on a flipchart and ask the participants to keep a more detailed note of their own answer:

What do you expect to get out of this session on peer pressure? Imagine that you leave the session feeling good. What would you have learned and/or experienced to feel like that?

2. Why is it important to examine peer pressure?

There are several reasons why it is important to include peer pressure as part of the programme:

- Within the adolescent's personal environment, peers are regarded, next to family, as the most prominent interpersonal factor associated with adolescent risk and resiliency to substance use/abuse.
- It enables participants to examine personal relationships with their peers,
- It can begin to promote conventional behaviours and perceptions that substance use/abuse is unacceptable and unsupported by the dominant, non-drug-taking peer group
- It is a good way of making substance-using role models (e.g. close friends) less salient and substance-abstaining role models more salient.

3. How peer pressure evolved

The roots of peer pressure evolved with birds. Birds learned that they were safer if they gathered in flocks. They could more easily warn others of danger if they stuck together. In a group, they were less likely to be singled out as prey. Birds learned how to stay together for safety. Because this worked so well, birds, over thousands of years, developed a feeling of wanting to be together. They developed social skills and began to make noises to keep together. Anyone who has heard a flock of geese fly over will testify to the active communication patterns of these birds. Communications became more complicated over the years. They developed a particular sound for relaxation, and a particular sound for danger. Birds developed the feeling of wanting to be together. These feelings are what we now call emotions.

High-order social activity continued to evolve in mammals. Baboons, for example, have very complicated social rituals. These animals groom each other to keep the troop together. The grooming serves to rid them of irritating insects and helps them to feel closer together. It is like a back scratch, and it says, if you scratch my back, I will scratch yours. These social rituals hold a group of animals together. If you go to the zoo, you will see animals rubbing and stroking each other. You will see mothers holding and licking their babies. The species thus becomes bonded together.

Acceptance is a very important feeling because an animal depends on acceptance by the group for survival. If the herd rejects them, they have a higher chance of being killed by predators. The animals are all safer if they are in a group

As we move up the evolutionary scale, we finally get to human beings. Early people, as we know them, were social creatures. They gathered in groups or tribes for safety. The tribe could function better together. They could specialize and reap the benefits of another person's expertise. It was easier to hunt, fish and gather food if the tribe worked together. Some would do the hunting and some would make arrowheads. Each tribe member specialized in a particular function. It was very important for early people to be accepted by their tribe. If they were banished, they would have to fend for themselves. Being alone in the world would put an individual at great risk. Therefore, humans developed a desire, a wish, a need, to be liked, to be accepted. This was very important for survival.

4. The importance of peer pressure

Exercise 2: Acceptance by peer group

Give each participant a piece of flipchart paper to write down three reasons, why acceptance by their peer group is important to them. Then they divide into small groups of four or five. Each group elect a recorder who will take notes and feedback to the main group. The task is to negotiate the five most important reasons behind acceptance by their peers. Allow 5 minutes for this, and then each group gives feedback. Open discussion is encouraged to come to some consensus about this issue.

You are thus beginning to see why peer pressure is so important. Without the acceptance of the group, people feel more vulnerable to

the world. Now you can see why we try so hard to get our friends to like us. We need our friends so we can feel safe.

It is very clear that being liked and being accepted by the group is important and good. It is important for all of us to learn the skills necessary to establish and maintain close interpersonal relationships. These skills keep the group together.

5. How peer pressure can put you at risk for substance use/ abuse

A few things about peer pressure can get you into trouble. Groups can get you to do things that you would not normally do. They might talk you into doing something that you do not want to do, things like stealing, drinking or even playing a practical joke on someone. If we always follow the group, we can be led into behaviour that we know is wrong.

Exercise 3: Peer pressure

Give each participant a piece of flipchart paper to list, at least five times; when they were talked into doing something they really did not want to do. After completion, participants hold their flipchart paper in front of them for others to read (or alternatively make a hole in the top of the paper and pull it over their heads) and walk around reading each other's lists.

Once participants have read each other's lists, they have to negotiate and choose two other people whose answers they identify with most, to form a small group. The task of the small group is to list three ways

their friends try to get them to cooperate with them. These are written on a blackboard or flipchart. Each group then bring their completed flipchart to the larger group where all the charts are displayed on the wall. Discussion within the large group follows, after participants have had time to walk around and study each group's chart.

6. How to cope with peer pressure

It is important to stay in the group, but it is also important to make your own decisions. If you do not make all of your decisions, you will be held accountable for the decisions of others.

Here is a new concept for you: The only thing that you owe anyone else is to be different. You must be different from anyone who ever was or anyone who ever will be. You were created for your individuality. They only way you can reach your full potential in life are to make all of your own decisions. If you always follow a group, you cannot be yourself. It is important for you to have the skill to say "No". You need to be able to go against the group sometimes. If you are going to be an adult, you have to make all of you own decisions and live with the consequences. That is the only way you can take your own direction. You must think about every choice you make. You cannot let other people make your decisions for you.

When you decide to do something that is different from what the group wants, the group will apply pressure. The group will try to get you to conform. They may threaten you or make fun of you. They may get angry with you. However, remember: It is your responsibility to yourself, and to everyone else, that sometimes you will be different. Once you make a decision, and you believe in it, you must be able to stick to it. If

you cannot do this, the group will always manipulate your choices. You need to develop the skill of going your own way, even in the face of group opposition.

You do not have to have a good reason for not doing what the group wants. It can just be your choice. You do not have to explain yourself or your opinions to anybody. You do not need an excuse. You can simply say, "Because I want to." That is reason enough.

You must keep the group informed about how you are feeling if they try to pressure you. This holds the group accountable for their behaviour. If the group is causing you to feel uncomfortable, you must express this feeling. This will keep their behaviour in line. "It makes me feel uncomfortable when you ask me to drink when you know I don't want to." Honest statements such as this will usually bring people under control. You must constantly keep people informed about how you are feeling and what you want from them. "I don't want any pot. I would prefer it if you would stop asking me." A simple "No," or "No, thank you," is enough in most circumstances. Say no, and stand your ground, you don't have to explain yourself further. If the group continues to coerce you even after you have said no, you may have to leave the situation. If they do not respect your wishes, you do not want to be with those people anyway. Just excuse yourself and go home. You have not lost anything – if the group does not care for how you feel, they are not the group for you.

People can always get you to feel a certain way if they try. They can get you to feel angry or guilty if they work at is, but even if they have some control over your feelings, they cannot control your actions. That is up to you. If they can get control over your actions by controlling your feelings, they have a slave; they can get you to do anything.

Groups will often try to lay guilt on you if you do not cooperate with them, but they cannot make you do anything with this guilt. You are in control of your actions.

Exercise 4: Ways to say no to drugs

Brainstorm different ways to say no to drugs, in plenary. List all the answers on a flipchart or blackboard (e.g. "No, I can have fun without drugs" or "No, because I don't know what drugs might do to me.") Open discussion is encouraged.

Session 6

Social problem solving:
Techniques to promote self-control

Social problem solving: Techniques to promote self-control

1. Introduction

Appealing to the strength and intelligence in every adolescent, Perkinson (1997: 267) remarks: " We can reach our full potential in life only when we meet our problems head on, accept responsibility for them, and work toward resolution". Thus, dealing with problems, as a natural consequence of the confluence of forces in your life, is an important skill to develop. The aim of session six is to enhance participants' social problem-solving skills by specifically focussing on techniques to promote self-control. An approach grounded on the premise, that the strengthening of this protective factor will reduce the likelihood and level of substance use.

Aspects covered in Session six, include:

- Delayed gratification,
- Rules,
- How to solve problems, and
- Responsibility.

Table 6 provides the planned course of Session 6.

Table 6: Social problem solving, techniques to promote self-control

Session 6	
09:00- 09:10 *(10 minutes)*	Introduction Exercise 1: "What I'd like to learn"
09:10 – 09:25 *(15 minutes)*	Delayed gratification Exercise 2: Things I want in life
09:25 –09:40 *(15 minutes)*	Rules Exercise 3: Breaking rules
09:40 – 09:55 *(15 minutes)*	How to solve problems Exercise 4: Problem solving
09:55 –10:10 *(15 minutes)*	Responsibility Exercise 5: Taking responsibility

After the introduction, the following exercise is a good starting point.

Exercise 1: "What I'd like to learn"

Participants brainstorm the question, "What I need to know about Problem solving: Techniques to promote self-control" for 5 – 10 minutes. All the answers are written on a blackboard or flipchart, and referred back to during the session to ensure these needs are met.

2. Delayed gratification (reward)

Self-control and/or self-discipline require training and practice. This implies that we need to work. However, work does not always feel good, as work is the expenditure of energy. Yet, when we expend energy, things change.

For example, nearly everybody would like to be a champion, but to be a champion; you will have to work at it. Professional athletes train every day. It is the only way to excel. They cannot win a race every day, but they can train for the race every day. They must constantly keep in excellent physical and mental condition. They have to be practiced in their sport, to do things automatically. The same holds true for most things in life, to do something well, we must persevere, practice, and learn how to set long-term goals.

Exercise 2: Things I want in life

Take a piece of paper and write down some of the things you wanted in your life that you did not get, because you didn't work hard enough. Perhaps you wanted to play a musical instrument, or go out with someone special. *Find three things that you wanted, but did not get.* Write those things down and take a long look at each of them. What would it have taken you to achieve each of these goals? What work needed to be done, that you did not do? However, nothing reasonable is out of your grasp if you work hard enough. *Write down the steps you needed to take to achieve that goal(s).*

Next, divide into small groups of four or five, where participants share their thoughts and explain the role of delayed gratification in goal achievement. Participants then return to the plenary for a general discussion about the above.

3. Rules

Rules do not exist to deny you pleasure. They exist to protect you from pain. If you break the rules, you will hurt – it is as simple as that. Consistently obeying the rules takes self-control. You must decide that the rules are for your own good. The legislature did not make the speed laws to deny people the pleasure of driving fast. They made the rules to keep people safe.

Many of us who have a difficult time with self-control or self-discipline, are raised in homes where the rules are inconsistent. This is confusing to a child. Sometimes our parents would enforce the rules, and sometimes they would not. Sometimes we would be punished, and sometimes we would get no punishment at all. Sometimes our parents would do the same things they told us not to do. They would tell us not to hit others, for example, and then they would hit us. This teaches a child that rules are not important.

A person without rules is a person with no self-respect. Only when we respect ourselves do we set limits on what we will and will not do. Children know that people who love them set limits for them. Consequently, there is no one unhappier than a child with no rules. They are allowed to be the ruler of the home. This monarch of the house will demand increasingly until they make themselves miserable. Are you important enough to keep safe? If you are, you need rules.

Exercise 3: Breaking rules

Write down some rules you have broken on a piece of paper. For example, write down two times when you lied, or two times when you stole. Write the *situation* down as honestly as you can. You had some good *reasons* for doing those things, did you not? Why did you do it? What good came out of it? Now write down the *consequences* of breaking each of those rules. How did you feel about yourself? How did you feel about the other people? What happened?

Now, look at each situation and ask yourself this question: "Did breaking this rule help me grow and reach my full potential as a person? Did I honour myself, others and God?" You will find that breaking rules results in pain, your pain. Take lying for example. We lie to avoid getting into trouble. Now this works in the short run, but in the end, it is an interpersonal disaster. We want people to love us. If we lie, people do not know us, so they cannot love us. In the end, if you lie, you will be lonely and you will hurt.

To love you must be self-disciplined. Love is an action, not a feeling. Love is work. Love takes time, energy and commitment. To do unto others, as you would have them do unto you is not always easy, but you will not experience joy unless you love like this. To love, you must be consistent. If you are selfish, if you always come first, you will hurt, you will be deprived of the joy of giving unselfishly to others.

4. How to solve problems

Life is an endless puzzle of problems that need to be solved. Problem solving is challenging, necessary, and fun. However, it needs to be practiced enough times so that it gets to be automatic.

Exercise 4: Problem solving

Each participant writes down a personal problem. Then the social worker leads the group through the problem-solving steps.

(a) Step one is to formulate the problem. Did you describe the problem clearly? How do you feel about it? What do you want to see happen?

(b) Then make a list of options. What are all of the possible ways you can deal with this problem? Get input from others you trust. Ask other people to give you alternatives of action. You will be surprised. Other people will come up with good ideas you did not have.

(c) Now consider each option carefully and decide which choice will help you to grow into the person you want to be. If people are involved, remember to treat them the way you would want to be treated.

(d) Put the option you have chosen into action.

(e) Evaluate the effect of your action on the original problem. This gives you information about how to solve future problems.

Through this exercise, a basic understanding of the problem solving process (i.e. problem; options; decision; action; evaluation) and an increased confidence amongst participants that they can solve problems is established.

5. Responsibility

To solve a problem effectively, you must accept that problem as your problem. If you blame the problem on something else, you are helpless. It is easy to feel this way, but it is self-defeating. For example: "I would be okay if they would just leave me alone." This, however, is a cry of someone who is defeated by life. In short, it is never effective to blame other people for your problems. In fact, there is always something you can do to make things better. You have great power and influence over your own life. If you sit and do nothing, nothing will change.

Exercise 5: Taking responsibility

Each participant (a) write down one time they got into trouble, and (b) think about the choices that lead to the problem. What did you do that ended with you in trouble? Identify the choices you made along the way that led to the problem.

Do not blame anyone else, just look at your own behaviour. If you look closely, you will see that a series of choices, your choices, led to these events. Accidents happen, yes, but most of what happens to you is a result of your choices. Think of how scary the world would be if some other person had the power to make you happy or unhappy. No one has that power but you.

Think of yourself as a gift to the world. There has never been anyone like you. There will never be anyone like you. You owe the world only one thing, to be different. Only you can do this. Only you can be responsible for what you do. You will change the course of history

because you were here. Maybe you will change things for the good, maybe for the bad, maybe you will change things a little, maybe a lot, but you will definitely change things. Things will be different because you were here. You have a great responsibility to be yourself.

Session 7

Social problem solving:
Relieving stress, anxiety and pressure

Social problem solving: Relieving stress, anxiety and pressure

1. Introduction

Social problem-solving skills is an individual protective factor that balance risks to substance abuse, by either reducing the impact of the risk or changing the way a person responds to the risks. Consequently, this session focuses on the enhancement of participants' social problem-solving skills by focussing on adaptive coping strategies to relief stress, anxiety and pressure.

Session seven, thus includes the following aspects:

- Stress,
- Relaxation,
- Exercise, and
- Lifestyle.

The following Table provides the planned course for Session seven.

Table 7: Social problem solving, relieving stress, anxiety and pressure

Session 7	
09:00- 09:05 *(5 minutes)*	Recap and introduction

Session 7	
09:05 – 09:25 *(20 minutes)*	Stress Exercise 1: Experience and cope with stress
09:25 –09:35 *(10 minutes)*	Relaxation Exercise 2: Relaxation exercise Exercise 3: Relaxation at home
09:35 – 09:45 *(10 minutes)*	Exercise Exercise 4: Physical fitness
09:45 –10:05 *(20 minutes)*	Your lifestyle Exercise 5: Problem solving Exercise 6: Identifying pleasurable activities Social skills
10:05 – 10:10 (5 minutes)	Recap

2. Stress

Everyone has stress and everyone needs to learn how to manage the stress in his or her life. Stress is the generalized physiological response to a stressor. A stressor is any demand made on the body. A stressor can be anything that mobilizes the body for change. This can include psychological or physiological loss, absence of stimulation, excessive stimulation, frustration of an anticipated reward, conflict or the presentation of and anticipation of painful events.

The stress response is good and adaptive. It activates the body for problem solving. Stress is destructive only when it is chronic. The overstressed body breaks down. Initially, the body produces certain chemicals to handle the stressful situation. Initially, these chemical changes are adaptive, but in the end, they are destructive. Severe or chronic stress has been linked to irreversible disease, including kidney impairment, high blood pressure, ulcer and a compromised immune system that can result in increased infections and cancer.

When animals are put in a situation with an unsolvable problem, they ultimately get sick. They fall victim to a wide variety of physical and mental disorders. Under chronic stress, the organism ultimately dies.

It seems that everyone has a genetic predisposition to break down in a certain organ system when under chronic stress. Some people are depressed, some get ulcers, and some become substance dependent. As an adolescent, you must learn how to deal with stress in ways other than by using drugs. You must learn to use the stress signals that your body gives you to help you solve problems. If you cannot solve the problem yourself, you need to get some help.

Identifying how participants define, experience and cope with stress is thus important. Exercise 1 illustrates this clearly.

Exercise 1: Experience and cope with stress

Divide participants into small groups of four to five people. Then give them each a piece of flipchart paper to write down three sources of stress in their lives. There after each small group is asked to try to reach agreement about (a) what the three main sources of stress are for everybody in that group, and (b) positive coping strategies for this. Write these on a flipchart, along with a list of the other sources of stress talked about within the group. Each group then brings their flipchart back to the large group. Display all the flipcharts on the wall.

Allow at least 15 minutes for discussion within the large group, after participants have had time to walk around and study each group's charts.

3. Relaxation

For centuries, people have relaxed to quiet the mind and reach a state of peace. When animals have enough to eat and they are safe, they lie down. People do not do that because humankind is the only animal that worries about the future. We fear that if we relax today, we will be in trouble tomorrow.

Herbert Benson in (Perkinson, 1998: 361) has shown that if people relax twice a day for 10 to 20 minutes, it has a major impact on their overall stress level. People who do this have fewer illnesses, they feel better, and they are healthier. Illnesses such as high blood pressure, ulcers, and headaches can go away completely with a regular relaxation programme.

Against this background, three orientating concepts regarding relaxation as a skill, follows:

i. Learning a relaxation skill is like learning any skill – e.g. driving a car, typing, swimming – in that there are several stages you are likely to go through. You learn to walk before you learn to run.
   - *Regular practice*. Initially you should "just do it", regular practice is crucial. Repeat what you have been shown and do not worry if there is not much change or you only enjoy some sessions.
   - *General benefits*. Although you should not expect too much too soon, after a week or two of regular practice you are likely to notice some general benefits. You may find you are sleeping a bit better, feeling a bit more relaxed or getting less irritable.
   - *Specific benefits*. As you continue to develop your relaxation skills, specific problem areas that you are particularly bothered by can start to respond.

ii. Attention. When learning a relaxation skill it is important to get the balance right between being focused and attentive on the one hand, and relaxing and releasing on the other. Different types of relaxation techniques will have a different balance.

iii. Applications. When learning a relaxation skill it is important to be able to apply it in various situations. More specifically, in episodes that is stressful to you.

