THE DARE TO MAKE A CHOICE PROGRAMME: EXPLORING PARENTAL CHANGES IN KNOWLEDGE, ATTITUDES, AND BEHAVIOUR

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Abstract

Overseas research has stressed the role that parents have to play in drug abuse prevention through modeling, values clarification, and communication. Dare to make a CHOICE involves parents through homework assignments. Previous evaluations of the programme had noted that some parents changed their behaviour and attitudes as a result of the programme. The purpose of this study was to further explore the changes that parents make as a result of Dare to make a CHOICE. The participants were 53 children and 100 parents from schools in Palmerston North who participated in the Dare to make a CHOICE programme. Only two of the seven hypotheses were supported by the results. Parents did not exhibit any changes in behaviour, attitudes or knowledge. Children's attitudes and behaviour was not related to that of their parents. It was concluded that persons who had changed their attitudes or behaviour in previous studies were influenced by other variables in addition to the programme. The results are discussed in relation to research looking at the roles of parents in drug education.

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CHAPTER ONE

INTRODUCTION & LITERATURE REVIEW

The use and abuse of drugs, licit and illicit, has been a matter of international concern for some time (Livingstone, 1997). The staggering cost of drug use and abuse has led to the proliferation of research and preventative programmes throughout the world (Hall & Zigler, 1997). Some of the costs associated with drug use and abuse, particularly abuse, are listed below. These include health factors such as emphysema, cancer, brain damage, and HIV/AIDs; loss of life through suicide (intentional and unintentional), and through motor vehicle accidents; family violence and disruption; violent and property-related crime; the induction of developmental deficits; vast financial costs from areas such as mental and physical health care, policing, insurance payouts, and lost productivity in the work place (Smith, Ryan, & Alexander, 1991; Gerstein & Green, 1993; Laven, 1997; Silva, 1998; Howard, 1997). The prevailing feeling amongst the worldwide community is that early prevention is better than a later cure (Silva, 1998; Livingstone, 1997). A brief review of the literature provides a back drop for the present research. This review highlights a number of research findings that may act as an empirical guide to effective drug education programmes.

General principles of effective drug education programmes

With regards to the onset of drug use and abuse, research indicates that for nearly all users and abusers initial experimentation begins between the ages of ten to twenty (Gerstein & Green, 1993; Resnicow & Botvin, 1993; Silva, 1998; Swadi, 1992). After the age of twenty very few people begin using any sort of drug (Gerstein & Green, 1993). Evidence indicates that for a minority of persons onset occurs at ages younger than those cited above (Gerstein & Green, 1993; Hall & Zigler, 1997; Swadi, 1992; Silva, 1998). This minority group who tend to engage in early abuse are considered to be a high risk group, and in addition to substance abuse, exhibit other related problems as well (Smith et al., 1991; Swadi, 1992). There is a general consensus that the age of onset

of substance use is decreasing (Swadi, 1992). The implication for preventative programmes clearly suggests that there is a need to start early during pre-teen years as well as maintaining efforts throughout adolescence (Resnicow & Botvin, 1993). Howard (1997) suggests that due to difficulties in predicting who will and who will not develop problematic or harmful use patterns, prevention programmes should target all youth.

In her theory of the developmental stages in drug use Kandel (1975) indicates that drug use progresses in a strictly uniform manner moving through a series of stages (see also Kandel, Yamaguchi, & Chen, 1992; Swadi, 1992; & Gerstein & Green 1993). Four stages on a continuum have been noted. These are the use of (1) beer or wine, (2) hard liquor or tobacco, (3) marijuana, and (4) other illicit drugs. Use of drugs at one level does not imply that a person will move to the next level. However, use of drugs at a higher level is almost always preceded by use of drugs at a lower level. Thus someone at stage four will have first used drugs in the first, second, and third stages in that order. Progression to another stage is directly related to the intensity of use at the preceding stage. Any deviation from this model is usually because tobacco was used before alcohol (Gerstein & Green, 1993). Because use of illicit drugs, such as marijuana, is preceded by use of beer, wine, hard liquor and tobacco these stage one and two drugs are often referred to as "gateway drugs"(Gerstein & Green, 1993; Swadi, 1992). Kandel's developmental theory suggests the need for preventative efforts to focus on so called "gateway drugs" in addition to illicit drugs.

A huge area of focus in drug abuse prevention research has been on risk factors (Brown & Horowitz, 1993). A number of risk factors have been identified providing potential targets for intervention. Some of these risk factors are listed here as follows, early first use; parents' use of and attitudes towards drugs; early behavioral problems; academic failure; little commitment to school; school transitions; poor school climate; greater influence by and reliance on peers than parents; lack of bonding or closeness to parents; strong family conflict; victims of sexual, physical, or emotional abuse; family social deprivation; easy availability of tobacco, alcohol, and other drugs (Smith et al., 1991; Brown & Horowitz, 1993; Swadi, 1992). Other factors have been suggested to have an indirect influence on drug use. These include a vulnerability to depression, low self

esteem, and poor stress management (Swadi, 1992). Research points to a cumulative effect, whereby the greater the number of risk factors exhibited, the greater the probability that drug use will occur (Gerstein & Green, 1993). It should be noted that risk factors are correlational and not necessarily causative. Therefore, simply addressing risk factors may not be sufficient to prevent drug use and abuse.

A more recent avenue of research in the area of prevention has focussed on protective factors (Brown & Horowitz, 1993). Researchers have noted a number of factors that, if present, enable a person to thrive in otherwise adverse conditions (Brown & Horowitz, 1993). Brown & Horowitz (1993) contend that through a focus on risk factors, which seems to place every adolescent at risk, researchers have inadvertently defined adolescents as deviant. They thus call for a new focus for prevention which highlights adolescent strengths and fosters protective factors. Some protective factors are listed by Brown & Horowitz. Included are having a small family; family cohesion; structure and rules during adolescence; adequate early childhood attention; having a strong relationship with an adult; and lower incidence of chronic stressful life events. Also noted by other researchers are pro-social peers, high self esteem, internal locus of control, positive outlooks, self discipline, problem solving skills, and a sense of humor (Spoth, Redmond, Hockaday, & Yoo, 1996; Smith et al., 1991).

Many drug prevention efforts are located in schools (Gossop & Grant, 1990). A number of reasons exist that support the implementation of preventative programmes in schools. Perhaps the most practical reason argued for is that the school setting, with the exception of truants (significantly a high risk population), provides a captive audience (Gossop & Grant, 1990). Drug use/abuse prevention programmes are suitably located in schools under the guises of health education and social studies (Dare to make a choice in your school: a working booklet; Gossop & Grant, 1990). Howard (1997) notes that while other professionals may credibly present prevention programmes, in primary/elementary schools, a trained teacher who is known to the students is often the most appropriate person to deliver the preventive programme.

In what are now referred to as first generation prevention programs an information

deficit model was assumed (Howard, 1997; Dukes, Ullman, & Stein, 1995). It was believed that if people knew the dangers of drug use they would not use them. Evaluative data indicates that first generation programs generally had no impact on drug use (Howard, 1997; Dukes et al., 1995). Second generation drug prevention programmes are based on cognitive-behavioural and psycho-social models (Brown & Horowitz, 1993; Dukes et al., 1995; Howard, 1997). These models propose that, if young people possessed better self esteem, communication, decision making, problem solving, and peer pressure resistance skills, they would be less likely to take drugs. Evidence suggests that second generation preventive programmes are superior to first generation programmes. However, the effects are noted to be modest (Dukes et al., 1995; Howard, 1997).

A meta-analysis conducted by Tobler (1986) indicated that multimodal programmes are superior to programmes utilizing a single modality only for example, knowledge only, or affective only programmes. Tobler also noted that peer-led programmes tend to be superior to other programmes. In another meta-analysis by Tobler (1997) it is noted that interactive programmes produce more favorable results than non-interactive programmes. Interactive programmes are characterized by an emphasis on developing social and general competencies using interactive teaching strategies. Alternatively non-interactive programmes emphasize intrapersonal factors such as assimilating knowledge via lecture.

The "just say no" message conveyed in some prevention programmes has come under criticism by a number of researchers (Resnicow & Botvin, 1993; Brown & Horowitz, 1993; Evans & Mallick, 1997; Howard, 1997). Amongst the criticisms it is claimed that evidence exists suggesting that the "just say no" approach does not work (Evans & Mallick, 1997). It is claimed that the message is inappropriate, counterproductive, repressive, and lacking in credibility. Howard (1997) suggests that the message ignores the complexities facing young people in relation to the decision to use or not to use drugs. For example, there appears to be a strong developmental impetus to experiment with different roles during adolescence which seems to include experimentation with drugs (Papalia & Olds, 1995; Dukes, Stein, & Ullman, 1997). Evidence also points to the

role of peer pressure, the media, and parental attitudes and use patterns, amongst a myriad of other things. Research conducted by Shedler and Block (1990) found that experimental users of drugs tended to be better adjusted psychologically than both abstainers and abusers, with abusers faring the least well. From findings such as these, recommendations have been made suggesting that preventive programmes emphasize harm reduction and the safe use of licit drugs rather than a flat non-use message (Brown & Horowitz, 1993; Howard, 1997; Evans & Mallick, 1997).

Despite the improvements made in prevention programmes throughout the years, outcomes are still modest and less than satisfying (Hall & Zigler, 1997; Howard, 1997; Resnicow & Botvin, 1993). In expressing dissatisfaction with the existing state of prevention efforts and programmes, researchers offer a number suggestions as to how prevention efforts could be improved. These include the following, drug programmes should continue throughout adolescence; programmes should utilize multiple delivery channels; strengths, such as protective factors, should be emphasized and fostered; and cultural issues need to be taken into account (Howard, 1997; Resnicow & Botvin, 1993; Evans & Mallick, 1997; Brown & Horowitz, 1993). In addition to the above recommendations; there appears to be unanimous agreement amongst researchers, parents, and the community at large that prevention programmes should attempt to incorporate the family into their efforts (Howard, 1997; Hall & Zigler, 1997; Gerstein & Green, 1993; Resnicow & Botvin, 1993; Spoth, et al., 1996; Brown & Horowitz, 1993; Livingstone, 1997; Jason & Barnes, 1997; Evans & Mallick, 1997). Given the variables that implicate the family in the etiology of problematic substance use, intervention that includes parents as targets is likely to enjoy greater long term success (Smith et al., 1991; Brown & Horowitz, 1993; Swadi, 1992; Spoth et al., 1996).

To summarise, thus far effective prevention programmes are directed at pre-teenage children as initial drug use occurs between pre-adolescence and about twenty years of age. Programmes should target licit "gateway drugs" in addition to illicit drugs. Attention to risk factors, while somewhat controversial, provides a number of targets for intervention. Building on protective factors is proving to be a promising avenue for interventions. Knowledge alone does not provide sufficient impetus for changes in drug

use. Peer-led programmes are amongst the most promising interventions. Affective and psycho-social programmes are more effective than early information deficit models. However, a combination of approaches shows the most promise. Interactive teaching styles are more effective than non-interactive styles. The message of prevention programmes should emphasize safe use of licit drugs and harm reduction as the "just say no" approach does not seem to be effective. Suggestions to improve prevention efforts include, ongoing programmes, utilizing multiple delivery channels, addressing cultural issues, and, importantly targeting the family and in particular the parents.

D.A.R.E. drug abuse resistance education

Having reviewed the literature regarding patterns of drug use, effective prevention programmes, and recommendations for future progress, attention will be now turned to the purpose of this proposal, an evaluation of D.A.R.E. to make a CHOICE. D.A.R.E. stands for drug abuse resistance education. D.A.R.E. to make a CHOICE is a New Zealand adaptation of the Los Angeles D.A.R.E. programme (Livingstone, 1997). In the interests of brevity and in recognition of differences between the American and New Zealand versions of D.A.R.E., the New Zealand programme will be referred to as "CHOICE". The American version will be referred to as "DARE".

DARE in the USA

DARE has become a widely recognised and used programme throughout the United States of America and throughout a number of other countries (Livingstone, 1997; Clayton, Cattarello, & Johnstone, 1996). DARE is a second generation drug abuse prevention programme aimed at reducing the incidence of drug use and abuse in America (Dukes et al., 1995). It is a multi-modal programme that combines knowledge, affective, and psycho-social models (Clayton et al., 1996). The programme is taught in schools by a highly trained law enforcement officer using both interactive and non-interactive techniques over the course of 17 sessions (Clayton et al., 1996; Wysong, Aniskiewicz, & Wright, 1994). The target group is fifth and sixth grade (ages 9-10) students believed to be pre-users (Laven, 1997). The aim is to teach children how to say no to drug use, with a particular focus on "gateway drugs" such as alcohol, tobacco, and marijuana, in the belief that these drugs are precursors to hard drug use (Laven, 1997; DeJong, 1986;

A. Campbell & D. Wilson (Personal communication, January, 19, 1999)). The programme seeks to establish institutional bonds, teaches peer pressure resistance, decision making skills, self esteem, awareness of media influences and of peer use (Clayton et al, 1996). DARE also emphasises personal safety and avoiding gang involvement (A. Campbell & D. Wilson (Personal communication, January, 19, 1999); Clayton, 1996). An accumulation of evaluative data produces a somewhat inconsistent picture regarding the efficacy of the programme in reducing actual drug use (Dukes et al., 1995). For the most part it would appear that DARE does lead to changes in a number of variables. However, these changes seem to be modest and the enduring nature of these changes is unclear.

CHOICE in New Zealand

Barry Smith, during his visit as a New Zealand delegate to the 1986 rotary conference in California, was introduced to the DARE programme. Impressed by the initial successes of the programme he facilitated the sponsorship of three New Zealand police staff to participate in DARE training and to observe the programme running in America (Livingstone, 1997; Laven, 1997). While responses from the health and education community towards the programme were positive, they were also somewhat reserved (Laven, 1997). It was felt that caution should be exercised when importing programmes designed for other populations. Thus prior to its implementation DARE was revised and adapted for the New Zealand population (Livingstone, 1997; Laven, 1997). The end result was the DARE to make a CHOICE programme referred to in this writing as CHOICE.

CHOICE is a needs based, psycho-social (social competency) programme. It emphasises problem solving, decision making skills, and self esteem, with a lesser emphasis on knowledge (Newell, Wrighton, & Barwick, 1993). The aim of CHOICE is to prepare young people to make responsible choices about the use of drugs and to give them the skills to implement these choices. Responsible decision making will help young people to develop healthy lifestyles and to fulfill their potential as individuals, taking an active role in the community and behaving in ways that do not compromise others (Dare to make a choice: an introductory booklet, 1994).

Contrasts between DARE in the USA and CHOICE in New Zealand

Some of the differences that set CHOICE apart from DARE are discussed here. Perhaps the biggest difference lies with the unique teacher/police officer partnership used to teach the programme (Livingstone, 1997). The benefits of this partnership arise from the combined knowledge and skills brought by the teacher and by the police (Dare to make a choice in your school: a working booklet, n.d.). The teacher brings a knowledge of the pupils in the class, of their developmental level, and needs. Also the teacher possesses specialized skills in the area of teaching strategies. The police education officer brings specialized knowledge regarding drugs and other related issues in addition to his/her credibility as a police officer. It might be noted that police education officers also possess teaching skills as part of their law related education programme (O. Sanders.(Personal communication, March, 02, 1999)).

CHOICE differs from DARE in the curriculum employed (O. Sanders.(Personal communication, March, 02, 1999). DARE employs a set curriculum run by a police officer only. Early in the CHOICE programme the needs of the students are assessed (Dare to make a choice in your school: a working booklet, n.d.; Laven, 1997). The programme is then formulated based on the emerging needs of the students in that particular group. The CHOICE programme is taught in a more interactive style than is DARE (O. Sanders.(Personal communication, March, 02, 1999). In addition, Sanders notes that CHOICE has a bi- or multicultural emphasis not enjoyed by DARE.

