WORKING DOCUMENT

EDUCATIONAL PROGRAMS THAT ALTER KNOWLEDGE, ATTITUDES AND BEHAVIOUR OF YOUTH

Report No. 1

Pamela Ellis
Research, Statistics and
Evaluation Directorate
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EXECUTIVE SUMMARY

This report provides a literature review of available information regarding those evaluated education programs that were designed to alter knowledge, attitudes, and behaviour of youth. The purpose of the literature review is to assist in the development of the Public Legal Education and Information (PLEI) - Crime Prevention component of the Community Safety and Crime Prevention Initiative at the Department of Justice Canada. This information will assist in the development of PLEI - Crime Prevention projects by providing lessons learned from other areas.

The report comprises six sections and closes with an annotated bibliography of the literature. The first section outlines the organization of the report, explains its rationale and notes the range of data sources used. The second section explores the role(s) of Public Legal Education and Information (PLEI) and Crime Prevention, as well as a psychological premise for persuasion, resistance, and attitude change. The third section describes seventeen "Youth-in-School" programs which apply seven different behaviour modification approaches: Social Pressure Resistance Skills, Heightened Awareness, Empowerment, Social Skills Development, Psychosocial, Bonding, and Health Belief. The fourth section describes three "Youth-out-of-School" programs which all employ a Social Pressure Resistance Skills strategy to behaviour modification. The fifth section describes eight adult behaviour modification programs which apply three different approaches: Experimental Learning, Clinical Developmental, and Showmen Routine. Section 6 is the discussion component of the report. In this section the effective components of the programs are highlighted and synthesized. The highlighted components include: target group, age, cognition, instructor training, peer leaders, audience interaction, peer pressure resistance skills, and follow-up sessions. The annotated bibliography is organized according to the main sections of the report: youth in-school, youth outside-school, and adult. Furthermore, there is a `general information' section which includes sources that do not necessarily apply to specific programs.

The conclusion is made that the "discussion" section has reviewed eight possible behaviour modification program components and the applicability of surveys. It is important to note that these possible components are based strictly on the literature reviewed and are, therefore, purely speculative.

1.0   INTRODUCTION

1.1   Purpose

This report provides a literature review of available information regarding those evaluated educational programs that were designed to alter knowledge, attitudes, and, ultimately, behaviour primarily in youths, but, also adults. The purpose of this review is to assist in the development of the Public Legal Education and Information (PLEI) - Crime Prevention component of the Community Safety and Crime Prevention Initiative at the Department of Justice Canada. This information will assist in the development of PLEI - Crime Prevention projects by providing lessons learned from other areas. For example, the PLEI - Crime Prevention and Young Offenders project known as the Youth Justice Education Process (YJEP) is in the initial phase of developing a national strategy to inform youth about the youth justice system. While a YJEP strategy would be designed to deter delinquent behaviour, the programs highlighted in this report are not specific to this form of behaviour modification. Instead they cover a wide range of intended behaviour modification approaches aimed at both youths and adults which include substance abuse, intimate relationship violence, services for financially disadvantaged families, health promotion, the environment, and stay-in-school initiatives.

The various programs have been grouped into three general categories: youth in-school programs, youth outside-school programs, and adult programs. Adult programs were included to ensure that many different behaviour modification strategies were examined. Furthermore, an effective element in an adult program may also be effective for a youth program. Prior to an examination of each category there is a background segment which explores the role(s) of PLEI and crime prevention, as well as a psychological premise for persuasion, resistance, and attitude change.

1.2   Organization

This report comprises six sections and closes with an annotated bibliography of the literature:

- Section 1 outlines the organization of the report, explains its rationale and notes the range of data sources used.

- Section 2 explores the role(s) of Public Legal Education and Information (PLEI) and Crime Prevention, as well as a psychological premise for persuasion, resistance, and attitude change.

- Section 3 describes seventeen "Youth-in-School" programs which apply seven different behaviour modification approaches: Social Pressure Resistance Skills,

Heightened Awareness, Empowerment, Social Skills Development, Psychosocial, Bonding, and Health Belief.

- Section 4 describes three "Youth-out-of-School" programs which all employ a Social Pressure Resistance Skills strategy to behaviour modification.

- Section 5 describes eight adult behaviour modification programs which apply three different approaches: Experimental Learning, Clinical Developmental, and Showmen Routine.

- Section 6 is the discussion component of the report. In this section the effective components of the programs are highlighted and synthesized.

- The annotated bibliography is organized according to the main sections of the report: youth in-school, youth outside-school, and adult. Furthermore, there is a `general information' section which includes sources that do not necessarily apply to specific programs.

1.3   Data Sources

Many qualitative methodologies have been used, including searches of computer databases, searches of in-house computer systems at both of the Ottawa-based universities, and telephone calls to various government departments as well as the PLEI organizations in Canada to conduct the research contained within the report.

The CD-Rom ERIC (1966 - June 1994), Sociofile (1974 - December 1993), and Psychlit (1974 - March 1994) databases at Ottawa University were searched extensively for published literature using 33 keyword identifiers which include: `crime prevention and education', `education and change in attitudes, knowledge and behaviour', `attitude change and crime', `behaviour change and crime', `crime prevention programs', `crime prevention programs and evaluation', `educational programs that positively alter behaviour', `programs that change attitudes and behaviour', `knowledge change and crime', `evaluation of education programs to change attitudes, knowledge, and behaviour', `police school liaison programs', `Perry Preschool Program'[1], `Job Corps evaluation',` Fairview Homes', `Dorchester Youth Collaborative', `the I Have a Dream Program', `Yale Child Welfare Research Program', `Centro Sister Isoline Ferre', `Argus Community', `Neighbourhood Services Organization', `Mid-Bronx Desperadoes Community Housing Project', `St. Clair Superior Coalition', `Walnut Hill Community Development Corporation', `the School Transitional Environment Program', `City Lights', `the Phoenix Program', and `Cities in Schools'.

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[1]   The following programs were identified by the Milton S. Eisenhower foundation as behaviour modification programs across the United States

A survey of the in-house computer systems at both the MacOdrum Library at Carleton University (CUBE) and the Morisset Library at the University of Ottawa (ORBIS) was employed using the same 33 keyword identifiers as the CD-Rom database searches. Any references that were found from the searches, but were unattainable at these locations were accessed via the interlibrary loan services offered at the Department of Justice Canada Library.

Further to the published literature searches at the two Ottawa-based universities, many government departments were contacted as well as all of the PLEI organizations in Canada. The government departments that were contacted include: the Health Promotion Directorate at Health Canada (family violence prevention, program promotion division, education and training unit, preventive health services, nutrition programs, and tobacco programs), the National Clearinghouse on Family Violence, the anti-discrimination programs evaluation unit at the Canadian Human Rights Commission, the clearinghouse at the Canadian Centre of Substance Abuse, the National Clearinghouse on AIDS, the prevention division at Environment Canada, and youth affairs at Human Resources.

The Canadian PLEI organizations include: Public Legal Information of Newfoundland, Community Legal Information Association of Prince Edward Island, the Legal Resource Centre at the University of Alberta, the Artic Public Legal Education and Information Society, Public Legal Education Society of Nova Scotia, the Community Legal Education Association of Manitoba, the Public Legal Education and Information Service of New Brunswick, the Public Legal Education Association of Saskatchewan, the Yukon Public Legal Education Association, the Law Courts Legal Education Society (Vancouver), the Public Legal Education Network of Alberta, the Public Legal Education Association of Saskatoon, le Societe Quebecoise d'information juridique, the Public Legal Information Program (Vancouver), the Public Legal Education Society (Vancouver), Community Legal Education Ontario, and the Law Society of Newfoundland. Each of the contacted agencies were asked to offer any information that they may have concerning programs relating to the impact of education on youths' attitudes and behaviour.

Further to these searches, an information request was placed on the Access to Justice Network (ACJNet) on 14 November 1994. The request contained three specifics. Firstly, it asked ACJNet members for information regarding the evaluation or impact of programs targeted at youths. Secondly, it was stated that while the programs may be school-based, they could also be external to the school environment. Finally, the ACJNet request made it clear that, in addition to looking for regular `justice' and `corrections' programs, any type of education programs (family violence, addictions, substance abuse) that attempt to alter attitudes or behaviour would be useful.

The information provided from the literature searches, telephone conversations, and the ACJNet request are discussed in this report.

2.0   BACKGROUND

This section explores the role(s) of PLEI and Crime Prevention, as well as a psychological premise for persuasion, resistance, and attitude change.

2.1   Public Legal Education and Information (PLEI)

According to a report written by Sacco (Sacco, 1992), PLEI programs are any type of program developed to provide information about the law to any audience for any purpose. As long as the prerequisite of increased accessibility to relevant law-related information is met, PLEI programs may take many different styles and have many different objectives. PLEI programs may be initiated by the government, justice services organizations, or community agencies and be targeted at a wide assortment of audiences. The audience will generally fall into one of two categories. That is, either those who seek general legal literacy or those who seek special law-related skills.

Many forms of PLEI are not crime prevention. For example, lectures on wills and estates, court tours for secondary school students, information on the justice system for new immigrants, and booklets on how to file a Small Claims action may all be considered PLEI, but not crime prevention.

2.2   Crime Prevention

In the same paper, Sacco defines crime prevention as those programs developed to deter offenders and reduce opportunity which are usually initiated by the police, the government or other justice-serving community agencies and targeted at one of three types of audience: potential law breakers, potential victims, or individuals who discover a crime. These forms of crime prevention, and their audience, are not a form of PLEI. For example, many of the more traditional programs, such as a lecture on how to prevent being a victim of crime, do not rely extensively on information about the law. Even more removed from PLEI would be crime prevention programs for youth which attempt to interest those who are `at risk' in things other than crime.

2.3   PLEI and Crime Prevention

Programs which seek to prevent crime through providing people with increased awareness about the law or ways to use the justice system may be considered both PLEI and crime prevention. Examples of PLEI and crime prevention programs may be taken from a report by Gill and Alderson (1994). This report provides an inventory of Canadian PLEI materials related to crime prevention and victims. Two examples include: "Accent on Youth", an ongoing program coordinated by the John Howard Society of Manitoba

and Rene Durocher; and the "Cooperative Policing Program", an ongoing program coordinated by the Edmonton Police Service. Since these two programs are ongoing, there are no available evaluations at this time.

It has been suggested by Sacco that on a federal level, program distinctions are most likely a function of administrative convenience, rather than intrinsic program differences. Therefore, according to Sacco, PLEI and Crime Prevention can be known as "different slices of the same pie".

2.4   Attitude Change

In order to design a program that will ultimately alter behaviour, one must first examine two things: knowledge and attitude. Changing an individuals' knowledge is relatively easy. As long as information is provided to that individual in a discernable fashion, their knowledge base has changed. For example, if the Department of Justice Canada were to issue a statement informing a group of previously uniformed people that it was against the law to drive without wearing a seatbelt, then the knowledge of those people will have changed. However, if these people are of the attitude that it is ludicrous to wear a seatbelt they may <u>choose</u> not to wear one even though they know that their behaviour is illegal. Therefore, developing a behaviour modification program requires some form of education which includes, and goes beyond, knowledge to affect the attitudes which affect behaviour.