Participants should now be ready to work through the next relaxation exercise.

Exercise 2: Relaxation exercise

(a) Sit or lie down in a quiet place. (b) Pay attention to your breathing.
(c) Every time you exhale, say the word, "one" over quietly to yourself. It is normal for other ideas to come, but when they do, just return to the word "one."
(d) Do this for 10 – 20 minutes twice a day.

You do not have to use the word "one", you can use any other word or phrase of your choice, but it has to be the same word or phrase, repeatedly. You can get some relaxation tapes or music that you find relaxing. You can pray or meditate. The most important thing is to relax as completely as you can. If you do this, your stress level will be lower, and you will be better able to mobilize yourself to deal with stress when it occurs.

As you practice relaxation, you will learn how it feels to be relaxed, try to keep this feeling all day. When you feel stressed, stop and take two deep breaths. Breathe in through your nose and out through your mouth. As you exhale, feel a warm wave of relaxation flow down your body. Once you have regained your state of relaxation, return to your day, and move a little slower this time. Remember, nothing is ever done too well or too slowly. You do not have to do things quickly to succeed.

When you come to something new that you think you need to do, ask yourself several important questions.

- Do I have to do this?
- Do I have to do it now?
- Is this going to make a difference in my life?

If the new stressor is not that important, perhaps you should not do it at all. Do not decide to overly stress yourself – that does not make any sense. Know your limits. Achieve a state of relaxation in the morning, and listen to your body all day long. If anything threatens your serenity, turn it over and let a Higher Power deal with it.

Exercise 3: Relaxation at home

For the next week, set aside two times a day for relaxation. Go through the exercise we practised or some other relaxation exercise. Score the level of relaxation you achieve from one, as little as possible, to 100, as much as possible. Then score your general stress level during the day the same way. Write down any comments about your stress. List the situations when you felt the most tension.

E.g. Day one: Relaxation score..... Comments:.....
Daily stress score.....

4. Exercise

People who maintain a regular exercise programme feel less depressed and less anxious; they improve their self-concept and enhance the quality of their life. An exercise programme, while it is difficult to develop, can be fun. You get a natural high from exercise, which you do not get any other way. It feels good and it feels good all day.

A good exercise programme includes three elements: stretching, strength and cardiovascular fitness. Stretching means, you increase a muscle's range of motion until you become supple and flexible. Never stretch your muscles to the point of pain. The body will warn you well before you go too far. However, get into the habit of stretching before all exercise.

In a strength programme, you gradually lift more weight until you become stronger. Do not lift more often than every other day. The muscles need a full day of rest to repair them. Soon you can increase the load. Three sets of 10 repetitions each is a standard exercise for each muscle group. Correct technique is very important here.

Cardiovascular fitness is attained, when you exercise at a training heart rate for 20 minutes three times a week. Usually you will be increasing your exercise by 10% a week. Many forms of exercise can be beneficial for cardiovascular training. The key point is this: It must be sustained exercise for at least 20 minutes. It cannot be a stop-start exercise, such as tennis or golf. It must be something you can sustain. These are exercises such as jogging, walking, swimming, biking, and the like.

Exercise 4: Physical fitness

Participants go into small groups of four to five people. Each small group are asked to:

(a) Outline, as clearly as possible, the costs and benefits of exercise, and

(b) Give one example of an effective exercise programme.

When completed, each group gives feedback. A general discussion by the group as a whole follows.

5. Your lifestyle

Along with maintaining regular relaxation and exercise time, you must change other aspects of your life to improve stress management skills.

5.1 Problem-solving skills

As noted in the previous session, you need to be able to identify and respond to the problems in your life. Unsolved problems increase your stress level. Problems are a normal part of life and you need specific skills to deal with them effectively. For each problem, work through the following steps:

- Identify the problem.
- Clarify your goals. What do you want?
- Consider every alternative of action.
- Think through each alternative, eliminating one at a time, until you have the best alternative.
- Evaluate the effect of your action.
- Act on the problem

Exercise 5: Problem-solving

In small groups of four or five, participants are to solve the following problem: *A friend has been taking drugs and you are worried about his/her health.*

Allow 10 minutes for this. When completed, each small group gives feedback to the whole group, followed by a general discussion of the problem solving process.

5.2 Developing pleasurable activities

Increasing pleasurable activities will elevate your mood and decrease your overall stress level.

The following exercise will thus help participants explore and identify enjoyable activities that are both constructive and healthy.

Exercise 6: Identifying pleasurable activities

Divide in to small groups of four or five. Then identify and list the things that you enjoy doing (e.g. looking at a sunrise, camping, smelling a flower, fishing, eating ice-cream, being with someone you love.) Share this with the whole group.

(Note: The more pleasurable things you do, the better you will feel.)

5.3 Social skills

What you do socially, can turn people off, or turn them on. If you do any of the following, you might be turning people off.

- Not smiling
- Failing to make eye contact
- Not talking
- Complaining
- Telling everyone your troubles
- Not responding to people
- Whining

- Being critical
- Poor grooming
- Not showing interest in people
- Ignoring people
- Having an angry look
- Nervous gestures
- Feeling sorry for yourself
- Always talking about the negative

Your are turning people on if you do the following:

- Smile
- Look into people's eyes
- Express your concern
- Talk about pleasant things
- Be reinforcing
- Tell people how nice they look
- Be appreciative
- Tell people you care
- Listen
- Touch
- Invite people to do something with you
- Act interested
- Use people's name
- Talk about the positive
- Groom yourself well.

To have good social skill, you have to be assertive. You cannot be passive or aggressive. The following session will focus on this in more detail.

Session 8 - 9

Developing assertiveness skills

Developing assertiveness skills

1. Introduction

Effective communication and more specifically effective expressive skills are consistently associated with resiliency in adolescence. Skills that is also necessary to establish and maintain social and close interpersonal relationships. Still, some of these skills seem simple, but some of them can take great courage. The focus on sessions eight and nine will thus be on the development of assertiveness as important expressive (communication) and social skills for early adolescents. In other words, to focus on the development of participants' ability to stand up for their personal rights and to express their thoughts, feelings and beliefs in a direct, honest and appropriate way, without violating other people's rights. Aspects that will be covered include: (a) What is assertiveness, (b) the essence of assertiveness, (c) knowing your rights, (d) fundamental assertive skills, and (e) self-protective skills.

Table 8 provides the planned course of sessions eight and nine.

Table 8: Developing assertiveness skills

Session 8		Session 9	
09:00- 09:10 *(10 minutes)*	Introduction Exercise 1: "What I need to know about assertiveness"	09:00 –09:05 *(5 minutes)*	Recap
09:10 – 09:20 (10 minutes)	What is assertiveness? Exercise 2: Defining assertiveness	09:05 – 09:30 (25 minutes)	Fundamental assertive skills Exercise 6: The art of persistence

Session 8		Session 9	
			Exercise 7: Successful negotiation
09:20 – 09:40 (20 minutes)	Why bother to be assertive? Exercise 3: Let us pretend	09:30 – 10:05 (35 minutes)	Self-protective skills Exercise 8: Coping with "Put downs" Exercise 9: Self-criticism Exercise 10: Giving criticism to others Exercise 11: Receiving criticism
09:40 – 09:55 (15 minutes)	The essence of assertiveness Exercise 4: Walk around	10:05 –10:10 (5 minutes)	Feedback
09:55 – 10:10 (15 minutes)	Knowing your rights Exercise 5: Assertive rights		

After the introduction, as noted before, the following exercise is a good starting point to focus participants' thinking.

Exercise 1: "What I need to know about assertiveness"

Participants brainstorm the question, "What I need to know about assertiveness" for 5 – 10 minutes. Write all the answers on a blackboard or flipchart, and refer back to them during the session to meet these needs.

2. What is assertiveness?

The word assertiveness is used to describe a certain kind of behaviour. It is behaviour, which helps us to communicate clearly and confidently our *needs*, *wants* and *feelings* to other people without abusing in any way their human rights. It is an alternative to passive, aggressive and manipulative behaviour.

If we want to be assertive, we must:

- Decide what we want,
- decide if it is fair,
- ask clearly for it,
- not be afraid of taking risks,
- be calm and relaxed,
- express our feelings openly,
- give and take compliments easily, and
- give and take fair criticism.

We must not:

- Beat about the bush,
- go behind people's backs,
- bully,
- call people names, or
- bottle up our feelings.

The following exercise is used to explore the participants view to assertiveness.

Exercise 2: Defining assertiveness

Write the word assertive on a flipchart or blackboard and ask participants to brainstorm all the words that come into their minds. List all the words.

The social worker can then start a discussion about the results of the exercise, underlining the positive and negative words. In the course of choosing which words should be classed as positive or negative, a stimulating discussion can emerge as participants become aware of each other's opinions and prejudices.

Small groups of three or four participants will then discuss and come up with a definition of assertiveness to share with the whole group.

At first glance this exercise appears simple and straightforward, however, competence is eventually enhanced as participants discover how to adapt their existing skills and knowledge to the issues that emerge during the learning experience.

3. Why bother to be assertive?

It is important at the start of the assertiveness training sessions to be very clear about both the advantages and disadvantages of becoming more assertive. According to Lindenfield (1990: 18) most people interested in enhancing their assertiveness, hope that if they learn to be more assertive, they will get more of what they want. Unfortunately, this is not always true.

Developing assertiveness skills can help us to communicate our needs more openly and honestly but it cannot guarantee that they will be met. Assertive behaviour more often leads to compromise and negotiation rather than an outright win for one party. Often, manipulative, behind the back techniques and aggressive behaviour actually get us more of what we want in terms of material goods or power: It does so, often at great expense to our personal relationships and self-esteem. Biographies of very many powerful and successful people reveal loneliness and feelings of self-deprecation.

The assertiveness training sessions will teach you to behave in such a way so that you do not come away from situations feeling bad about yourself. You will come away with the satisfaction that you "did your best" and did not abuse the rights of others.

The good news is that adolescents who are generally assertive are confidant and relaxed individuals who are happy simply to be themselves. Assertive youth are aware both of their strengths and their weaknesses. They are not afraid of taking risks and know that by doing so; they will probably make many mistakes.

If you are assertive, you will view mistakes positively and see them as an opportunity to learn and do better next time. You will have learned to gauge your successes by your own capabilities and potential rather than by continually comparing yourself with other people. Accepting your own capabilities will help you to set yourself realistic goals so that you do not continually put yourself into situations where you will feel a failure.

Being assertive also means accepting that not everyone in the world will be kind and caring towards you. You will develop the ability to spot

when you are abused or "put down" and you will know how to cope with unfair criticism and exploitation.

Finally, you will learn to use assertiveness appropriately. You will be aware that there are some situations when it is wise to take a back seat and some where it is appropriate to fight for your, and other', rights. An obvious example of when assertive behaviour might not be appropriate would be when you or others are in physical danger. Yes, certainly learning to be assertive is worth the effort. Even the process of learning the skills can be challenging and fun.

Exercise 3: Let us pretend

Each participant should think of a number of assertive people, they know. They then select one and think about that person, concentrating on the person's lifestyle and achievements.

The group then walks around the room silently being their selected person. When the social worker indicates, they should stop and introduce themselves as that person to a partner, and talk about themselves for one minute each. Their partner can then introduce them to someone else in the group.

The exercise will go on for 15 minutes.

Alternatively, you can simply find partners and talk about your selected person.

4. The essence of assertiveness

Every person at some time has to cope with a problem. Two basic instinctual responses when encountering a problem are ***Flight*** (passivity) and ***Fight*** (aggression). Man, however, has developed a third response more suited to the solving of the kind of relationship problems he has encountered through community living. This response involves the use of his more sophisticated brain and verbal skills. It is the ability to ***Discuss, Argue*** and ***Negotiate***.

Assertiveness training aims to help us develop the third response, which is often a more appropriate and successful way of communicating with others.

There is a growing awareness in our society of the pitfalls of aggression and passivity and such behaviours are often considered socially unacceptable. Unfortunately, this does not necessarily mean that these behaviours are less frequently used but rather that they are more heavily disguised and less easy to distinguish.

How often the person who is "all talk and no action" – or the "charming" person who always manages to make us feel small and useless in their company fools us all.

Many people are confused about the different behaviours and are unassertive simply because they are afraid to be seen as passive or aggressive. Here, the need to be liked may be getting in the way of them standing up for their own rights.

The following Table distinguishes between the three types of behaviour.

Table 9: Aggressive, Passive and Assertive behaviours

	Aggressive	Passive	Assertive
Non-verbal signals	Shouting	Whining voice	Calm and controlled voice
	Loud voice	Clenched, wringing hands	Relaxed posture
	Pointing finger	Shuffling feet	Direct eye contact
	Folded arms	Downcast eyes	Upright
	Still posture	Stoop	
Key words and sentences – used with the appropriate non-verbal behaviour	You'd better	Maybe	I
	… If you don't	I guess	I think
	Watch out	I wonder	I feel
	Come on	Would you mind very much if…	I want
	Should	Sorry… sorry… sorry	Let's
	Bad	Excuse me, please	How can we resolve this?
	Stupid!	But	What do you think?
	You!	You know	What do you see?
		I hope you don't mind	

Exercise 4: Walk-around

The social worker tells the group to silently think of an extremely passive person they know and then to try to 'get into their shoes' and walk around the room as though they were that person. Think of how they would use their body and exaggerate the gestures and positions. The social worker then says "freeze" and asks everyone to look around and talk about what they observe, for example how people are standing, holding their hands or how they walked.

Repeat this exercise for both an aggressive and an assertive person.

5. Knowing your rights

An acceptance that we have a right to assert our needs, wants and feelings with other people is of fundamental importance. The definition of assertive behaviour as previously mentioned makes reference to basic human rights and therefore it needs to be clarified what these rights mean. According to Lindenfield (1990:29), rights are anything, which we think human beings are entitled to by virtue of their very existence.

In relationships, one person or another may also describe rights as reasonable expectations. Although each individual is ultimately responsible for his own values, the following list covers some of the most important Basic Human Rights the assertive person aims to respect for both him and others.

Assertive Rights:

- I have the right to ask for what I want (realizing that the other person has the right to say 'no').
- I have the right to have an opinion, feelings and emotions and to express them appropriately.
- I have the right to make statements which have no logical basis, and which I do not have to justify (e.g. intuitive ideas and comments).
- I have the right to make my own decisions and to cope with the consequences.
- I have the right to choose whether or not to get involved in the problems of someone else.
- I have the right not to know about something and not to understand.
- I have the right to make mistakes.
- I have the right to be successful.
- I have the right to change my mind.
- I have the right to privacy.
- I have the right to be alone and independent.
- I have the right to change my-self and be assertive.

To emphasize this point the social worker will use the following exercise:

Exercise 5: Assertive rights

Ask participants to divide into pairs and then read the list of assertive rights to one another. The person listening is responsible for verbal and/or non-verbal confirmation of each assertive right. For example: The listener can do this by, nodding or smiling enthusiastically or they can reply by saying something like this: "Yes, you have the right to make your own decisions and cope with them appropriately." After reading through the rights, participants can then spend some time sharing any difficulties they may have with them.

With this exercise, participants have the chance to give each other some positive reinforcement, which is most helpful if anyone has difficulty in accepting and owning these rights.

6. Fundamental assertive skills

6.1 Persistence

Most unassertive people take 'no' for an answer far too easily. There is a growing awareness in our society that this tendency is jeopardizing the rights of large numbers of people. For example, in recent years there has been an upsurge in consumer protection organizations and pressure groups. This is a welcome development as there will always be a need for such organizations to protect the interests of individuals and minorities in a competitive society. The danger is that we can become over-dependent on professional workers for our rights and lose the art of asserting ourselves. It is better for your self-esteem and relationships with other people if you can learn the art of persistence

for yourself. We have to learn to ignore some of the not-so-pleasant messages that may be ringing in our unconscious minds, such as:

"If you ask once more – I'll flatten you."
"You're a nagger – just like your mother."
"Don't make a scene."

The main technique that we use in assertiveness training to practise the art of persistence is called Broken Record. When a record is scratched, we hear one sentence repeatedly until we reach screaming pitch and jump up to turn it off.

Broken record is the skill of being able to repeat over and over again, in an assertive and relaxed manner, what it is you want or need, until the other person gives in or agrees to negotiate with you.

This technique is extremely useful for:

- Dealing with situations where your rights are clearly in danger of being abused.
- Coping with situations where you are likely to be diverted by clever, articulate but irrelevant arguments.
- Situations where you are likely to lose your self-confidence because you know you could be affected by "digs" and "put-downs" to your self-esteem.

The beauty of using broken record is that once you have prepared your lines, you can relax. You have nothing more to worry about because you know exactly what you are going to say, however abusive or manipulative the other person tries to be. However, as with most assertive techniques, it must be used appropriately. It is a self-

protective skill and not designed to foster deep interesting conversations and friendships with people.

Exercise 6: The art of persistence

Divide into small groups of three or four people and choose an appropriate situation in which to rehearse the skill of Broken Record. Use one of your own scenes, e.g. refusing a date from a persistent admirer.

Take turns in practising the technique, firstly repeating exactly the same sentence. Secondly, try slightly altering your words but ensure that the message is the same.

When you have mastered the technique, practise using it together with a sentence that empathizes with the other person. For example, "I can appreciate that you are in a difficult position (empathy) but I would like a refund today, please." (Broken Record)

6.2 Negotiation

The art of negotiation, like so many other assertive skills, is becoming a profession in its own right. We certainly do not need a sophisticated training in diplomacy to negotiate solutions to ordinary everyday problems, but a little tact and forethought would certainly help

- *Empathize:* Empathize with the other person, i.e. really try to understand what it feels like to be in his shoes. If the other person is showing any feeling, acknowledge that you are aware of it. Say, for example: "I can see this is an important issue for you" or "I can see that you are busy..."