Another difference that has been claimed is the emphasis on safe use and harm reduction (O. Sanders.(Personal communication, March, 02, 1999); (A. Campbell & D. Wilson (Personal communication, January, 19, 1999)). It has been claimed that the DARE programme promotes the non-use of both licit and illicit drugs. In no uncertain terms CHOICE educators highlight the definite potential that drugs both licit and illicit have to cause harm. A broad definition of drugs is used in CHOICE, encompassing both licit drugs, such as nicotine, alcohol, caffeine, and pharmaceuticals, and illicit drugs, such as marijuana. CHOICE aims to minimise harm that may occur from the misuse of licit drugs (excluding tobacco) while promoting the non-use of illicit drugs (Dare to make a choice in your school: a working booklet, n.d.). A recent review of CHOICE has seen the

programme split into two programmes commensurate with years 5-6 and years 7-8. The purpose of the split being to better integrate the programme into the New Zealand curriculum (Dare to make a choice in your school: a working booklet, n.d.). Another difference that has been noted is the lesser emphasis that CHOICE places on gang involvement (O. Sanders.(Personal communication, March, 02, 1999)).

Evaluations of the CHOICE programme

Harper (1990) alludes to a number of difficulties associated with the evaluation of drug education programmes such as CHOICE and DARE. These difficulties include: the time span between the programme and entry into the work force; the mobile nature of the population, and thus those exposed and not exposed to the programme; the dependence of drug use on the fluctuating availability of drugs; the varying nature of police statistics (a presumed indicator of programme success) which is influenced by population movement, staffing numbers, supply, law changes, and so forth. Due to these difficulties Harper claims that it is almost impossible to, with any reliability, evaluate drug education programmes aimed at reducing actual drug use. In response to these problems he suggests that researchers should test factors associated with the objective, this strategy being considered as the next best thing. Factors associated with the objective that might be tested include: theoretical soundness; short term effects; positive and negative responses to the programme from children, teachers, principals, police education officers, and the community; and testing the ease of implementation.

Between 1989 and 1993 CHOICE underwent a series of five evaluations conducted by Harper and Ashcroft out of Massey University. The first study known as phase one was conducted by Ashcroft (1989) and provided an in-depth evaluation of the CHOICE curriculum. Ashcroft's analysis indicated that the programme is based on effective teaching/learning principles, and is theoretically sound. Harper (1990), in phase two, evaluated the trialling of CHOICE. The design included a pre-test and a post-test with treatment and control groups. Evaluated were knowledge about, attitudes to, and the use of various substances. The results indicated that there were positive yet non-significant changes in knowledge, attitudes and use. Parents' and children's responses to the programme were generally positive. Data collected also indicated that attitudes towards

the police had improved during the programme. 41% of parents responding noted positive changes in their children. Also 14.5% of parents noted changes in their own attitudes and behaviour with regards to commonly used substances as a result of the programme. Parent, child, principal, and teacher praise of the programme was almost universal. The programme was also noted to be easy to implement with only minor situational hitches. A weakness with the phase two evaluation included a high rate of attrition. A negative finding was that similar trends were observed in both treatment and control groups.

The phase three evaluation employed virtually the same design as that used in phase two (Harper, 1991). As found in phase two, the responses recorded by participants in phase three were highly similar across treatment and control groups. Harper (1991) suggested that this may be due to a "ripple effect" resulting from the geographic and socioeconomic closeness of the groups. Lack of empirical evidence prohibited the evaluation of the validity of this claim at this time. Once again parents indicated a "flow on effect" where positive changes in their child's behaviour were noted in the home. Of the parents 21% indicated that they had also changed their ideas and/or behaviour as a result of CHOICE. One parent reported having grown a cannabis plant last year then said "this year I won't" (Harper, 1991). Again parents' and children's comments about the programme and its perceived effects were generally positive.

Phases four (Harper, 1992) and five (Harper, 1993) sought to explore the ripple effect proposed to have occurred in phases two and three. Phase four and five evaluations were virtually identical in design with the exception in phase five where there was a five month delay in the follow up telephone interviews compared with a one month delay in phase four (Harper, 1993). This difference aside, in both phases a questionnaire was sent to parents when their child had completed the CHOICE programme. After a delay to allow for some loss of recall and to allow for the dissipation of the "initial excitement" a large percentage of parents were contacted via telephone for a follow up interview (Harper, 1992; Harper, 1993).

Data collected in both phases four and five were highly consistent (Harper, 1993). Data

indicated that most children discussed or commented on CHOICE at home. Over half of the parents had discussed the programme with other adults. Also over half of the parents reported attitude changes in their children. A quarter of parents noted behavioural changes in their children. Harper (1992 & 1993) found that parents generally believe that there are drug problems amongst youth in their community. Parents overwhelmingly approved of the CHOICE programme. Most parents approved of the police involvement in CHOICE. A quarter of parents felt that drug education should be ongoing, continuing through primary, intermediate and secondary schools. In addition, 9% of parents in phase four and 15.3% of parents in phase five indicated that they had changed their ideas and/or behaviour as a result of their child having participated in CHOICE.

To summarise, Ashcroft and Harper scrutinised CHOICE along the previously mentioned guidelines. CHOICE was found to be theoretically sound and based on effective teaching/learning principles. CHOICE was easy to implement and overwhelmingly accepted by children, teachers, principals, parents, and the community. The programme was found to be applicable to both boys and girls, and with minor modifications to bi- and multicultural settings (Harper, 1990). Parents have reported a number of "spill over effects" in the home indicating the generalisability of what is learned. Some parents have reported positive changes in their relationships with their children. A finding highly salient to the research proposed here are reports from parents indicating that they themselves have changed their own ideas and/or behaviour as a result of the programme.

A pilot study conducted by Rollin (cited in Laven, 1997) found that CHOICE led to increases in self esteem across a number of dimensions. His study also pointed to decreases in general anxiety observed between pre- and post-testing. In line with findings in Harper's (1990 & 1991) studies Rollin did not detect any significant changes in drug knowledge.

In 1997 Laven presented a thesis evaluating the short term effects of CHOICE. Of particular interest to Laven (1997) was the ability of CHOICE to meet its stated objectives. Of the seven objectives proposed by the N.Z. Dare Foundation for CHOICE

Laven (1997) measured self esteem, attitudes towards drugs, and drug related knowledge. In a pre-test/post-test design using participants also undergoing CHOICE in other schools as controls Laven (1997) reported significant increases in participants' self esteem, and desirable changes in drug attitudes at post-testing. Due to a high baseline level of drug knowledge, participants in her study evidenced no significant gains in drug knowledge at post-testing. As Laven did not employ a control group in her study the observed changes cannot be linked to the CHOICE programme.

In 1995 an anecdote line was set up to collect qualitative data relating to CHOICE and other programmes developed by the New Zealand Dare Foundation. Anecdotes are collected from children, teachers, parents, and police education officers. Anecdotes are relayed via an 0800 telephone number or via a postcard. In 1998 Perniskie provided a summary of the 361 anecdotes collected to date. Her summary indicated that most anecdotes were positive. Also, most anecdotes made reference to positive changes in programme participants. Other anecdotes referred to increased knowledge, attitude changes, and an awareness of CHOICE (referring to CHOICE in the general sense). Of particular relevance to this research are five anecdotes relating to changes in the behaviour of persons not directly involved in the CHOICE programme. Four of these five anecdotes involved a parent or grandparent giving up smoking. The fifth anecdote relates to a boyfriend cutting down on the use of cannabis and considering cessation. The anecdotes suggest a form of "peer pressure" is being exerted on parents and grandparents by children participating in CHOICE.

Parents as targets for intervention

In considering drug education in New Zealand and through a rigorous assessment of 151 drug education programmes the educational community in New Zealand concluded that if young people were to change their attitudes and behavior, then parents and adults were the prime targets for intervention (Livingstone, 1997). The reason behind this conclusion being that parents set an example for children showing what is acceptable behaviour through their attitudes and actions. It was further concluded that school based educational programmes were likely to have little impact without the close involvement and endorsement of parents. Evidence supporting these claims is noted below.

Smith et al (1991) highlight research suggesting that children's attitudes towards and use of various substances is linked to the attitudes and behaviour of their parents. Glynn and Haenlein (1988) suggest that parental discipline and modeling impacts on their children's initiation and continued use of substances through communication, values clarification, coping, and decision making. In their study Rhorbach, Hodgson, Broder, and Montgomery (1994) found a negative relationship between parents' involvement in a drug education programme and their child's substance use at post-testing and again at follow up.

As has been argued, parents have an important role to play in the efficacy of drug education initiatives. It is therefore significant that CHOICE has provisions for parental involvement in the programme. To be clear parents are not the prime targets of the CHOICE programme. However, recognition is given to the important contribution they have to make and their participation is encouraged. To involve parents, the programme offers an orientation meeting to discuss aspects of the programme. In this orientation evening parents are given information regarding the programme. They are also presented with an information pamphlet (Dare to make a choice, n.d.) outlining the goals and objectives of the programme. A video is also shown demonstrating the programme in action. Throughout the programme there are a number of homework assignments to be completed with the child's parents. There is a homework assignment for each skill cluster taught in the programme cabinet (O. Sanders.(Personal communication, March, 02, 1999). For example, one homework assignment covers self esteem. Another assignment much commented on involves a clean out of the medicine cabinet (Dare to make a choice in your school: a working booklet, n.d.). On completion of the CHOICE programme parents are invited to participate in a culmination activity. Parents are also welcome to become involved in lessons. Further parental and community involvement through membership in local CHOICE committees is available. Reports suggest that few parents attend the orientation evenings (A. Campbell & D. Wilson (Personal communication, January, 19, 1999)). However, parental participation in homework assignments and in the culmination activity is somewhat more encouraging (A. Campbell & D. Wilson (Personal communication, January, 19, 1999)).

Evaluating the impact of CHOICE on parents

The present research project is aimed at exploring the possible impact of CHOICE on parents' attitudes, knowledge, and substance use. The original intention was to directly evaluate CHOICE to see if parents changed their attitudes, knowledge or substance use. Unfortunately due to influences beyond the researcher's control (which is discussed later in chapter four) this was not possible. Justifications for a focus on parents are discussed here. Firstly, research has highlighted the impact that parents have on their children's behaviour. Logic suggests that positive changes in attitudes and behaviour on the part of parents will in turn lead to children being influenced in a positive manner. At the extreme one can hardly expect an intervention to have any effect when at home Mum and/or Dad are getting "stoned". With this in mind, if a programme can effect positive changes in parents then the programme should have a greater effect. At a minimum, involving parents in drug education may provide parents with an opportunity to discuss with their children and clarify their values with regards to various substances. Research has suggested that parents seldom discuss drug related issues with their children. This is usually because parents feel ill equipped to talk about drug issues and do not know how to initiate such a discussion. By involving parents in drug education it provides an opportunity for parents to open a discussion with their children on the subject.

Another justification comes from Sanders who noted difficulties evaluating the impact of the programme on children (O. Sanders. (Personal communication, March, 02, 1999). As a viable alternative he suggested that evaluative research look at the effects of CHOICE on parents. To date the specific focus of CHOICE evaluations has been the impact of the programme on children. Thus it is the intention of this research to move beyond existing research through a specific focus on parents.

While past research has not specifically focussed on parents some relevant data has been collected and is reported here. In his evaluation of CHOICE Harper (1990; 1991; 1992; & 1993) included a question asking parents if they had changed their ideas or behaviour as a result of the programme. Responses to the question indicated that between 9% and 21% of parents report changing their ideas and/or behaviour as a result of CHOICE. Thus research by Harper (1990; 1991; 1992; & 1993) is suggestive of parental changes

in attitudes and/or behaviour occurring as a result of CHOICE. In terms of mechanisms that lead to change it may be that children exert their own form of peer pressure on their parents urging them to change. Evidence for this comes from one parent who complained that his/her child was getting at them over their drinking and smoking, another parent jokingly complained that his/her child was hassling them about their smoking habit (Harper, 1992; & 1993).

Limitations to the research conducted by Harper (cited in this proposal) include the use of a post-test only, lack of a control group, and the question asked (criticisms relate only to the part of the study designed for parents). In using a post-test only conclusions regarding actual changes occurring over time are not possible. Given the style of the question (which is qualitative) this does not pose a huge problem. By not including a control group in the design conclusions regarding CHOICE's ability to effect changes are likely to be confounded by other variables. For example, it may be that at the same time as CHOICE was running, a media campaign may have been running targeting drug use and attitudes and it may be this campaign that led to changes rather than CHOICE. The question asked by Harper in his evaluations of CHOICE was problematic in that the question asked if the respondent had changed either ideas and or behaviour in the same question. Thus the first criticism lies with the asking of two questions in one. This problem is addressed to some degree by asking the respondents to explain their response. Another criticism is that the question fails to capture the magnitude of change. It is argued that in view of these criticisms the research is suggestive of change but is neither comprehensive nor conclusive.

Also of relevance to this research is Perniskie's (1998) analysis of CHOICE anecdotes in particular the changes in behaviour related by five individuals. It is of interest to note that these behaviour changes, with the exception of one anecdote, all relate to smoking cessation in parents and caregivers. The exception being a boyfriend using cannabis. Limitations to an anecdotal evaluation as employed in Perniskie's (1998) analysis include a very likely biased sample and a lack of quantifying data. Sanders argues that a qualitative approach as is used in the anecdote line is one of the better means of evaluating drug education programmes, due to the difficulties that complicate evaluation

such as those noted earlier (O. Sanders.(Personal communication, March, 02, 1999). The anecdote line used in the ongoing evaluation of CHOICE and other programmes offered by the New Zealand Dare Foundataion is more than likely to elicit data from a non-representative sample. The problem with this is that one can not be certain that the results are truly indicative of the effects of CHOICE on all persons or just a sample. For example, it may be that persons who enjoyed the programme are more likely to relate an anecdote than those who found the programme to be a negative experience. Obviously if this were the case then an over estimation of the positive effects of the programme would likely ensue. Thus, anecdotal evidence can be viewed as suggestive at best but not conclusive. In addition the nature of anecdotal data limits the researcher's ability to examine the magnitude of changes.

Research seems to suggest that CHOICE can lead to changes in the attitudes and behaviour of parents with children participating in the programme. Behaviour changes appear mainly to relate to smoking behaviour . In addition, it seems that children may be exerting "peer pressure" on their parents to encourage them to change their behaviour (particularly smoking habits). The aim of this research is to more closely look at changes parents make as result of the CHOICE programme. It is anticipated that a specific focus on this group through pre- and post-testing will add to and move beyond existing research evaluating CHOICE. Pre- and post-testing is proposed in order that changes occurring between these two times might be observed. As an ideal any evaluation would include a control group so that changes can be attributed to the intervention. This ideal is expanded on in chapter four. The original design proposed for this research called for a control group. As alluded to earlier however, for reasons beyond the control of the researcher a control group was not forthcoming within the available time frame. The lack of a control group means that any changes observed cannot be attributed to the intervention. Changes in children participating in this study will not be measured in this research. The specific focus of this research is not to document already established patterns of change in children. However, children were tested prior to the CHOICE programme being administered and their responses linked to the pre-test responses of their parents. The purpose of analysing parents by children's responses is to determine the consistency between the attitudes and behaviour of parents' and their children. The

results of this analysis may suggest to what extent changes in parent's attitudes and behaviour will be mirrored by their children. To determine if changes are related to increases in knowledge it is also proposed that drug knowledge be assessed in the same pre- post-test manner.

In summary, this study aims to move beyond previous studies through a specific focus on parents. Improvements are also intended through the inclusion of pre- and post-testing. It was hoped that changes made by parents could be linked to the CHOICE programme. However, as explained this was not possible.