McGuire (1973) defines "attitude" as a variable that conciliates between reception and response tendencies. In this context "reception" refers to that predisposition to classify similar stimulus situations into a conceptual category and "response" refers to that predisposition to have a unique reaction to this set of stimuli. Furthermore, there are three aspects of "attitudes" which directly reflect ones' reception and response tendencies. First, the cognitive aspect involves the intellectual content of an attitude. This may be measured, for example, by a checklist of traits to ascertain an individuals' stereotype of an ethnic group. Second, the affective aspect refers to the emotional, evaluative aspect of the attitude which may be measured by a rank ordering of various ethnic groups according to liking. Third, the connative aspect refers to the behavioural intentions in the attitude. Thus McGuire suggests two ways in which attitude change may occur: firstly, by persuading the individual to reconceptualize the stimuli so that specific instances are categorized differently or; secondly, by altering the individuals' predisposed response to a given group of stimuli.

Furthermore, McGuire supports the notion that there are four communication variables which assist or hamper attitude change: source, message, channel, and receiver. The source can be very influential as long as the receiver is persuaded to believe that it is credible and attractive. The message content and organization can persuade the receiver to respond in a particular way. The channel, be it pictorial, written, or verbal, must elicit responses of attention, comprehension and yielding in order to be effective. Clearly, the

receiver is that intervening variable which through source, message, and channel, behaviour modification can be attained.

Suggested methods for altering attitudes and behaviour are numerous. Some follow specific psychological theories, while others follow a general approach. Nonetheless, the overall goal of all the to-be-described behaviour modification programs is to implement a form of enhancing behaviour while diminishing a form of compromising behaviour. For example, while Perry and Jessor (1983) emphasize awareness, knowledge, motivation, trial behaviour, and larger environmental changes as methods of implementing enhancing behaviour, Hunter and Turner (1981) of the Law Related Education Evaluation Project believe that a pragmatic program that includes the six dimensions of bonding (commitment, attachment, belief, positive labelling, equal opportunity, and peer interaction) result in behaviour modification.

In one form or another, the following approaches to behaviour modification will be described: alternative activities, drug education, the media, social skills, values, health promotion, life skills, community, and social psychology.

3.0   YOUTH IN-SCHOOL PROGRAMS

The "Youth In-School" programs constitute the majority of the research in this area. Of the existing data, there are seven main approaches to behaviour modification in schools: Social Pressure Resistance Skills, Heightened Awareness, Empowerment, Social Skills Development, Psychosocial, Bonding, and Health Belief. Each of these approaches were implemented to deter or change a form of substance abuse, intimate relationship violence, smoking, or delinquent behaviour.

3.1   Social Pressure Resistance Skills

Five of the seventeen in-school behaviour modification programs implemented the Social Pressure Resistance Skills approach to combat smoking and substance abuse among the 12-18 age group. Three of the five programs (Botvin & Eng, 1982; McAlister, Perry, Killen, Slinkard & Maccoby, 1980; Pentz, Dwyer, MacKinnon, Flay, Hansen, Wang & Johnson, 1989) employed social pressure resistance skills accompanied by peer teaching while the other two programs used the same approach and added a "Long-Term Influences" segment (Arkin, Reomhild, Johnson, Luepker & Murray, 1981; Johnson, Hansen, Collins & Graham, 1986).

The three social pressure resistance skills with peer teaching describe similar studies. Pentz et al. (1989) is the Indiana component of the 6-year Midwestern Prevention Project (MPP), which is a longitudinal study of community-based drug prevention that began in the school; McAlister et al. (1980) describe a similar California-based longitudinal study; and, Botvin and Eng (1982) describe a New York-based smoking prevention study. These 10-session in-school youth education programs focused on peer-issued social pressure resistance skills to resist drug use and cigarette smoking. Following six hours of training, groups of five to seven high-school students led the classroom sessions. The student leaders' goals were to elevate students' commitment not to start smoking and to psychologically persuade them against pressures to smoke (McAlister et al., 1980). Science or health classes incorporated relevant issues such as psychosocial consequences of drug use, correction of beliefs about the prevalence of drug use, recognition and counteraction of adult, media, and community influences on drug use, peer and environmental pressure resistance, assertiveness in practising pressure resistance, problem solving for difficult situations that involve possible drug use and statements of public commitment of avoid drug use into the class time (Pentz et al., 1989). After school, there were 10 homework sessions which consisted of interviews and role-plays with family members. Furthermore, mass media, community organizations, and health policy programming contributed to help reduce the prevalence of drug use in adolescents (Pentz et al., 1989).

In the three studies the authors were confident, from results of pre- and post-test questionnaires, that their program provided support for the hypothesis that the onset of

behaviours like smoking, alcohol, and marijuana use can be deterred by training adolescents to resist temptations from peers (Botvin & Eng, 1982; McAlister et al., 1980; Pentz et al., 1989).

The other two articles employed a school-based intervention program that focused on social pressure resistance skills and appropriated peer leaders as program facilitators as well as a "Long-Term Influences" segment to combat smoking. Johnson et al. (1986) examined the program as it affected older (ages 17-19) adolescents, while Arkin et al. (1981) examined younger (ages 12-13) adolescents. In both studies two curricula were prepared. The first featured a social pressure, or short-term influences, approach to the prevention of cigarette smoking while the second featured health, or long-term influences, oriented instruction (Arkin et al., 1981; Johnson et al., 1986). The social pressure curriculum focused on the immediate social and psychological impacts of smoking and the immediate social influences which promote smoking. This was accomplished via the examination of media influences, social influences, encouraging decision making, and requesting a public statement against smoking (Arkin et al., 1981). The long-term influences curriculum focused on the short-term health effects of smoking, the long-term health effects of smoking, encouraged life-style and health alternatives, and requested a public statement against smoking (Johnson et al., 1986).

While both studies utilized videotapes in their programs, the application of the videotapes varied slightly. Johnson et al. featured videotapes in both curricula. In the social program, a videotape regarding social pressure to smoke was shown while the long-term influences program videotape indicated the short- and long-term consequences of smoking. Meanwhile, Arkin et al. showed the videotape "Why Do People Smoke?" from the Minnesota Smoking Series in the social pressure curriculum only.

Results from the two studies are different which may be related to the target age groups. Arkin et al. found that students in a standard curriculum comparison group became smokers at a higher rate than any of the students in either of the two programs. Unfortunately, Johnson et al. did not have the same results. They found that neither program had any effect on discouraging smoking. Furthermore, this research team suggests that prevention programs that are targeted at younger students may be more effective.

3.2   Heightened Awareness

Three of the seventeen in-school behaviour modification programs implemented heightened awareness to address the socially relevant issues of intimate relationship violence, HIV/AIDS, and sexual abuse.

The London Family Court Clinic in London, Ontario selected London junior high schools to implement a heightened awareness prevention program on violence in intimate relationships. The intended goals of this program were to: reach every student, teacher,

and administrator in the school system; elevate knowledge about wife assault and other forms of violence against women; address latent sexist attitudes which condone violence against women; increase awareness about early warning signs of abusive patterns in relationships; explain different forms of abuse such as verbal, emotional, and sexual abuse; and, create prevention activities for woman abuse and all violence (Jaffe, Sudermann, Reitzel & Killip, 1992). The time period in which to accomplish all of the aforementioned goals took the form of a half-day auditorium presentation. In each school, a school-based committee planned the presentation and a later classroom discussion component in which community professionals and teachers spoke more directly with the students. The auditorium presentation consisted of various speciality speakers, student plays, a professional theatre company, and a discussion addressing myths and facts surrounding wife assault. Speciality speakers came from community agencies concerned with wife assault, the police department, the Board of Education, and some assault survivors.

The London Family Court Clinic Questionnaire on Violence in Relationships was used before and after the presentation to measure attitudes, knowledge and behavioural intentions regarding intimate relationship violence. The post-test indicated significant positive knowledge, attitude and behavioural intentions and most of these were maintained at a six-week follow-up (Jaffe et al., 1992). There was a noteworthy sex difference found in questionnaire responses, with females consistently indicating more positive attitudes than males. This sex difference in responses becomes problematic when measuring the effectiveness of this program. A question one must pose is: does intimate relationship violence happen to men and women equally? Common knowledge would answer no to this question. Therefore, females would likely have more positive attitudes towards non-violent intimate relationships since females are usually at the receiving end of this violence. Moreover, it could be argued that this strategy had failed given that male behavioural intentions did not change. Perhaps a more effective behaviour modification strategy against intimate relationship violence would be to design a program that has the potential perpetrator(s) of the violence as the target group.

A second heightened awareness program was part of the Alberta provincial AIDS program designed for students in grades 9 and 11. The HIV/AIDS information was incorporated into the Health and Personal Life Skills course for grade 9 students and the Career and Life Management course for grade 11 students (Munro & Doherty-Poiriez, 1992). Topics included by nearly all teachers in both grades were the use of condoms, abstinence, sharing needles, and receiving blood.

Pre- and post-instruction tests indicated that the students who received the HIV/AIDS information had significantly higher levels of knowledge and more positive attitudes than they did prior to instruction. Furthermore, their knowledge and attitude scores were significantly higher than those of students who did not receive the instructions (Munro & Doherty-Poiriez, 1992). It is also interesting to note that for the grade 11 students, receiving HIV/AIDS instruction lead to a significantly more positive view of their predicted future behaviour. However, the predicted future behaviour of

grade 9 students did not change as a result of the instruction. Similar to many of the smoking prevention programs, it appears that there may be a target age at which this type of instruction should occur.

The final heightened awareness program was a component of a literature course in a selected Newfoundland high school intended to measure the effects of reading the novel *Ask Me No Questions* on students' attitudes towards sexual abuse and the role of the law in dealing with sexual abuse. This is a unique study in that the students' were given three weeks to read the novel and did not receive any direct instruction about the novel (Norris & Burnham, 1991). *Ask Me No Questions* is the story of a 15-year-old young woman who is trying to deal with sexual abuse by her father. The authors' central purpose in the novel is the education of young individuals regarding sexual abuse and the role of law as protector.

The evaluation of the novel's applicability to its readers addressed four concerns: whether the novel would supply the young reader with accurate information about sexual abuse and about the role of the law in dealing with sexual abuse; whether the novel would encourage the reader to develop different attitudes about sexual abuse and the role of the law in dealing with sexual abuse; whether young readers would enjoy the novel and its characters; and, independent interpretations of the novel. Norris and Burnham (1991) found that *Ask Me No Questions* contains much factual information and expressions of attitudes about sexual abuse and the role of the law in dealing with sexual abuse. The students in the study knew much of the factual information and held similar attitudes to the book prior to reading it. Nevertheless, after reading the novel, students' knowledge of factual information, as well as their attitudes shifted a noticeable amount towards the position of the novel, compared to a control group who had not read the novel.

3.3   Empowerment

The one empowerment strategy found was implemented in 1972 at the High/Scope Perry Preschool Program to deter criminal behaviour in financially disadvantaged children before there would be an opportunity for this behaviour to develop (Schweinhart & Weikart, 1993). The High/Scope Perry program was designed to be adaptable to the context of local situations as a model of early childhood education with outreach to parents.

Schweinhart and Weikart argue that the key to significant benefits include three elements. Firstly, empower children by encouraging them to design their own lesson plans. This is accomplished by providing the children with a materials-rich environment, and report their experiences to their teachers afterwards. The authors call this a "Plan-Do-Review" process which enabled the children in the program to explore their abilities and establish a sense of control over their environment. Furthermore, the authors feel that programs which emphasize child-initiated learning activities improve childrens' social responsibility greater than a direct instruction program. Second, empower parents by

including them as full partners with teachers in supporting their children's development. This was accomplished through weekly home visits by the teachers with the parents. An hour and a half home visit which included child, parent, and teacher consisted of designing the child's activities. The home visits enabled teachers to establish rapport with parents as well as to examine the parent-child relationship. Third, teachers were able to empower themselves through systematic in-service curriculum training and supportive curriculum supervision.

