

## 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).

#### Consequences

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.

#### Conclusion

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:

o **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.**

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

o **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	<ul style="list-style-type: none"> <li>❑ <u>Key Partners</u> included: (a) Primary schools, (b) youth, (c) parents, (d) law enforcement agencies, and (e) state, local or tribal government agencies.</li> <li>❑ 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.</li> <li>❑ A written letter of approval from the Department of Education and Culture was obtained. (See Appendix 1, page 395.)</li> <li>❑ 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.)</li> <li>❑ The study was scheduled at the convenience of the school and participants.</li> <li>❑ 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.</li> <li>❑ The study's goals and objectives were established.</li> </ul>
	Gaining entry and co-operation from settings	
	Identifying and analysing concerns of the population	
	Setting goals and objectives	
Information gathering and synthesis	Using existing information sources; studying natural	<ul style="list-style-type: none"> <li>❑ 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.</li> <li>❑ To determine what is being done to address the problem of substance</li> </ul>

Integrated model of Intervention Design and Development (D&D)		Application of D&D in this study
Phases	Steps	
	<p>examples</p> <p>Identifying functional elements of successful models</p>	<p>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).</p>
Design	<p>Designing an observational system</p> <p>Specifying procedural elements of the intervention</p>	<p>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:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Programme outline (i.e. vision statement, the researcher's role, priority activities and key partners),</li> <li><input type="checkbox"/> Defining of the target group,</li> <li><input type="checkbox"/> Specifying of key issues (theory base and delivery setting),</li> <li><input type="checkbox"/> Setting of risk and protective factors (targeted risk factors and targeted protective factors),</li> <li><input type="checkbox"/> Determine capacity (internal capacity and external resources), and</li> <li><input type="checkbox"/> Evaluation of the programme.</li> </ul>
Early development and pilot testing	<p>Developing a prototype or preliminary intervention</p> <p>Conducting a pilot test</p>	<p>Early development and pilot testing within this study included</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> A literature study,</li> <li><input type="checkbox"/> Consultation with 6 experts in the field of substance abuse among the youth,</li> <li><input type="checkbox"/> Exploration of the feasibility of the study, and</li> <li><input type="checkbox"/> Pilot test of the measuring instruments (i.e. self-constructed questionnaire</li> </ul>

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	<p>Selecting an experimental design</p> <p>Collecting and analysing data</p> <p>Replicating the intervention under field conditions</p> <p>Refining the intervention</p>	<p>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:</p> <ol style="list-style-type: none"> <li>Development phase: Early adolescence (11 – 14 years old),</li> <li>Permanent residence North coast, KwaZulu Natal,</li> <li>Population group: Black, and</li> <li>Youth with no obvious substance use/abuse problems.</li> </ol> <p>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.</p>
Dissemination	<p>Preparing the product for dissemination</p> <p>Identifying potential markets for the</p>	<ul style="list-style-type: none"> <li>□ 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.</li> <li>□ Potential markets: Social Welfare field and school environment.</li> <li>□ The programme is introduced and recommended to the above-mentioned market.</li> <li>□ The programme (Project Skills Development) is not meant to be</li> </ul>

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.

exploratory

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

objectives

- (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.	<ul style="list-style-type: none"> <li>○ South African Community Epidemiology Network of Drug Use (SACENDU)</li> </ul>	Access to all the data of SACENDU through Internet ( <a href="http://www.mrc.ac.za">http://www.mrc.ac.za</a> )	Qualitative	Exploratory and descriptive design
A critical review of the state of existing substance abuse prevention programmes for early adolescents in KwaZulu Natal.	<ul style="list-style-type: none"> <li>○ Department of Social Welfare and Population Development, KwaZulu Natal</li> <li>○ Department of Education and Culture, KwaZulu Natal</li> <li>○ South African National Council on Alcoholism and Drug Dependence (SANCA)</li> <li>○ Durban Children Society</li> <li>○ South African Narcotics Bureau</li> <li>○ NCVV ("Natal Christelike Vroue</li> </ul>	Structured interviews with a schedule	Qualitative/ Quantitative	Exploratory and descriptive design

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

- o 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.

- o 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.

- o 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**

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<b>Experimental group:</b> 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
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<b>Comparison group:</b> Consisting of 25 children (12 boys and 13 girls) between the ages of 11 and 14 years	Pre-test	Post-test
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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**

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

(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				TOTAL
		0 – 10 years	11 – 14 years	15 – 18 years	19+ years	
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
<b>TOTAL</b>		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 Wehrich (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.