Hypotheses

Based on a review of the relevant literature, and on the findings of previous studies, the following hypotheses were put forward for testing in the present study. The central hypothesis is that parents participating in this study will exhibit positive changes in the behaviours and attitudes being measured. The modal behaviour change expected is the cessation or reduction of cigarette smoking. Moreover, it is hypothesised that children will exert peer pressure on their parents leading to changes. Likewise it is hypothesised that both parents and children will demonstrate a good knowledge of drugs and their negative effects. Furthermore it is hypothesised that parents will not show a significant change in knowledge at post-testing. It is hypothesised that children's attitudes towards and use of substances will be related to their parents' attitudes and behaviour. It is also hypothesised that substance use amongst children will be virtually non-existent. To make explicit the hypotheses of the present study they are listed below.

Hypothesis 1. Participants will exhibit positive changes in the attitudes, and behaviour being measured.

Hypothesis 2. The modal behaviour change will be in a cessation or reduction in smoking cigarettes.

Hypothesis 3. A mechanism leading to parental change will be peer pressure exerted by children.

Hypothesis 4. Substance related knowledge will be high for parents and children at pre-testing.

Hypothesis 5. The level of parents' knowledge will not change significantly between pre- and post-testing.

Hypothesis 6. There will be a moderate to strong positive correlation between the attitudes and behaviour of parents and their children.

Hypothesis 7. Child substance use will be virtually nonexistent.

CHAPTER TWO

THE PRESENT STUDY

METHOD

Participants

From a population of approximately 300 parents and 159 children, 53 children and 100 parents participated in the study. 100 parents responded to the pre-test and 56 parents responded to the post-test. The participants were children ages eight to eleven years and their parents. Parents ranged in age from 27 to 52. The mean age of the adult participants was 39 with a standard deviation of 4.8. Provision for only one parent to respond to the questionnaire was made. Of the parents responding to the pre-test 82% were female and 18% were male. In the post-test 90% of the respondents were female and 10% were male. Of the children 69.2% of the respondents were female and 30.8% were male.

Participants were from three primary schools in the Manawatu. Two of the schools had a decile rank of nine indicating low levels of funding and suggestive of a higher socio-economic status (SES). The third school had a decile rank of five indicating a moderate level of funding and suggestive of mid-range SES. In one school situated in a wealthy area (decile nine) 70% of the participants occupied jobs which are characterised by higher levels of education and income. In the other two schools the percentage of main income earners occupying jobs characterised by above average income and education was 60%. One of these schools had a decile rank of five and the other one was a country school (decile nine). Of the adult participants 80% were married, 6% in a defacto relationship, 6% single, never married, and 8% were single, divorced/separated. The ethnic origins of the participants were as follows 84% were European/Pakeha, 5% Maori, 2% Pacific island, 6% Asian, and 3% from other origins than those listed.

Schools that were scheduled to run the CHOICE programme between the data collection

phases were approached to solicit their help in supplying participants for the study. All schools in the study consented to participate in this study. Parents were approached through the participating schools to seek informed consent for their and their child's participation in the study (refer to appendices B & C) . Children were then approached to seek their consent (having first received their parents' consent) to participate in the study (refer to appendices D & E). Thus all participants in this study were selected on the basis of the school's, parent's, and children's, willingness to participate. Selection was also based on the school's being scheduled to run the CHOICE programme between data collection phases. Not all schools approached were willing to participate in the study.

Measures

Child questionnaire

The child questionnaire (see appendix F) consisted of questions 1, 2, 3, 4, 9, 11, and 13 taken from the questionnaire used in Laven's (1997) evaluation of the CHOICE programme. The questionnaire includes standard demographic items, and measures to assess awareness of various substances and their negative effects. The questionnaire also includes an attitude measure and a measure to assess substance use. Question three (the attitude measure) was modified so that responses could be made on a five point Likert scale where 1=strongly agree through to 5=strongly disagree. The responses could then be totaled to provide a numerical summary of attitude. A maximum score of 100 was indicative of a healthy attitude towards the use of various substances. A minimum score of 20 indicated a less healthy attitude. Items 14 and 16 of question three are weighted in the opposite direction from the rest of the questions in the measure and were scored in a like manner. For example, a response of one was converted to five and a response of five was converted to one. All other items were scored according to face value. To gain a rough indication of SES the childs' school decile rank was noted and compared with their parent's occupation. Decile ranking is used by the Ministry of Education to indicate the level of need in schools for funding purposes (Laven, 1997). Socio-demographic factors are used to calculate decile rank. A decile rank of one would indicate a high level of funding suggesting low SES. A rank of ten would indicate a low level of funding

suggesting higher SES.

The child questionnaire is representative of other questionnaires used in past evaluations of CHOICE. The questionnaire was designed by Laven (1997) to be readable to an average reading age of eight years. The terminology in the questionnaire was designed to be relevant to children. No reliability or validity data relating to the questionnaire or the measures is available. The questionnaire does appear to possess face validity.

Questionnaires for adults

As in the child questionnaire the questionnaire for adults (See appendix G for the adult pre-test & appendix H for the post-test) also consisted of questions 1, 2, 3, 4, 9, 11, and 13 taken from Laven's (1997) questionnaire. However, because adults can be expected to have a higher rate of substance use than children, question 12 from Harper's (1991) phase three evaluation was used instead of question nine from Laven's questionnaire. In the same vein, the response categories of question 12 from Harper's questionnaire were modified from "never", "1 time" , "2-3 times", and "3 times or more" to "never", "1-3 times", "4-5 times", and "6 times or more". The difference between Laven's and Harper's questions is that the former asks about cumulative substance use throughout life whereas the latter relates only to the past two weeks.

Additional knowledge and attitude measures were taken from the DARE to support your kids workbook to ensure the relevance of the questionnaire to adults. Included in the adult questionnaire were two demographic questions not in the child questionnaire asking about marital status (in the pre- and post-test) and about the occupation of the main income earner of the household (in the post-test only). Question 14 of the post-test (see appendix H) requesting information on occupation was based on The New Zealand Standard Classification of Occupations 1990 (NZSCO90). In addition to the ten major groups of occupations listed in the NZSCO90 the question included a category for beneficiaries. The post-test included questions asking if the respondent had changed their behaviour, and/or attitudes in relation to drugs over the past month (refer to appendix H). Finally the post-test asked if respondents had been pressured by their children to change their behaviour in relation to personal drug use. Thus, apart from the

demographic question regarding occupation, questions asking about pressure from children, and changes in attitude and behaviour, the post-test is identical to the pre-test. The two attitude measures used in the adult questionnaires (refer to appendices G & H) were modified as described above for the child questionnaire (so that responses could be made on a five point Likert scale). With the attitude measure taken from the DARE to support your kids workbook (question five) a maximum score of 50 is suggestive of a healthy attitude towards substance use, a minimum score of ten suggesting a less healthy attitude. All scoring on question five (see appendices G & H) was according to face value. In the adult questionnaire an additional modification was made to the attitude measure (question four) from Laven's questionnaire. To be more applicable to adults, items which were deemed less pertinent were modified in a manner considered more relevant to adults (see appendices G & H question four, items 1, 6, 9, 11, 12, & 19) . For example questions like "Kids who drink alcohol are more grown up than those who don't", were modified to read "People who drink alcohol are more sophisticated than those who don't". As with the child questionnaire, no reliability or validity data is available for any of the measures used in the adult questionnaires.

In addition to the quantitative measures, provision for the collection of qualitative data was made in the adult post-test questionnaire. Qualitative data was solicited in questions 6a, 7a, and 8a (see appendix H) through open ended questions. Qualitative data was collected to clarify the nature of changes made by parents, also the nature of pressure placed on parents by their children to modify their behaviour in relation to substance use.

DESIGN

The design originally proposed for this study was a quasi-experimental design with a non-equivalent control group. As explained earlier, however, this was not possible as a control group was not available. The default was a one group pre-test-post-test or pre-experimental design. The data collected was in the main quantitative, however, some qualitative data was collected to explore trends observed in previous evaluations and for clarification.

PROCEDURE

The names of schools participating in the CHOICE programme over the data collection period were obtained from the Palmerston North Police education officers. The principal of each respective school received a letter introducing the research and soliciting their permission to proceed with the research in their school (refer to appendix A). It was left to the principal's discretion as to whether the various boards of trustees were to be approached about the study. None of the participating school's principals chose to approach their board of trustees. Prior to the initiation of the CHOICE programme in the school, parents were approached regarding their and their child's participation in the study (see appendix B). At this point parent's consent for their child to participate in the study was sought (see appendix C). For parents, consent was assumed with the return of their questionnaire/s. Consent was obtained from child participants before they were administered the questionnaire but only after receipt of their parents' signed consent (refer to appendices D & E). A few days prior to the commencement of the CHOICE programme children and parents were given the questionnaire to complete. For children the questionnaire was the "questionnaire for children" (refer to appendix F). For parents the questionnaire was the "adults questionnaire pre-test" (refer to appendix G). The researcher was present during the administration of the child questionnaire to answer questions that children asked. For parents the questionnaire was sent home, via their children, and completed there.

So that links could be made between the responses of children and their parents and between pre-testing and post-testing the questionnaires were coded. Each child received a questionnaire with a number that also appeared on their parent's questionnaire. To distinguish between child and adult questionnaires, the child questionnaire was labeled "child questionnaire". The parents' questionnaires were labeled "questionnaire for adults". The distinction between pre-tests and post-tests was made via the respective labels "pre-test" and "post-test". A master list for each class was made indicating who received which numbered questionnaire. The master list was held by that class's teacher. The purpose of the master list was to facilitate a comparison between the responses to the pre-test, post-test, parent, and child responses. Thus, questionnaires were distributed in the following manner. 'Johnny' completed the 'child questionnaire' numbered 001 and

then took home to his parents the pre-test, adult questionnaire numbered 001. The number on Johnny's questionnaire was noted on the master sheet. About a week after the CHOICE programme had finished the master sheet was consulted so that Johnny took home to his parents the adult questionnaire post-test 001. Child questionnaires were collected from the children at the time of testing. Adult questionnaires were returned directly to the researcher via a postage paid self addressed envelope.

Children who did not participate in the study were still given a numbered questionnaire to take home for their parents to complete. As with the other participants the number was noted on the master sheet so that the corresponding post-test could be sent home at the appropriate time. So that confidentiality could be maintained at a high level the researchers did not have access to the master sheet and the only parties to have access to the completed questionnaires were the researchers. Following the administration of the child and adult pre-test questionnaires the children participated in the CHOICE programme. The programme was administered by the Police education officers and the teachers of the respective classes over the course of about five weeks. A week after the programme had finished the post-test questionnaire was sent home to the parents. At post-testing only parents received a questionnaire.

Qualitative data was collected at post-testing through three open ended questions (questions 6a, 7a, & 8a, refer to appendix H) and from unsolicited comments written by children and parents on the pre- and post-tests.

ETHICAL CONSIDERATIONS

The ethical considerations for this research are standard to all research. The research project was screened and approved by the Massey University Human Ethics Committee. No major ethical dilemmas were anticipated or encountered. The informed consent of participants was obtained. The consent of child participants' parents (see appendix C) was obtained prior to seeking the consent of the children themselves (see appendix E). Consent from adult participants was assumed with the return of their questionnaire. Participants who had a need for additional information regarding their own or their child's participation were able to contact the researchers via a Massey University phone

line (refer to appendices A, B, & D). To ensure that children understood their role in the study a researcher was present to answer the questions that were raised.

All participants were apprised of their rights to withdraw from the study at any point, also the right to refuse to answer any question that they did not wish to answer. As explained in the procedure section pains were taken to ensure confidentiality despite the use of identifying numbers. All questionnaires were returned directly to the researchers and were stored in a secure place with access limited to the researchers. Care has been taken to protect the identity of participants in the writing of this report. Although the need did not arise, to avert the possibility of harm, procedures were in place to deal ethically with any "situation" .

CHAPTER THREE

RESULTS

Quantitative data analysis

The statistical package spss/pc was used to analyse the data in this study. While 56 parents responded to the post-test only 50 cases are included in this analysis. Three cases were excluded from the analysis as they were not completed by the same person who completed the pre-test. Three other cases had not returned a pre-test. No child or pre-test data has been excluded from the analysis. The rate of attrition for this study was 50%.

Following the reporting of descriptive statistics, qualitative data will be reported and analysed. The analysis will then systematically address each of the hypotheses. The following statistical techniques were employed to investigate the hypotheses; paired T-Tests, and Pearson's correlation.

Table 1 presents data obtained from question one of the child, and adult pre-, and post-test questionnaires (see appendices F, G, & H). The data is expressed as the percentage of respondents who identified each of the substances in the measure as a drug. In addition Table 1 presents the percentage of substances correctly identified as being either a drug or not a drug. There were no significant differences between children and their parents at pre-testing on the following substances, cigarettes, alcohol, cheese, and chocolate. The percentage of parents identifying the following substances as drugs at pre-testing was significantly higher than the percentage of children. Cough medicine ($t = 4.94$, $df = 52$, $p < .05$); Cannabis ($t = 2.58$, $df = 52$, $p < .05$); Tea ($t = 5.52$, $df = 52$, $p < .05$); LSD ($t = 4.27$, $df = 52$, $p < .05$); Heroin ($t = 4.11$, $df = 52$, $p < .05$); Disprin/pain killers ($t = 2.71$, $df = 52$, $p < .05$); Antibiotics ($t = 2.64$, $df = 52$, $p < .05$); Cocaine ($t = 3.04$, $df = 52$, $p < .05$). Parents also correctly identified 20% more substances as drugs or non-drugs than their children ($t = 5.27$, $df = 52$, $p < .05$).

Table 1: Percentages of respondents identifying each substance as a drug. Also the percentage of substances correctly identified as a drug or non-drug and standard deviation expressed as a percentage.

Substance	Children	Parents	
	Pre-test only	Pre-test	Post-test
	N=53	N=100	N=50
Cough medicine	34*	71	86
Cannabis	89*	98	100
cigarettes	87	87	96
Alcohol	81	87	94
Cheese	0	0	0
Coffee	51	67	78
Tea	21*	58	70
Chocolate	8	20	40*
Glue to sniff	73	100	100
LSD	64*	96	98
Heroin	74*	98	100
Disprin/pain killers	62*	84	94
Antibiotics	55*	76	88
Cocaine	85*	98	100
Percentage correct	68* **SD 20**	88 **SD 18**	90 **SD 10**

"*" Indicates a significant difference ($p \leq .05$) between the mean percentages obtained. An "*" in the "child" column refers to differences between the means of the child questionnaire and the means of the adult pre-test questionnaire. An "*" in the "post-test" column refers to the differences between the means of the adult pre-test and post-test questionnaires.

There was only one significant difference between the adult pre-test and post-test data on Table 1. A higher percentage of parents indicated that chocolate was a drug at post-testing than at pre-testing ($t = -3.13$, $df = 49$, $p < .05$). No other differences were statistically significant. Taking into consideration the differences between the scores of parents and their children, both groups demonstrated a good ability to recognise drugs and non-drugs.

Table 2 gives the mean responses to items from question two of the child, and adult pre- and post-test questionnaires. Responses to question two could have been yes = 1, no = 2, and don't know = 3 (refer to appendices F, G, & H). Table 2 also gives the mean number of correct responses to question two. The results in Table 2 indicate that more adults than children thought that you could get into trouble with the police for smoking cannabis($t = -2.77$, $df = 52$, $p < .05$). Children more than parents indicated that they did not know whether or not smoking cannabis was good for your memory ($t = -3.33$, $df = 52$, $p < .05$). More children than adults did not know whether sniffing glue or petrol was against the law ($t = -3.05$, $df = 51$, $p < .05$). More parents than children indicated that sniffing glue or petrol can damage your brain ($t = -3.70$, $df = 51$, $p = < .05$). Adults correctly responded to 91.4% of items in question two while children correctly responded to 82.3% of the items inquestion two ($t = 5.47$, $df = 52$, $p < .05$). There were no other significant differences between the means of children and adults (pre-test).