By following the test group and a control group for 21 years, the program developers conclude that:

> "high-quality, active-learning programs for young children living in poverty returned $7.16 for every dollar invested, cut in half participants' crime rates through age 27, significantly increased participants' earnings and property wealth as adults, and significantly increased participants' commitment to marriage" (Schweinhart and Weikart, 1993).

3.4   Social Skills Development

Three of the seventeen in-school behaviour modification programs found employed a social skills development approach to address adolescent substance abuse and stay-in-school initiatives.

First, the United States National Institute on Drug Abuse explored social skills development as a strategy for preventing substance abuse. In this hypothetical program, the developer highlights some of the required social skills in adolescents in order to prevent substance abuse. Basically these skills are assertiveness, freedom of expression, the ability to disagree and refuse, and the ability to make requests and initiate conversation (Pentz, 1983). Pentz argues that the acquisition of these social skills can act as a mediator to certain behaviours such as substance abuse. A common social skills training technique which is referred to as "Guided Participant Modelling" focuses on the cognitive and behavioural aspects of a skill and consists of four components: modelling, rehearsal, feed-back, and practice (Pentz, 1983). Modelling refers to some form of persuasion which can be overt or covert and with or without instruction. Rehearsal is practising the form of persuasion. Feed-back refers to social reinforcement regarding the form of persuasion. Lastly, practice is what occurs after the initial form of modelling, rehearsal and feed-back. Practice takes place over an extended period of time and insures that the behavioural intentions reflect the modelling.

Pentz's findings suggest that an effective method of preventing adolescent substance abuse is through social skills training and that it may have an advantage over direct prevention methods in terms of long-term generalization capabilities.

Second, two Canadian-based federally funded stay-in-school programs employed methods of social skills development to discourage adolescents from dropping out of school. The programs are the `National Stay-in-School' (SIS) initiative and the `Work Orientation Workshops' (WOW). SIS began in February 1990 as a five-year $296.4 million program with the intention to raise awareness of the significant costs currently carried by Canadians as a result of the dropout rate (Renihan, 1994). The method of raising awareness was two-fold. Firstly, a public awareness campaign was launched to increase public knowledge of the high school dropout issue and to encourage youth to stay in school. Over the five years of the program, the public awareness campaign used two strategies: providing awareness of, and information on, the dropout problem and methods to reduce the dropout rate. Secondly, a programs and services component for students was developed to provide interventions to "at-risk" youth to encourage them to stay in school. This component involved labour market programs, career exploration, and guidance counselling services to encourage these youth to stay in school.

In the final year of SIS, Renihan and Associates were hired to assess the success of the program. Survey and questionnaire data indicated that both students and teachers felt that SIS improved the school environment. Many of the in-school coordinators believed that over 75% of their students stayed in school as a result of the program (Renihan, 1994). Furthermore, students were under the impression that academic programs had improved due to SIS. In the evaluation of SIS, Renihan and Associates found that the most successful programs contained some or all of the following characteristics: an incorporation of students affective and cognitive needs; activities that were based upon the students personal life skills and academic skills; student interaction with the school; activities to heighten students awareness of workplace expectations; and, promoting parental and community involvement.

WOW was a program designed in the early 1980's to encourage high school students to stay in school by providing the realities of the workplace through case study projects and life skills training (DPA Group, 1985). The program provided three activities: a workshop activity that focused on developing an understanding of life skills and pre-employment skills required for successful penetration of the labour market; a work experience activity to provide participants with a means of understanding the demands of the workplace and testing their own readiness for it; and, a closing labour market future seminar to help participants understand trends and future job options in the labour market and the educational/training requirements of those options.

The DPA Group produced an evaluation of WOW which provides somewhat contradictory findings. For instance, they begin by stating that "due to time constraints it was not possible to determine pre-program and post-program attitudes and perceptions with any degree of reliability, or to determine long-term program impacts and effects" (1985:ii). However, they conclude that "there is very well demonstrated potential in the WOW approach to achieve a long-term impact upon students" (1985:xix), and "in almost all cases, those who had planned to leave school were either planning to return or were seriously considering doing so" (1985:ix).

3.5   Psychosocial

The two psychosocial approaches found had differing goals to achieve. The program designed by Botvin, Baker, Botvin, Filazzol and Millman (1984) had the goal of curbing alcohol misuse, while Flay, Ryan, Best, Brown, Kersell, d'Avernas and Zanna (1985) designed a program with the intention of preventing smoking (1985:37).

Botvin et al. targeted their psychosocial prevention strategy at seventh-graders from two New York City junior high schools. There were five main components to the program. Firstly, a cognitive component was intended to present information describing the negative health, social and legal consequences of alcohol use as well as current consumption rates among both adolescents and adults. Secondly, a decision-making component was intended to assist students in saying no to alcohol. Thirdly, the program provided techniques for coping with the anxiety of peer pressure to drink alcohol. Fourthly, a social skills training component was intended to provide students with techniques in assertiveness and resistance when pressured to drink. Finally, a self-improvement component was designed to provide students with the opportunity to experience changing their behaviour and improving themselves in a particular area (Botvin et al., 1984).

At the end of this nine-month program Botvin and his colleagues suggest that the results of this study provide "tentative" support for the hypothesis that a psychosocial prevention strategy is an effective means of curbing alcohol misuse among junior-high-school students.

Flay et al. targeted their psychosocial program at sixth-grade students in Waterloo, Ontario. This program consisted of three main components that were delivered in six one-hour weekly sessions. Firstly, a cognitive component was designed to provide information as well as lay the foundation for the development of social skills and attitude changes. In this component the researchers relied a great deal on student interaction. They felt that this interaction would force the adolescents to examine their own belief systems as well as provide the researchers with a collective classroom belief system. Secondly, a resistance component was implemented to focus on social influences to smoke and methods to resist such influences. Thirdly, a decision making component requested a public commitment to refrain from smoking (Flay et al., 1985).

Upon examining pre- and post-program questionnaires, Flay et al. found evidence of significant program effects. It seems that this program was the most effective with two types of groups: those having some experience with smoking before the program began and those surrounded by peer and family smokers.

While the Botvin et al. and Flay et al. programs differed slightly in their methods and goals, there are some underlying patterns of the two programs that deserve emphasis.

First, the target groups were more or less the same age (12-14), which other child development research indicates as the ages where youth are developmentally vulnerable to adapt unhealthy coping strategies as a means to address personal and family stress, and peer pressure (Hambley & Ostrosser, 1992). Second, both programs attribute their success to the inclusion of a cognitive component, adolescent decision making, and the development of adolescent social skills (Botvin et al., 1984; Flay et al., 1985). Thus there appears to be significance attached to the age at which youth are receptive to behaviour modification and the methods employed in these two studies seem to be particularly persuasive.

3.6   Bonding

The United States National Law Related Education Evaluation Project (1981) was developed to increase adolescents' law-related knowledge for the purpose of changing negative attitudes towards the American legal system which, in turn, may effect delinquent behaviour. The curriculum of this program varied from site to site, however, there were three prerequisites that were used at all sites (The Law Related Education Evaluation Project, 1981). First, frequent teacher/instructor training is essential to a successful program. Components of the teacher training emphasized that teachers specifically state the learning objectives to the students, that teachers verify student understanding of the objectives, and that teachers allow ample time for the students to understand the material. Second, the program must follow the six dimensions of bonding in supporting students. This includes commitment, attachment, belief in the student, positive labelling, equal student opportunity to participate, and student interaction with their peers. Third, a successful program requires group/cooperative learning principles such as mock trials and case study analyses. This is the simplest way for the teacher to insure that the message is being communicated to the students. This form of group learning may include individuals from outside the classroom such as guest speakers who are able to provide students with specialized knowledge regarding a specific topic.

The Law Related Education Evaluation Project discovered that, providing the three prerequisites for the program were followed, an increase in student awareness and positive behaviour correlations would result. At the time of this study, however, the results were marginal and they were considering improvements to the program (Law Related Education Evaluation Project, 1981).

3.7   Health Belief

The final in-school program to be explored is Health Belief. This strategy proposes that the likelihood of an individual undertaking any health behaviour, such as quitting smoking, is a function of the perceived magnitude of the threat to his or her health and the perception of the effectiveness of a specific behaviour in dealing with that threat (Smythe, Stanghetta & Gliksman, 1988). This study employed the "Health Belief"

strategy in an attempt to deter the occurrence of drinking and driving among high school students. A variety of methods, such as discussions, individual and group exercises, guest presentations, as well as a videotape of a coroner's inquest, were used to deter the test group students from drinking and driving.

The results from the study indicate that the Health Belief strategy is not an appropriate model to use with teenagers (Smythe et al., 1988). This should not have been a surprise to the researches considering that they mention four other Health Belief studies that were failures and none that were successful.

4.0   YOUTH OUT-OF-SCHOOL PROGRAMS

The "Youth Out-of-School" programs follow many of the same strategies as the "Youth-in-School" programs. This section will describe the one strategy employed in those studies that were found: Social Pressure Resistance Skills.

4.1   Social Pressure Resistance Skills

The following describes two community-based social pressure resistance skills approaches (Flay & Sobel, 1983; Hambley & Ostrosser, 1992; St. Pierre, Kaltreider, Mark & Aikin, 1992) that were designed to prevent adolescent substance abuse.

At the American National Institute for Drug Abuse conference in 1983, entitled "Preventing Adolescent Drug Abuse: Intervention Strategies", Flay et al. argued that changing knowledge is only the first step and that any behaviour modification program must also examine values clarification and decision-making. They suggest that this can be accomplished through three components. First, create an appropriate cognitive structure. That is, what an individual understands. Second, create an appropriate motivational structure. That is, what an individual wants to do. Thirdly, create an appropriate action structure. That is, what an individual actually does.

Two prevention programs were evaluated which employed the Flay et al. techniques. In Toronto, Ontario, Hambley and Ostrosser (1992) describe the "Be Free" program which is an early intervention program implemented through the Rotary Club of Toronto, Don Mills Chapter, to prevent substance abuse in youth 12-14 years old. Developers of the "Be Free" program found that the best way to implement those techniques offered by Flay et al. was via a prevention program which does not suggest that the adolescents involved have a drug problem. In fact, enhanced social skills have been found to have a great effect on measures such as knowledge, attitudes, substance use, problem-solving skills, grades, school attendance, and the ability to resist peer pressure.

The components which were most effective in this community substance abuse prevention program include: a comprehensive strategy, an indirect approach towards drug abuse, an approach that develops competency skills in youth, participatory activities, a culturally sensitive approach, and highly structured activities (Hambley & Ostrosser, 1992). After the ten-week "Be Free" intervention, participating adolescents indicated a positive change in their peer relationships and the developers' assessment of the participating adolescents suggested that they were more knowledgeable about potentially addictive substances and had acquired refusal skills to resist pressures to use them.

In the United States, a national Stay SMART project was developed to deliver a structured drug prevention program with a two-year follow-up booster program to 13-year

old youths in Boys and Girls Clubs across the nation (St. Pierre et al., 1992). This 12 session program consisted of structured small-group sessions designed to teach youths social skills to assist them with resisting peer pressure to use alcohol, cigarettes, and marijuana based upon the Flay et al. techniques. Stay SMART and the booster sessions were comprised of experiential activities and videotapes and were made culturally relevant by program leaders who chose culturally appropriate music videos, television commercials, and role plays. A common format consisted of stating session objectives, supplying background information, discussion regarding a video, and role-plays.

Post-intervention results indicated that those youths who participated in the Stay SMART program and the booster sessions showed significantly less cigarette-, alcohol-, and drug-related behaviour relative to a control group (St. Pierre et al., 1992).