- *Ask for clarification*: Make sure that you fully understand their position, their reasoning and their needs.
- *Keep calm*: If possible use relaxation techniques to help you prepare for a situation you know will be tricky. At the very least, take a couple of long, slow, deep breaths before you start.
- *Be prepared*: Do your homework thoroughly and get together any data that may support your case.
- *Keep to the point*: Beware of becoming side-tracted. Ensure that the other party always keeps to the point as well. Sometimes broken record is a useful technique to use to bring the discussion back to the central subject.
- *Offer a compromise*: Do not be stubborn and wait for the other person to "give in" first.

Exercise 7: Successful Negotiation

Divide into groups of four or five and share some personal problems, from either the past or present, which you think could be resolved by negotiation. Choose one or more of these situations and select two people to "act-out" a negotiating scene.

Remember it is important to select a situation where there is room for negotiation, and group discussion can help you do this. Emotional involvement with problems can easily blind us to their potential solutions, so it is worth sharing even the most seemingly intractable ones.

7. Self-protective skills

7.1 Coping with "Put-Downs"

"Put-down" is a term frequently used in assertiveness training. A "put-down" is a question or remark from another person, which violates one or more of your basic human rights. These are remarks and questions designed to make you feel small or manipulate you into doing or saying something you do not wish to do or say. Sometimes the other person is quite blatant in his intentions, but often they are subtly disguised and wrapped in social niceties or jokey behaviour. For example: "You're too young to understand..."
"Come on, it's only a bit of fun..."

The next Table contains examples of put down sentences, with their nasty 'hidden message', followed by a suggested assertive response.

Table 10: Asserting yourself

	Put-down sentence	Hidden message	Assertive response
Nagging	"Haven't you finished the washing up yet?"	You are useless	"No, when did you want it done?"
Prying	"I know I shouldn't really be nosey, but..."	I can easily get round you – you will tell me anything	"Well, I won't tell you if I don't want to..."
Lecturing	"We should co-operate	I am OK – you should fall	"How could we co-

	Put-down sentence	Hidden message	Assertive response
	and then there would be less tension."	in line with me. It is your fault.	operate?"
Putting on the spot	"Are you busy on Wednesday?"	Ha! Ha! I will get you to agree to do something you do not want to do. I have you on the spot if you say you are free.	"What did you have in mind?"
Questioning choice	"Are you sure this job is the right one for you?"	You are not capable of choosing a job for yourself.	"It feels OK for me at the moment..."
Unwanted advice	"If I were you..."	I know better than you do...	"But you are not."
Insulting labels	"That's a typical teenager reaction..."	You are just a stereotype – not an individual.	"It is my reaction and it is up to me to judge my own behaviour."
Amateur psychologist	"You'll find it difficult won't you because you are so shy..."	You are a hopeless case.	"In what ways do you think I am too shy?"

At this stage, it is important to clearly distinguish the assertive, aggressive and passive responses to these kinds of remarks and questions. When replying to put-downs it is important to remember that

you are simply aiming to: (a) protect your rights and self-esteem, (b) let the other person know you recognize the hidden message, and (c) put a quick stop to the put-down behaviour.

Exercise 8: Coping with Put-downs

Participants break into small groups and each take one or two examples of the put-down sentences previously mentioned. As a group, discuss the three possible responses to these sentences using the *aggressive*, *passive* and *assertive* responses. When finished, small groups share these with the rest of the group whilst checking results with the examples of assertive replies.

Note: Sometimes it is not possible to reply assertively to put-downs as soon as they are received. There should be no great shame in taking issue with the other person the next time you meet him (or her).

7.2 Coping with criticism

7.2.1 Self-criticism

The best and perhaps safest place to start confronting criticism is within you. If you are aware of your own faults and are either prepared to tolerate them or take active steps to correct them, criticism from others is much easier to bear and you will be more able to give fair criticism to others.

Exercise 9: Self-criticism

Everyone should write down one or two examples form their own life in the following areas: (a) Natural handicap or imperfection (e.g. nose is too large), (b) mistakes (e.g. "I don't work hard enough at school"), and (c) faults (e.g. "I am untidy" or "I don't stand up for myself").

When you have completed your list, find a partner with whom you feel happy to share it. Each person should listen in an accepting way to the faults of their partner. Remember that the other person has a right not to like his nose or his untidiness even if you find both very endearing.

7.2.2 Giving criticism to others

Here are some hints on giving helpful and constructive criticism:

- *Be specific*. The golden rule when giving criticism to others is to avoid generalizations. For example, it is much more useful to say: "I don't think dull colours suit you" than to say "You've got no dress sense."
- *Acknowledge the positive*. If you can include some genuine positive comment, do so. For example, "You have lovely hair but I do prefer your natural colour."
- *Keep calm*. If you have a tendency to be aggressive or get stage fright, practise some quiet relaxation techniques before entering the situation. Keep your voice level and avoid threatening gestures.

- *Keep to the point*. Do not be tempted to bring in all your other complaints to cloud the issue and do not allow yourself to be sidetracked.
- *Focus on behaviour*. Do not attack the whole person, merely their behaviour or one particular aspect of their appearance, for example, say, "You always leave the bathroom in a mess', not "You are the most untidy person I have ever known."
- *Do not use labels or stereotypes*. For example "You're so childish', "pig", etc.

Exercise 10: Giving criticism to others

Find a partner and criticise each other's school clothes in a lighthearted manner.

7.2.3 Receiving criticism

There are three main techniques for helping us to deal with criticism from others: i.e. negative assertion, fogging and negative enquiry.

7.2.3.1 Negative assertion

Negative assertion is calmly agreeing with the true criticism of your negative qualities. For example: "This desk is a complete and utter mess... you're hopelessly disorganized!" You can reply, "Yes it is true I am not very tidy." The rational behind this, comes down to self-acceptance. In other words, if you are genuinely happy to accept

that you have faults, and that you are not perfect, people will be less likely to put you down.

7.2.3.2 Fogging

Fogging is a skill, which helps us to cope with manipulative criticism. This kind of criticism is eventually a put-down and designed to make you feel bad about yourself or make you do something you do not want to do. There is often an element of truth in what is said, but the critic may elaborate or exaggerate. For example: "You're late for rugby /soccer practice.... You're always late... you don't care about the team..." In all probability, the only truth in the accusation is: "You're late..." but nevertheless the onslaught succeeds in leaving you feeling extremely guilty. The technique of fogging is to calmly acknowledge that there may be some truth in what is said. You can use fogging on its own, or perhaps more usefully, use it with a sentence, which reflects your assessment of the situation. For example, in reply to the above statement you may say, "Yes, I am late this afternoon. It is possible that I am not as committed to the team as I could be."

By using the technique of fogging, you are merely aiming to stop the manipulative criticism and protect your self-esteem. You achieve this by refusing to reward the put-down behaviour. Your attacker, after all, wants you to feel hurt and upset. If he does not get what he wants, he is less likely to try again.

7.2.3.3 Negative enquiry

This is perhaps the most difficult of all the techniques to use but is very useful in improving communication, particularly in personal relationships. Negative enquiry involves you in: actively prompting criticism of your behaviour. For example: "You'll find that difficult won't you because you are so shy?" The assertive response using negative enquiry was: "In what ways do you think I am too shy?" This kind of reply will very quickly help you decide if your critic is genuinely concerned about your shyness or merely wants to put you down. The "nasty" character will probably be thrown by your response, and may just continue to put you down and refuse to be specific. For example, "Goodness, what a question. You would not really want to know.. I'm not a psychiatrist you know.." Once you have exposed your critic's real intentions you can deal with any further put-downs by fogging them and asserting your right to be judge of your own behaviour. If however the criticism is constructive, for example: "... well, I've noticed that you always wait for other people to start conversations and you never look people straight in the eye", it could be very useful feedback.

If you start by inviting criticism, from other people you obviously run a much higher risk of getting put-down or hearing superficial feedback. Neither experience will enhance your self-esteem and both are best avoided. When your confidence has improved, feedback from family and peers can be very useful especially in situations where you have trouble asserting yourself.

Exercise 11: Receiving criticism

In groups of four to five, participants practise the skills of negative assertion, fogging and negative enquiry. Each group should decide for themselves if they wish to choose real life situations or hypothetical scenes to role-play. Participants then return to the plenary for a discussion about the problems and insights they had with the practise of these skills.

8. Final comment on assertiveness

To the majority of adolescents, assertive people often appear to be very spontaneous and direct in their approach to problems. However, this skill is often the result of very thorough preparation and rehearsal.

Assertion is thus an expression skill that adolescents can develop into behaviour, which seems natural and of the cuff, which will also enhance the quality of their communication and interpersonal relationships.

Session 10

Communication skills

Communication skills

1. Introduction

Effective communication is most consistently associated with resiliency in adolescence. In other words, a repertoire of effective communication skills enables the adolescent to withstand or surmount the risk of substance abuse. A personal attribute, that serves the added function of maintaining social relationships.

The focus of session ten will thus be on the development and/or enhancement of effective communication skills as constitutional factor of the individual adolescent. Aspects that will be covered include: (a) empathy, (b) validation, (c) "I feel" statements, (d) positivism, (e) physical proximity, (f) touch, (g) eye contact, (h) reinforcement, and (i) the practice of communication skills.

The following Table provides the planned course of session ten.

Table 11: Communication skills

Session 10	
09:00- 09:10 *(10 minutes)*	Introduction Exercise 1: "What I need to know about effective communication"
09:10 – 09:25 *(15 minutes)*	Empathy Exercise 2: Developing empathy

Session 10	
09:25 – 09:35 *(10 minutes)*	Validation Exercise 3: The skill of validation
09:35 – 09:50 *(15 minutes)*	How to use the "I feel statement" Exercise 4: "I feel" statements
09:50 – 10:00 *(10 minutes)*	Positivism, physical proximity, touch, eye contact, and reinforcement Exercise 5: Communication skills
10:00 – 10:10 *(10 minutes)*	Feedback

The final session of this programme will start with the following exercise.

Exercise 1: "What I need to know about effective communication"

Participants brainstorm the question, "What I need to know about effective communication" for 5 – 10 minutes. To meet these needs, write all the answers on a blackboard or flipchart, and refer back to them during the session.

2. Empathy

Empathy is the capacity to understand and respond to another's feelings. In other words, to put yourself in other people's shoes and to understand how they feel. An ability that will help participants be more appreciative and socially perceptive, by reflecting a caring and responsible attitude towards others.

To develop empathy:

Practice paraphrasing what the other person has said until you get the communication correct. The other person needs to be encouraged to correct your mistakes until you have the message correct. Repeat what the person said, as exactly as you can. Continue to repeat the message until the person agrees you have it right. This may take a few tries, but you will get better as you practice. Include the verbal and the nonverbal parts of the message. You may have to ask questions as you go along. Try to be genuine, not sarcastic or punitive. Act as a mirror, reflecting exactly what the other person is saying, and how they are feeling. Practice, getting the total communication correct. As time goes on, you will need to ask for clarification less, only when you are unsure of certain parts of the communication.

Exercise 2: Developing empathy

Divide into groups of three or four and spend some time evaluating each other's communication skills, discussing one or two of the following issues, in which you specifically use empathy. Choose one of these issues and select two people to "act-out" effective communication using empathy.

(a) When I think about the future, I see myself...
(b) I am happiest when...
(c) Right now I am feeling...
(d) The thing that concerns me the most is...
(e) When I am rejected, I usually...
(f) I feel loved when...
(g) When I break the rules...
(h) When I feel lonely, I usually...
(i) I am rebellious when...
(j) The emotion I find the most difficult to control is...
(k) My most frequent daydreams are about...
(l) My weakest point is...
(m) I am afraid of...
(n) I am the most ashamed of...

3. Validation

Others have a right to their opinion, and their opinion should always be important to you. This is an essential element in healthy communication. Others need to know that you value them and that you will try to understand them. People need to be validated often, particularly when they disagree with you. Not everything a person says is wrong. Find the areas that the two of you agree on and emphasize those areas. Always pick out the things you have in common and bring out those points for discussion.

Exercise 3: The skill of validation

Each participant should illustrate the skill of validation by writing down an example of (a) using, and (b) not using this skill. Participants should keep their notes. Two volunteers can present their examples to the group. A general discussion should follow.

4. How to use the "I feel" statement

Communication of feelings with the use of "I feel" statements is an important expressive skill, used to "make contact" with others. "I feel" statements refer specifically to what you, as a person, are thinking, feeling and experiencing.

We often avoid "I feel" statements because they make us feel vulnerable. This is true, we become more vulnerable. However, the use of "I feel" statements (more importantly) provides a means of communication that helps us to develop relationships based on honesty, and mutual understanding.

To use "I feel" statements:

Practice beginning many of your communications with "I feel." You may not know what is right or wrong in a given situation, but you always know how you feel. Start with your feelings, and then fill in what you think is creating those feelings. If you are feeling confused, you are having many feelings at the same time. Try to break the feelings down

and address each one separately. The "I feel" statement prevents you from concentrating on the other person. Communications that begin with "you" can be accusatory and punitive. Instead of pointing out what the other person is doing, concentrate on how you feel and what you think.

Exercise 4: "I feel" statement

Divide participants into small groups of four of five. Each group should elect a facilitator/recorder who will take notes and give feedback to the main group. The task for each group is to portray any example of effective communication using: "I feel" statements. Hereafter, one small group have time for their portrayal. Open discussion will be encouraged to help participants understand the process and come to some consensus about "I feel" statements as an important communication- and necessary social skill.

5. Be positive

Always try to find something positive to say to the other person. Even when you are disagreeing, you need to show them that you are going to be reinforcing. This shows the other person that you respect them and care about them. Be genuine in your compliments; do not say something that is not true. Continue to be positive throughout your communications with others. Being positive is contagious: The more you look at the bright side of things, the better things actually become. A positive attitude can go a long way in improving communications skills. People like being around someone who is positive. It gives them a lift, and they will want to be around you again.

6. How to use physical proximity

One of the most important elements in whether a person will like you or not is physical proximity. People that you are around more often are more likely to be attracted to you. When you are talking with someone, stand or sit a comfortable distance from them. This can be little more than an arm's length apart, so you must be up on the social norms. Do not have a piece of furniture or something else between you as you communicate: this increases interpersonal distance. Be conscious of how the other person is feeling. If they seem uncomfortable, back up a little.

7. How to use touch

Touch is a very powerful communication tool. It is hard to act angry with someone you are touching. Touch increases intimacy and decreases fear. It shows the other person that you value them and the relationship. You can often touch someone during a conversation. Try to find that opportunity and take it. Even a simple touch on the arm is a powerful message that says, I care.

7. How to use eye contact

Good communication requires good eye contact. If you do not look at the other person, you will miss a good deal of what they are saying. Eye contact is a lot like touch – it shows the person that you are

interested. It also shows them that they are important enough to warrant your full attention.

8. Be reinforcing

Compliment the other person. Say something nice. Tell them how much you appreciate them. Try to be patient and kind. Give the person your full attention. Try to understand his point of view. Dress appropriately and take good care of your appearance and personal hygiene. All of this makes you a reinforcing person.

9. How to practice communication skills

Exercise 5: Communication skills

Participants sit in a circle and then choose two persons they feel they know least. These small groups then have to establish the following skills, i.e.

- *Positivism,*
- *Physical proximity,*
- *Touch,*
- *Eye contact* and *reinforcement* through practical examples.

A group discussion follows about possible problems in the establishment of these skills.

--- FIN ---

Appendix 4: Participant feedback sheet

Anonymous

Please answer the following questions.

1. What did you like best about the session(s)?
2. What did you like least about the session(s)?
3. What did you learn that you think is useful?
4. What did you think of the administration of the programme?
5. What topics would you like included in any follow-up programme?
6. Do you have any other comments?

Appendix 5: Self-constructed questionnaire

Project Skills Development

Researcher:
Carien Brandt

P.O. Box 198
Salt Rock
4391

Tel: (032) 525 5593

Dear participant

My name is Carien Brandt. I am a student at the University of Pretoria, busy with a study on the prevention of youth drug abuse in KwaZulu Natal. As part of the study, I designed a drug abuse prevention programme, named "Project Skills Development" in which you are about to, or have just participated. The aim of Project Skills Development is to improve the personal- and social skills of kids your age to protect you against future drug abuse. The programme is not based on scare tactics, or finger wagging as I find it unrealistic to imagine a society without drugs. My main concern with Project Skills Development is your welfare and, although we may never be able to eliminate drug abuse completely, I believe we can minimize the dangers of drug taking by stimulating changes to your attitudes, drug information and skills. Key elements of Project Skills Development thus include (a) general attitudes to drugs and drug users, (b) knowledge of drugs, and (c) skills development (e.g. to solve problems and communicate effectively.) It is thus not surprising that participation in Project Skills Development will probably benefit you, by bettering your personal and social skills to prevent you from abusing drugs.

However, in this type of research it is necessary to determine the effect of the programme on you as participant. This is done by comparing differences in your knowledge, before and after participation in Project Skills Development. A questionnaire will be used as measuring instrument. This means that you will have to fill out the next questionnaire two times, i.e. once before and once after implementation of Project Skills Development.

You are therefore kindly invited to complete the questionnaire by answering all the following questions.

The questionnaire is completed anonymously and will take approximately 20 - 25 minutes of your time. Thank you for your cooperation.

Research Questionnaire

For office use

Case number

Q1 1-2

Repetition number

Q2 3

1. Biographical details

Answer this first part of the questionnaire by marking all the answers that apply to you with a cross (X).

1.1 Age

Q3 4

1	11 years old
2	12 years old
3	13 years old
4	14 years old
5	15 years old

For office use

Q4

Q5 6

1.2 Gender

1	Male
2	Female

1.3 Race/ Ethnicity

1	Black
2	Coloured
3	Asian
4	White
5	Other (Specify:.....)

For office u

Q6 | | |

7 - 8

1.4 Home language

1	Zulu
2	Sepedi
3	Xhosa
4	Tswana
5	Venda
6	Swati
7	Tsonga
8	Sesotho
9	Ndebele
10	English
11	Other (Specify:.....)

1.5 Level of education

1	Grade 5 (std. 3)
2	Grade 6
3	Grade 7 (std. 5)

Q7 | |

For office use

Q8

1.6 Church affiliation

1	Yes
2	No

1.7 Family unit

Q9

1.7.1 My parents' are –

1	Married
2	Remarried
3	Separated
4	Divorced
5	Single
6	Widowed
7	Not married but living together
8	Other (Specify:.....)

