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

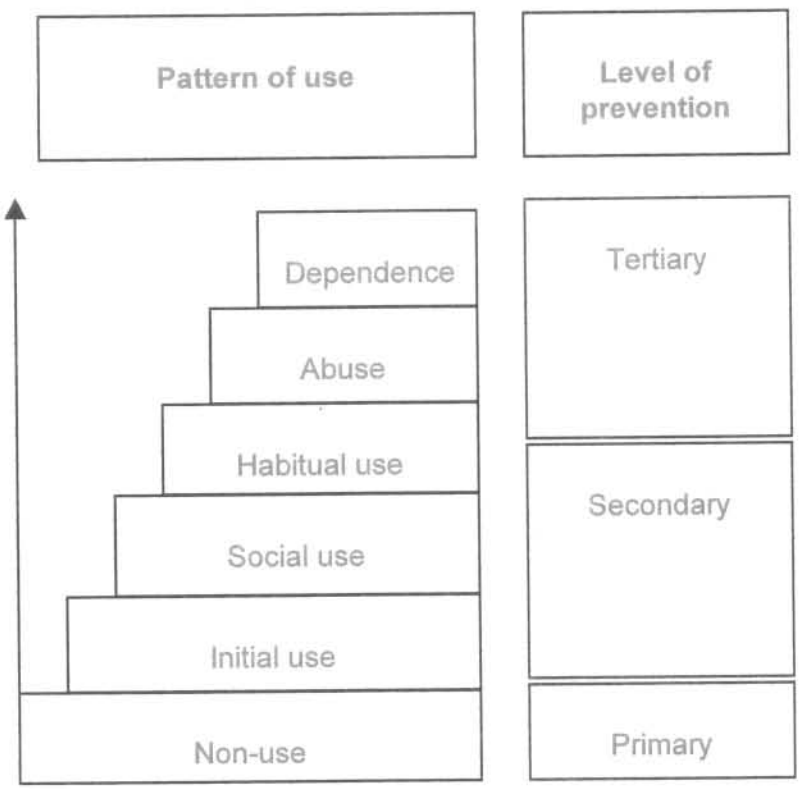
(i.e. secondary prevention) could be used for all of the variable risk factors identified in Chapter 3 (page 155).

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).