5.0   ADULT PROGRAMS

Adult programs designed for behaviour modification were tailored to address adult behaviours which may have negative effects on an adult's family members or an adult's career. None of the approaches that were used on youth in previously mentioned studies were used in the adult programs, however, there may be elements of adult programs that would be effective to include in a youth program.

Of the eight studies examined, six took an experimental learning approach, one took a clinical developmental approach, and one took a Showmen Routine approach. Attempted behaviour modification ranged from child development for disadvantaged families (Rescorla & Zigler, 1981; Simoni, Vargas & Casillas, 1982) to attitude changes in professionals who must work with addictive personalities (Beckman & Mays, 1985; Chappel, Jordan, Treadway & Miller, 1977) to material aspirations among criminals (Greenberg, 1988) to educating adults on effective methods of addressing adolescent substance abuse (DeWit, Harber & Silverman, 1993; DeWit, Timney, Silverman & Stevens-Lavigne, 1993; Health Canada, 1994).

5.1   Experimental Learning

The experimental learning approach was used in attempts to alter attitudes in professionals who must work with addictive personalities, parents wanting to prevent substance abuse among their adolescent child and material aspirations among criminals.

Chappel et al. (1977) describe attempts to change attitudes in medical students to attain the goal of professional objectivity towards substance abusing patients and their treatment with a long-term goal of improving the quality of medical and psychiatric care provided to substance-dependent patients. The program was created to incorporate each student in an experiential way with various aspects of substance abuse. Audiovisual aids, clinical problem solving, and small group discussion were used in almost every part of the program. Furthermore, each student was assigned a book of readings and an Alcoholics Anonymous (AA) sponsor who took the student to AA meetings.

Pre- and post-test results indicated significant positive shift in the general attitude toward hard drug users and greater student optimism toward treatment methods (Chappel et al., 1977). However, there is no mention as to the results for the long-term goal.

Beckman and Mays (1985) describe a program that was designed to alter gatekeepers' attitudes toward female alcoholics. This one-day workshop contained both didactic components and experiential components. Definitions of alcoholism as well as treatment and needs of female alcoholics, experiences of recovering female alcoholics, services available in the local area, and alcoholism among ethnic minority women comprised the didactic components. Experiential components consisted of addressing special issues concerning female alcoholics in a small group which would help

participants discover their own attitudinal and organization barriers towards alcoholic women, in order to enhance skills to recognize symptoms of alcoholism among women.

Pre-test, post-test and six-month follow-up questionnaires indicated that participants perceived themselves as being more knowledgeable about alcoholism in women. However, no significant differences were found in attitudes and behaviour (Beckman & Mays, 1985).

Greenberg (1988) describes a one-month experiential approach to lower material aspirations of criminals based upon theories indicating that much crime is motivated by the desire for great wealth and status based on wealth. The program was comprised of eight two-hour sessions divided into two sections. The first section was an interview consisting of questions about the individual's past experiences and plans for the future. Questions which specifically referred to material aspirations were in the context of work, money, and changes. The second section was group meetings in which both interviewers and clients took turns answering opinion-oriented questions. In this section, questions were designed so that an individual could distinguish between "ideal" and "enough" to lead a comfortable life.

Pre- and post-test scores indicate that inmates material expectations lowered after the program (Greenberg, 1988). However, this program may not be effective in most other environments. Greenberg notes that the program was introduced into an environment where the participants led severely restricted and monotonous lifestyles which they disliked. This could be directly related to the success of the program.

The following three programs are unique in that they attempt to assist parents and teachers by providing them with the most effective methods of addressing substance abuse among adolescents.

DeWit et al. (1993) and the Health Canada (1994) project conducted similar studies in that they both describe Canadian programs set-up to inform parents of "at risk" adolescents on methods of communicating with their children regarding anti-social behaviour such as alcohol, drugs, or violence. Program components for the parents consisted of life skills intervention, peer support, and parent education regarding anti-social behaviour (DeWit et al., 1993).

In both studies positive feedback was recorded for all parts of the program. Parents and facilitators commented that the program was most effective at providing opportunities for parents to share experiences with each other, greater awareness of common difficulties and possible solutions, improved communication skills, and valuable educational information (DeWit et al., 1993; Health Canada, 1994).

Another study completed by DeWit et al. (1993) evaluated teacher training in drug prevention programs in four Ontario communities: Timmins, Windsor, Barrie, and Napanee. The researchers argue that effective teacher training will produce effective

programs. The training program, "Teacher Training in Prevention" (TTIP), was developed to: assist teachers in planning, developing and implementing a drug education program for their classroom; train teachers to identify students who may be at risk of alcohol and drug problems and the steps to assist them in getting help; increase teachers' comfort level with the content and process of drug education; and, increase teachers' level of knowledge of the facts of student alcohol and drug use (DeWit et al., 1993).

The results of DeWit et al.'s evaluation were positive towards TTIP. Results indicated that: nearly two thirds of questionnaire respondents indicated that the training had resulted in more methods of delivering drug education to their students; nearly 80% of respondents indicated a higher level on confidence using different methods to teach drug education; and, over two thirds of the respondents stated that they felt more qualified to recognize the signs and symptoms of student drug use.

5.2   Clinical-Developmental

The goal of the Yale Child Research Welfare Program was to provide services to a group of financially disadvantaged families, to help them improve their quality of life through supportive services and to create a healthy environment for their children. This program is described most aptly as an infant/toddler intervention program with a clinical-developmental approach (Rescorla & Zigler, 1981). The approach was developmental due to its concern with the child's physical, mental, social, and emotional growth. The authors argue that the growth of cognitive functions is intertwined with the growth of emotional and interpersonal processes. The Yale program consisted of four components. First, a professional clinician met with each mother in her home on a monthly basis to establish rapport. Second, a paediatrician was responsible for the child(rens)' health care while they were part of the program. Third, periodic developmental examinations were conducted using the Yale Developmental Schedules. Fourthly, full-time child care was provided for families who wished to use it for the duration of the program (Rescorla & Zigler, 1981).

The effects of the Yale program were examined at the end of the project and at a follow-up five years later (Rescorla & Zigler, 1981). Results indicated that, as compared to a control group, program children were performing to their adaptive abilities; program mothers had better overall psychological adjustment; and, the number of families on welfare had declined from nine to three. The authors consider these results indicative of the success of the Yale Child Welfare Research Project.

5.3   Showmen Routine

Simoni et al. (1982) describe a study that measures Mexican medicine showmens' (Merolicos) ability to communicate health information in Mexico. In this instance, the message the Merolicos were to communicate regarded the nutrition of infants up to one

year of age. The communication of the message would last for three months and would take place in rural and urban areas (Simoni et al., 1982). The Showmen worked with academics in Mexico to develop a health show routine. Academics stressed to the Merolicos that the routines could vary as long as the following points were emphasized: the value of breast-feeding until one year of age, the name and function of the first breast secretion (colostrum), recommendations for early supplementary feeding, the value of vitamin drops for babies, and the functions of vitamin A, C, and D (Simoni et al., 1982).

Two months after the Showmen had completed their routines, social workers and nurses carried out an evaluation. The evaluation consisted of surveying 20 percent of the households in the rural and urban areas as well as a control site (Simoni et al., 1982). Results from the surveys proved that an estimated eight percent of mothers altered their behaviour as a result of the Medicine Showmen routines. From this changed behaviour Simoni et al. concluded that this form of communication was successful in altering an individuals' knowledge, attitudes and behaviour.

6.0 DISCUSSION

In the five previous sections, educational programs that attempt to alter knowledge, attitudes, and behaviour were explored according to various strategies and approaches. In this section the most successful components of the various strategies will be highlighted. It is hoped that the reader may find some use for the successful components in a future PLEI or crime prevention initiative.

The previously mentioned communication variables consisting of source, message, channel and receiver are important first steps to take when developing a behaviour modification program. A program developer should consider those factors that will persuade the intended audience, or receiver. As McGuire (1973) suggests, the source can be very influential as long as the receiver is persuaded to believe that it is credible and attractive. The message content and organization can persuade the receiver to respond in a particular way. The channel, be it pictorial, written, or verbal, should elicit responses of attention, comprehension and yielding in order to be effective. Thus, the receiver is that intervening variable which through source, message, and channel, behaviour modification can be attained.

In order to captivate the receiver so that he or she is at the most persuasive point, evidence from the literature indicates that a program developer should consider the following components for behaviour modification: target group, age, cognitive component, instructor training, peer leaders, audience interaction, peer pressure resistance skills, and follow-up sessions.

As indicated in Jaffe et al. (1992), isolating the target group (e.g., by gender) is an essential component to any behaviour modification program. The Jaffe et al. study may have erred in this respect in that they sought to develop a broad preventive strategy regarding intimate relationship violence. Perhaps a more effective preventive strategy could have isolated the potential perpetrator(s) of intimate relationship violence.

Once the target group has been identified, another essential component to a behaviour modification program is age. The developer must identify the age at which the audience would be the most receptive to persuasion. Some theorists argue that the ages between 12 and 14 are when youths are developmentally vulnerable to adapt unhealthy coping strategies as a means of addressing personal and family stress, and peer pressure. Therefore, this may be the best age at which to implement a behaviour modification program (Hambley & Ostrosser, 1992). This argument is supported in two different smoking prevention studies: Arkin et al. (1981) and Johnson et al. (1986). As previously noted, Arkin et al., who targeted a younger audience, had more success than Johnson et al., who targeted an older audience. Nevertheless, this "age" argument becomes puzzling when examining results from the Alberta HIV/AIDS Education Project by Munro and Doherty-Poirier (1992). In this study, the HIV/AIDS education was more effective with grade 11 than grade 9 students, indicating that there may be different "optimum" ages for different kinds of behaviour modification. Thus, while age was a significant factor in all of the studies, a "model" age at which to implement a program cannot be offered.

Another significant factor in a behaviour modification program is a cognitive component. In this component, instructors could clarify what the audience understands about a particular issue. This could be accomplished through explaining possible consequences of the trying-to-be-altered behaviour, as well as correcting certain beliefs about such a behaviour. Presenting the audience with facts about their behaviour will increase their knowledge base and may open their minds to other options and opinions.

Along with a cognitive component, many of the studies have identified instructor training as a valuable component to a behaviour modification program. The Law Related Education Evaluation Project (1981) stressed throughout the report that there was a direct link between successful programs and repeated instructor training. Furthermore, the "Teacher Training in Prevention" program emphasized instructor training as an integral component of any prevention program (DeWit et al., 1993).

In addition to well trained instructors, many studies have incorporated a peer leaders component to programs. As previously mentioned, McAlister et al. (1980) argue that peer leaders can elevate their peers' commitment to alter behaviour and have a psychological advantage over their peers that instructors may not have. Moreover, this group of researchers are not alone in making this assumption. Ten other studies identified peer leaders as an essential behaviour modification program component.

Audience interaction is another component that should be considered by a behaviour modification program developer. This can be a very effective tool in these types of programs because they make the audience an integral program component. This can occur through various methods. For example, the Law Related Education Evaluation Project (1981) suggested group discussions, mock trials, and case study analyses as effective methods of audience interaction. Moreover, a rather unique method of audience interaction was described by the Alberta Alcohol and Drug Abuse Commission (AADAC). In the early 1980's, the AADAC employed an Alberta theatre group to develop interactive performances aimed at high school students (Sawka, 1980). The theatre group developed a "game show" format that encouraged students to make decisions regarding major life goals and aspirations. As a method of student interaction, the "game show" was rated positively by the participants and appears to be a great method of audience involvement.

Another behaviour modification program component to be considered (which could be part of audience interaction) is peer pressure resistance skills. In this component the audience would receive assistance with the ability to solve problems and independently make decisions.