For office use

Q10

1.7.2 Most of the time I live with –

1	My mother and father
2	My mother only
3	My father only
4	My grandparents
5	My friends
6	Other (Specify:.....)

2. Personal and Social Skills Development

Answer the following part of the questionnaire by carefully reading the next statements and circling the number that apply to you.

For example

I love reading.

Agree	Uncertain	Disagree
(1)	2	3

This means that you agree with the statement, in other words "Love to read".

For office u

Nr.	Statement	Agree	Uncertain	Disagree	
2.1	My attitude to drugs and people who use drugs, come from personal experience.	1	2	3	Q11
2.2	Most illegal drugs started life in a laboratory as legal medicines.	1	2	3	Q12
2.3	People who use drugs are evil sinners.	1	2	3	Q13
2.4	My view of drugs and people who use drugs come from my friends.	1	2	3	Q14
2.5	Newspapers mostly focus people's attention on the dangers of illegal drugs, like cannabis.	1	2	3	Q15
2.6	I got my ideas about drugs and people who use drugs from the media, for instance newspapers, TV and/or radio.	1	2	3	Q16
2.7	People who use drugs are dangerous.	1	2	3	Q17

For office u

		Agree	Uncertain	Disagree	
2.8	My ideas about drugs and people who use drugs come from reading and/or studying library books.	1	2	3	Q18
2.9	My ideas about drugs and people who use drugs come from my school teacher(s).	1	2	3	Q19
2.10	People take drugs because it is an exiting thing to do.	1	2	3	Q20
2.11	After taking drugs, you always have to come down; and the higher you go, the harder you fall.	1	2	3	Q21
2.12	Drug addiction is a disease / illness.	1	2	3	Q22
2.13	Some medicines prescribed by doctors are just as harmful as some of the illegal street drugs.	1	2	3	Q23
2.14	Drug users are "normal" people who use drugs to cope with the pressures of everyday life.	1	2	3	Q24

For office use

		Agree	Uncertain	Disagree		
2.15	Drinking one or two glasses of alcohol, for example beer or wine, is socially acceptable for adults.	1	2	3	Q25	27
2.16	Alcohol, for example beer or wine, relaxes you.	1	2	3	Q26	28
2.17	Some drugs numb the brain and body and kills pain.	1	2	3	Q27	29
2.18	A drug called "magic mushrooms" is illegal in South Africa.	1	2	3	Q28	30
2.19	Some drugs make you see, hear and feel things that are not real.	1	2	3	Q29	31
2.20	Some drugs can make a person more alert and energetic.	1	2	3	Q30	32
2.21	I get a natural high from exercise.	1	2	3	Q31	33
2.22	An enjoyable activity, like swimming in the sea, makes me feel good.	1	2	3	Q32	34

For office use

		Agree	Uncertain	Disagree
2.23	I am usually a calm person.	1	2	3
2.24	I don't like talking to people who are always complaining about life.	1	2	3
2.25	I am easy-going.	1	2	3
2.26	I am interested in other people's thoughts.	1	2	3
2.27	I am regularly bothered by a guilty conscience.	1	2	3
2.28	I usually do my homework, even when I don't feel like it.	1	2	3
2.29	I usually do things at the spur of the moment.	1	2	3
2.30	I get what I want without fighting with my brothers and/or sisters.	1	2	3

Q33		35
Q34		36
Q35		37
Q36		38
Q37		39
Q38		40
Q39		4
Q40		4

For office us

		Agree	Uncertain	Disagree	
2.31	I am easily discouraged by new challenges.	1	2	3	Q41
2.32	I usually solve problems by carefully thinking things through before making any decisions.	1	2	3	Q42
2.33	My friends can get me to do things I would not normally do, for instance to drink beer.	1	2	3	Q43
2.34	Once I have made a decision I believe in, I usually stick to it.	1	2	3	Q44
2.35	I set limits on what I will and will not do.	1	2	3	Q45
2.36	My friends think I am a leader.	1	2	3	Q46
2.37	I usually believe people when they compliment me.	1	2	3	Q47
2.38	I find it difficult to talk about my feelings.	1	2	3	Q48

For office use

		Agree	Uncertain	Disagree	
2.39	I am willing to defend that, which I believe in.	1	2	3	Q49 ☐ 51
2.40	When I talk to my friends I look into their eyes to show my interest and full attention.	1	2	3	Q50 ☐ 52
2.41	I frequently feel that people ignore the things I say.	1	2	3	Q51 ☐ 53
2.42	I am lonely.	1	2	3	Q52 ☐ 54
2.43	I have enough friends.	1	2	3	Q53 ☐ 55
2.44	I am able to go against the group sometimes.	1	2	3	Q54 ☐ 56
2.45	I try to understand and react to other people's feelings in a caring and responsible way.	1	2	3	Q55 ☐ 57
2.46	I often tell jokes and funny stories to my friends.	1	2	3	Q56 ☐ 58

For office use

		Agree	Uncertain	Disagree	
2.47	Sometimes I keep quiet in conversation because I am afraid people will laugh or criticize me for my views.	1	2	3	Q57 ☐ 59
2.48	I find it easy to criticize (judge) my friends.	1	2	3	Q58 ☐ 60
2.49	I am usually very talkative when I am with people I know well.	1	2	3	Q59 ☐ 61
2.50	I often feel that people disapprove of the things I say and do.	1	2	3	Q60 ☐ 62
2.51	My view of drugs and people who use drugs come from my relatives.	1	2	3	Q61 ☐ 63

Categorical of statements, from Section 2 of the Self constructed Research Questionnaire, according to the topics of Project Skills Development

1. Attitudes to Drugs and Drug users

1.1	People who use drugs are evil sinners.	Question 2.3
1.2	People who use drugs are dangerous.	Question 2.7
1.3	Drug addiction is a disease/illness.	Question 2.12
1.4	Drug users are "normal" people who use drugs to cope with the pressures of everyday life.	Question 2.14
1.5	Newspapers mostly focus people's attention on the dangers of illegal drugs, like cannabis.	Question 2.5
1.6	My view of drugs and people who use drugs come from my friend(s).	Question 2.4
1.7	My attitude to drugs and people who use drugs come	

	from personal experience.	Question 2.1
1.8	I got my ideas about drugs and people who use drugs from the media, for instance newspapers, TV and/or radio.	Question 2.6
1.9	My ideas about drugs and people who use drugs come from my school teacher(s).	Question 2.9
1.10	My ideas about drugs and people who use drugs come from reading and/or studying library books.	Question 2.8
1.11	My view of drugs and people who use drugs come from my relatives.	Question 2.51

2. Drugs and their Effects

2.1	Most illegal drugs started life in a laboratory as legal medicines.	Question 2.2
2.2	People take drugs because it is an exiting thing to do.	Question 2.10
2.3	After taking drugs, you always have to come down;	

	and the higher you go, the harder you fall.	Question 2.11
2.4	Drinking one or two glasses of alcohol, for example beer or wine, is socially acceptable for adults.	Question 2.15
2.5	Some medicines prescribed by doctors are just as harmful as some of the illegal street drugs.	Question 2.13
2.6	A drug called "magic mushrooms" is illegal in South Africa.	Question 2.18
2.7	Some drugs can make a person more alert and energetic.	Question 2.20
2.8	Alcohol, for example beer or wine, relaxes you.	Question 2.16
2.9	Some drugs make you see, hear and feel things that are not real.	Question 2.19
2.10	Some drugs numb the brain and body and kills pain.	Question 2.17

3. Peer Pressure

3.1	I have enough friends.	Question 2.43
3.2	I am lonely.	Question 2.42
3.3	My friends can get me to do things I would not normally do, for instance to drink beer.	Question 2.33
3.4	I am able to go against the group sometimes.	Question 2.44
3.5	Once I have made a decision I believe in, I usually stick to it.	Question 2.34

4. Social Problem Solving: Techniques to Promote Self-control

4.1	I usually do things at the spur of the moment.	Question 2.29
4.2	I am regularly bothered by a guilty conscience.	Question 2.27
4.3	I usually do my homework, even when I don't feel like it.	Question 2.28

4.4	I set limits on what I will and will not do.	Question 2.35
4.5	I usually solve problems by carefully thinking things through before making any decisions.	Question 2.32

5. Social Problem Solving: Relieving Stress, Anxiety and Pressure

5.1	I am easily discouraged by new challenges.	Question 2.31
5.2	I am easy-going.	Question 2.25
5.3	I am usually a calm person.	Question 2.23
5.4	I get a natural high from exercise.	Question 2.21
5.5	An enjoyable activity, like swimming in the sea, makes me feel good.	Question 2.22

6. Developing Assertiveness Skills

6.1	My friends think I am a leader.	Question 2.36
6.2	I am willing to defend that, which I believe in.	Question 2.39
6.3	I frequently feel that people ignore the things I say.	Question 2.41
6.4	I often tell jokes and funny stories to my friends.	Question 2.46
6.5	I get what I want without fighting with my brothers and/or sisters.	Question 2.30
6.6	Sometimes I keep quiet in conversation because I am afraid people will laugh or criticize me for my views.	Question 2.47
6.7	I am usually very talkative when I am with people I know well.	Question 2.49
6.8	I usually believe people when they compliment me.	Question 2.37
6.9	I find it easy to criticize (judge) my friends.	Question 2.48

6.10	I often feel that people disapprove of the things I say and do.	Question 2.50

7. Communication Skills

7.1	I try to understand and react to other people's feelings in a caring and responsible way.	Question 2.45
7.2	I find it difficult to talk about my feelings	Question 2.38
7.3	I don't like talking to people who are always complaining about life.	Question 2.24
7.4	When I talk to my friends I look into their eyes to show my interest and full attention.	Question 2.40
7.5	I am interested in other people's thoughts.	Question 2.26

Categorical of statements, from Section 2 of the Self constructed Research Questionnaire, according to Attitudes, Drug knowledge and Skills

1. Attitudes to Drugs and Drug users

1.1	People who use drugs are evil sinners.	Question 2.3
1.2	People who use drugs are dangerous.	Question 2.7
1.3	Drug addiction is a disease/illness.	Question 2.12
1.4	Drug users are "normal" people who use drugs to cope with the pressures of everyday life.	Question 2.14
1.5	Newspapers mostly focus people's attention on the dangers of illegal drugs, like cannabis.	Question 2.5
1.6	My view of drugs and people who use drugs come from my friend(s).	Question 2.4

1.7	My attitude to drugs and people who use drugs come from personal experience.	Question 2.1
1.8	I got my ideas about drugs and people who use drugs from the media, for instance newspapers, TV and/or radio.	Question 2.6
1.9	My ideas about drugs and people who use drugs come from my school teacher(s).	Question 2.9
1.10	My ideas about drugs and people who use drugs come from reading and/or studying library books.	Question 2.8
1.11	My view of drugs and people who use drugs come from my relatives.	Question 2.51

2. Drug Knowledge

2.1	Most illegal drugs started life in a laboratory as legal medicines.	Question 2.2
2.2	People take drugs because it is an exiting thing to do.	Question 2.10

2.3	After taking drugs, you always have to come down; and the higher you go, the harder you fall.	Question 2.11
2.4	Drinking one or two glasses of alcohol, for example beer or wine, is socially acceptable for adults.	Question 2.15
2.5	Some medicines prescribed by doctors are just as harmful as some of the illegal street drugs.	Question 2.13
2.6	A drug called "magic mushrooms" is illegal in South Africa.	Question 2.18
2.7	Some drugs can make a person more alert and energetic.	Question 2.20
2.8	Alcohol, for example beer or wine, relaxes you.	Question 2.16
2.9	Some drugs make you see, hear and feel things that are not real.	Question 2.19
2.10	Some drugs numb the brain and body and kills pain.	Question 2.17

3. Skills Development

3.1	I have enough friends.	Question 2.43
3.2	I am lonely.	Question 2.42
3.3	My friends can get me to do things I would not normally do, for instance to drink beer.	Question 2.33
3.4	I am able to go against the group sometimes.	Question 2.44
3.5	Once I have made a decision I believe in, I usually stick to it.	Question 2.34
3.6	I usually do things at the spur of the moment.	Question 2.29
3.7	I am regularly bothered by a guilty conscience.	Question 2.27
3.8	I usually do my homework, even when I don't feel like it.	Question 2.28

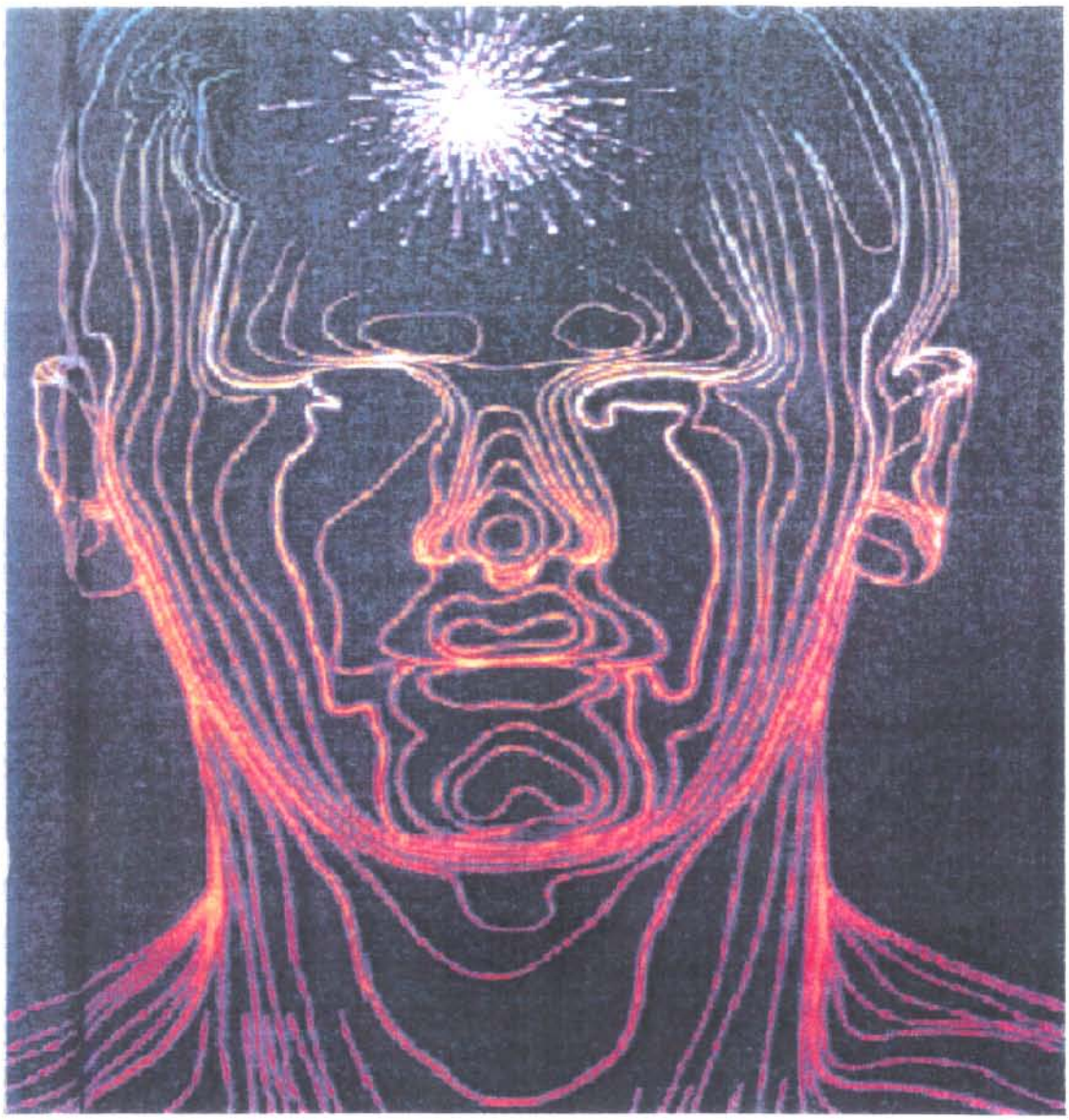
3.9	I set limits on what I will and will not do.	Question 2.35
3.10	I usually solve problems by carefully thinking things through before making any decisions.	Question 2.32
3.11	I am easily discouraged by new challenges.	Question 2.31
3.12	I am easy-going.	Question 2.25
3.13	I am usually a calm person.	Question 2.23
3.14	I get a natural high from exercise.	Question 2.21
3.15	An enjoyable activity, like swimming in the sea, makes me feel good.	Question 2.22
3.16	My friends think I am a leader.	Question 2.36
3.17	I am willing to defend that, which I believe in.	Question 2.39
3.18	I frequently feel that people ignore the things I say.	Question 2.41

3.19	I often tell jokes and funny stories to my friends.	Question 2.46
3.20	I get what I want without fighting with my brothers and/or sisters.	Question 2.30
3.21	Sometimes I keep quiet in conversation because I am afraid people will laugh or criticize me for my views.	Question 2.47
3.22	I am usually very talkative when I am with people I know well.	Question 2.49
3.23	I usually believe people when they compliment me.	Question 2.37
3.24	I find it easy to criticize (judge) my friends.	Question 2.48
3.25	I often feel that people disapprove of the things I say and do.	Question 2.50
3.26	I try to understand and react to other people's feelings in a caring and responsible way.	Question 2.45

3.27	I find it difficult to talk about my feelings	Question 2.38
3.28	I don't like talking to people who are always complaining about life.	Question 2.24
3.29	When I talk to my friends I look into their eyes to show my interest and full attention.	Question 2.40
3.30	I am interested in other people's thoughts.	Question 2.26

Appendix 6: Types of drugs, (transparencies)

It is important to show participants what the different kinds of drugs look like. The researcher put together examples of the most prominent drugs, and this was presented by means of transparencies.