There was only one significant difference between the adult means at pre- and post-testing where at pre-testing more adults did not know if children aged 15 were allowed to buy cigarettes ($t = 2.45$, $df = 46$, $p < .05$). The percentage of correct responses to question two did not change between pre- and post-testing. Despite the differences in overall scores, parents and children both demonstrated a high level of knowledge on question two of the child and adult pre- and post-test measures.

Table 2: The mean responses to question two of the child and adult pre- and post-test questionnaires. Also, the mean percentage of correct responses to question two. Possible responses were yes = 1, no = 2, don't know = 3.

Item	Children		Parents			
	Pre-test only		Pre-test		Post-test	
	N=53		N=100		N=50	
	Mean	SD	Mean	SD	Mean	SD
Can get into trouble with the police for smoking cannabis.	1.30*	.72	1.07	.36	1.00	.00
Cigarette smoke only harms smokers.	1.83	.58	1.99	.10	2.00	.00
Smoking cannabis is good for your memory.	2.21*	.41	1.99	.17	2.02	.14
Sniffing glue or petrol is against the law.	2.15*	.66	1.73	.68	1.66	.69
Many accidents are caused by drunk drivers.	1.06	.31	1.04	.28	1.00	.00
Smoking tobacco can be bad for your health.	1.06	.30	1.00	.00	1.00	.00
Sniffing glue or petrol can damage your brain.	1.42*	.82	1.00	.00	1.00	.00
Children who are 15 years old are allowed to buy cigarettes.	2.11	.51	2.09	.43	1.92*	.40
Some people become violent when they've been drinking alcohol.	1.04	.27	1.03	.22	1.00	.00
Once you start smoking regularly it can be hard to give it up.	1.04	.27	1.03	.22	1.00	.00
Mean percent of correct responses.	82.3*	12.8	91.4	7.7	92.0	7.3

"*" Indicates a significant difference ($p \leq .05$) between the means obtained. A significant difference between the child and adult pre-test means is signified by an "*" in the "child pre-test only" column. A significant difference between the adult pre-test and post-test means is signified by an "*" in the post-test column.

Table 3 contains the mean responses to question three of the adult pre- and post-test questionnaires. Responses could have been either true = 1 or false = 0 (refer to appendices G & H). Table 3 also contains the mean percentage of correct responses to question three of the adult questionnaires. No significant differences were noted between the means for the pre- and post-test groups on question three of the adult questionnaires. The composite scores displayed on Table 3 indicate that at pre- and post-testing parents' levels of substance related knowledge was high.

Table 3: Mean responses to question three of the adult pre-test and post-test. Also the mean percent of correct responses to question three. The possible responses were true = 1, or false = 0.

Item	Parents			
	Pre-test		Post-test	
	N=100		N=50	
Alcohol is a relatively harmless product in any quantity.	.04		.02	
Regular cannabis use always leads to use of other drugs.	.38		.42	
When valium is prescribed by the doctor it is beneficial.	.70		.78	
Memory is not affected by cannabis.	.04		.04	
Children and young people cannot break down alcohol as efficiently as adults.	.89		.96	
People who use cannabis just in the weekends do not have any side effects.	.02		.02	
There is no evidence that cannabis smoking contributes to lung cancer.	.25		.14	
It is not advisable to consume alcohol daily.	.67		.75	
Taking lots of pills together is physically and mentally damaging.	.89		.91	
It is not possible to become dependent on cannabis.	.05		.02	
Being drunk cannot kill you.	.04		.04	
High regular doses of cannabis can cause people to see things that are not there.	.90		.98	
Mean percent correct.	79.33	SD 11.67	81.50	SD 8.75

There were no significant differences between the means of the pre- and post-test groups at $p \leq .05$.

Table 4 presents the mean responses to question three of the child questionnaire (see appendix F) and question four of the adult pre- and post-test questionnaires (see appendices G & H). In addition table four contains the mean overall score obtained on question three of the child questionnaire and question four of the adult pre- and post-test questionnaires. The possible responses to the measure were strongly agree =1, agree =2, neither agree nor disagree =3, disagree =4, and strongly disagree =5. There were a number of significant differences between the means of the child and adult pre-test respondents which are listed here. Parents more strongly disagreed with the statement "it's safe to smoke cannabis, then drive" than children ($t = 5.35$, $df = 51$, $p < .05$). Parents more strongly disagreed with the statement "if you have a headache it's OK to take as many pain killers as you want as often as you need them." than their children ($t = 2.77$, $df = 51$, $p < .05$). Parents disagreed more strongly than children that "it's OK to smoke around young children" ($t = 2.37$, $df = 52$, $p < .05$). Children agreed with the statement "Most high school kids smoke cannabis." more than their parents ($t = 3.08$, $df = 50$, $p < .05$). Parents disagreed more strongly with the statement "People who sniff glue have fun." than children ($t = 2.62$, $df = 51$, $p < .05$). More parents disagreed with the statement "Most adults smoke cannabis." than did children ($t = 4.85$, $df = 50$, $p < .05$). As opposed to children, parents disagreed more strongly with the statement "It's OK to take medicines and pills ordered by the doctor for someone else." ($t = 4.90$, $df = 52$, $p < .05$). While both parents and children disagreed that "People who drink alcohol have more friends than those who don't", parents disagreed more strongly than children ($t = 3.84$, $df = 51$, $p < .05$). Children agreed more strongly than parents that "most adults get drunk" ($t = 7.30$, $df = 51$, $p < .05$). Parents more strongly disagreed with the statement that "people who use drugs have more fun than those who don't" than children ($t = 2.63$, $df = 52$, $p < .05$). Children more strongly agreed that "alcohol can make you sick" than their parents ($t = 3.48$, df 52, $p < .05$). Parents more than children disagreed that "most high school students smoke cigarettes" ($t = 4.69$, $df = 49$, $p < .05$). Children received a lower overall score on the attitude measure (question three of the child questionnaire question four of the adult pre- and post-test) than parents ($t = 6.72$, $df = 52$, $p < .05$). While acknowledging the differences between the overall scores of parents and their children, both groups exhibited reasonably healthy attitudes towards substance use.

Table 4: The mean responses to items in question three of the child questionnaire and question four of the adult pre- and post-test questionnaires. Also the mean score obtained for the whole of question three of the child questionnaire and four of the adult pre- and post-test questionnaires. Responses could have been strongly agree = 1 to strongly disagree = 5. (It should be noted that the wording of items 1, 6, 9, 11, 12, & 19 differ between the child and adult questionnaires, see appendices F and G & H for differences).

Item	Children		Parents			
	Pre-test only		Pre-test		Post-test	
	N=53		N=100		N=50	
	Mean	SD	Mean	SD	Mean	SD
Adults who drink alcohol are more sophisticated than those who don't.	4.38	1.00	4.79	.52	4.78	.74
It's safe for people to smoke cannabis, then drive.	4.02*	1.06	4.73	.67	4.76	.66
If you have a headache it's OK to take as many pain killers as you want as often as you need them.	4.33*	.81	4.76	.69	4.64	.98
It's OK for adults to smoke around young children.	4.29*	1.04	4.75	.56	4.68	.84
Most high school kids smoke cannabis.	3.25*	1.04	3.87	.93	3.78	.84
People who sniff glue have fun.	4.12*	1.06	4.60	.83	4.64	.80
Most adults smoke cannabis.	3.69*	.93	4.47	.76	4.56	.79
It's OK to take medicines and pills ordered by the doctor for someone else.	3.92*	1.27	4.80	.59	4.88	.59
People who drink alcohol have more friends than those who don't.	4.06*	1.23	4.70	.61	4.70	.65
Most adults get drunk.	2.90*	1.09	4.30	.83	4.44	.70
People who use drugs have more fun than those who don't.	4.43*	1.01	4.79	.56	4.88	.39
People who smoke cigarettes are sophisticated.	4.75	.70	4.84	.47	4.88	.39

"*" Indicates a significant difference ($p \leq .05$) between means. "*" In the "child" column indicates a significant difference between child and adult pre-test means. An "*" in the post-test column indicates a significant difference between pre- and post-test means.

Table 4: (continued from page 33)

Item	Children		Parents			
	Pre-test only		Pre-test		Post-test	
	N=53		N=100		N=50	
	Mean	SD	Mean	SD	Mean	SD
It's OK for adults to take drugs.	4.17	1.03	4.52	.83	4.51	.77
It's dangerous to drink alcohol, then drive.	3.94	1.71	4.29	1.46	4.70	.93
It's OK to drink alcohol or use drugs at a party if everyone else does.	4.45	1.01	4.66	.77	4.78	.71
Alcohol can make you sick.	3.87*	1.45	4.46	.94	4.32	1.15
If your friends drink alcohol or use drugs it's OK to do it too.	4.72	.82	4.70	.68	4.86	.61
Most high school students smoke cigarettes.	2.68*	1.06	3.61	.91	3.54	.79
If your friend or partner gives you some pills it's OK to take them.	4.88	.43	4.78	.44	4.80	.64
Most high school kids drink alcohol.	2.86	.99	3.37	1.01	3.54	.93
Mean total.	78.40*	8.60	88.60	10.79	90.66	6.70

"*" Indicates a significant difference ($p \leq .05$) between means. An "*" in the "child" column indicates a significant difference between the child and adult pre-test means. An "*" in the post-test column indicates a significant difference between the pre- and post-test means.

Table 5 presents the mean responses to question five of the adult pre-test and post-test (refer to appendices G & H). Also contained in Table 5 are the mean total pre-test and post-test responses to the measure. The possible responses to the measure were strongly agree =1, agree =2, neither agree nor disagree =3, disagree =4, and strongly disagree =5. No significant differences between the means for question five of the adult questionnaires were observed between pre-testing and post-testing. At both pre- and post-testing parents' composite scores were indicative of a healthy attitude towards the use of drugs.

Table 5: The mean responses to question five of the adult pre- and post-test questionnaires. Also the mean score for the whole of question five of the adult questionnaires. Responses could have been strongly agree = 1 to strongly disagree = 5.

Item	Parents			
	Pre-test		Post-test	
	N=100		N=50	
	Mean	SD	Mean	SD
It's OK for children of any age to have a drink of alcohol on a special family occasion.	3.77	1.07	3.74	.92
The best way to deal with a headache is to take a pain killer.	3.08	.96	3.28	.83
Adults should be allowed to smoke if they want to, but there should be a law to prevent children under the age of 16 from smoking.	2.46	1.39	2.56	1.47
The drinking age should be lowered to 16.	4.78	.53	4.94	.31
The occasional joint of cannabis never hurt anybody.	4.20	.93	4.24	1.02
Medicines should only be used when other natural remedies won't work.	2.84	1.18	2.43	1.00
It's OK for teenagers to have alcohol at parties.	4.00	.83	4.02	.88
A few drinks at the end of the day help you to relax.	3.27	.84	3.32	.84
Sports people should be allowed to use performance-enhancing drugs.	4.83	.53	4.80	.67
It's OK for kids of intermediate age to experiment with drugs like alcohol and cigarettes to find out about them.	4.90	.46	4.90	.36
Mean overall score.	37.56	5.09	37.96	3.71

"*" Indicates a significant difference ($p \leq .05$) between means. An "*" in the post-test column indicates a significant difference between the pre- and post-test means.

Presented in Table 6 is the reported mean use of a range of substances by children (question four, refer to appendix F) and parents (question six of the pre-test and nine of the post-test refer to appendices G & H). The figure reported by children relates to cumulative use while parent use over the past two weeks is reported. Responses could have been for children, never = 0, 1-2 times = 1, 3-5 times = 2, and more than 5 times = 3, for parents, never = 0, 1-3 times = 1, 4-5 times = 2, and 6 times or more =3. Only three significant differences were found between children's cumulative use and parent's use over the previous two weeks. On average children had used cumulatively less cigarettes than parents had used over the previous two weeks at pre-testing ($t = 3.95$, df = 52, $p < .05$). Children also had cumulatively used less spirits than their parents had in the previous two weeks at pre-testing ($t = 3.44$, df 51, $p < .05$). The other significant difference was that while no parents had sniffed glue or petrol over the two weeks prior to pre-testing, a number of children reported having sniffed glue or petrol at some stage in their life ($t = -2.85$, df 52, $p < .05$). Between pre-testing and post-testing parents did not significantly change in their consumption of the various substances being measured. The means reported for parents at pre- and post-testing in table 6 suggest that this sample of parents are moderate in their use of the various licit substances. In addition, the children had had little or no contact with cigarettes, spirits, and cannabis. A number of children had had some contact with beer, wine, and to a lesser extent, glue/petrol.

Table 6: Mean use of a range of substances by children (question four of the child questionnaire) and by parents at pre- and post-testing (question 6 of the pre-test and 9 of the post-test).

Substance	Children		Parents			
	Pre-test only		Pre-test		Post-test	
	N=53		N=100		N=50	
	Mean	SD	Mean	SD	Mean	SD
Cigarettes.	.04*	.19	.69	1.23	.62	1.21
Beer.	.64	.79	.33	.55	.29	.46
Wine.	.62	.90	.82	.89	.78	.91
Spirits.	.06*	.23	.34	.56	.69	3.14
Cannabis.	.00	.00	.00	.00	.00	.00
Glue or petrol.	.21*	.45	.00	.00	.00	.00
Pills not given by doctor.	_	_	.29	.64	.35	.63

"*" Indicates a significant difference ($p \leq .05$) between two means. An "*" in the children column represents a significant difference between Child and adult pre-test means. An "*" in the post-test column represents a significant difference between the pre-test and post-test means. It should be noted that for children, cumulative substance use is measured while for adults use over the past two weeks is measured (see appendices F, G & H). "_" Indicates a question that was not presented to the respondents.

Table 7 presents the percentages of people who in the post-test, responded that they had changed their ideas, and/or behaviour, and/or been pressured by their children to change (see appendix H). The results indicate that 6.1% of parents reported a change of ideas over the past month. In addition, 2% of the parents reported a change in behaviour over the past month. The number of parents who reported being pressured by their children to change their behaviour reached 34.7%.

Table 7: The percentage of parents reporting having changed their ideas and/or behaviour as a result of DARE to make a CHOICE. Also the percentage of parents reporting to have been pressured by their children to change their behaviour in relation to personal drug use.

Item	Post-test N=49
Have you changed any of your ideas relating to drugs over the past month?	6.1%
Have you changed your behaviour relative to the use of drugs over the past month?	2%
Has your child ever put pressure on you to change your behaviour in relation to personal drug use?	34.7%

Table 8 lists the correlations between parents and their children on the drug identification, knowledge, and attitude measures. Only correlation coefficients for the summary scores to the measures (questions 1, 2, & 3 of the child questionnaire, appendix F, and questions 1, 2, & 4 of the adult questionnaires, appendices G & H) were presented in Table 8 rather than for each item as only one coefficient was significant. None of the coefficients for the summary scores reached significance. The item that did reach significance was item 16 of the attitude measure (question three of the child questionnaire, and question four of the adult questionnaires, refer to appendices F, G, & H) "alcohol can make you sick" ($r = .41$, $p < .05$).

Table 8: Correlations between the summary scores obtained by children and their parents at pre-testing. Correlations are between the parent and child drug identification, knowledge, and attitude measures.

Children	Parents (pre-test)		
	Drug identification	Knowledge	Attitude
Drug identification	-.24	.08	-.30
Knowledge	-.06	.02	.03
Attitude	.02	.19	-.18

None of the coefficients were significant at $p < .05$. Correlations were computed using Pearson's r.

Table 9 presents the correlation coefficients obtained from a comparison between parents' and children's use of various substances (refer to appendices F & G). The comparison is based on parents reported use over the previous two weeks and children's cumulative use of substances. There were no significant correlations between parents' substance use over the previous two weeks and their childs' cumulative use of substances.