A final component to a behaviour modification program is follow-up. Both the Law Related Education Evaluation Project (1981) and DeWit et al. (1993) found that repeated training was very effective for instructors, it may also be effective for the audience. A behaviour modification program could be presented again, at a later date, to persuade the audience regarding their behaviour. One of the programs in the literature which supports this assumption,

and has results to this effect, is the Stay SMART Program that was implemented in American Boys and Girls Clubs (St. Pierre et al., 1992).

Aside from possible components for behaviour modification programs, a useful tool for developers are surveys. While these surveys may not describe specific programs, they track certain knowledge, attitudes, and behaviours of specific groups over certain time periods. For the purposes of this literature review, two surveys are especially noteworthy: *Sexuality, AIDS and Decision Making: A Study of Newfoundland Youth* (Cregheur, Casey & Banfield, 1992) and *The Health of Canada's Youth: Views and Behaviours of 11-, 13- and 15-Year-Olds from 11 Countries* (King & Coles, 1992).

This discussion section has reviewed eight possible behaviour modification program components and the applicability of surveys. It is important to note that these possible components are based strictly on the literature reviewed and are, therefore, purely speculative. Generally, the articles found for this literature review tended to be successful with specifically smoking prevention being the most effective.

APPENDIX A
ANNOTATED BIBLIOGRAPHY

A. YOUTH-IN-SCHOOL PROGRAMS

Arkin, R.M., Reomhild, H.F., Johnson, C.A., Luepker, R.V. & Murray, D.M. (1981). The Minnesota Smoking Prevention Program: A Seventh-Grade Health Curriculum Supplement. *The Journal of School Health*, **November, 611-616. [United States]**

The seventh-grade program based on social psychological theories attempted to prevent non-smokers from starting to smoke. Two competing strategies, a Short-Term Influences Curriculum and a Long-Term Influences Curriculum were compared. Within these broad strategies, several other variables were also tested: the use of same age peer opinion leaders or health educators as teachers, the use of media supplements and the elicitation of a public commitment not to become a regular smoker. Program effectiveness was evaluated using self-report measures confirmed by saliva thiocyanate analyses. The treatment groups were compared to a standard curriculum comparison group. Findings indicated that the standard curriculum group became smokers at a higher rate than the treatment groups.

Botvin, G.J. & Eng, A. (1982). The Efficacy of a Multicomponent approach to the Prevention of Cigarette Smoking. *Preventive Medicine*, **11, 199-211. [United States]**

The efficacy of a 12-session multi-component peer leadership smoking prevention program was tested on 426 seventh graders in the United States. The program focused on the acquisition of basic life skills and the improvement of personal competence, with particular emphasis on coping with social influences to smoke. Experimental and control groups were compared in terms of self-reported smoking status and several knowledge and psychological variables hypothesized to be related to smoking onset. In addition, saliva thiocyanate (SCN) levels were analyzed in a subsample of students. A significant reduction in new smoking was seen in students in the experimental group, based on both the analysis of self-reported smoking status and SCN levels. There also were significant end-of-treatment differences between the experimental and control groups on three of the knowledge variables and two of the psychological variables. At 1-year follow-up, significantly fewer of the students in the experimental group had become regular (weekly) cigarette smokers than those in the control group. These results indicate the short-term effectiveness of a broad-spectrum smoking prevention program that may be applicable to several areas of health education.

Botvin, G.J., Baker, E., Botvin, E., Filazzola, A.D., & Millman, R.B. (1984). Prevention of Alcohol Misuse Through the Development of Personal and Social Competence: A Pilot Study. *Journal of Studies on Alcohol*, **45(6), 550-552. [United States]**

Seventh graders (N=239) from two New York City junior high schools were involved in a 9-month study testing the efficacy of a broad-spectrum approach to the prevention of alcohol misuse. The two schools were randomly assigned to experimental and control conditions. The seventh graders in the treatment school received a 20-session program targeted at the major cognitive, attitudinal, social and personality factors believed to promote the early stages of alcohol misuse. The program contained material on decision making, coping with anxiety, general social skills, and assertiveness as well as about the short- and long-term consequences of alcohol misuse. Complete pretest, posttest 1 and posttest 2 data were collected from 167

students. The experimental group reported less frequent episodes of drunkness than the students in the control group.

Carruthers, S. & James, R. (1993). Evaluation of the West Australian School Development in Health Education Project. *Journal of School Health*, **63(4), 165-168. [Australia]**

In 1990, the Australian National Centre for Research into the Prevention of Drug Abuse was invited to evaluate the School Development in Health Education Project (SDHE), a national program tested in Western Australia (WA) in 1991. A formative evaluation indicated that the project was moderately successful in achieving the objectives in the operational plan. Schools involved reported the project was successful, and they agreed to continue health planning meetings during 1992. The evaluation also indicated that while most schools achieved macro-level change, they achieved little at the micro level. A significant outcome for SDHE WA was the successful application for three-year funding to continue and expand the project as the Western Australian School Health program (WASH). Recommendations generated from the SDHE evaluation produced a shift in emphasis for the WASH program from the "action research" orientation of the national program to more content-based professional development. This study highlights the important role formative evaluation can play in developing and refining health education programs.

Cregheur, L.A., Casey, J.M., & Banfield, H.G. (1992). *Sexuality, AIDS and Decision Making: A Study of Newfoundland Youth***. St. John's: Office of the Queen's Printer. [Canada]**

This study was undertaken during the 1990-91 school year to determine whether any change in knowledge, attitudes, beliefs and behaviours of Newfoundland and Labrador adolescents had occurred since the 1988 study by Queen's University entitled *Canada Youth & AIDS Study: Newfoundland Report (CYAS)*. In addition, it was designed to explore the characteristics of the decision-making skills and abilities of adolescents around sexuality issues. Studies of this nature provide valuable information for the development and improvement of educational programs and services that address the HIV epidemic, as well as other sexually transmitted diseases.

DPA Group Inc. (1985). *Evaluation of Work Orientation Workshops***. Ottawa: Program Evaluation Branch, Employment and Immigration Canada. [Canada]**

The Work Orientation Workshop (WOW) Program of Employment and Immigration Canada is one of six elements within the Challenge `85 framework, a broad program designed to provide Canadian students with summer employment experiences that will benefit their eventual transition into the permanent work force. Within that context, WOW was designed to meet the needs of a particular sub-group of students, namely students who are considering dropping out of school without completing high school and who are not fully prepared for the demands of the labour market. On the basis of the fourteen case studies completed in this evaluation, the WOW program is considered by the evaluators to have been soundly conceptualized, and to have provided a valuable experience to the participating students.

Flay, B.R., Ryan, K.B., Best, A., Brown, S., Kersell, M.W., d'Avernas, J.R., & Zanna, M.P. (1985). Are Social-Psychological Smoking Prevention Programs Effective? The Waterloo Study. *Journal of Behavioral Medicine*, **8(1), 37-59. [Canada]**

Recent evaluations of smoking prevention programs have suggested considerable promise for curricula emphasizing resistance of social influences. This study extends these evaluations by addressing key methodological limitations in previous work. Twenty-two matched schools were randomized to experimental and control conditions. Grade 6 students received a 6-week core curriculum, plus additional sessions through Grades 7 and 8. Questionnaires, and saliva samples to validate self-reported smoking behaviour, were collected at five times over the 2-year study period. Cross-sectional and longitudinal analyses examined program impact for five levels of initial smoking experience, ranging from "never smoker" through regular, weekly smoker. Significant program effects were documented, most

clearly for those having some experience with smoking before the program began and for those with smoking peer and family models. This study provides the methodologically most rigorous test to date of social influence programs for smoking prevention and documents for the first time significant effects for those at high risk for smoking.

Hansen, W.B., Johnson, A.C., Flay, B.R., Graham, J.W., & Sobel, J. (1988). Affective and Social Influences Approaches to the Prevention of Multiple Substance Abuse among Seventh Grade Students: Results from Project SMART. *Preventive Medicine*, **17, 135-154. [United States]**

Two drug abuse prevention curricula were tested to determine their efficacy in preventing the onset of tobacco, alcohol, and marijuana use among American adolescents. The first program focused on prevention through social pressure resistance training. The second featured affective education approaches to prevention. Curricula were tested on seventh grade students. Subjects were pre-tested just prior to the program and post-tested at 12 and 24 months. Post-test analyses indicated that the social program delivered to seventh grade subjects was effective in delaying the onset of tobacco, alcohol, and marijuana use. No preventive effect of the affective education program was observed. By the final post-test, classrooms that had received the affective program had significantly more drug use than controls.

Jaffe, P.G., Sudermann, M., Reitzel, D., & Killip, S.M. (1992). An Evaluation of a Secondary School Primary Prevention Program on Violence In Intimate Relationships. *Violence and Victims*, **7(2), 129-146. [Canada]**

A primary prevention program against wife assault and dating violence was evaluated employing a measure of attitudes, by means of the London Family Court Clinic Questionnaire on violence in relationships. The target audience comprised all students in four Canadian high schools. A brief intervention, including a large group presentation on wife assault and dating violence, followed by classroom discussion facilitated by community professionals was instituted. Attitudes, knowledge and behavioural intentions were assessed prior to intervention, immediately afterward, and at five and six weeks post-intervention, in a stratified classroom level random sample of the participants. Significant positive attitude, knowledge and behavioural intention changes were found at post-test, and the majority of these were maintained at delayed follow-up. Striking sex differences were found, with females consistently showing better attitudes than males. A `backlash' effect was noted among a small number of males after the intervention. It was hypothesized that this group may already be involved in abusive behaviour and require secondary, rather than primary, prevention. Students reported a high level of awareness of and experience with violence in their own and their friends' dating and family relationships, and overwhelmingly endorsed primary prevention of relationship violence in schools.

James, R., Carruthers, S., & Cameron, I. (1992). *A Formative Evaluation of the School Development in Health Education Project in Western Australia.* **[Australia]**

In 1990, the National Centre for Research into the Prevention of Drug Abuse (NCRPDA) was invited to work with the Research Unit of Health Promotions Services to evaluate the School Development in Health Education Project (SDHE) which was to be trialed in Western Australia in 1991. This report contains the results of the formative evaluation of the SDHE project conducted by NCRPDA and recommendations for future initiatives. The purpose of the project was to research the most effective ways to implement school-based health/drug education. The project, funded by the National Campaign Against Drug Abuse and launched in 1988 by the Minister for Health, was trialed in 1989 in three pilot states: South Australia, Queensland and Victoria. The report on the quantitative aspects of the evaluation will be issued separately by Health Promotion Services.

Johnson, C.A., Hansen, W.B., Collins, L.M., & Graham, J.W. (1986). High-School Smoking Prevention: Results of a Three-Year Longitudinal Study. *Journal of Behavioral Medicine*, **9(5), 439-452. [United States]**

This study compared two strategies for preventing cigarette smoking among American high-school students. One strategy emphasized social-pressure resistance skills, while the other focused on education about health concerns which are relevant to high-school students. Additionally, the use of same-age peer leaders and the use of familiar models in media presentations were investigated. The results suggest that social-influences resistance training was efficacious in reducing transitions to higher use by those who had previously experimented with cigarettes. Health education was most effective in preventing initial experimentation among those who had not smoked prior to the beginning of the study. Neither program was effective in limiting transitions among those who had gone beyond the experimental stage of smoking, and neither had any effect on encouraging cessation. There were no differences which could be attributed to peer leaders or to familiar media models. During later adolescence, a combined health education and social skills training approach is advocated. It is suggested that while there are some gains by implementing programs during late adolescence, prevention programs targeted at younger students may be more effective generally.