DRUG FORMS

Powder

Pills

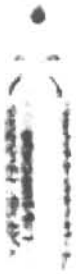
Paste

Glue

Herbal

Capsules

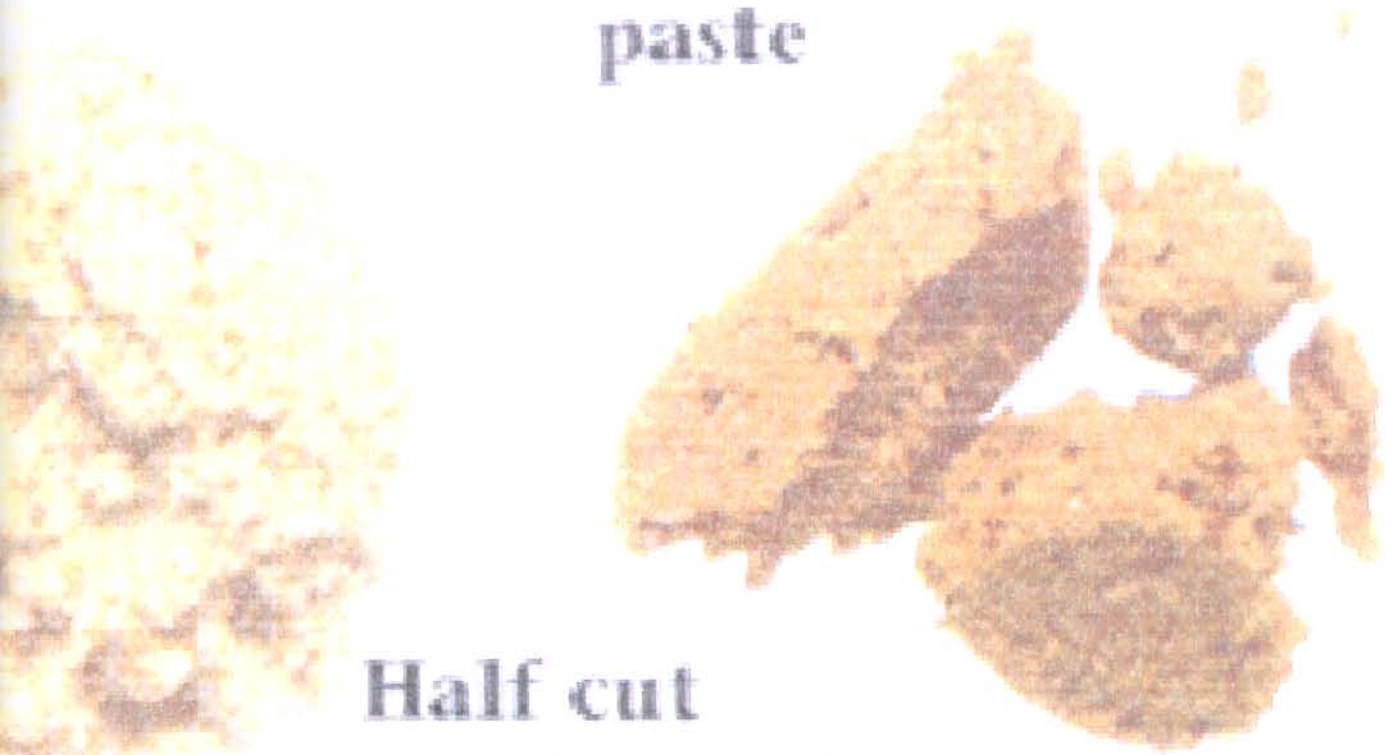
Resin



Liquid

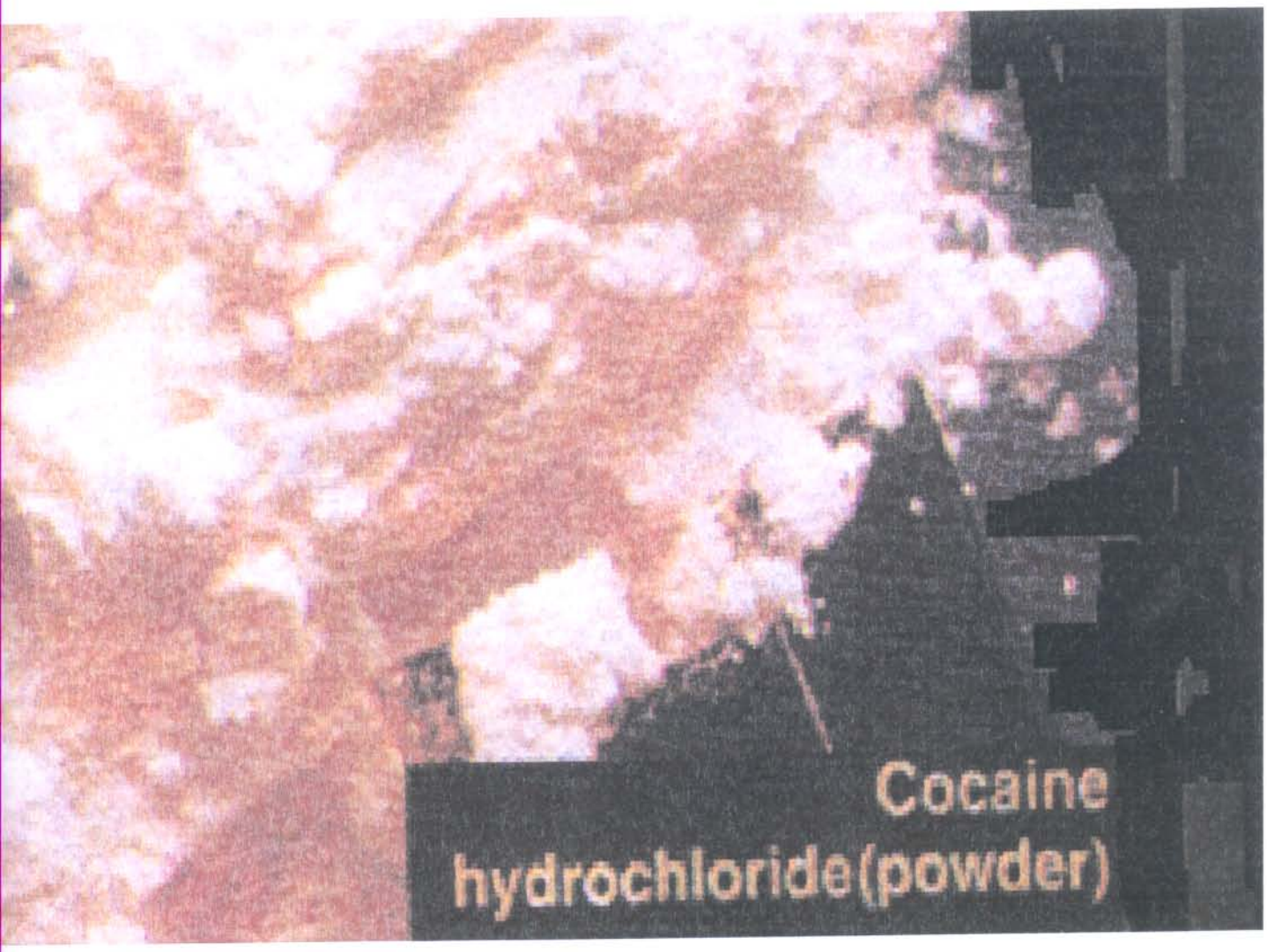
Tab

Amphetamine paste

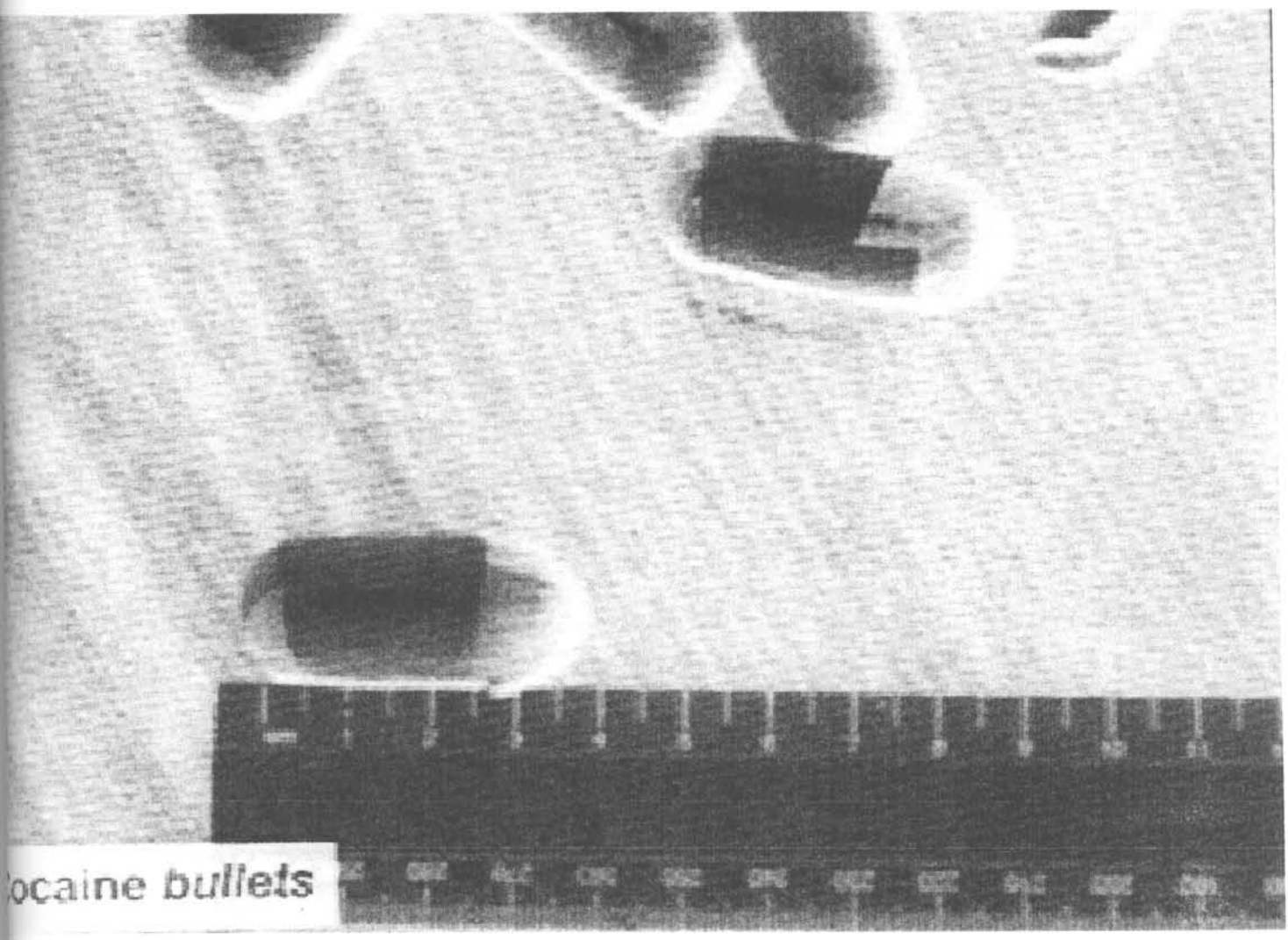


Half cut amphetamine

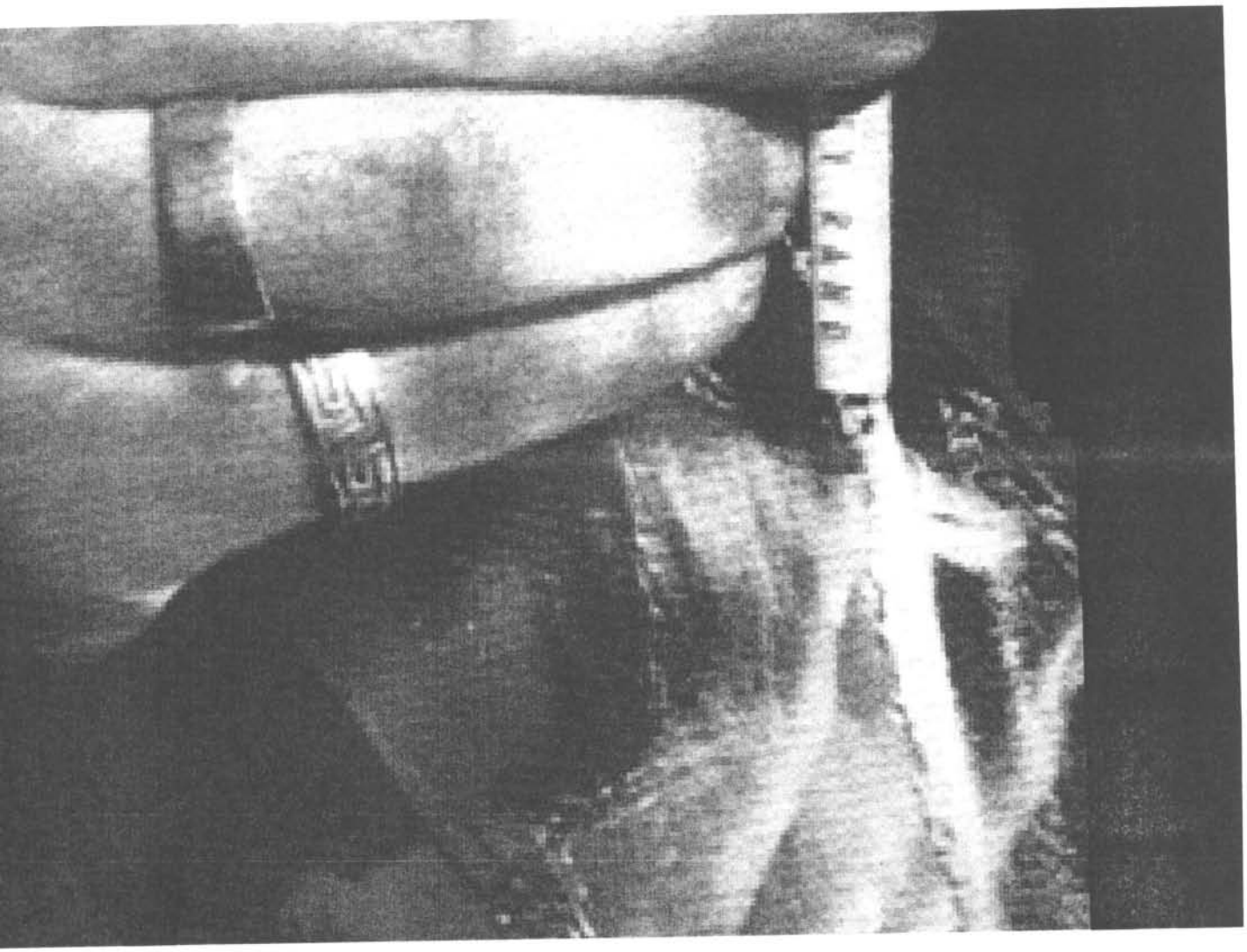
COCAINE HYDROCHLORIDE



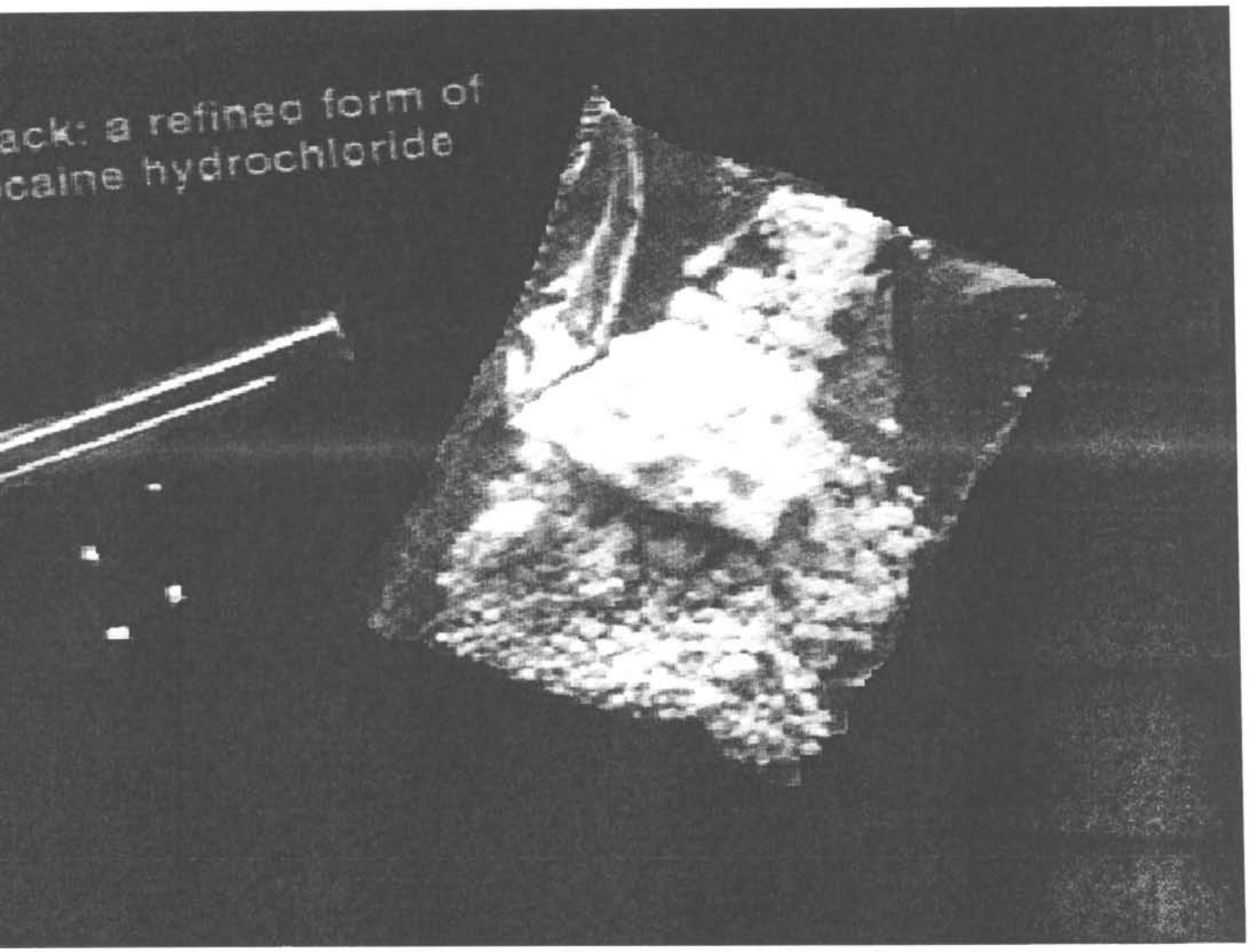