Table 9: Correlations between parent's and their children's use of various substances.

Children	Parents (pre-test)					
	Cigarettes	Beer	Wine	Spirits	Cannabis	Glue/petrol
Cigarettes	.122	-.129	.147	-.135	_	_
Beer	.023	-.003	.266	-.037	_	_
Wine	-.138	-.169	.110	-.183	_	_
Spirits	-.144	.118	.047	-.166	_	_
Cannabis	_	_	_	_	_	_
Glue/petrol	.033	-.231	-.005	.098	_	_

" _ " Appears where a coefficient cannot be computed. None of the coefficients were significant at $p < .05$. Correlations were computed using Pearson's r.

The hypotheses

Having presented the results of the quantitative data in tables one through nine, analysis will now turn to the hypotheses put forward at the beginning of the study. Hypothesis one was that parent participants would exhibit positive changes in the attitudes and behaviour being measured. There were no significant differences between the pre-test and post-test results on the attitude measures (refer to tables 4 and 5, pp. 33-34 & 35). In addition, there were no significant differences between the pre-test and post-test levels of substance use as measured in question six of the pre-test and nine of the post-test (refer to table 6, p. 37). As there were no attitude or behaviour differences observed, the null hypothesis that there are no attitude and behaviour differences between pre-testing and post-testing cannot be rejected. Two percent of the post-test population claimed to have changed their behaviour in relation to personal drug use over the past month (refer to table 7, p. 38, see also qualitative data, p. 42).

Hypothesis two was that the modal behaviour change would be in the cessation of, or reduction in smoking cigarettes. The results indicate that there was no significant reduction in cigarette smoking at post-testing (refer to Table 6, p. 37). Therefore, due to the lack of change, the null hypothesis that there will be no change in cigarette smoking behaviour cannot be rejected.

Hypothesis three proposed that a mechanism leading to parental change will be peer pressure exerted by children. Of the 34.7% of parents reporting having been pressured to change their behaviour in relation to drug use 26.5% commented that the pressure they had received was to give up smoking (refer to Table 7, p. 38, also refer to qualitative data on pp. 42-43). Of these only one case reportedly led to the cessation of smoking which occurred prior to commencement of the CHOICE programme. In the other cases where 'child peer pressure' was reported no changes were made. Thus, it cannot be concluded that peer pressure leads to parental change. Therefore the null hypothesis that child peer pressure and parental change are unrelated cannot be rejected.

Hypothesis four proposed that at pre-testing parent's and children's level of substance related knowledge would be high. The results suggest that parents possessed a higher

level of knowledge than children. Despite the differences however, both demonstrated a good level of knowledge pertaining to the identification of, and negative effects of various substances (refer to Tables 1 and 2, pp. 27 & 29). Therefore, the hypothesis that child and parent knowledge would be high at pre-testing was upheld.

Hypothesis five was that parents' knowledge would not change significantly between pre- and post-testing. The results displayed in Tables 1 and 2 (pp. 27 & 29) indicate that, while there were changes on two of the items, there were no significant changes in knowledge on the measures overall. Therefore, hypothesis five, stating that there would be no changes in knowledge, was upheld.

Hypothesis six proposed that the attitudes and behaviour of parents would be positively correlated with the attitudes and behaviour of their children. The results displayed in tables 8 and 9 (p. 39) fail to demonstrate any significant relationship between the attitudes and behaviour of parents and their children. Therefore, the null hypothesis that there is no relationship between the attitudes and behaviour of parents and their children was not rejected.

Hypothesis seven was that children's use of substances would be virtually nonexistent. Data presented in table six (p. 37) indicates that while children had had no contact with cannabis, and very minimal contact with spirits and cigarettes, a slightly larger than expected number of children had used beer, wine, and/or sniffed glue and/or petrol. Therefore, although children's use of various substances was at a fairly low level, the level was higher than expected. Thus hypothesis seven was not upheld.

Qualitative data

Having presented the quantitative data the qualitative data will now be presented. Firstly qualitative data that was formally collected in the post-test (refer to appendix H, questions 6-8a) will be presented. Unsolicited comments will then be presented.

Question six of the post-test asked "have you changed any of your ideas relating to drugs over the past month?". Respondents were then asked to explain if their response to the

question was "yes" (see appendix H, questions 6 & 6a). Only three respondents indicated that they had changed their ideas over the past month. The explanations presented appear to relate to knowledge changes as indicated below.

> "I forgot that coffee can be classed as a drug".

> "Natural + herbal remedies are more readily available + more information about them is available".

> "More aware since Dare programme".

Question seven of the post-test asked "have you changed your behaviour relative to the use of drugs over the past month?". If the response to the question had been "yes" (refer to appendix H, 7 & 7a) respondents were asked to explain. Only one respondent indicated that they had changed their behaviour relative to the use of drugs over the past month. The explanation is given below.

> "I've checked the medicine cabinet for out of date prescription drugs. I've said no to my son (11yrs) when he asks for a cup of tea. I've reduced the number of evenings when I have a glass of wine with tea or port after tea".

Question eight of the post-test asks " has your child/children ever put pressure on you to change your behaviour in relation to personal drug use?". If the response to the question was "yes" (see appendix H, questions 8 & 8a) respondents were asked to explain their response. Seventeen respondents (34.7%) indicated that they had been pressured to change by their child/children. Thirteen of the explanations related to pressure to stop smoking, of these only two had not smoked in the two weeks prior to both the pre- and post-tests. The other four (8.2%) related to obeying the rules, drink driving, and drinking alcohol or coffee. Examples of the explanations are listed below.

> "When I decided to give up smoking both kids really hassled me when I bought another packet".

"Pressure from children led to my giving up smoking".

"She wants me to stop smoking".

"If I am having a beer they check whether or not I will be driving".

"Has questioned if we are following the correct 'rules' according to the programme".

"Has checked how much coffee I drink. Knows I don't smoke + only have a small amount of alcohol".

Having reported solicited qualitative data, unsolicited qualitative data will now be reported. Data will be reported systematically as it occurs in the questionnaires. Only two unsolicited comments were made by children, the other comments came from parents. It should be noted that the unsolicited data collected was minimal and therefore, cannot be viewed as being representative of the views of all the participants.

In response to item three, of question three, of the pre- and post-tests (refer to appendices G & H) "when valium is prescribed by a doctor it is beneficial" a number of comments were noted. The comments appear to cast doubt on the benefits of valium as prescribed by a doctor. The typical responses made by seven respondents are listed below.

"(not always)".

"Sometimes".

"Depends on what it is prescribed for".

In response to item eight of question three in the pre- and post-tests (refer to appendices

G & H) "it is not advisable to consume alcohol daily" five parents made comments. On the whole comments made with regards to item eight, supported moderate use of alcohol on a daily basis. A sample of the comments made is given here.

"A glass of wine with a meal would be fine".

"Quantity? Type?".

"In moderation".

Another much commented on item in question three of the adult questionnaires (see appendices G & H) was item nine, "taking lots of pills together is physically and mentally damaging". The five respondents who commented on this item seemed to be making a distinction between licit and illicit use of pills. a representation of their comments is listed below.

"Depends whether they have been prescribed".

"Depends on the pills - some elderly people take many pills as part of their daily medication".

Within question four of the adult questionnaires (refer to appendices G & H) three items elicited comments from respondents. They were items, 10, 13 and 20. Item ten "most adults get drunk" elicited two comments. Comments to item ten appear to qualify the statement by saying that adults infrequently get drunk. The comments made in relation to item ten are given here.

"Not regularly".

"Occasionally".

Item 13 (question four, refer to appendices G & H) "it's OK for adults to take drugs"

generated five comments. These comments made a distinction between prescription and non-prescription drugs and quantity. Representative comments are listed below.

> "This is a very nebulous statement you should justify it with amount + type. Two cups of coffee daily seems OK to me but two joints daily would not be"

> "Prescription medicines yes, in correct dosages".

Only one person commented on item 20 "most high school kids drink alcohol" (question four, refer to appendices G & H). Their response, in addition to marking "3" on the Likert scale, was "not sure" .

Three comments were made in conjunction with item one of question five in the adult questionnaires (refer to appendices G & H) "it's OK for children of any age to have a drink of alcohol on a special family occasion". The first comment refers to educating children about the sensible and safe use of alcohol. The second comment specifies conditions where it would be acceptable. The third comment suggests the issue has not arisen. The comments are given here.

> "We have thought it prudent to introduce our teenagers to alcohol at home so that should they find themselves at a party where 'soft drinks' are laced with alcohol, they will recognise the difference in taste + be alerted to the fact. Also to show them that it is possible to share a glass of wine or beer in a social setting, enjoy the company + then say 'no thank you' to more".

> "A very small amount in a controlled condition".

> "We have not done so yet & our 13 year old has not asked for one".

Item three of question five in the adult questionnaires (see appendices G & H) aroused four comments from respondents. Item three reads "adults should be allowed to smoke if they want to, but there should be a law to prevent children under the age of 16 from

smoking". One comment refers to the wording of the question. The other comments suggest that smokers have rights to smoke but that they should restrict their smoking to certain areas, or not smoking around children. A representation of the comments made is listed below.

"Two comments here".

"Smoking areas should be limited".

"...There are times when adults shouldn't smoke eg. pregnancy & passive smoking effects on children".

Item seven of question five in the adult questionnaires (refer to appendices G & H) "it's OK for teenagers to have alcohol at parties" elicited a number of comments from respondents. Comments referred to quantity, supervision, and age. A representative sample of the comments is given here.

"13 year olds no, 19 year olds yes".

"? circumstances, supervision".

"how much? what do you mean by alcohol?".

When reporting how much wine they had drunk (item 3, question 4 appendix F, question 6 appendix G, & question 9 appendix H) four respondents noted that the wine that they or their child had drunk was at "communion in church". Two of the comments were made by children the other two by adult respondents.

A number of respondents who reported having "taken pills not given by a doctor" (refer to item 7, question 6 appendix G, & question 9 appendix H) made statements qualifying their use of pills. Four respondents said they had taken "panadol", one had taken "iron Fe tablets", and another respondent said they had taken "medicines".

When giving the occupation of the main income earner (refer to question 14 of the post-test, appendix H) eight respondents appeared unable to fit their occupation into any of the 11 categories available. These persons wrote their occupation next to the question. Three of the occupations introduced a new category (mother) to the question. The other occupations ranged from professional to machine operator.

Four general comments relating to the questionnaires or the study itself were made. These are listed here.

> "Some of these questions are very inane" (referring specifically to question three of the pre-test, see appendix G).
>
> "Some of these questions are very hard to answer they are too broad ranging, and could perhaps be reworded".
>
> "I actually haven't had as much involvement with at home activities with my child as I understood we would".
>
> "Thanks for doing this - it's made me reevaluate what I'm teaching as a parent both by my actions and words".

Summary of qualitative data

To summarise the qualitative data, a number of possible trends have been observed. These trends are highlighted here. The reported changes in attitude or ideas appear to relate to knowledge or awareness rather than attitude. One person reported a behaviour change which saw them cleaning out the medicine cabinet, refusing their son a cup of tea, and cutting down on the number of times dinner is accompanied with a glass of wine or port. A fairly high percentage of parents reported being pressured by their children to change their behaviour in relation to personal substance use. Of those parents reporting being pressured, 76.5% were pressured to stop smoking with only two parents quitting (prior to the CHOICE programme). The remaining reports of pressure related to obeying the "rules" of CHOICE, drinking and driving, and to being questioned about quantities

of coffee and alcohol intake.

From the unsolicited qualitative data a number of comments suggest the need to refine the questionnaire. Evidence of the need to refine the questionnaires comes from direct comments to that effect such as, "some of these questions are very hard to answer. They are too broad ranging and could perhaps be reworded". Other suggestive evidence comes from the frequency of comments justifying a participant's responses such as, "depends on the pills", "two comments here", or "quantity? type?".

The qualitative data seems to indicate that parents support the use of legal substances such as coffee and alcohol, in moderation. Parents also appear to support the use of prescription medicines within the prescribed guidelines. However, as in the case of valium (see p. 43) using a prescribed medication is not always viewed as being beneficial. When it comes to smoking, the persons who have commented on item three, of question five, (refer to appendices G & H, see also pp. 45-46) "adults should be allowed to smoke if they want to, but there should be a law to prevent children under the age of 16 from smoking" acknowledge the rights of smokers to smoke if they so choose. However, they appear to qualify their response by saying that smokers' habits should not impinge on the rights of others, particularly children, to remain smoke free.

From the qualitative data two conditions were specified under which children of any age having a drink on a special occasion might be seen as appropriate. These are for education purposes, and when it is a small amount under controlled conditions. Regarding the appropriateness of teenagers having alcohol at parties, parents seemed to agree that it was OK if there was supervision, and/or if the teenagers were 18 years or older.

CHAPTER FOUR

DISCUSSION

This chapter will look at and discuss the results in detail. To do this a brief summary of the results will be given, after which, each of the hypotheses will be examined individually with possible explanations being put forth for the findings. The discussion will then turn to the limitations of this study with recommendations given as to how this study might be improved. The discussion will then look at the implications of the current study's findings on the CHOICE programme. The findings will be compared with overseas research regarding Drug education. Finally, recommendations for future research will be made. Before moving into the discussion it should be noted that there was a particularly high rate of attrition for this study (50%). Therefore, any conclusions drawn must take into account this figure. The rate of attrition will be given further discussion later in this chapter in the section on limitations.

Summary of quantitative and qualitative results

Only two of the seven hypotheses were supported by the data. These were "Parent's and children's level of substance related knowledge would be high at pre-testing" and that "parent's level of knowledge would not change significantly between pre- and post-testing". There were no behaviour or attitude differences exhibited by parents' at post-testing. Parents' and children's behaviour, attitudes, and knowledge were not found to be correlated. While a large number of parents reported having been pressured to change their behaviour in relation to substance use (particularly to stop smoking), only two cases can be said to be related to behaviour change. These two cases reported having given up smoking. However, in both cases the respondents had stopped smoking prior to the intervention. The rate of child substance use, while being a cumulative figure, was higher than expected. Child use was expected to be virtually nil, previous studies having suggested that substance use begins in early adolescence. Parents use of various licit substances was moderate to low. Overall parents appeared to have a healthy attitude towards the use of substances. Parents condoned the moderate use of licit substances

such as, alcohol, tea, coffee, and prescription medicines while they rejected the use of illicit substances. Some parents thought that with supervision, it was appropriate for teenagers over 18 to have alcohol at parties. Some parents felt that if the purpose is for education, or that the quantity was small and the conditions controlled it is OK for a child of any age to have a drink of alcohol (on a special occasion). Parents recognised the rights of smokers to have a cigarette, but also highlighted the rights of the non-smoker, in particular children. A number of comments from parents suggest there is a need to refine the questionnaires by making items more specific.

Discussion of hypotheses

The first hypothesis was that parent participants would exhibit positive changes in the attitudes and behaviour being measured by the questionnaire. There were no significant differences on the attitude measures between pre- and post-testing. In addition there were no significant differences between the levels of substance use at pre- and post-testing. Therefore, the data did not uphold this hypothesis.

When considering the possible reasons for the lack of support for hypothesis one a number of factors need to be taken into consideration. The results have indicated that the parents in this study tended to have fairly conservative attitudes towards the use of various substances. In addition the participants also tended to be fairly moderate in their use of beer, wine, and spirits, with only a few smokers. The aim of the CHOICE programme is not to promote the non-use of licit substances such as, tea, coffee and alcohol. They do, however, promote the safe and sensible use of licit substances, with the exception of tobacco. The aims of the programme, and the attitudes and behaviour of parents in this study, in terms of substance use, appear to be fairly evenly matched, and in this light it would seem unsurprising that no changes were observed in attitudes and behaviour.