McAlister, A., Perry, C., Killen, J., Slinkard, L.A., & Maccoby, N. (1980). Pilot Study of Smoking, Alcohol and Drug Abuse Prevention. *American Journal of Public Health*, 70(7), 719-721. **[United States]**

A longitudinal pilot study gathered data on the onset and prevention of smoking, alcohol, and drug abuse among 526 students from two junior-high-schools in California. Over two school years, students who were trained to resist social pressures toward tobacco, alcohol, and drug use began smoking at less than one-half the rate of those who did not receive special training. Frequent alcohol and marijuana use was also less prevalent among the students who received such training.

Munro, B. & Doherty-Poirier, M. (1992). *HIV/AIDS Education in Schools Evaluation: Teacher Profile*. **Edmonton: The Provincial AIDS Program, Alberta Health. [Canada]**

To help ensure that young people have access to information on HIV/AIDS, Alberta Health and Alberta Education commissioned a research study on the relative effectiveness of different instructional strategies and resources. The study was conducted in the spring of 1990 in selected grade 9 and 11 classrooms throughout Alberta. The study methodology and results are reported in detail in the full report, entitled *HIV/AIDS Education in Schools Evaluation Project: Research Report, Series Report: 1*. Key findings of the study were that the school is students' first and preferred source of information on HIV/AIDS, and that instruction provided primarily by a teacher in regular classroom activities had consistent effects on student knowledge and attitudes about HIV/AIDS. This paper reports information collected from the 68 teachers who provided HIV/AIDS instruction to classes of students who participated in the study.

Munro, B. & Poirier-Doherty, M. (1992). *HIV/AIDS Education in Schools Evaluation: Grade 11 Student Profile. Series Report: 4*. **Edmonton: The Provincial AIDS Program, Alberta Health. [Canada]**

This report highlights results from the 1988 HIV/AIDS Education in Schools Evaluation Project that was conducted in Alberta schools with grades 9 and 11. The report implies that the students who received HIV/AIDS instruction had significantly higher levels of knowledge and more positive attitudes than they did prior to instruction. Their knowledge and attitude scores were also significantly higher than those of students who did not receive instruction. For grade 11 students, receiving HIV/AIDS instruction was also related to a significantly more positive view of their predicted future behaviour. However, the predicted future behaviour of grade 9 students did not change as a result of HIV/AIDS instruction. This report covers a detailed profile of the students who participated in the study as well as the following topics: how informed students think they are about prevention of HIV/AIDS, how students rate the job that different sources are doing in informing them about HIV/AIDS and its prevention, where students would first go for help if they thought they had contracted the AIDS virus or another STD, knowledge scores, attitude scores, student perceptions of transmission and prevention of HIV/AIDS, findings regarding condoms, use and evaluation of student print resources, and use and evaluation of student audio-visual resources.

Norris, S.P. & Burnham, M.J. (1991). *Ask Me No Questions: A Project Evaluation*. **Ottawa: Research and Statistics Directorate, Corporate Management, Policy and Programs Sector, Department of Justice Canada. [Canada]**

This study presents evidence on whether *Ask Me No Questions*, a novel written for young adults and published by Prentice-Hall in 1990, can achieve the central purpose of its authors: to educate young adults on the nature of sexual abuse and on the role of the law as protector. Evidence is presented on the following: the factual information about sexual abuse and the role of the law that high school students learned from reading the novel; the change in attitudes towards sexual abuse and the role of the law in dealing with sexual abuse experienced by high school students who read the novel; the response of these students to the novel's characters, setting, and plot; comments about the novel contained in unsolicited letters received by the Public Legal Information Association of Newfoundland; and, the comments contained in published reviews of the novel.

Renihan, F. & Associates (1994). *Taking Stock: An Assessment of the National Stay-in-School Initiative*. **Ottawa: Youth Affairs Branch, Human Resources Development Canada. [Canada]**

The Stay-in-School (SIS) initiative was developed as a national dropout prevention strategy composed of three components: public awareness, mobilization of stakeholders, and programs and services. Announced in February 1990 as a five-year, $296 million initiative, SIS entered its final year on operation in 1994. This assessment was structured to determine what aspects of the initiative were working well and what policy-level strategies might be recommended to direct ongoing SIS program activities. The assessment was completed via document analysis, surveys, interviews, and site visits. Over the course of the assessment, a powerful consensus emerged around the importance of the national Stay-in-School initiative. Support for the federal program was overwhelming and positive.

Sawka, E. (1980). *"Name of the Game". Pilot Evaluation Study: Final Report*. **Edmonton: Alberta Alcohol and Drug Abuse Commission. [Canada]**

Catalyst Theatre's "Name of the Game", which sought to involve junior high students to decision-making, was a noteworthy application of educational drama in lifestyle promotion. A pilot evaluation of "Name of the Game" was undertaken. The students comprising the study sample were 14-year-old males in the ninth grade. Nearly half of the evaluation interviews took place with students in Calgary. Students used labels ranging from "honest" to "confused" when describing the characters to the interviewer. In describing the main theme of "Name of the Game", more than half of the students indicated that the show taught or illustrated decision-making and goal selection. The show appeared to have a strong impact on the students; they reported a wide range of emotional responses to it. Within the sample, negative feelings were cited about as often as positive ones. Most students liked the show. According the these findings, "Name of the Game" can be construed as a success. The show appeared able to draw students into an educational exercise that was entertaining, interesting and of probable utility in future decision-making.

Schweinhart, L.J., Barnes, H.V., & Weikart, D.P. (1993). *Significant Benefits: The High/Scope Perry Preschool Study Through Age 27*. **Yipsilanti, Michigan: The High/Scope Press. [United States]**

The High/Scope Perry Preschool Project is a study assessing whether high-quality, active learning preschool programs can provide both short-term and long-term benefits to children living in poverty and at high risk of failing in school. For almost three decades, the study has followed the lives of 123 such children from African-American families who lived in the neighbourhood of the Perry Elementary School in Yipsilanti, Michigan, in the 1960's. At the study's outset, the youngsters were randomly divided into a program group, who received a high-quality, active learning preschool program, and a no-program group, who received no preschool program. Researchers then assessed the status of the two groups annually from ages 3 to 11, at ages 14-15, at age 19, and most recently, at age 27, on variables representing certain characteristics, abilities, attitudes, and types of performance. Study findings at

age 27 indicate that in comparison with the no-program group, the program group had: significantly higher monthly earnings at age 27, significantly higher percentages of home ownership, a significantly higher level of schooling completed, a significantly lower percentage of receiving social services at some time in the previous ten years, and significantly fewer arrests by age 27, including significantly fewer arrests for crimes of drug making or dealing. Furthermore, over the years the program group had significantly higher scores than the no-program group in general literacy at age 19, school achievement at age 14, and intellectual performance from the endo of the first year of the preschool program to the end of first grade at age 7.

Schweinhart, L.J. & Weikart, D.P. (1993). Success by Empowerment: The High/Scope Perry Preschool Study Through Age 27. *Young Children*, **49(1), 54-58. [United States]**

The Michigan-based High/Scope Perry Preschool study, now with findings through age 27, has more than ever to say about the importance to society of doing early childhood programs right. By virtue of an experimental design rarely achieved in research of this type this study reveals that high-quality, active-learning programs for young children living in poverty return $7.16 for every dollar invested, cut in half participants' crime rate through age 27, significantly increase participants' earnings and property wealth as adults, and significantly increase participants' commitment to marriage.

Smythe, C.L., Stanghetta, P., & Gliksman, L. (1988). *An Evaluation of a School-Based Drinking and Driving Countermeasures Program Based on The Health Belief Model*. **Toronto: Alcoholism and Drug Addiction Research Foundation. [Canada]**

The consequences of drinking and driving are particularly disastrous for teenagers. As a result, many school-based education programs are devised to discourage this dangerous practice. The present program was based on the Health Belief Model which proposes that if teenagers believe that the consequences of drinking and driving are serious and that they are indeed susceptible to these consequences, the will avoid the behaviour. The program took three class periods to implement and consisted of a videotape of a mock coroner's inquest of a drinking and driving accident and three accompanying lesson plans. A total of 138 high school students participated in the study. Of these, 72 were in the experimental group and received the intervention. Students in both groups were tested one week prior to the intervention, one to two weeks following the intervention, and again in three months. The test battery asked for information on students' drinking, driving, and drinking and driving habits. It also assessed their beliefs about the seriousness, susceptibility, and other elements of the Health Belief Model with regard to drinking and driving, driving at high speeds, and other vehicle-related risky behaviours. Finally, the test battery included a section assessing students' knowledge of laws relating to drinking and driving and seatbelt use. Generally, the results did not support the efficacy of the Health Belief Model as an appropriate Model for use with teenagers. Recommendations for future programming involving skill training and more comprehensive programs were made.

The Law Related Education Evaluation Project (1981). *The Law Related Education Evaluation Project Phase II, Year 1: Final Report*. **Boulder, Colorado: Authors. [United States]**

The American Law Related Education (LRE) project's curriculum materials have addressed elements of instruction thought to produce favourable results in terms of knowledge, attitudes, and behaviour. Each project has incorporated teaching strategies designed to promote increased student activity and participation, and interaction with community resource persons. Each project has provided training to teachers to assure sufficient quantity and quality of instruction, and teacher knowledge for the judicious presentation and selection of case materials. The strategies developed for use with project curriculum materials are designed to actively involve all young persons, including those who have difficulty becoming engaged in conventional classroom work; to expand avenues for demonstrating competence beyond those offered through conventional testing; and, to create favourable settings for non-threatening interaction among young persons, and between young persons and police, attorneys, and other justice personnel.

University of Waterloo (1994). *School Smoking Prevention Programs: A National Survey*. **Ottawa: Health Programs and Services Branch, Health Canada. [Canada]**

Health Canada and the Canadian Cancer Society jointly sponsored this study to identify needs and to provide a sound basis for planning future school-based smoking prevention programming. The study had three objectives: to determine the extent to which smoking prevention programs are offered in Canadian schools; to assess the extent to which existing programs meet efficacy criteria, as defined by Glynn (1990) and modified by Health Canada and the Canadian Cancer Society; and, to identify program gaps that need to be addressed. Telephone surveys discovered the following major findings: 85% of elementary schools and 68% of secondary schools offer prevention activities that range from nominal to intensive; three nationally available programs meet most of the efficacy criteria; 28% of elementary school and 5% of secondary schools in the sample use one of these three programs; only 14% of elementary schools and 5% of secondary schools have access to training programs that meet the minimal training requirement of one-half day; 32% of elementary schools and 29% of secondary school adapt existing programs to meet specific needs; and only 29% of elementary schools in Quebec report any form of prevention activity.

Weiss, S. & Moore, M. (1987). The Second Evaluation of the Curricular Program "Hashish and Marihuana" in Israeli High Schools. *Journal of Drug Education*, **17(2), 143-148. [Israel]**

The purpose of this article is to describe the impact of the revised preventive interdisciplinary curricular program "Hashish and Marihuana" on attitudes and intentions towards hashish use among high school students in Israel. The redesigned curriculum, implemented by trained teachers, produces statistically significant attitude gains. The findings suggest that the program has a potential for a desired attitudinal modification within the target population, and that the contemporary "fourth generation" of preventive programs in drug education remain an effective prevention strategy. As the result of the evaluation research, the program will be officially disseminated to high schools during 1987-1988 by the Israeli Ministry of Education and Culture in collaboration with Haifa University.