COCAINE BULLETS



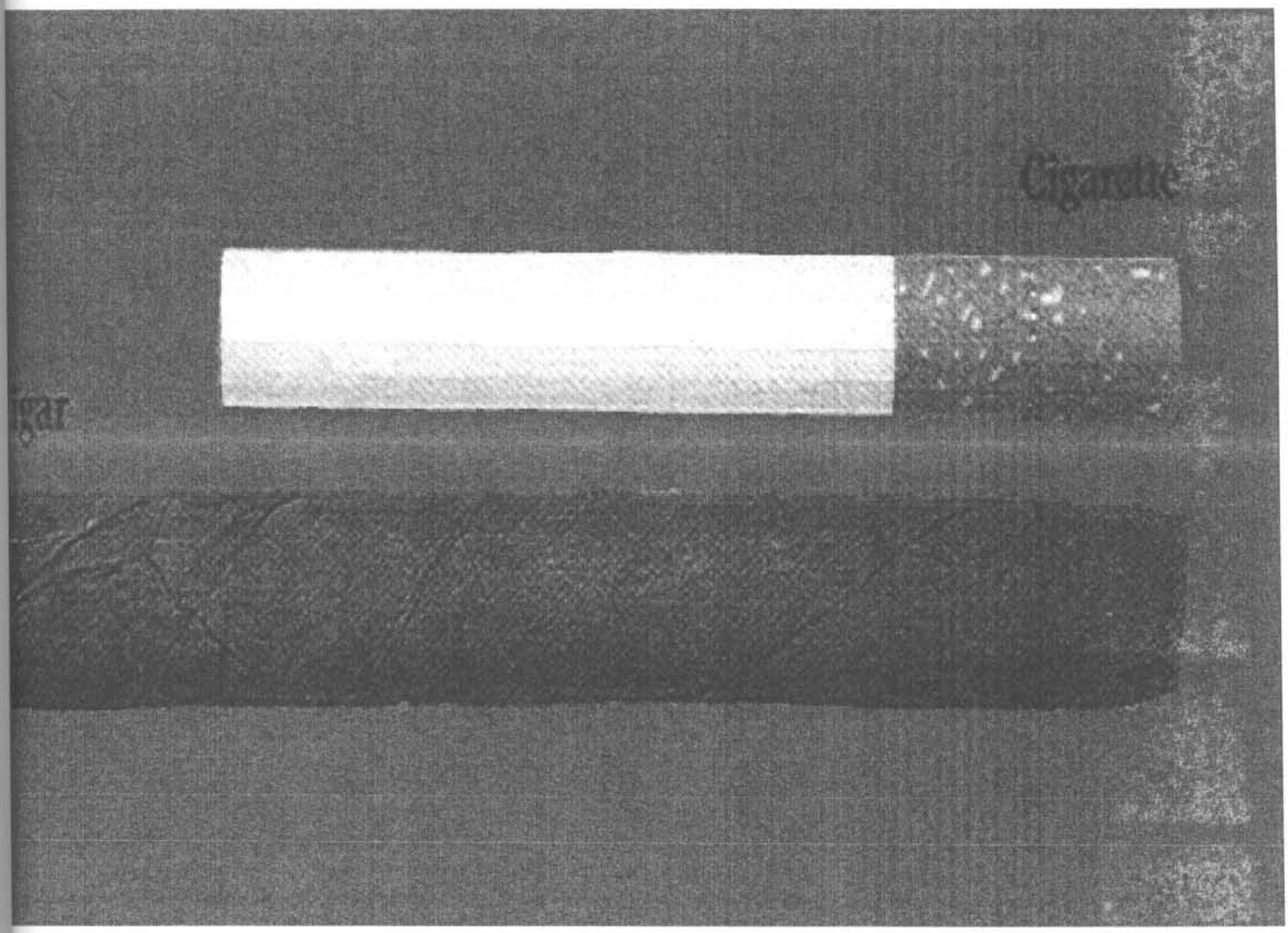
COCAINE: SNORTED



COCAINE CRYSTALS / CRACK

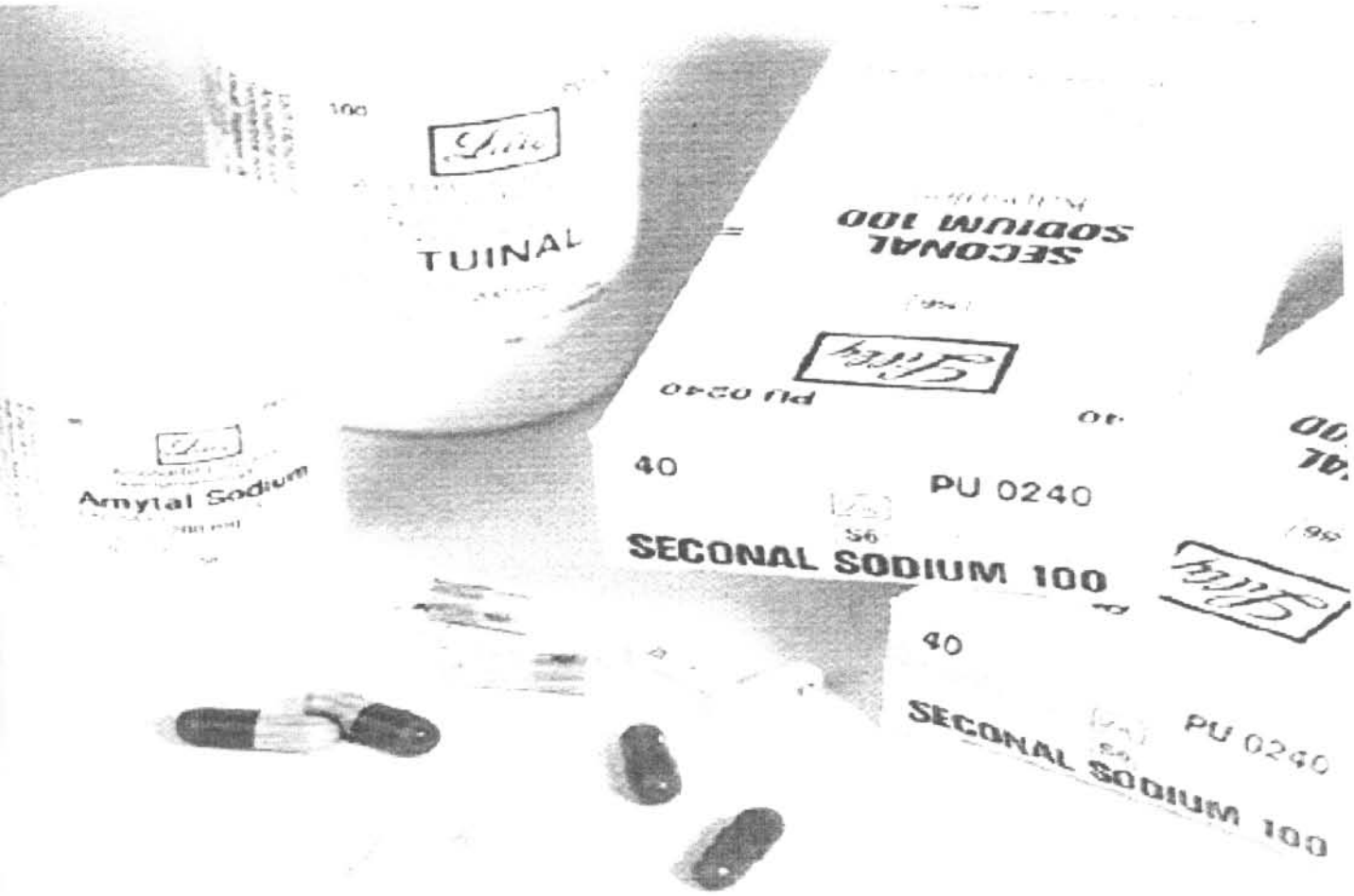


TOBACCO



ALCOHOL (ETHANOL)

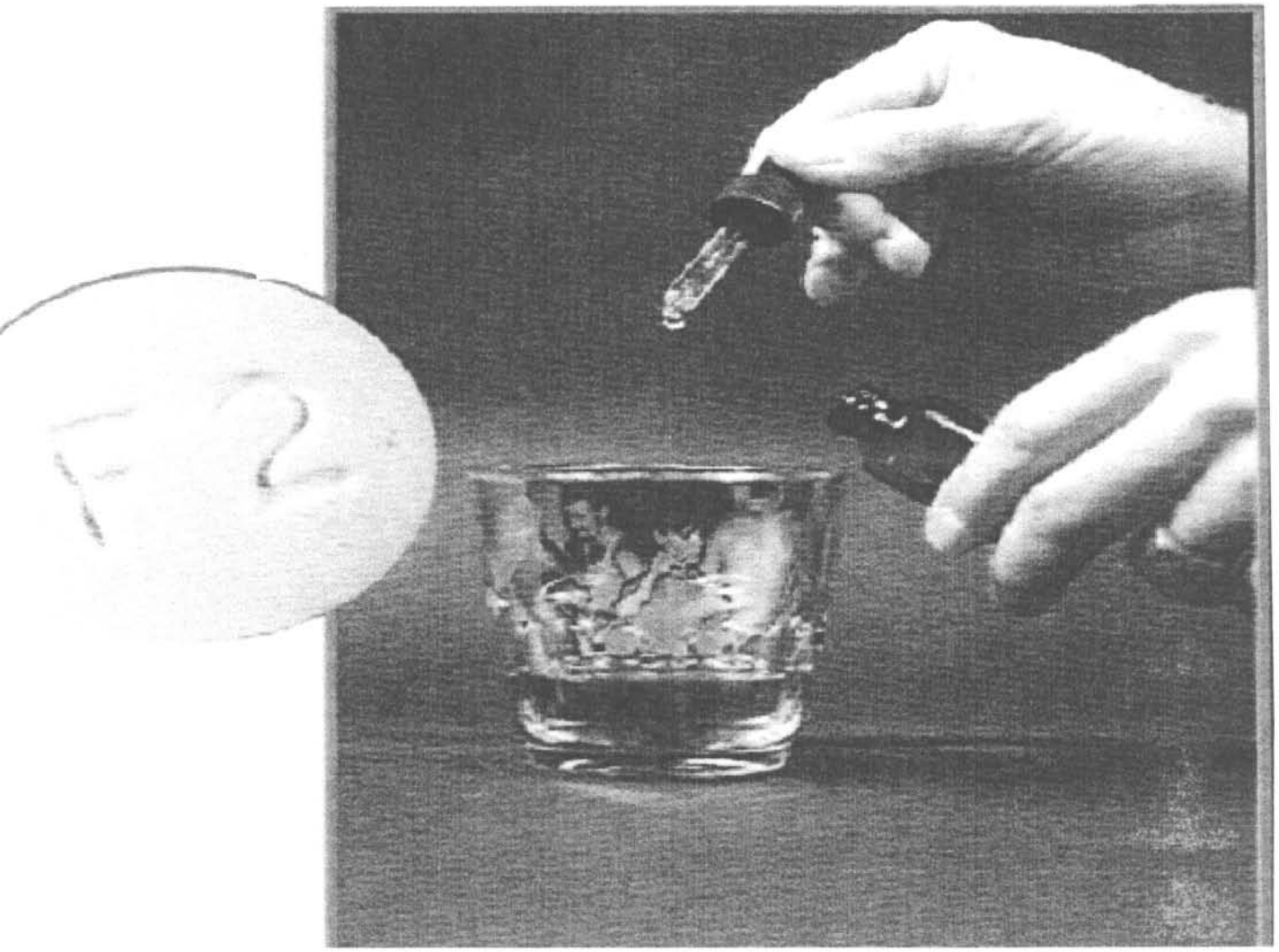
BARBITURATES



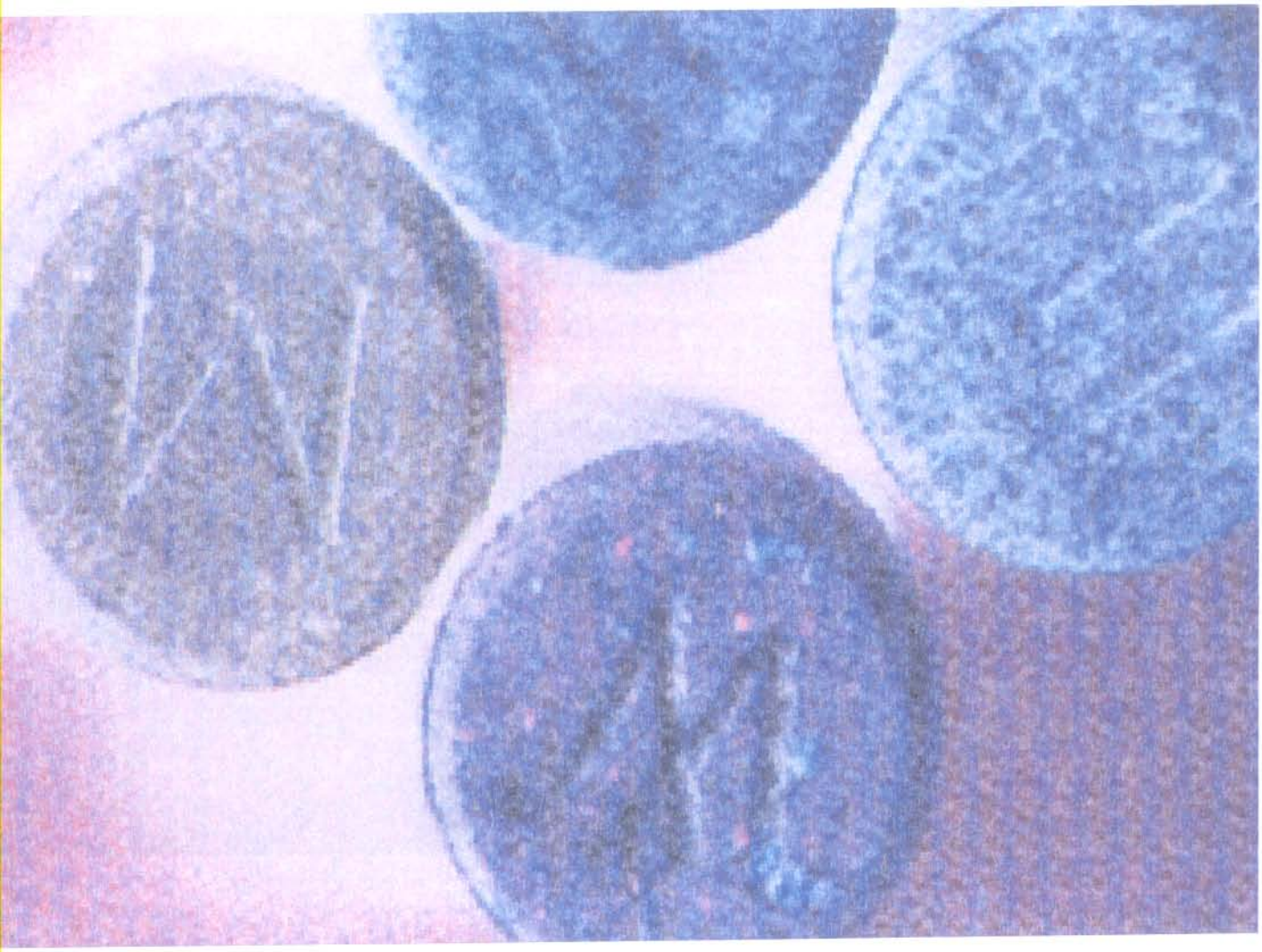
TRANQUILLIZERS

ROHYPNOL

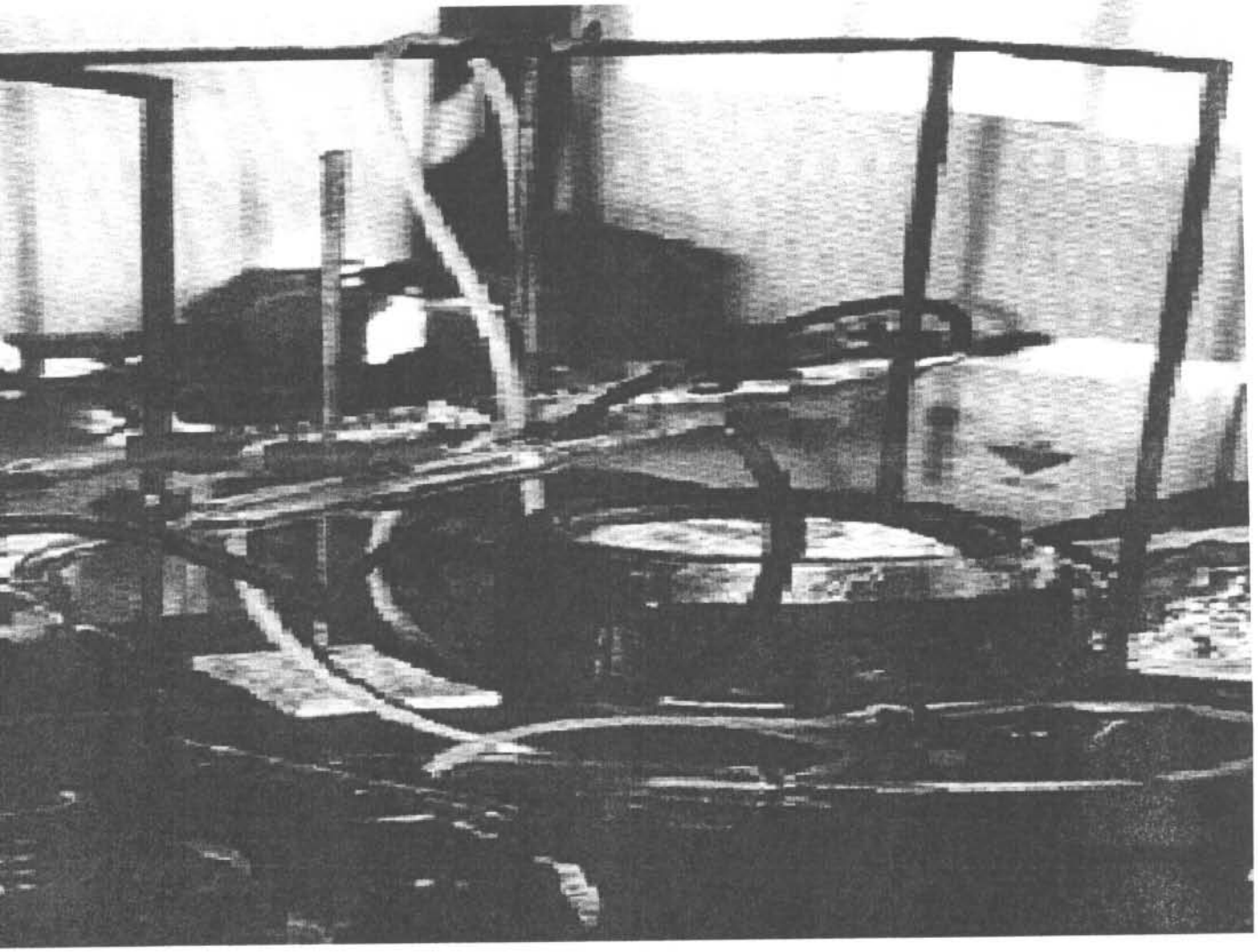
SPIKE THE DRINKS
OF UNSUSPECTING FEMALES