It may be significant to note that the population of parents and children in this study were from areas that were considered to be high in SES, low SES being a factor that has been linked to the use and abuse of drugs. In trying to secure participants for this study, a number of other schools from areas where SES is low were approached. Interestingly

none of these schools agreed to participate in the study. Amongst the reasons given for their non-participation was that the study was considered too personal and too involved. The results may have been different if some of these 'high risk' schools had been involved in the study, the rationale being that the participants of this study generally had little or no changes to be made to bring them in line with the CHOICE philosophy. Conversely, it is conceivable that the lower SES schools would have more persons who are likely to have changes that could be made.

Another factor that needs consideration is the sensitive nature of this study. The particular topic of substance use and abuse is a sensitive one and, therefore, vulnerable to social desirability bias. It may be that attitudes and reported substance use were affected by a desire to be seen in a positive light. The other possibility is that parents who may have demonstrated less healthy attitudes and higher levels of substance use chose not to participate in this study. At the outset of this study consideration was given to the implications that social desirability might have for responses to the questionnaires and the rate of return. In this light efforts were made to stress to the participants the confidential nature of the questionnaires, and the use to which the data would be put (refer to appendices A, B, D, G, & H).

A final factor that has been taken into account in the interpretation of the results in relation to hypothesis one is the high rate of attrition. There is no way to tell whether the high rate of attrition in this study was random or systematic. From research looking at attrition it seems quite likely that attrition was not random (Keppel, Saufley, & Tokunaga, 1992). Therefore, had the rate of attrition been less, the results may have been different although there is no way to test this possibility.

Hypothesis two proposed that the modal behaviour change would be in the cessation of, or reduction in cigarette smoking. There were no significant reductions in the rate of cigarette smoking reported at post-testing, or in the rate of use for the other substances measured. From the qualitative data one person reported a change in their behavior. However, this change was not related to smoking. Thus, hypothesis two was not upheld. The premise for forming hypothesis two was based on past research where a number of parents had reported giving up smoking as a result of CHOICE. In this study there were

a number of smokers so that, although no changes occurred, potential to change did exist. It would seem that CHOICE is not a sufficient condition to effect changes in smoking habits. It is worth noting the addictive nature of tobacco, and the difficulty people often have when trying to 'kick the habit' of smoking. It seems unlikely (in hindsight) that the CHOICE programme alone is sufficient impetus to stop smoking. People who in past research have been observed to quit smoking are likely to have been influenced by other variables in addition to CHOICE, resulting in their decision to stop. Finally, the high rate of attrition may have accounted for the lack of reduction in cigarette smoking observed in this study.

Hypothesis three was that a mechanism leading to parental change would be pressure exerted by children. Of the parents who reported having been pressured by their children to change their behaviour, none either reported or exhibited a change in their behaviour over the data collection time. Two parents said that pressure from their children had led to their quitting smoking prior to this study. Child peer pressure might be a factor that contributes to parental change. However, it would seem that pressure exerted by children is neither a specific function of the CHOICE programme, nor a sufficient condition to cause parents to change their behaviour. In this light the null hypothesis was not rejected. Observations from previous studies where parents have reported being influenced by their children to stop smoking, or to change their behaviour in other ways, were probably also influenced by other factors which motivated them to make a change. It is not certain if the results would have been different given a lower rate of attrition.

Hypothesis four proposed that at pre-testing both parents' and children's levels of substance related knowledge would be high. The hypothesis was based on a plethora of research which has found parents and children to be well equipped with knowledge regarding drugs (particularly the negative effects of drugs). There were significant differences between parents' and children's mean levels of substance related knowledge with parents scoring higher than children on the two knowledge measures. In addition, there was no correlation between parents' and children's knowledge levels. The difference between the means of parents and children is to be expected with parents' extra years of experience and exposure to substance related information. Not withstanding the differences between parents' and children's levels of knowledge, and

the lack of correlation, both parents and children exhibited a high level of knowledge as predicted. The knowledge being measured in the questionnaires is, for the most part, widely available through the media and it is likely that this is one source of knowledge relating to substances.

Hypothesis five held that parents' level of substance related knowledge would not change significantly between pre- and post-testing. There were no significant differences found between the means at post-testing and hypothesis five was upheld. Previous studies have found participants to have fairly high pre-test levels of knowledge which has meant that there are minimal changes in knowledge if any at all. This was also found to be the case in this study. It seems unlikely that a different rate of attrition would have led to a different result in this case. The findings of previous research looking at knowledge as it relates to substance use, have found no relationship between knowledge and behaviour. The results of this study help to strengthen the findings of past research that knowledge does not relate to attitudes or behaviour.

Hypothesis six proposed that the attitudes and behaviour of parents would be positively correlated with the attitudes and behaviour of their children. This hypothesis was not supported by the results, and the responses of parents and children were correlated on only one item, 16, (alcohol can make you sick). Hypothesis six is pivotal in this study. The rationale behind this study is that parents' attitudes and behaviour will have a close relationship with their children's attitudes and behaviour, and changes made by parents would be reflected by their children. The findings of past research linking the attitudes and behaviour of parents with that of their children formed the basis for hypothesis six and the rationale for this study. Why hypothesis six was not upheld is not certain, and it may be that there is indeed no correlation between the attitudes and behaviour of parents and their children. However, given the findings of past research it seems unlikely that this is the case. While it is not certain why there no relationship found between the attitudes of parents and their children, a possible explanation for lack of correlation found between the behaviour of parents and children does exist.

The lack of correlation between parents' and children's use of the various substances measured can probably be attributed to the comparison between children's cumulative

use of substances, and parents' use over the past two weeks. The comparison is not necessarily a good one. It was decided to measure cumulative child substance use as the rate was expected to be very low. It was thought that to measure children's substance use over the past two weeks would fail to capture the numbers of children who had come into contact with the substances. For parents it was decided that the measurement should be for the past two weeks because it was thought that for most parents reporting cumulative use would be an impossible task. In addition, it was thought that use over the past two weeks would give a good estimate of parents' levels of consumption. Although the different ways of gauging parents' and children's use allows for a better estimate to be obtained, the ability to meaningfully compare the two figures is impaired. It was hoped, however, that despite the differences in data, a meaningful comparison could be made.

Hypothesis seven was that children's use of the substances being measured would be virtually nonexistent. No child in this study had ever smoked cannabis and only a small number of children had smoked a cigarette, and/or drunk spirits. However, a slightly larger number of children than was expected had reported drinking beer, wine, and/or sniffing glue or petrol. The number of children who have reported having used any of the substances measured in this study might well give cause for alarm, given the young age of the participants. Of particular concern is the number of children who reported sniffing glue and/or petrol. A weakness in the measure, however, may account for disturbing levels of use. When completing the questionnaire a number of children asked how much constitutes a drink of beer, and of wine, as the measure does not specify quantities. Some children said that they had had a sip of beer or wine. Two children made the comment on their questionnaire that they had had wine at communion in church. For beer and wine then, it is quite likely that the reported quantities being consumed by children is a lot less than the original figure leads one to believe.

The inhalation of solvents is a particularly damaging practice. The figure reporting a high number of children who claimed to have sniffed glue and/or petrol needs to be viewed with caution. When coming to this item some children said that they had smelt petrol at the petrol station, and that they liked the smell of it. From these comments it was apparent that children seemed naive to the practice of solvent abuse and were unable to

distinguish between smelling glue or petrol and solvent abuse. While it seems likely that the children in the study were naive it cannot be ruled out that they had actually engaged in solvent abuse.

The data collected in relation to child substance use seems to indicate that children are coming into contact with cigarettes, beer, wine, spirits, and possibly solvent abuse. Whether their contact with these substances has been merely a sip to 'see what it tastes like' or more than this is not known. The data does not indicate that any of the children in this study are regular users of any of the substances measured.

Summary

Parents in this study did not exhibit any changes in attitudes or behaviour which is contrary to the hypotheses. Parents' fairly conservative attitudes and use of the substances may account for the lack of change observed in this study. Other explanations include a social desirability bias, and possibly subject mortality. There was no reduction in the rate of cigarette smoking at post-testing contrary to expectation. CHOICE in and of itself is probably not sufficient to cause parents to stop smoking. Pressure on parents from children was anticipated to lead to parental change. However, it was concluded that pressure from children is not specific to CHOICE or sufficient to cause changes. Parents and children exhibited high levels of substance related knowledge which did not change significantly over times one and two. The results regarding knowledge are in line with other research suggesting that knowledge levels are high and tend not to change. Because CHOICE does not aim to impart substance related knowledge, it is logical that no significant changes were observed. The reason as to why parents' and children's attitudes were not correlated, as was expected, is not known. For substance use the lack of correlation is possibly due to an 'apples and oranges' type comparison between children's cumulative use and parents' use over the past two weeks. A higher than expected number of children reported having used beer, wine, and (alarmingly) having sniffed glue and/or petrol. It is possible that the actual quantities of these substances being consumed is less than the face value and children may have only taken a sip or two. With regards to solvent abuse it is likely that children have been unable to distinguish between smelling glue and petrol and the abuse of solvents. Therefore, the actual

instance of solvent abuse is likely to be much less than it appears to be. However, it remains that children between the ages of eight and eleven years are beginning to come into contact with these substances.

Limitations

This study was limited by a number of factors including the design, a high rate of attrition, the questionnaires used, and in conjunction with the questionnaires, the broad definition of drugs used in the study. These limitations will be discussed in detail here. The first limitation that will be discussed here is the design.

Design

The design originally proposed for this study was a quasi-experimental design with a non-equivalent control group. As mentioned earlier, however, this was not possible as a control group was not available. The default was a one group pre-test-post-test or pre-experimental design. This design comes under the umbrella of pre-experimental designs (McGuigan, 1993: Fife-Schaw, 1995). Because pre-experimental designs are fraught with uncontrolled confounds they are far removed from the true experimental design (the gold standard of scientific research). Threats to validity that limit the one group pre-test - post-test design include testing effects, maturation, and history effects. Because these threats are not controlled there is no possible way to conclude that changes are due to the intervention (in this case the CHOICE programme). In light of the above limitations the design was employed as a last resort only. Having noted the limitations, what information can be gained from a pre-experimental design? Schweigert (1994) notes that pre-experiments can provide suggestive evidence of possible relationships between variables. The design can also highlight possible areas of interest worthy of further investigation.

A quasi-experimental design, which is an approximation of a true experiment (Wampold, 1996; Schweigert, 1994; Haslam, & McGarty, 1998), would have been a better option for this study as the aforementioned confounds could then have been controlled. A quasi-experimental design would have allowed a statement to have been made regarding the efficacy of the CHOICE programme. The results of this study suggest that the

programme did not lead to positive changes in the behaviour and attitudes of parents. Statements regarding the performance of the programme in relation to other drug education programmes or to no programme cannot be made because of the design.

Attrition

This study was plagued by a very high rate of attrition (50%). As attrition from research usually occurs at a differential rate, the randomness of the sample is compromised Keppel et al., 1992). The outcome of a study can be affected by differential rates of attrition. There is no way to control for attrition and at best steps should be taken to minimise this. At the outset of this study it was known that a good rate of return for survey questionnaires is around about 30% which was true of this study. To maximise the number of questionnaires being returned a number of strategies were employed. These strategies included highlighting the important contribution participants had to make, emphasising confidentiality, and placing a 'please return by' date on the consent forms and questionnaires. Bordens and Abbott (1996) note that the most effective strategy for maximising return rates is to send friendly reminders.

The high rate of attrition observed in this study could be attributed at least in part to ambiguities on the post-test questionnaire. The post-test questionnaire is almost identical to the pre-test. The only differences being a small label on the post-test saying 'post-test', and the addition of questions 6, 6a, 7, 7a, 8, 8a, and question 14 (refer to appendices G & H). The face sheets for both the pre- and post-test are identical except for the hand written dates for return. One respondent wrote on their post-test questionnaire that they "...nearly did not return this as it looked the same as the other one". More attention could have been given to emphasising that the post-test was a follow up to the pre-test and a crucial part of the study. Another ambiguity resulted in three post-tests being excluded from the analysis. This was a lack of direction as to who should complete the post-test. In three cases the post-test was not completed by the same person who completed the pre-test. Because there is no amount of statistical magic that can zero out attrition it must be taken into account when interpreting the results of any study. Future studies should take care to stress the importance of the follow up questionnaire, and remove any ambiguities as to who should complete the post-test. In

addition it should be made clear to participants that the post-test is a follow up to the pre-test. Reminders are another strategy that could be employed to reduce attrition.

Questionnaires

Upon data collection and analysis it became apparent that there were some issues relating to the measures employed in the questionnaires that needed addressing. There was no psychometric data available for any of the measures used in this study. The decision to use the measures was based on their use in other evaluations of the CHOICE programme and on face validity. No problems with the questionnaires had been noted in other studies. Both parents and children experienced some difficulty with, or raised issues relating to the questionnaires. Issues relating to the child questionnaire will be discussed first followed by a discussion of issues relating to the adult questionnaires.

Children experienced some difficulty using the Likert scale to respond to the attitude measure (question three of the child questionnaire, see appendix F). Most children stopped for clarification on this question. The difficulty seemed to be related to age suggesting that the concept of a Likert scale may be bordering on too abstract for the children in this study. However, with some explaining most children were able to complete the measure without difficulty. To avoid similar difficulties in the future it would be sensible to have agree strongly to disagree strongly categories in writing and at data coding responses can then be numbered according to the Likert scale.

Question four of the child questionnaire raised a number of issues around quantities and also the possible naiveté of the children in this study. When coming to the items asking about drinks of beer and wine on question four (see the child questionnaire, appendix F), some children asked how much equals a drink as they had had a sip of beer or wine but not a whole glass. This suggests that children are coming into contact with these substances, however, how much children have had is unclear. The exact quantity was not considered crucial for this study. In future though, it may be useful to have a response category for those who have only had one or two sips. While it did not arise, it is conceivable that a similar issue may have arisen for the smoking item. It is recommended that future versions of the questionnaire include a response category for children who

have only had one or two puffs on a cigarette.

Comments made by children when asked about having sniffed glue or petrol (see question 4, item 6, of the child questionnaire, appendix F) suggest that the children in this study were unable to distinguish between the smelling of solvents and their abuse. The result of this is a possible over-reporting of solvent abuse, although it is impossible to conclude this. In future studies with children this age it may be useful to try to measure their ability to distinguish between the abuse of solvents and simply smelling them.

A final difficulty noted was that children had some uncertainty about their ethnic origins (refer to question seven, see appendix F). Several children had to ask their teacher what their ethnic origin was. One mother reported that her child had indicated that he was a Pacific Islander on the basis that he was born in New Zealand, and New Zealand is an island in the Pacific.

On the adult questionnaire item seven, question six in the pre-test, (question nine of the post-test) asks whether the participant had "taken pills not given by the doctor". The question is trying to obtain an estimate of how many parents had used illicit drugs, rather than over the counter medications as it seems some parents have taken the question to mean. The confusion is probably due to the very broad definition of drugs that is used in the questionnaire. That the definitions in the questionnaire are probably too broad is attested to by parents who have qualified their responses to some of the items in the questionnaire. For example, with the item "its OK for adults to take drugs" (see item 13, question 4, appendices G & H), some parents commented that it depended on the type of drug, ie prescription drugs being all right.

A number of parents had difficulty with question 14 of the post-test (refer to appendix H). Eight parents seemed unable to locate their occupation in any of the eleven categories provided. They instead wrote their occupation beside the question. In future it may be more useful to have respondents simply write their occupation and at data coding the occupation can be categorized by the researcher.