B.   YOUTH OUT-OF-SCHOOL PROGRAMS

Flay, B.R. & Sobel, J.L. (1983). The Role Of Mass Media in Preventing Adolescent Substance Abuse. In Thomas J. Glynn, Carl G. Leukefeld, & Jacqueline P. Ludford (Eds.) *Preventing Adolescent Drug Abuse: Intervention Strategies*, **pp 5-35. Rockville: NIDA Research Monograph Series. [United States]**

In recent years, there has been increasing recognition that the primary influences on adolescent drug use, in the United States, are social, particularly peer and family influences. Recent prevention programs that make students aware of social influences and provide them with the social skills with which to resist or cope with such influences have been more successful. Although the mass media are also thought to be a source of social influence on adolescent drug use, direct effects have been much more difficult to document. In this paper, the authors: discuss briefly the pervasiveness of media influences to use drugs; review past attempts to utilize mass media for drug education; provide an analysis of mediators of successful and unsuccessful uses of the mass media; argue that the principles found to be effective in classroom programming can and need to utilize mass media to be disseminated widely and, therefore, to have maximum effects; describe an example where this was done; and, close with some research recommendations. It is argued that despite the many past failures in the use of mass media for drug abuse prevention, the recent successes of classroom-based drug abuse prevention programming, coupled with communication research principles and recent success at using mass media for cigarette smoking prevention, indicate that the mass media has a valuable role to play in solving the problem of adolescent drug abuse.

Glynn, T.J., Leukefeld, C.G., & Ludford, J.P. (1983). *Preventing Adolescent Drug Abuse: Intervention Strategies*. **Rockville: NIDA Research Monograph Series. [United States]**

From a public health view, the prevention of drug abuse among adolescents, in the United States, is an enormous and pressing problem. Recognizing that it was time to review prevention strategies which have been used with a certain degree of success in the tobacco smoking area and evaluate their applicability to drug abuse prevention strategies, the National Institute on Drug Abuse convened a meeting on "Preventing Adolescent Drug Abuse" on April 14-15, 1983. The presentations included: media approaches to adolescent substance abuse prevention; social psychologically-based approaches to adolescent substance abuse prevention; health promotion approaches to adolescent substance abuse prevention; community-level interventions in the prevention of adolescent substance abuse; prevention of adolescent substance abuse through life skills development; family-based approaches to adolescent substance abuse prevention; value approaches to adolescent substance abuse prevention; prevention of adolescent substance abuse through social skill development; and prevention of adolescent substance abuse through drug education.

Hambley, W.D. & Ostrosser, S.J. (1992). *The North York General Hospital/Rotary Club "Be Free" Program: A Prevention and Early Intervention Program for Alcohol and Drug Dependence in Youth.* **A Paper Presented at the 36th International Congress on Alcohol and Drug Dependence in Glasgow, 16-21 August 1992. [Canada]**

The NYGH is a community hospital providing acute care services to the northern areas of Metropolitan Toronto. A wide range of mental health services is offered to both in-patient and out-patient adults and children. The Child Development and Counselling Service has previously developed a number of innovative mental health programs in response to identified community needs. These community-based programs are often offered in cooperation with other community agencies such as schools and day care centres. This allows the hospital to provide services to children and their caregivers in their every-day environments. Because of this, there is an extensive structure in place for collaborating with others and sharing expertise. This paper describes the effective development and implementation of a community-based program of early intervention and prevention of alcohol and drug dependence in youth 12-14 years of age. The program which came to be known as the "Be Free" program is funded through a local community service club.

Leukefeld, C.G. & Moskowitz, J.M. (1983). Discussion and Recommendations. In Thomas J. Glynn, Carl G. Leukefeld, & Jacqueline P. Ludford (Eds.) *Preventing Adolescent Drug Abuse: Intervention Strategies***, pp. 250-55. Rockville: NIDA Research Monograph Series. [United States]**

The present monograph on adolescent prevention research and the associated 2-day review meeting had several goals: to evaluate the major modalities/approaches for prevention interventions in the area of adolescent substance use; to identify specific approaches or combinations of approaches which have the greatest potential for effectiveness, taking into consideration such issues as cost, ease of application, and size of target audience; and, to make suggestions for program dissemination. Interventions to prevent adolescent substance abuse can be categorized in many ways. For this monograph the prevention approaches have been categorized as follows: Alternative Activities, Drug Education, Media, Social Skills, Values, Health Promotion, Life Skills, Community, and Social Psychological. Each author prepared a paper that evaluated the research related to one of the above areas.

Pentz, M.A. (1983). Prevention of Adolescent Substance Abuse Through Social Skill Development." In Thomas J. Glynn, Carl G. Leukefeld, & Jacqueline P. Ludford (Eds.) *Preventing Adolescent Drug Abuse: Intervention Strategies***, pp 195-232. Rockville: NIDA Research Monograph Series. [United States]**

The purpose of this chapter is to evaluate the capability of social skills training approaches for preventing substance abuse in American adolescents and to suggest directions for future research in this area. Social skills and training are defined from the perspective of social learning theory. Training approaches are then reviewed for their effect on drug use and drug use-related behaviours. The results indicate that social skills training reduced substance use and related behaviours such as aggression, withdrawal, truancy, and stealing in adolescents. Outcome was enhanced by the inclusion of modelling in a training program and the use of normal adolescents. In addition, discriminant analyses indicated that the more positive outcomes were discriminable by a focus on prevention, experimental rigor,

and training comprehensiveness, that is, inclusion of multiple techniques and skills. Follow-up results showed that training effects were maintained, and that they could be generalized to several areas of everyday adolescent functioning. The findings suggest that social skills training is an effective means for substance abuse prevention in adolescents, and that it may have an advantage over more direct prevention methods in terms of long-term generalization capabilities. Finally, several issues are raised for their potential impact on social skills training as a strategy for substance abuse prevention in adolescents. These issues encompass: development of a taxonomy of person-situation specificity characteristics to increase the validity and reliability of assessment and training procedures; assessment of the relative contribution of individual differences in adolescents to training outcome; identification of qualitative developmental shifts in social skills as adolescents progress through grade, school, and family transitions; and comparison of the maintenance and generalization effects, over time, of social skills training with more direct abuse prevention methods. Guidelines are offered for addressing these issues, as well as directions for the role of social skills training research in future drug abuse prevention efforts.

Pentz, M.A., Dwyer, J.H., MacKinnon, D.P., Flay, B.R., Hansen, W.B., Wang, E.Y.I., & Johnson, A. (1989). A Multicommunity Trial for Primary Prevention of Adolescent Drug Abuse. *Journal of the American Medical Association***, 261(22), 3259-3266. [United States]**

The entire early adolescent population of the 15 communities that constitute that Kansas City metropolitan area has participated in a community-based program for prevention of drug abuse since September 1984. The Kansas City area is the first of two major metropolitan sites being evaluated in the Midwestern Prevention Project, a longitudinal trial for primary prevention of cigarette, alcohol, and marijuana use in adolescents. The project includes mass media programming, a school-based educational program for youths, parent education and organization, community organization, and health policy components that are introduced sequentially into communities during a 6-year period. Effects of the program are determined through annual assessments of adolescent drug use in schools that are assigned to immediate intervention or delayed intervention control conditions. In the first 2 years of the project, 22,500 sixth- and seventh-grade adolescents received the school-based educational program component, with parental involvement in homework and mass media coverage. Analyses of 42 schools indicate that the prevalence rates of use for all three drugs are significantly lower at 1-year follow-up in the intervention condition relative to the delayed intervention condition, with or without controlling for race, grade, socioeconomic status, and urbanicity, and the net increase in drug use prevalence among intervention schools is half that of delayed intervention schools.

Perry, C.L. & Jessor, R. (1983). Doing the Cube: Preventing Drug Abuse Through Adolescent Health Promotion. In Thomas J. Glynn, Carl, G. Leukefeld, & Jacqueline P. Ludford (Eds.) *Preventing Adolescent Drug Abuse: Intervention Strategies***, pp 51-75. Rockville: NIDA Research Monograph Series. [United States]**

The first major aim of the paper is to help clarify the meaning of health promotion as an intervention modality. The sketching out of a conceptual framework from which to view health promotion makes it possible to examine its aims, its structure, and its approach in a more logical fashion. The major health promotion programs that have included a drug abuse prevention component are then reviewed by employing that conceptual framework.

St. Pierre, T.L., Kaltreider, L.D., Mark, M.M., & Aikin, K.J. (1992). Drug Prevention in a Community Setting: A Longitudinal Study of the Relative Effectiveness of a Three-Year Primary Prevention Program in Boys & Girls Clubs Across the Nation. *American Journal of Community Psychology*, 20(6), 673-706. [United States]

This article contains the results of a study which tested the effectiveness of a youth drug prevention program in a community setting. Boys and Girls Clubs of America's "Stay SMART" program, adapted from a school-based personal and social competence drug prevention programs, was offered, with and without a 2-year booster program, to 13-year-old members of Boys and Girls Clubs. Over 27 months: 5 Boys and Girls Clubs offered the Stay SMART program; 5 Boys and Girls Clubs offered the Stay SMART program with the booster programs; and, 4 Boys and Girls Clubs served as a control group. The Stay SMART program alone and the Stay SMART program with the booster programs showed effects for marijuana-related behaviour, cigarette-related behaviour, alcohol-related behaviour, overall drug-related behaviour, and knowledge concerning drug use. The Stay SMART program with the booster programs produced additional effects for alcohol attitudes an marijuana attitudes after each year of booster programs. Results suggest that a school-based personal and social competence program can be adapted effectively to a community setting and that booster programs might enhance program effects. Implications for alternative community models of prevention are discussed.

C. ADULT PROGRAMS

Beckman, L.J. & Mays, V.M. (1985). Educating Community Gatekeepers About Alcohol Abuse in Women: Changing Attitudes, Knowledge and Referral Practices. *Journal of Drug Education*, 15(4), 289-309. [United States]

This study consisted of two workshops which were designed to influence community gatekeepers' knowledge, attitudes and referral practices toward women alcohol abusers. Both didactic and experiential approaches were employed by a staff of experts and facilitators in the area of alcohol abuse in women. Workshop participants completed self-administered pre- and post-workshop questionnaires and a six month follow-up questionnaire was administered via telephone interview to participants in the first workshop. The workshop format was successful in increasing participants' knowledge about alcohol abuse and women alcohol abusers and gains in knowledge persisted for six months. However, little change in attitudes or behaviour was found. The importance of considering the prior training and background characteristics of participants is highlighted. In part, the limited success of the workshop may be due to its appeal primarily to gatekeepers relatively knowledgeable about women's issues and/or alcoholism. New interventions must design outreach techniques to motivate those most in need of training to attend.

Chappel, J.N., Jordan, R.D., Treadway, B.J., & Miller, P.R. (1977). Substance Abuse Attitude Changes in Medical Students. *American Journal of Psychiatry*, 133(4), 379-384. [United States]

The authors describe a course in substance abuse given to American sophomore medical students with the intention of positively influencing their attitudes toward substance-abusing patients and their treatment. Clinical problem solving and small group discussion were emphasized in addition to field trips. By pre- and post-test measures, significant positive changes were obtained in student attitudes: they reported feeling less upset when they encountered alcoholics, `hard' drug abusers, `soft' drug abusers, compulsive smokers, and obese overeaters as well as having a more positive view of the physician's role in the treatment of substance dependence. Personal experience with alcohol and other drugs was shown to have an influence on attitude changes.

DeWit, D.J., Harber, M., & Silverman, G. (1993). *A Process Evaluation of the Field Test of The P.A.S.S. and Parent Education Program for High Risk Students: The Secondary Schools High Risk Youth Project.* **Toronto: The Addiction Research Foundation. [Canada]**

This report contains the results of a process evaluation of a school-based program pilot tested on a group of students identified by school personnel as being at risk of alcohol and other drug use, dropping out of school and violent and other anti-social behaviour. The results will be used to revise program content and procedures surrounding program implementation as a preliminary setup prior to a more extensive pilot test planned for the fall of 1993. The report is divided into 7 sections: introduction, overview of the program to be tested, scientific procedures, measurement, evaluation results, recommendations for improvements, and unanswered questions and omissions.