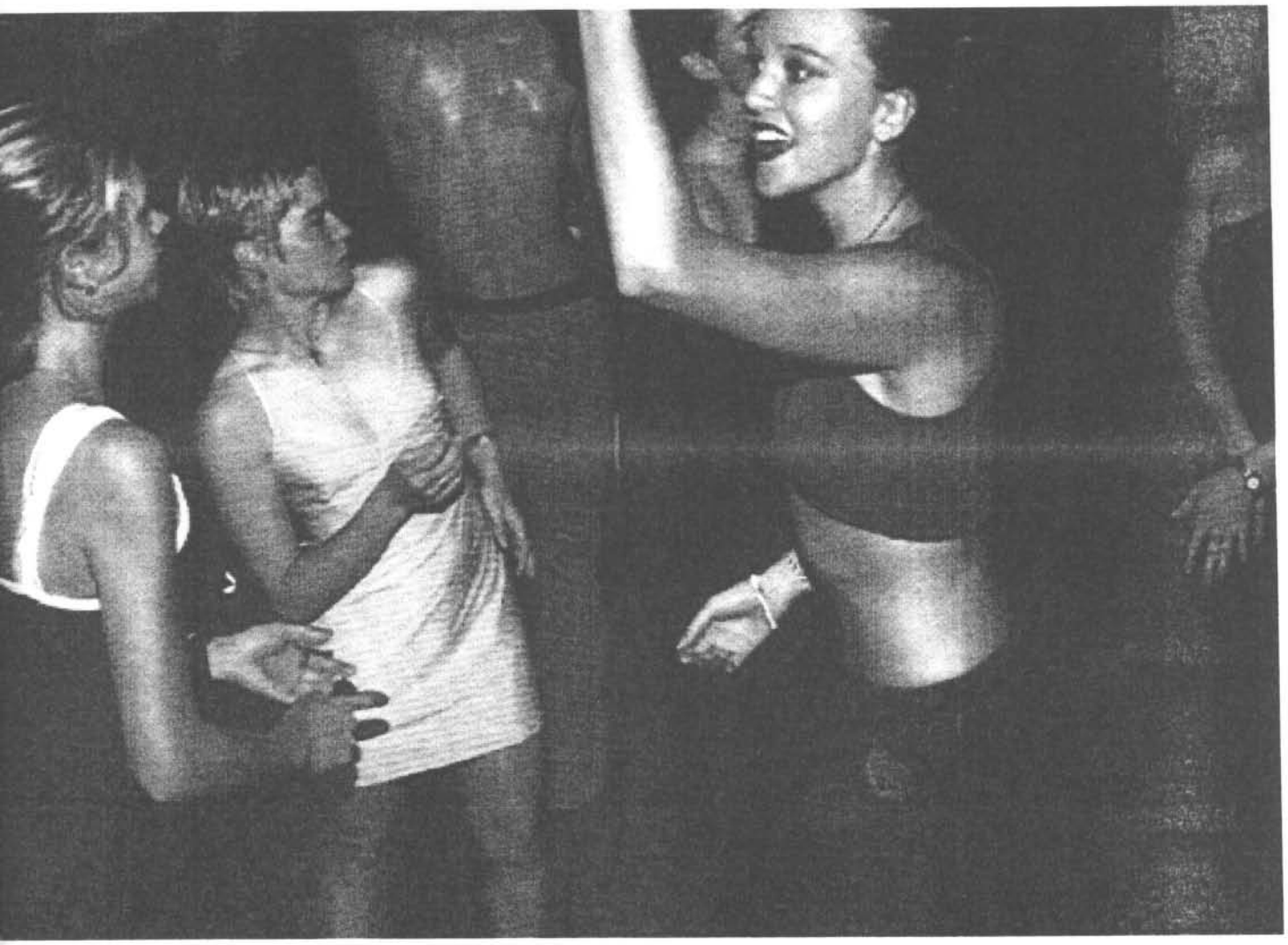
MANDRAX



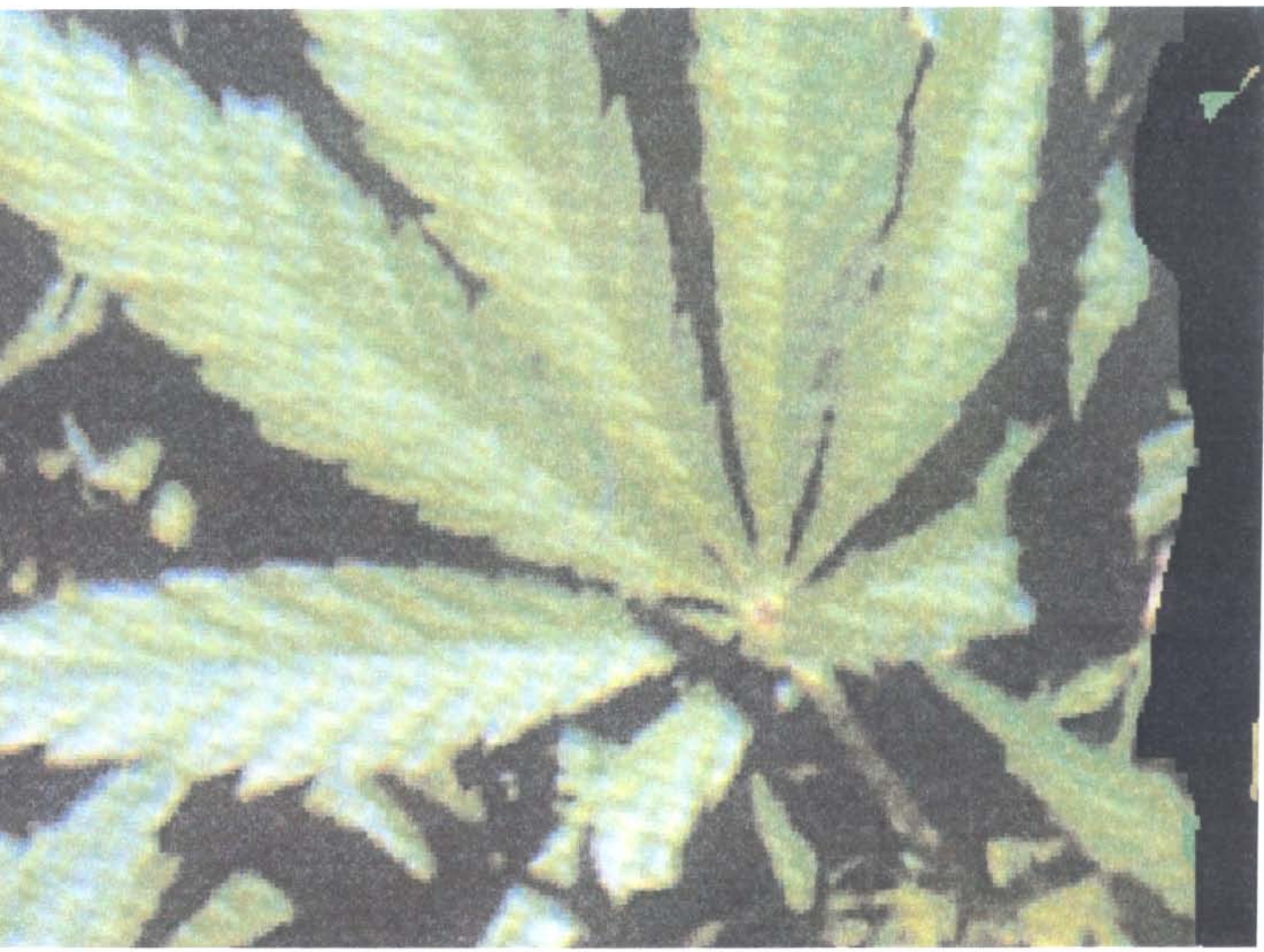
TASY: CLANDESTINE FACTORY / ILLEGAL LABORATORY