A final issue relating to the adult questionnaires was that questions relating to pressure from children, and the question relating to the occupation of the main income earner (see questions 8, 8a, and 14 in appendix H) should probably have been included in the pre-test as well as in the post-test. Because the questions are only asked in the post-test it is difficult to conclude whether pressure from children is a function of CHOICE or not. The data suggests that it is not a specific function of CHOICE. The inclusion of this item in the pre-test would have helped to more clearly demonstrate this. By including the question regarding occupation in the post-test only, valuable data has been lost through attrition. If this question were to be used in either the pre- or the post-test it would have been better placed in the pre-test. Ideally though, it is recommended that the question be placed in both questionnaires.

Implications for CHOICE

Before discussing the implications that findings in this study may have on the CHOICE programme, it should be highlighted that the programme is not specifically aimed at parents. It has, however, attempted to draw on the valuable resource that parents are, to educate children into making safe, healthy decisions regarding the use of licit drugs. The New Zealand Dare Foundation does have a programme designed for parents (Dare to support your kids). A lack of resources has meant that the programme for parents is not available throughout the whole of New Zealand. This was true of Palmerston North at the time of this study. The lack of change on the part of parents in this study suggests the need for the Dare to support your kids programme.

As will have been noted, the parents in this study neither changed their behaviour or their attitudes over the course this study. It has been noted that the conservative attitudes and use of substances on the part of the parents probably accounts for the lack of change. It has also been suggested that the CHOICE programme alone is probably not sufficient to change the behaviour of parents. Given the amount of contact with the programme, and the difficulty in changing addictive behaviours, it is understandable that CHOICE may not be sufficient impetus for change.

In a ten year follow-up evaluation of the DARE programme in the USA, Lynam et al (1999) found no differences between the DARE group and a control group. The control group consisted of children who had undergone a 'standard drug education curriculum' in school. Lynam, et al measured the use of cigarettes, alcohol, cannabis, and illicit drugs. They also looked at peer pressure resistance and self esteem. In their discussion they suggest that DARE has little if any effect on substance related behaviours, and is not superior to the less expensive control treatment. Lynam et al suggest that DARE is a 'feel good' approach to drug education. An accumulation of research relating to DARE in the USA suggests that the programme produces only modest gains which tend to be short lived. Evaluations of the New Zealand version of DARE, CHOICE, have suggested that gains made are also modest. The enduring nature of those gains has not been established. It is noted that CHOICE is different from DARE. However, whether those differences are cosmetic or not is not known even though they are based on effective principles from the literature.

An area of research relating to parents and drug prevention is opening up in England and may afford a promising new avenue for prevention efforts in New Zealand. Mallick, Evans, and Stein (1998) noted that in England parents have been an under used resource, despite the significant contribution that they have to make. O'Connor, Best, Best, & Rowley (1997) (Cited in Mallick, et al, 1998) found that of the secondary schools they surveyed, 53% of the children chose parents as a preferable source of learning about drugs. Mallick et al (1998) suggest that parents are a major community resource and that drug prevention strategists should be working in partnerships with them. In effect parents are on the front lines and are the best placed to shape the attitudes and behaviour of their children. Parents appear to be willing to take on the role of educating their children regarding drugs. However, as Mallick et al (1998) note, they often feel inadequate for the job. Parents tend to feel ignorant about the current drug issues facing their children (Mallick et al., 1998). As evidence of this parents in this study tended to respond to the items "most high school kids smoke cannabis", "most high school students smoke cigarettes", and "most high school kids drink alcohol" with "neither agree nor disagree", suggesting that they did not know.

A report from one of the parents in this study expresses disappointment that they did not have more opportunities for participation in the programme. The challenge for drug prevention strategists is to make full use of the valuable resource that parents represent. This might be achieved through making parents aware of the impact their attitudes and behaviour has on their children; through involving parents in issues of policy development in the community; by bringing parents up to speed on drug issues that face their children, and finally, through helping parents to communicate effectively with their children about drug related issues. While these suggestions are not exhaustive, they do represent a major step towards empowering and involving parents in their child's drug education. Implementing these steps represents a challenge to those who are involved in developing strategies to combat substance abuse.

The New Zealand Dare Foundation has built up a good reputation for itself. Parents appear to be comfortable with the programme and are not at odds with its goals. Because of the rapport that the Dare Foundation built, it may be well placed to take initiatives which seek to draw on the resource that parents represent.

Recommendations for future research

Researchers in America have suggested that DARE (the American version) has little if any effect on drug related behaviours. At best DARE does not perform any better than other less expensive programmes. Whether or not these findings can be applied to CHOICE remains to be seen. Of the evaluations of CHOICE that have been carried out in New Zealand, none have gone beyond looking at the short term effects of the programme. In order to prove that CHOICE is effective in reducing substance abuse, evaluations of the long term effects of the programme using measures that have established reliability and validity need to be conducted. An evaluation of the impact that the Dare to support your kids programme has on parents' attitudes and behaviour would be beneficial. The results of such an evaluation would help to direct the efforts of the programme directors in making full use of the resource that parents represent. It is also recommended that more resources be applied to investigating strategies to involve parents in drug prevention education and related initiatives. One way to achieve this is through conducting needs analyses.

Conclusion

That no changes were observed in the behaviour or attitudes of the parents in this study is probably due to the conservative attitudes and conservative use of licit substances exhibited by the participants. It seems unlikely, however, with the amount of contact parents have with the CHOICE programme, that attitudes and behaviour would be affected in any lasting way. The goals of CHOICE do not lie with changing parents' behaviour and attitudes, although past research appears to claim that changes have been made by parents as a result of the programmes. In light of the findings in this study, it seems likely that other influences were responsible for those changes in addition to the CHOICE programme. More rigorous evaluations of CHOICE need to be carried out, particularly longitudinal studies. Parents appear to be an under utilised resource throughout the world's drug abuse prevention programmes. More efforts should be made to include parents in prevention efforts.

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APPENDICES

APPENDIX A

Information sheet

for principals

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
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Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

An evaluation of the Dare to make a choice programme: effects on children and their parents.

Information sheet for principals.

Dear

My name is Craig Dunlop. I am completing a Master of Arts degree in psychology at Massey University. My supervisor is Cheryl Woolley. She is a senior child and family psychologist and senior lecturer at Massey University.

You will be aware that in the next few months your school will be running the Dare to make a choice programme in conjunction with the police education officers. The aims of the programme being to improve self confidence and communication skills in children, encouraging them to set personal goals and helping them to develop sound decision making skills. The hope being that through encouragement in these areas young people will be able to resist pressure by others when making future decisions regarding the use of alcohol, tobacco, and drugs.

Research has indicated that the programme has produced a number of positive gains for children participating in the programme. A number of researchers have highlighted the important role that parents have to play in drug education programmes. The purpose of this research is to look at the impact of the programme on both parents and children. Research of this nature is extremely important as it guides the development of such programmes as Dare to make a choice and also leads to better and more effective programmes. Therefore your school's contribution to this study will be invaluable.

It has been claimed that children's awareness of drug related issues are linked to the knowledge base of their parents. The children's role in this study will be to help to inform the research in this area. If the child, their parents and you agree to their participation, they will be asked a series of questions, presented in a single questionnaire, which should indicate their knowledge base about drugs. The questionnaire will be filled out at school during class time. It is estimated that the questionnaire will take about 15-20 minutes to complete.

In addition to seeking the consent of parents, the child and their school to participate in this study, the following rights are noted. Participants have the right to withdraw from the study at any time. Parents also have the right to withdraw their child from the study at any time if they wish to do so. Participants will have the right to refuse to answer any question which they do not wish to answer. All responses to the questionnaire will be completely anonymous and answers will not be traceable.

The second part of this study's evaluation involves looking at the knowledge base of parents on two separate occasions. The role of consenting parent participants will be to complete two questionnaires which should give an indication of their knowledge base about drugs. There will be a gap of about 6-8 weeks between filling out each of the questionnaires. To ensure anonymity children will bring the questionnaires home from school for parents to complete. A pre-paid, self addressed envelope will be included with the questionnaire so that questionnaires can be returned anonymously. It is estimated that it will take between 15-20 minutes to complete each questionnaire.

As mentioned before parents will have the same rights as their children. These being the right to withdraw, the right to refuse to answer any question they do not wish to answer, also rights to anonymity and confidentiality. All material collected in this study will be kept in a securely locked place accessible only to the researcher and his supervisor. All raw material collected across this research will be destroyed on the completion of this study

The role I anticipate for your school is firstly to provide access to participants for this study. The participants being children in classes scheduled to participate in the Dare to make a choice programme and their parents. Secondly approximately half an hour of class time would be required for each of the classes involved. This time would be used to explain the research, obtain informed consent from the children (subsequent to receiving consent from parents), and to administer the questionnaires. The final role would be to give the provided information packs, and questionnaires to children to take home to their parents.

I would like to note that I am working with the police education officers and have their full support. Also, the research proposed here has been approved by the Massey University human ethics committee and complies with their standards in all respects.

I realise that this study may involve some classroom time in your school. However, hopefully this will be minimally disrupted as the study will run in conjunction with the Dare programme. I believe that the contribution that your school will make will be of great benefit, leading to more effective drug education programmes in New Zealand schools. I would like to meet with you shortly after you have received this letter to further discuss this research and answer any possible questions you may have. Please feel free to contact me. I can be reached at Ph. 350-5196. My supervisor Cheryl Woolley can be contacted at Massey University Ph. 350-5799 Ext. 2076.

Kind regards

Craig Dunlop
Researcher

APPENDIX B

Information sheet

for parents

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An evaluation of the Dare to make a choice programme: effects on children and their parents

Information sheet for parents

My name is Craig Dunlop. I am completing a Master of Arts degree at Massey University. My supervisor is Cheryl Woolley. She is a senior child and family psychologist and senior lecturer at Massey University.

In the next few months your child will participate in the Dare to make a choice programme being run in his/her school. Dare to make a choice is a drug education programme which is run as part of the school's health syllabus. The programme is taught in partnerships of teaching staff and police education officers. The programme aims to improve self confidence and communication skills in children, encouraging them to set personal goals and helping them to develop sound decision making skills. It is hoped that through encouragement in these areas young people will be able to resist pressure by others when making future decisions regarding the use of alcohol, tobacco, and drugs.

Research has indicated that the programme has produced a number of positive gains for children participating in the programme. A number of researchers have highlighted the important role that parents have to play in drug education programmes. The purpose of this research is to look at the impact of the programme on both parents and children. Research of this nature is extremely important as it guides the development of such programmes as Dare to make a choice and also leads to better and more effective programmes. Therefore you and your child's contribution to this study will be invaluable.

It has been claimed that children's awareness of issues are linked to the knowledge base of their parents. Your child's role in this study will help to inform the research in this area. If your child and you agree to their participation, they will be asked a series of questions which should indicate their knowledge base about drugs. The questionnaire will be filled out at school during class time. It is estimated that the questionnaire will take about 15-20 minutes to complete.

In addition to seeking your permission for your child to participate in this study, your child's consent will also be sought. You have the right to withdraw your child from the study at any time. Your child will also be free to withdraw from the study at any time if they wish to do so. Your child will have the right to refuse to answer any question which they do not wish to answer. Your child's responses to the questionnaire will be completely confidential.

Part of this study's evaluation involves looking at the knowledge base of parents on two separate occasions before their child participates in the Dare to make a choice programme. Your role, if you consent to participate, will be to complete two questionnaires containing a series of questions which should provide an indication of your knowledge base about drugs. There will be a gap of about 6-8 weeks between filling out each of the questionnaires. To ensure confidentiality your child will bring the questionnaires home from school for you to complete. A pre-paid, self addressed envelope will be included with the questionnaire so that you can return it in confidence. It is estimated that it will take you between 15-20 minutes to complete the questionnaire.

As with your child you will have the right to withdraw from the study at any point. You may refuse to answer any question which you do not wish to answer. Your responses will be completely confidential. All material collected in this study will be kept in a securely locked place accessible only to myself and my supervisor. At the end of this study all raw material will be destroyed.

I realise that this study will take up a portion of your valuable time. However, I believe that the contribution that you and your child will make will be of great benefit, leading to better and more effective drug education programmes. If you wish for you and your child to participate in this study please complete the enclosed consent form. The consent form can be returned by using the pre-paid, self addressed envelope that is attached to the consent form. Please return the completed consent form by _____.

If you have any questions, please feel free to call me I can be reached through the School of Psychology at Massey University, Phone (06) 350-5799, Ext. 2040. Cheryl Woolley, my supervisor, can also be contacted on (06) 350-5799, Ext. 2076.

Kind regards

Craig Dunlop
Researcher

APPENDIX C

Parents consent form

for children

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

An evaluation of the Dare to make a choice programme: effects on children and their parents.

Parent consent form (for child)

I have read the information sheet and have had the opportunity to contact Craig Dunlop over the phone about the details of the research. My questions have been answered to my satisfaction, and I can ask any further questions at any time.

I understand that my child can withdraw from the study at any time and that they do not have to answer any questions that I do not wish to. I also understand that I can withdraw my child from the study at any time. I understand that the responses my child makes on the questionnaire will be completely anonymous.

I have discussed the study with my child and he/she has indicated that they are willing be involved.

I allow my child _____ (your child's name) to participate in this study under the conditions set out in the information sheet.

Signed:_____ Name:_____

Date:_____

APPENDIX D

Information sheet

for children

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

An evaluation of the Dare to make a choice programme: effects on children and their parents.

Information sheet for children

My name is Craig Dunlop. I am doing a Masters degree at Massey University. I am being supervised by Cheryl Woolley. She is a child and family psychologist and a lecturer at Massey University.

In the next few months a police officer from Dare will come to your school. You may have heard of Dare or seen the black Dare T-shirts about. The Dare police officer and your teacher will talk to you about drugs, how to be healthy, and how to avoid being made to do things you don't want to do. There will be interesting activities to do in class. Your parents will be given homework assignments to do with you. At the end you and your parents will be able to take part in a fun activity with the rest of your class and the police officer.

I want to see if there are any ways that Dare can be made better. To do this I will be looking at what you and your parents know about drugs before Dare comes to your school. If you choose to help in this study you will be given a questionnaire to fill out in class. Some questions will be asked to see what you know. It will take you about 15-20 minutes to fill in the questionnaire.

You do not have to do this if you don't want to. You do not have to answer any questions you do not feel good about. You will not put your name on the questionnaire so people will not know who filled it in. All the information I collect will be kept locked up. Only I and my supervisor will be able to read it and no one else will see what your answers were. At the end of this study all the information I collect will be destroyed.

You must have your parents permission to take part in this study. Some children will choose not to take part on this study, that is OK because some people find it hard to talk about these things. To take part in this study you need to fill in the permission slip and hand it in.

If you need to talk to me about this study you can phone me on 350-5799, Ext. 2040.

Kind regards

Craig Dunlop
Researcher

APPENDIX E

Consent form

for children

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

An evaluation of the Dare to make a choice programme: effects on children and their parents.

Child consent form

- Craig has told me about Dare to make a choice and what he is doing.
- My parents have talked to me about Craig's study and they say it's OK for me to take part in it.
- I have asked the questions I want to and can ask more if I want.
- I don't have to do this if I don't want to.
- I know that I don't have to answer any questions that I don't want to.
- I also know that I can stop any time I want.
- I am happy to take part in this study.

Signed: _____ Name: _____

Date: _____

APPENDIX F

Questionnaire for

children

Questionnaire for children.

1. Please put a tick in the boxes next to the things that <u>you think</u> are <u>drugs</u>.

Cough medicine	☐	Chocolate	☐
Cannabis	☐	Glue to sniff	☐
Cigarettes	☐	LSD	☐
Alcohol	☐	Heroin	☐
Cheese	☐	Disprin/pain killers	☐
Coffee	☐	Antibiotics	☐
Tea	☐	Cocaine	☐

2. Read the sentences below and tick what you think. Please only tick <u>one box</u> in each row.

	Yes	No	Don't know
You can get in trouble with the police for smoking cannabis.	☐	☐	☐
Cigarette smoke only harms smokers.	☐	☐	☐
Smoking cannabis is good for your memory.	☐	☐	☐
Sniffing glue or petrol is against the law.	☐	☐	☐
Many accidents are caused by drunk drivers.	☐	☐	☐
Smoking tobacco can be bad for your health.	☐	☐	☐
Sniffing glue or petrol can damage your brain.	☐	☐	☐
Children who are 15 years old are allowed to buy cigarettes.	☐	☐	☐
Some people become violent when they've been drinking alcohol.	☐	☐	☐
Once you start smoking regularly it can be hard to give it up.	☐	☐	☐

3. Please read the sentences below and circle the number which best describes what you think. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree.