DeWit, D.J., Timney, C.B., Silverman, G., & Stevens-Lavigne, A. (1993). *The Evaluation of Teacher Training in Prevention***. London: Social Evaluation and Research Addiction Research Foundation. [Canada]**

This study outlines the first of one of two reports to evaluate a province wide drug education teacher training initiative called "Teacher Training in Prevention" or TTIP. The report focuses attention on a process evaluation which examines TTIP in terms of its effects on teacher satisfaction, effects on the planning, development and implementation by teachers of drug education lessons for their students, teachers' attitudes toward the role of the school in teaching drug education, teacher comfort level in teaching the content of drug education, teachers confidence in using new teaching methods and finally teacher's overall level of awareness of students who may possibly be experiencing substance abuse problems and their willingness to take action to assist them.

Greenberg, N. (1988). Moderating the Material Aspirations of Criminals and Delinquents. *Journal of Offender Counselling, Services & Rehabilitation***, 13(1), 193-209. [United States]**

Evidence and theory indicate that much crime and delinquency is motivated by criminals' desire for great wealth and status based on wealth. To reduce the crime and delinquency motivated by the desire for great wealth, it will be necessary for society to adopt one of three strategies: increase realistic opportunities for the legitimate acquisition of wealth by criminals and delinquents; influence criminals and delinquents to moderate their material aspirations; or combine the two strategies in some way. This paper describes a method of moderating the material aspirations of criminals, a method that can be utilized alone or in combination with efforts to increase legitimate opportunities. The program consists of a series of private and group meetings. The contents of meetings are spelled out in printed pamphlets. It has been offered at a county jail and juvenile detention facilities in western Massachusetts with college students serving as staff. An experimental evaluation of the program showed that participants enjoyed the program and found it worthwhile. Inmates' median choice of an income they considered large enough to make possible a "comfortable life" moved down slightly by the time of the last meeting of the program. Delinquents in both experimental and comparison groups chose either very low or very high incomes. To obtain more conclusive results, additional experimental trials involving more subjects are recommended.

Health Canada (1994). *Ready or Not! Evaluation Report on Program Implementation***. Ottawa: Health Promotion Directorate, Health Canada. [Canada]**

"Ready or Not!" is a parent education program designed for parents of pre-teens. Its purpose is to develop and refine parenting and communication skills with a special focus on helping parents apply these skills to prevent drug use by their children. "Ready or Not!" was designed for parents who have difficulty gaining access to parenting information because of low income, limited formal education, geographic, or social isolaton. The goals of the program are to: enhance parent-child communication, increase parents' self-esteem, build self help and mutual support among parents; and provide information on the "gateway" drugs. In July 1993, the Health Promotion Directorate of Health Canada contracted People Development Limited to evaluate the implementation phase of "Ready or Not!". The purpose of the evaluation was to review the implementation and make recommendations to guide future planning. The evaluation was to be summative in nature for Health Canada and formative in nature for the provincial organizations that would continue to offer "Ready or Not!". It would also examine the implementation process of the parent sessions, review changes made as recommended in the 1991 pilot evaluation, analyze feedback from facilitators on the parent sessions, and analyze feedback from facilitators on the training of facilitator program.

Rescorla, L.A. & Zigler, E. (1981). The Yale Child Welfare Research Program: Implications for Social Policy. *Education Evaluation and Policy Analysis*, **3(6), 5-14. [United States]**

This article focuses on a comprehensive intervention project, the Yale Child Welfare Research Program, carried out at the Yale Child Study Centre from 1967-1972. The article first outlines some major concerns in the field of early intervention, in order to place the Yale project in historical perspective. After a brief description of the project's goals and methods, the principal short-term and long-term effects of the intervention are reviewed. The article closes with discussion of the social policy implications such as the Yale Child Welfare Research Program.

Simoni, J.J., Vargas, L.A, & Casillas, L. (1982). *Medicine Showmen and the Communication of Health Information in Mexico***. A paper prepared for and presented at the 32nd Annual Conderence of the International Communication Association in Boston, Massachusetts, 2-7 May 1982. [Mexico]**

Merolicos are Mexican medicine showmen whose counterparts can be found in many other developing areas of the world. Merolicos frequent marketplaces and other common meeting places, like areas near subway stations, and town squares, but they also work spots where crowds are not usually found. With ventriloquism, mental telepathy, snake handling, clown acts, medicinal recipes, and other kinds of crowd-pleasing performances, they attract the public and in the end always offer for sale some medicinal product. The major objective of this pilot project was to substantiate the value of using medicine shows as part of public health programs. The results presented in this paper address three questions: Are medicine showmen actually able to effect changes in health related knowledge, attitudes and behaviour of their audiences? Are medicine showmen effective only in rural areas? Are medicine showmen only effective with the least educated? It is concluded that the idea of using merolicos as part of community health programs makes sense in terms of: knowledge of target subcultures and communities; knowledge of various communication media and their potentials for communicating health information to these targets; the comparatively low potential cost, when compared with other health communication efforts; and, the relatively low potential cost, relative to the potential benefits or results.

D.   GENERAL INFORMATION

Gill, R. & Alderson, G. (1994). *Inventory of Public Legal Education and Information Materials and Programs Related To Crime Prevention and Victims***. Ottawa: Department of Justice Canada, Research and Statistics Directorate. [Canada]**

This report presents an inventory of 108 PLEI materials, programs, and projects that relate to crime prevention and victims across Canada. The inventory is organized into five groups of items, the first four of which relate to crime prevention: deterrence; avoidance; education; general crime prevention; and, PLEI for victims. For each item there is full bibliographic information, including the number of pages as well as a short description of the item and its primary target group. The concluding chapter analyses the entries in the inventory to determine who is producing PLEI about crime prevention and victims, what the purpose of those PLEI activities is, what apparent gaps exist, and what might be useful roles for governments. The analysis suggests that governments may be best placed to contribute by ensuring the adequate dissemination of programs and materials, rather than producing them themselves, and by continuing to support PLEI organizations and other NGO's that are already well equipped to produce PLEI programs and materials.

King, A.J.C. & Coles, B. (1992). *The Health of Canada's Youth: Views and Behaviours of 11-, 13- and 15-year-olds from 11 Countries***. Ottawa: Minister of National Health and Welfare. [Canada]**

During the past 10 years, a group of researchers in Europe has worked together to collect information about the health status of the children in their countries. The original European collaboration involved only three countries: England, Finland and Norway. Shortly after the first survey in 1982, the project was adopted by the World Health Organization (WHO), European division, as a collaborative study. In the winter of 1983-84, the first WHO cross-national survey was conducted in the three original countries as well as in Austria. In 1985-86, a second similar survey was carried out with 11 countries participating. In 1989-90, the third cross-national survey was conducted in 16 countries, including Canada. The research has enabled participating researchers to conduct analyses that shed further light on the factors that influence health-related behaviours. Although this report contains analyses of preliminary data that will further our understanding of the health behaviours of young people, it is designed primarily to provide information about the health status of youth to Canadian health professional and educators in government and private settings.

LeRoi, D. & Case, R. (1992). *Charter Literacy and the Administration of Justice in Canada*. **Ottawa: Law Reform, Research and Development Directorate, Corporate Policy and Programs Sector, Department of Justice Canada. [Canada]**

This study is reported in six main parts and three appendices: the first part outlines the study; the second part outlines in broad terms our understanding of the notion of Charter literacy; the third part of the report offers admittedly incomplete profiles of the current state of Charter literacy; the fourth part reviews educational, psychological and sociological research on the promotion of each of the major components of Charter literacy, including a separate section on the influence of mass media in assisting Charter literacy; the fifth part discusses the different audiences who might be recipients of the Charter literacy efforts; the sixth part of the report presents a general framework for conceptualizing a research agenda for Charter literacy, and a number of recommendations for types of further research and educational initiatives in Charter literacy; the report closes with three appendices: a bibliography including references cited, an account of how the literature searches were carried out, and a list of PLEI (Public Legal Education and Information) groups consulted.

McGuire, W.J. (1973). Persuasion, Resistance, and Attitude Change. In Ithiel de Sola Pool, Frederick W. Frey, Wilbur Schramm, Nathan Maccoby & Edwin B. Parker (Eds.) *Handbook of Communication*, **pp. 216-252. Chicago: Rand McNally College Publishing Company. [Canada]**

After a brief listing of some nonverbal determinants of attitudes, the author devotes the remainder of the discussion to verbal-communication effects on attitudes. Following an explication of the concept of attitude, the communication-persuasion process is analyzed into five communication aspects: source, message, channel, receiver, and destination; and into six stages in the process of persuasion: presentation, attention, comprehension, yielding, retention, and action. Five theoretical approaches that have been used to account for attitude change are discussed: learning, categorizing, perceptual, consistency, functionally, and information-processing. The information-processing paradigm is especially suited to the discussion of persuasion in the context of communication.

Milton S. Eisenhower Foundation (1990). *Youth Investment and Community Reconstruction: Street Lessons on Drugs and Crime For The Nineties*. **Washington: The Author. [United States]**

In the private sector, the Milton S. Eisenhower Foundation has worked since the early 1980s to carry out the agenda of reducing urban violence and drug abuse through youth empowerment, community revitalization, and grass-roots action. The report summarizes the results and lessons of their work during the last decade, describes the next generation of private sector ventures and proposes new national policies for the inner city that build on our practical experience in day-to-day street-level implementation. The central conclusion is that community-based organizations can create effective strategies to reduce crime and drug abuse in inner cities. But effective programs cannot be developed "on the cheap".

Sacco, V.F. (1992). *Public Legal Education and Information, and Crime Prevention*. **Ottawa: Department of Justice Canada, Law Reform, Research and Development Directorate. [Canada]**

This report explores the linkages between two broad types of programming strategies -- Public Legal Education and Information (PLEI) and crime prevention. The analysis reflects insights derived from a review of relevant published and unpublished literature, and from consultations conducted with ten individuals involved in PLEI and/or crime prevention policy development. Three general issues are discussed. The first issue relates to the conceptual bases of PLEI and crime prevention programming. The second major issue is theoretical in nature and relates to the way in which PLEI may be incorporated into more general models of crime prevention processes. The final section of the report offers some tentative conclusions regarding the current state and future study of the PLEI-crime prevention linkage.

Thompson, E.L. (1978). Smoking Education Programs 1960-1976. *American Journal of Public Health*, **68(3), 250-257. [United States]**

This paper is a review of published reports, in English, of educational programs designed to change smoking behaviour. Attempts to change the smoking behaviour of young people have included anti-smoking campaigns, youth-to-youth programs, and a variety of message themes and teaching methods. Instruction has been presented both by teachers who were committed or persuasive and by teachers who were neutral or presented both sides of the issue. Didactic teaching, group discussion, individual study, peer instruction, and mass media have been employed. Health effects of smoking, both short- and long-term effects, have been emphasized. Most methods used with youth have shown little success. Studies of other methods have produced contradictory results. Educational programs for adults have included large scale anti-smoking campaigns, smoking cessation clinics, and a variety of more specific withdrawal methods. These methods have included individual counselling, emotional role playing, aversive conditioning, desensitization, and specific techniques to reduce the likelihood that smoking will occur in situations previously associated with smoking. Some of these techniques have produced poor results while studies of other methods have shown inconsistent results. The two methods showing the most promise are individual counselling and smoking withdrawal clinics.