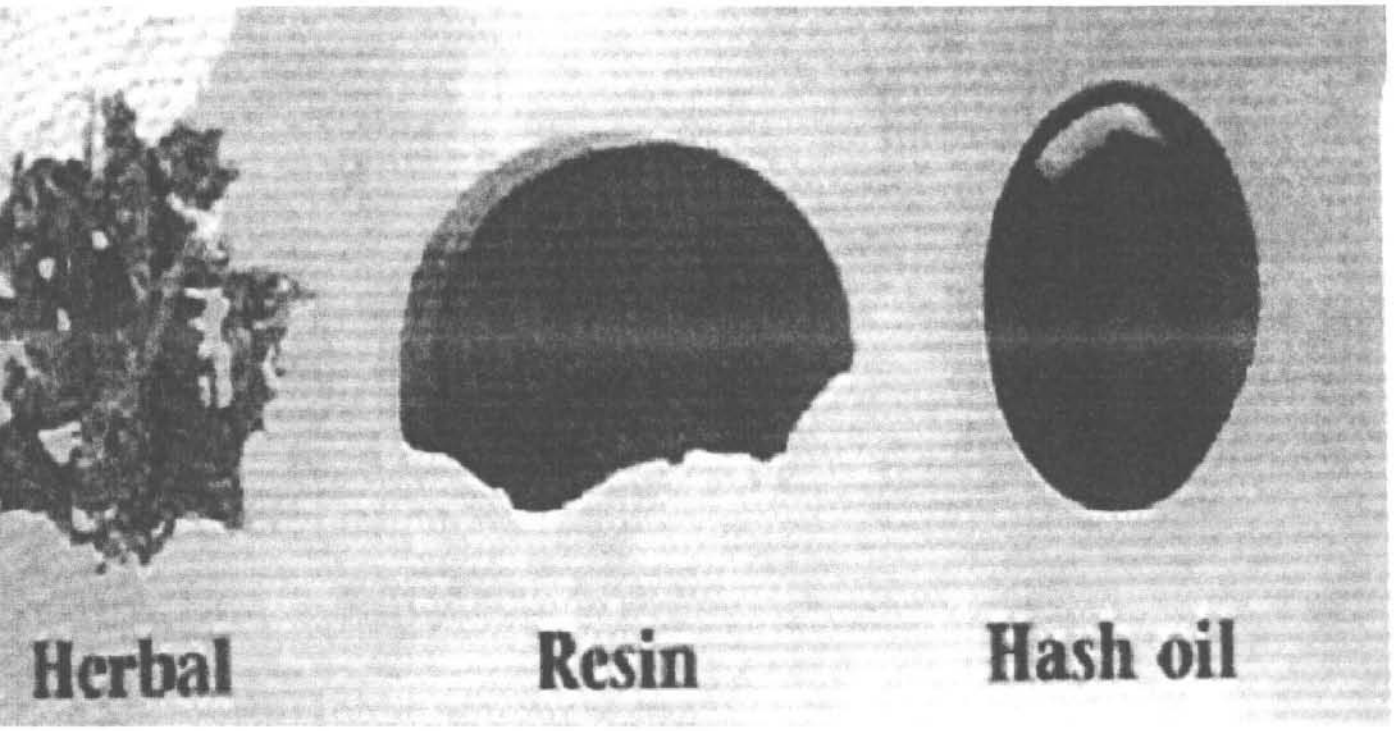
RAVE



CANNABIS SATIVA



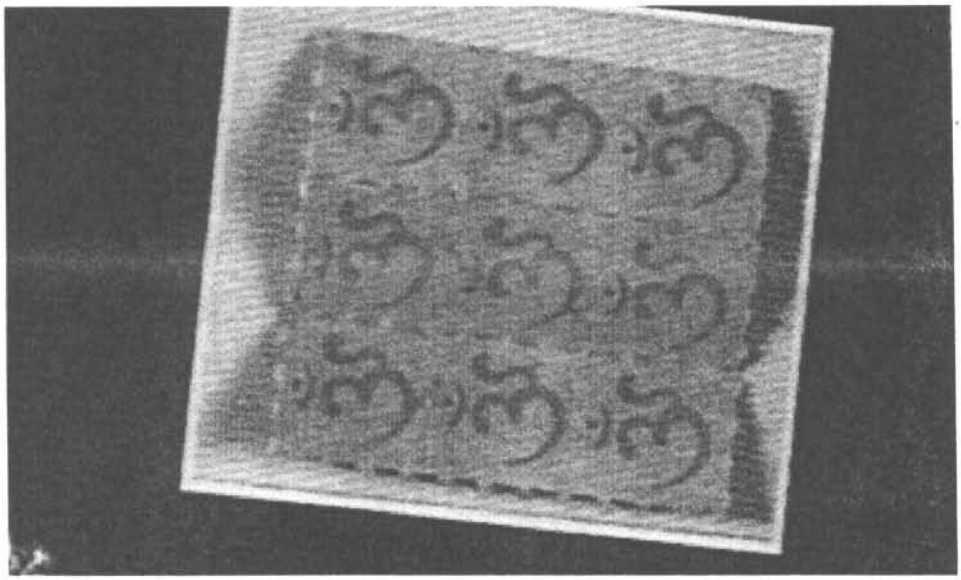
THREE FORMS OF CANNABIS



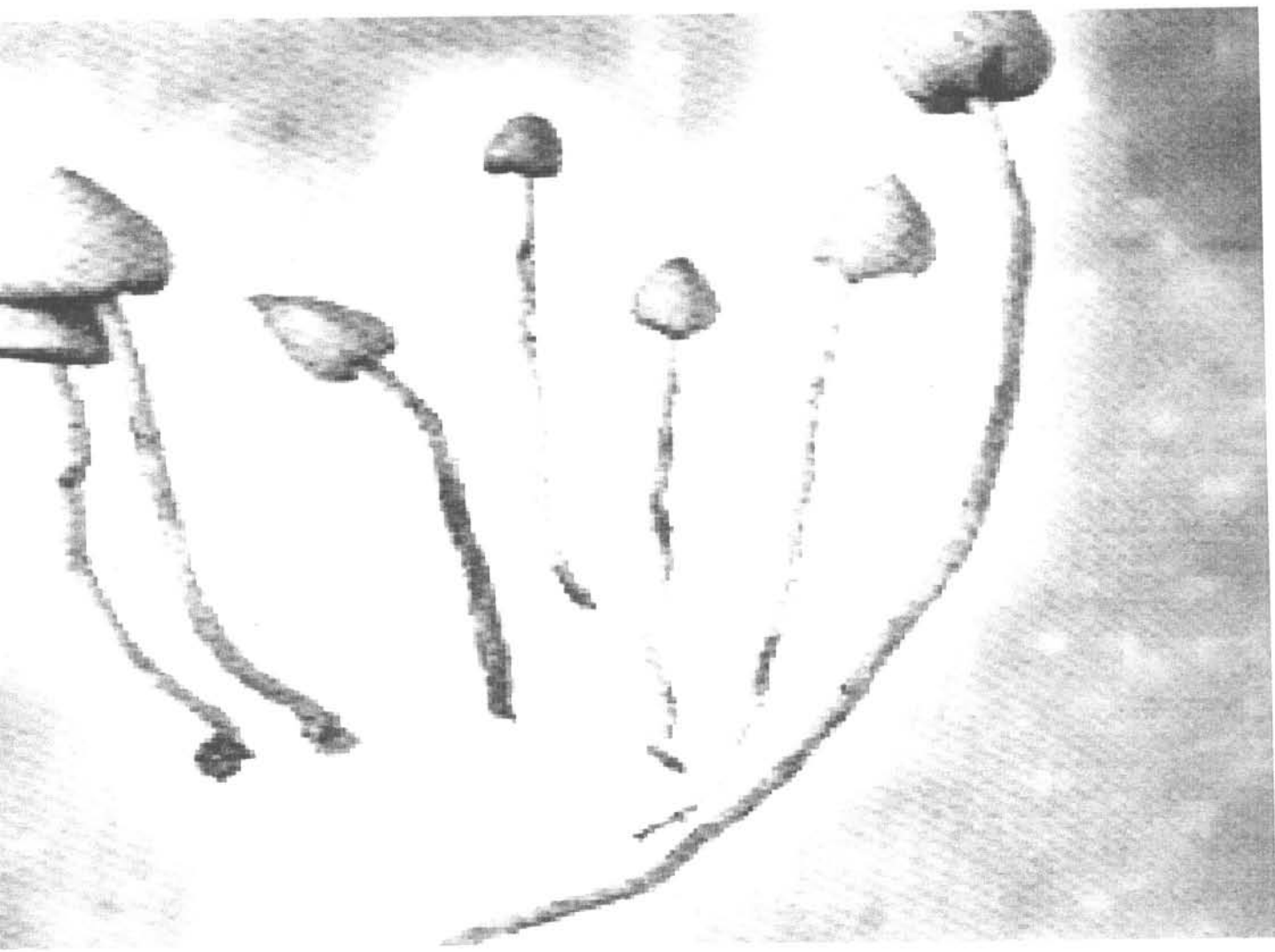
CANNABIS PIPES

KETAMINE

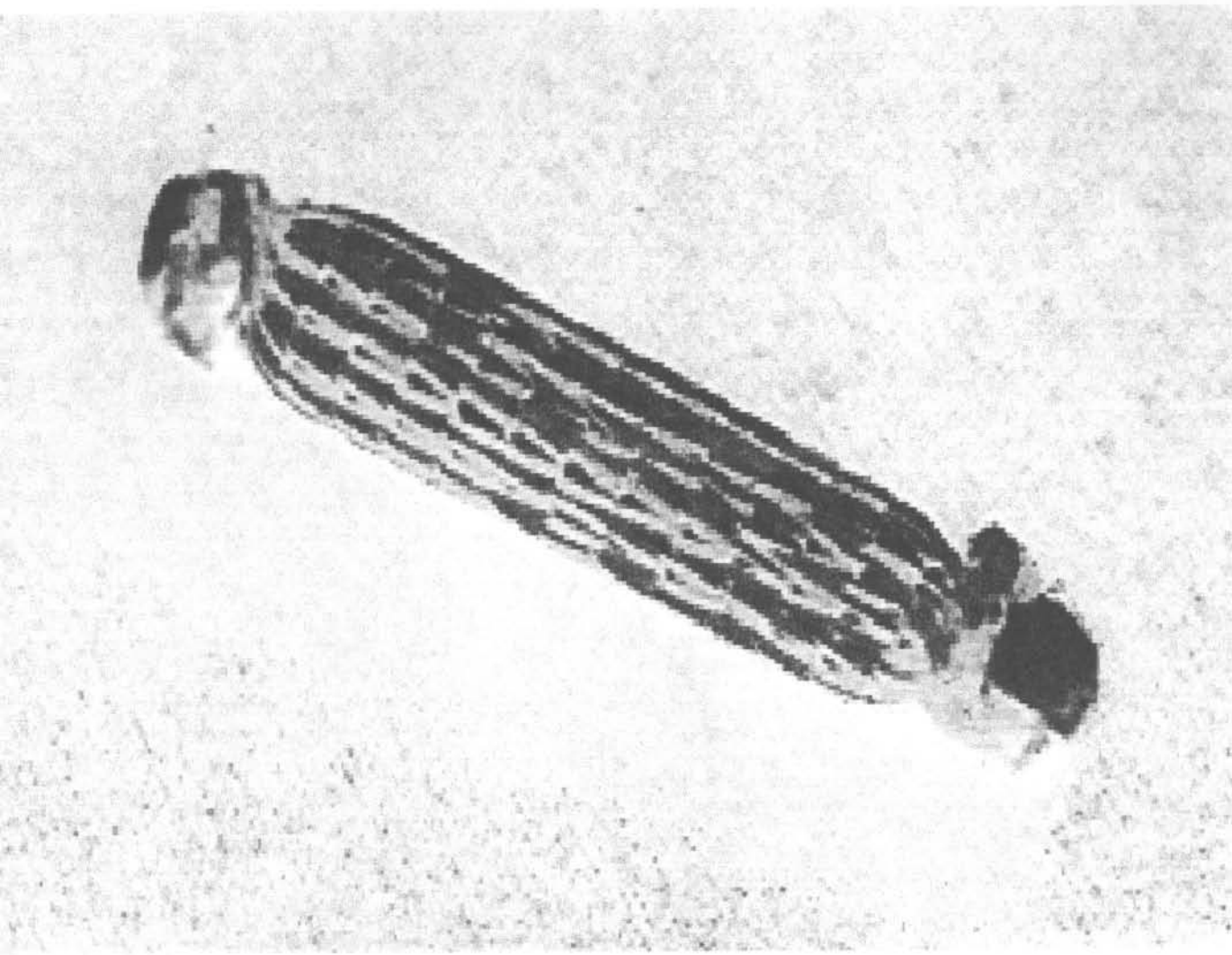
LYSERGIC ACID DIETHYLAMIDE (LSD)



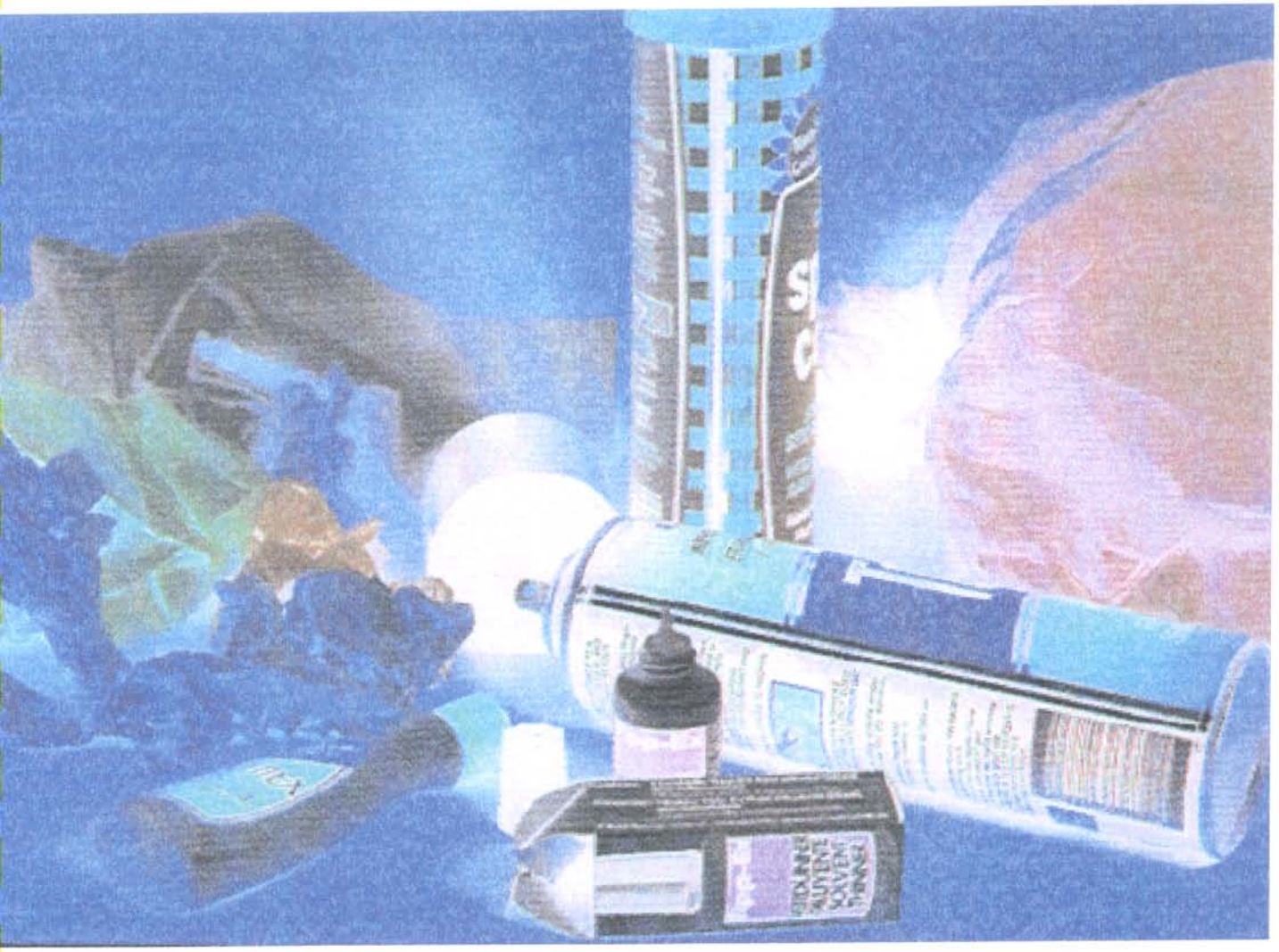
MUSHROOMS



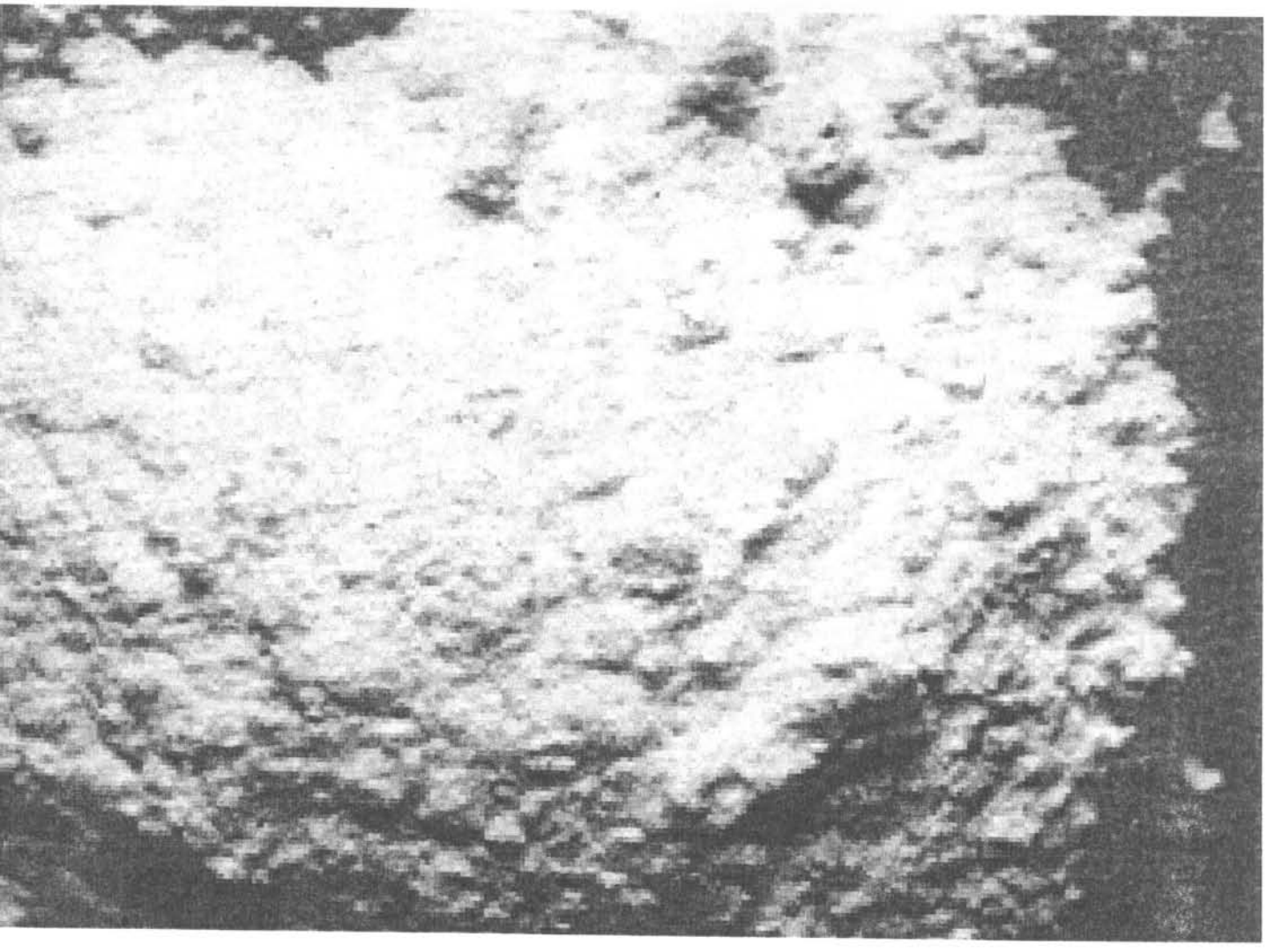
POPPERS



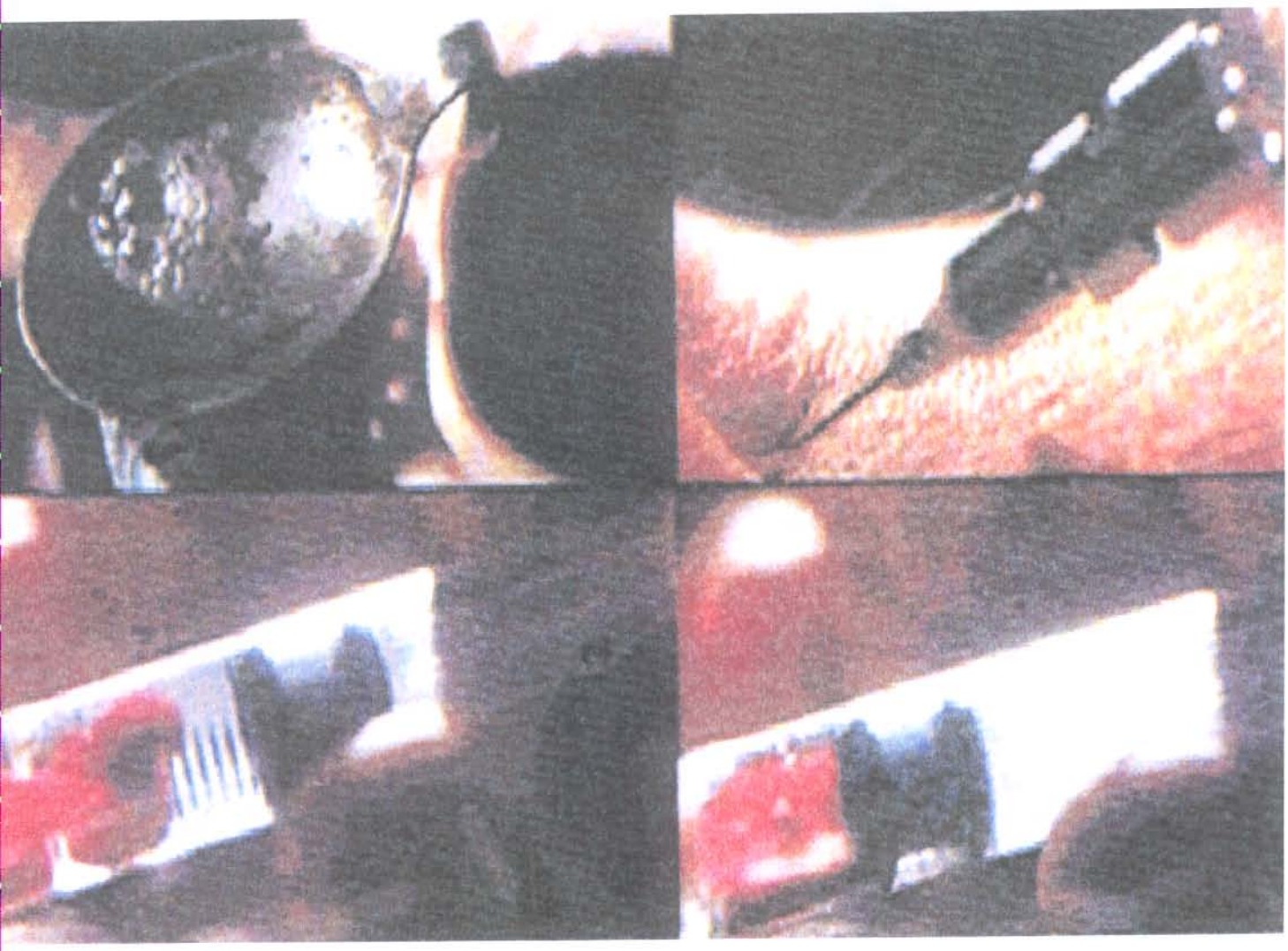
SOLVENTS



DIAMORPHINE HYDROCHLORIDE / HEROIN



HEROIN: INJECTED



Appendix 7: Informed consent form

Participant's Name: _____ Date: _____

Principal Investigator: Carien Brandt

48 Iphala lane
Paros W1
Chakas Rock
4391

Informed Consent

1. **Title of Study**: The development of a substance abuse prevention programme for early adolescents in KwaZulu Natal.

2. **Purpose of the Study**: The purpose of this study is to develop, implement and evaluate a substance abuse prevention programme for early adolescents in KwaZulu Natal.

3. **Procedures**: I understand that my child will be one of 50 children (boys and girls) between the ages of 11 and 14 years old (early adolescents) that will participate in the implementation phase of this study. Meaning that he/she can be assigned to one of two groups of 25 children each, i.e. the experimental group or the comparison group. I concur that both these groups will be measured twice with regard to their life skills, i.e. at the beginning of the study and after the implementation of the intervention. I understand that the experimental group, only, will be subjected to the intervention, i.e. the substance abuse prevention

programme. A programme that will run over two weeks, and is supplementary to Curriculum 2005's subject, Life Orientation. I comply with implementation of this programme as it is designed to address a wide range of risk and protective factors for youth by teaching personal and social skills in combination with drug resistance skills and normative education. Herewith it has been made clear that pre- and post intervention measurement will occur with the use of a self-constructed questionnaire that will be administered in group-context. And that all procedures will be scheduled at the convenience of the school and participants.

4. **Risks and Discomforts**: I am aware that there are no known physical, psychological, legal or social risks or discomforts associated with this project.

5. **Participant's Rights**: I affirm that my child may withdraw from participating in this study at any time.

6. **Financial compensation**: I understand that I will not be reimbursed for my child's participation.

7. **Confidentiality:** I understand that the results of this study may be published in professional journals or presented at professional conferences, but my child's records or identity will not be revealed unless required by law.

8. If I have any questions or concerns, I can call Carien Brandt at (032) 5255593 at any time during the day.

I understand my child's rights as research subject, and I voluntarily consent to his/her participation in this study. I understand what the

study is about and how and why it is being done. I will receive a signed copy of this consent form.

_____ _____

Parent / Guardians Signature Date

_____

Signature of Investigator