	Strongly agree				Strongly disagree
Kids who drink alcohol are more grown up than those who don't.	1	2	3	4	5
It's safe for people to smoke cannabis, then drive.	1	2	3	4	5
If you have a headache it's OK to take as many pain killers as you want, as often as you need them.	1	2	3	4	5
It's OK for adults to smoke around young children.	1	2	3	4	5
Most high school kids smoke cannabis.	1	2	3	4	5
Kids who sniff glue have fun.	1	2	3	4	5
Most adults smoke cannabis.	1	2	3	4	5
It's OK to take medicines and pills ordered by the doctor for someone else.	1	2	3	4	5
Kids who drink alcohol have more friends than those who don't.	1	2	3	4	5
Most adults get drunk.	1	2	3	4	5
Kids who use drugs have more fun than those who don't.	1	2	3	4	5
Kids who smoke cigarettes are cool.	1	2	3	4	5
It's OK for adults to take drugs.	1	2	3	4	5
It's dangerous to drink alcohol, then drive.	1	2	3	4	5
It's OK to drink alcohol or use drugs at a party if everyone else does.	1	2	3	4	5
Alcohol can make you sick.	1	2	3	4	5
If your friends drink alcohol or use drugs it's OK to do it too.	1	2	3	4	5

	Strongly agree				Strongly disagree
Most high school students smoke cigarettes.	1	2	3	4	5
If your friend gives you some pills it's OK to take them.	1	2	3	4	5
Most high school kids drink alcohol.	1	2	3	4	5

4. Please only tick one box.

Have you ever	Never	1-2 times	3-5 times	More than 5 times
Smoked a cigarette	☐	☐	☐	☐
Drunk beer	☐	☐	☐	☐
Drunk wine	☐	☐	☐	☐
Drunk spirits	☐	☐	☐	☐
Smoked cannabis	☐	☐	☐	☐
Sniffed glue or petrol	☐	☐	☐	☐

5. What is your age? _____

6. Are you a boy or girl? **Please tick one.**

Boy ☐ Girl ☐

7. Ethnic group **Please tick one, or more if you need to.**

Pakeha/European ☐ Asian ☐
Maori ☐ Other ☐
Pacific Island ☐ If "Other", please explain _____

THANK YOU

APPENDIX G

Adult questionnaire

(pre-test)

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

This is a survey to find out what you know about drugs. In this survey "drugs" means both legal drugs (such as alcohol and prescription drugs) and illegal drugs such as cannabis. Please try to answer all questions. If you feel uncomfortable about answering a question you can miss it out and go on to the next one. Remember that all your answers are strictly confidential. Answers will be used for the purpose of this research only. Please complete and return this questionnaire using the provided envelope by _____ Thank you for your help.

Questionnaire for adults. **Pre-test.**

1. Please put a tick in the boxes next to the things that you think are drugs.

Cough medicine	☐	Chocolate	☐
Cannabis	☐	Glue to sniff	☐
Cigarettes	☐	LSD	☐
Alcohol	☐	Heroin	☐
Cheese	☐	Disprin/pain killers	☐
Coffee	☐	Antibiotics	☐
Tea	☐	Cocaine	☐

2. Read the sentences below and tick what you think. Please only tick one box in each row.

	Yes	No	Don't know
You can get in trouble with the police for smoking cannabis.	☐	☐	☐
Cigarette smoke only harms smokers.	☐	☐	☐
Smoking cannabis is good for your memory.	☐	☐	☐
Sniffing glue or petrol is against the law.	☐	☐	☐
Many accidents are caused by drunk drivers.	☐	☐	☐
Smoking tobacco can be bad for your health.	☐	☐	☐
Sniffing glue or petrol can damage your brain.	☐	☐	☐
Children who are 15 years old are allowed to buy cigarettes.	☐	☐	☐
Some people become violent when they've been drinking alcohol.	☐	☐	☐
Once you start smoking regularly it can be hard to give it up.	☐	☐	☐

3. Please read the sentences below and tick what you think.

	True	False
Alcohol is a relatively harmless product in any quantity.	☐	☐
Regular cannabis use always leads to use of other drugs.	☐	☐
When valium is prescribed by the doctor it is beneficial.	☐	☐
Memory is not affected by cannabis.	☐	☐
Children and young people cannot break down alcohol as efficiently as adults.	☐	☐
people who use cannabis just in the weekends do not have any side effects.	☐	☐
There is no evidence that cannabis smoking contributes to lung cancer.	☐	☐
It is not advisable to consume alcohol daily.	☐	☐
Taking lots of pills together is physically and mentally damaging.	☐	☐
It is not possible to become dependent on cannabis.	☐	☐
Being drunk cannot kill you.	☐	☐
High regular doses of cannabis can cause people to see things that are not there.	☐	☐

4. Please read the sentences below and circle the number which best describes what you think. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree.

	Strongly agree				Strongly disagree
Adults who drink alcohol are more sophisticated than those who don't.	1	2	3	4	5
It's safe for people to smoke cannabis, then drive.	1	2	3	4	5
If you have a headache it's OK to take as many pain killers as you want, as often as you need them.	1	2	3	4	5
It's OK for adults to smoke around young children.	1	2	3	4	5
Most high school kids smoke cannabis.	1	2	3	4	5
People who sniff glue have fun.	1	2	3	4	5
Most adults smoke cannabis.	1	2	3	4	5
It's OK to take medicines and pills ordered by the doctor for someone else.	1	2	3	4	5
People who drink alcohol have more friends than those who don't.	1	2	3	4	5
Most adults get drunk.	1	2	3	4	5
People who use drugs have more fun than those who don't.	1	2	3	4	5
People who smoke cigarettes are sophisticated.	1	2	3	4	5
It's OK for adults to take drugs.	1	2	3	4	5
It's dangerous to drink alcohol, then drive.	1	2	3	4	5
It's OK to drink alcohol or use drugs at a party if everyone else does.	1	2	3	4	5
Alcohol can make you sick.	1	2	3	4	5
If your friends drink alcohol or use drugs it's OK to do it too.	1	2	3	4	5

	Strongly agree				Strongly disagree
Most high school students smoke cigarettes.	1	2	3	4	5
If your friend or partner gives you some pills it's OK to take them.	1	2	3	4	5
Most high school kids drink alcohol.	1	2	3	4	5

5. Please read the sentences below and circle the number which best describes what you think. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree.

	Strongly agree				Strongly disagree
It's OK for children of any age to have a drink of alcohol on a special family occasion.	1	2	3	4	5
The best way to deal with a headache is to take a pain killer.	1	2	3	4	5
Adults should be allowed to smoke if they want to, but there should be a law to prevent children under the age of 16 from smoking.	1	2	3	4	5
The drinking age should be lowered to 16.	1	2	3	4	5
The occasional joint of cannabis never hurt anybody.	1	2	3	4	5
Medicines should only be used when other natural remedies won't work.	1	2	3	4	5
It's OK for teenagers to have alcohol at parties.	1	2	3	4	5
A few drinks at the end of the day help you to relax.	1	2	3	4	5
Sports people should be allowed to use performance-enhancing drugs.	1	2	3	4	5
It's OK for kids of intermediate age to experiment with drugs like alcohol and cigarettes, to find out about them.	1	2	3	4	5

6. Please tick the box which shows how many times <u>in the last two weeks you did</u> each of the following things.

	Never	1-3 times	4-5 times	6 times or more
Smoked a cigarette.	☐	☐	☐	☐
Drunk beer.	☐	☐	☐	☐
Drunk wine.	☐	☐	☐	☐
Drunk spirits.	☐	☐	☐	☐
Smoked cannabis.	☐	☐	☐	☐
Sniffed glue or petrol.	☐	☐	☐	☐
Taken pills not given by a doctor.	☐	☐	☐	☐

7. What is your age? _____

8. Are you male or female? **Please tick one.**

Male ☐ Female ☐

9. Ethnic group. **Please tick one, or more if you need to.**

Pakeha/European	☐	Asian	☐
Maori	☐	Other	☐
Pacific Island	☐	If "Other" please explain _____	

10. Marital status. **Please tick one.**

Are you	Married	☐	Single (Never Married)	☐
	Defacto	☐	Single (Divorced)	☐

THANK YOU

APPENDIX H

Adult questionnaire

(post-test)

Massey University
COLLEGE OF HUMANITIES & SOCIAL SCIENCES

School of Psychology
Private Bag 11 222,
Palmerston North,
New Zealand
Telephone: 64 6 356 9099
Facsimile: 64 6 350 5673

This is a survey to find out what you know about drugs. In this survey "drugs" means both legal drugs (such as alcohol and prescription drugs) and illegal drugs such as cannabis. Please try to answer all questions. If you feel uncomfortable about answering a question you can miss it out and go on to the next one. Remember that all your answers are strictly confidential. Answers will be used for the purpose of this research only. Please complete and return this questionnaire using the provided envelope by _____. Thank you for your help.

Questionnaire for adults. **Post-test.**

1. Please put a tick in the boxes next to the things that you think are drugs.

Cough medicine	☐	Chocolate	☐
Cannabis	☐	Glue to sniff	☐
Cigarettes	☐	LSD	☐
Alcohol	☐	Heroin	☐
Cheese	☐	Disprin/pain killers	☐
Coffee	☐	Antibiotics	☐
Tea	☐	Cocaine	☐

2. Read the sentences below and tick what you think. Please only tick one box in each row.

	Yes	No	Don't know
You can get in trouble with the police for smoking cannabis.	☐	☐	☐
Cigarette smoke only harms smokers.	☐	☐	☐
Smoking cannabis is good for your memory.	☐	☐	☐
Sniffing glue or petrol is against the law.	☐	☐	☐
Many accidents are caused by drunk drivers.	☐	☐	☐
Smoking tobacco can be bad for your health.	☐	☐	☐
Sniffing glue or petrol can damage your brain.	☐	☐	☐
Children who are 15 years old are allowed to buy cigarettes.	☐	☐	☐
Some people become violent when they've been drinking alcohol.	☐	☐	☐
Once you start smoking regularly it can be hard to give it up.	☐	☐	☐

3. Please read the sentences below and tick what you think.

	True	False
Alcohol is a relatively harmless product in any quantity.	☐	☐
Regular cannabis use always leads to use of other drugs.	☐	☐
When valium is prescribed by the doctor it is beneficial.	☐	☐
Memory is not affected by cannabis.	☐	☐
Children and young people cannot break down alcohol as efficiently as adults.	☐	☐
people who use cannabis just in the weekends do not have any side effects.	☐	☐
There is no evidence that cannabis smoking contributes to lung cancer.	☐	☐
It is not advisable to consume alcohol daily.	☐	☐
Taking lots of pills together is physically and mentally damaging.	☐	☐
It is not possible to become dependent on cannabis.	☐	☐
Being drunk cannot kill you.	☐	☐
High regular doses of cannabis can cause people to see things that are not there.	☐	☐

4. Please read the sentences below and circle the number which best describes what you think. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree.

	Strongly agree				Strongly disagree
Adults who drink alcohol are more sophisticated than those who don't.	1	2	3	4	5
It's safe for people to smoke cannabis, then drive.	1	2	3	4	5
If you have a headache it's OK to take as many pain killers as you want, as often as you need them.	1	2	3	4	5
It's OK for adults to smoke around young children.	1	2	3	4	5
Most high school kids smoke cannabis.	1	2	3	4	5
People who sniff glue have fun.	1	2	3	4	5
Most adults smoke cannabis.	1	2	3	4	5
It's OK to take medicines and pills ordered by the doctor for someone else.	1	2	3	4	5
People who drink alcohol have more friends than those who don't.	1	2	3	4	5
Most adults get drunk.	1	2	3	4	5
People who use drugs have more fun than those who don't.	1	2	3	4	5
People who smoke cigarettes are sophisticated.	1	2	3	4	5
It's OK for adults to take drugs.	1	2	3	4	5
It's dangerous to drink alcohol, then drive.	1	2	3	4	5
It's OK to drink alcohol or use drugs at a party if everyone else does.	1	2	3	4	5
Alcohol can make you sick.	1	2	3	4	5
If your friends drink alcohol or use drugs it's OK to do it too.	1	2	3	4	5

	Strongly agree				Strongly disagree
Most high school students smoke cigarettes.	1	2	3	4	5
If your friend or partner gives you some pills it's OK to take them.	1	2	3	4	5
Most high school kids drink alcohol.	1	2	3	4	5

5. Please read the sentences below and circle the number which best describes what you think. 1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree.

	Strongly agree				Strongly disagree
It's OK for children of any age to have a drink of alcohol on a special family occasion.	1	2	3	4	5
The best way to deal with a headache is to take a pain killer.	1	2	3	4	5
Adults should be allowed to smoke if they want to, but there should be a law to prevent children under the age of 16 from smoking.	1	2	3	4	5
The drinking age should be lowered to 16.	1	2	3	4	5
The occasional joint of cannabis never hurt anybody.	1	2	3	4	5
Medicines should only be used when other natural remedies won't work.	1	2	3	4	5
It's OK for teenagers to have alcohol at parties.	1	2	3	4	5
A few drinks at the end of the day help you to relax.	1	2	3	4	5
Sports people should be allowed to use performance-enhancing drugs.	1	2	3	4	5
It's OK for kids of intermediate age to experiment with drugs like alcohol and cigarettes, to find out about them.	1	2	3	4	5

6. Have you changed any of your ideas relating to drugs, over the past month?

Please tick one. Yes ☐ No ☐

6a. If "Yes" please explain _____

_____

_____

7. Have you changed your behaviour relative to the use of drugs over the past month?

Please tick one. **Yes** ☐ **No** ☐

7a. If "Yes" Please explain _____

_____

_____

8. Has your child/children ever put pressure on you to change your behaviour in relation to personal drug use?

Please tick one. **Yes** ☐ **No** ☐

8a. If "Yes" Please explain _____

_____

_____

9. Please tick the box which shows how many times <u>in the last two weeks you did</u> each of the following things.

	Never	1-3 times	4-5 times	6 times or more
Smoked a cigarette.	☐	☐	☐	☐
Drunk beer.	☐	☐	☐	☐
Drunk wine.	☐	☐	☐	☐
Drunk spirits.	☐	☐	☐	☐
Smoked cannabis.	☐	☐	☐	☐
Sniffed glue or petrol.	☐	☐	☐	☐
Taken pills not given by a doctor.	☐	☐	☐	☐

10. What is your age? _____

11. Are you male or female? **Please tick one.**

Male ☐ Female ☐

12. Ethnic group. **Please tick one, or more if you need to.**

Pakeha/European	☐	Asian	☐
Maori	☐	Other	☐
Pacific Island	☐	If "Other" please explain _____	

13. Marital status. **Please tick one.**

Are you	Married	☐	Single (never married)	☐
	Defacto	☐	Single (Divorced)	☐

14. Occupation. **Please tick the box that best decribes the occupation of the person who is the main source of income in your home.**

Legislator, administrator, manager	☐	Professional	☐
Technician, associate professional	☐	Clerk	☐
Service, sales worker	☐	Agriculture and fishery	☐
Trades person	☐	Beneficiary	☐
Plant, machine operator, assembler	☐	Armed forces	☐
Elementary (labourers & related services)			☐

THANK YOU