

**The Use Of The Cognitive-Behavioral Relapse Model In Understanding
Individuals With Relapse In Inhalant Abuse: A Preliminary Study**

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BY

Chantal Lisowski

**A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University
of Manitoba in partial fulfillment of the requirements of the degree
of
Master of Education**

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ABSTRACT

The purpose of this preliminary study was to explore the usefulness of Marlatt's Cognitive- Behavioral Relapse model in understanding inhalant abuse relapse. Understanding the nature of relapse through an existing model is fundamental to exploring and understanding inhalant abuse relapse.

The present qualitative study consisted of two in depth interviews, one with an Aboriginal adult female and the other with an Aboriginal adult male. Both are recovering inhalant abusers who had received treatment, although relapsed the day they returned to their community. Analysis of the reports suggest these two individuals report similar relapse factors to those described in the literature by Marlatt's Cognitive-Behavioral Relapse Model (e.g., low perceived self-control/self-efficacy, ineffective cognitive and behavioral responses in the high-risk situation, attending to the positive outcome expectancies for the initial effects of the substance, dissonance conflict and self-attribution). However, the validity of one participant's results may have been compromised due to social desirability factors, lack of rapport with the examiner, and the difficulty in expressing one's true feelings. As the relapse factors are similar, it seems that Marlatt's model could be useful in understanding and explaining inhalant abuse relapse. Both interviewees felt they needed more support in aftercare and stressed that this be "quality" support. In addition, very strong themes of "personal challenges" (e.g., peer pressure to sniff inhalants, extreme difficulty in quitting "sniff") were found.

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Chapter 1

INTRODUCTION

Inhalant abuse is a global phenomenon that has been occurring for thousands of years. Every year, tens and possibly hundreds of Manitoba children and youth begin the destructive journey of inhaling solvents (Solvent Abuse Committee, 1995). Many of these children and youth become chronic users into their adulthood, which not only has lasting and debilitating consequences for them, their families, and the communities they live in, but also places significant and costly burdens on human service systems in the long term.

Inhalant abuse (commonly referred to as solvent abuse) may be described as the wilful and deliberate, deep breathing and prolonged holding in of gases from certain substances to attain a modified state of consciousness, usually described as a euphoric, mind-altering “high” (Fighting Back, 1991). As distinguished from normal breathing or inhalation, inhalant abuse is intentional and voluntary, its only purpose being to draw these inhalants repeatedly deep into the lungs until the desired level of intoxication is reached. Several methods are used to inhale the intoxicating vapors. Most commonly, a rag soaked with the substance is applied to the mouth and nose, and the vapors are breathed in. The substance may also be placed in a paper or plastic bag and the gases in the bag inhaled. Substances may also be inhaled directly from containers or from aerosols sprayed in the mouth and nose. There are reports of individuals heating these compounds to accelerate vaporization. The inhalants reach the lungs, bloodstream, and target sites very rapidly. It should be noted that inhalant abuse is frequently a group activity.

Prevalence

Inhalant abuse is an important and common problem that is increasing in prevalence. McTimoney (1990) notes that there are only a few Canadian studies on the incidence of solvent abuse, and it is usually assumed that Canadian figures will be proportionately similar to those cited in American studies. It is also noted in the literature that due to the stigma attached to sniffing, measures that rely on self-reporting of use likely under-estimate its incidence. Recent American studies and available Canadian studies indicate that between 8% to 20% of students between the ages of 12 and 17 will try solvents at least once in their lives, as many as 10% may become occasional users, and 3 to 4% may become chronic users (Oetting & Beauvais, 1988; McTimoney, 1990; Siegal & Watson, 1992).

In addition, the research demonstrates much higher rates of abuse among specific sub-populations including Aboriginal youth and specific Aboriginal communities, homeless youth, and other high-risk youth and adult groupings. For example, a 1993 Canadian study of 30 Manitoban First Nations reserve communities (Kaweinnehta, 1993) found that 51% of youth were experimental solvent users, 36% were occasional users, and 14% were chronic users. Solvents are among the most damaging of all substances and have lasting and debilitating consequences for these children, their families, and the communities in which they live. Responding to the impact of solvent abuse also places costly burdens on the human service systems in both the short and the long term. Ironically, these substances are abused to an equal or greater extent than any other drug (Johnson, O'Malley, & Bachman, 1987; Oetting & Beauvais, 1990), and yet the public at large is unaware of the existence of inhalant abuse, the

prevalence of this practice, and/or the hazards involved in the abuse of inhalants.

Etiology

The literature describes predisposing factors that exist at the level of the community, the family, and the individual with high degree of connectedness existing among these levels. Within the community, widespread poverty is cited repeatedly as a major factor associated with high risk for inhalant abuse (Siegel & Watson, 1992; Oetting, Edwards, & Beauvais, 1988; Smart, 1992; Spence, 1992; Westermeyer, 1987; Smart et al, 1992; Kaweinnehta, 1993). Higher prevalence of inhalant abuse tends to be reported in communities that have widespread unemployment, poverty, marital and family disorganization, minority status, negative self-image, limited recreational facilities, and lack of opportunity. Other community characteristics may include the widespread and accepted use of inhalants by a large percentage of the adult population. Oetting & Webb (1992) cite anecdotal information suggesting that patterns of inhalant abuse may be intergenerational. Smart (1986) includes a study of nine northern Aboriginal communities in Canada which showed a high correlation between inhalant abuse and communities that were undergoing rapid change and suffering from "acculturation stress." For example, the influx of Aboriginal people from northern Manitoba into the core area of Winnipeg would appear to fit a profile of acculturative stress, and the difficulties associated with poverty and living in a low income neighbourhood.

In addition, a common theme found in the literature is that family dysfunction, along with low income status, the early death of a parent, a history of child abuse, and family alcohol and drug problems increase the risk for inhalant abuse (Oetting & Webb, 1992; Oetting et al,

1988; Smart, 1992; Zur & Yule, 1990; Giovacchini, 1992; Gfellner, 1992). In a Canadian study, Smart (1986) found that 46.2% of respondents reported that they sniffed when there were fights at home, when they felt like getting away from it all, or when they felt depressed and wanted to feel better.

Thus, inhalant abuse may be viewed as a reaction to negative socioeconomic conditions such as poverty, racism, lack of opportunity and family distress. For individuals with little money and intolerable life experiences, inhalants provide a quick and inexpensive way to escape, as well as being involved in a social activity.

The most frequently mentioned factor affecting the choice of inhalant abuse in the circumstances mentioned above is peer pressure (Smart, 1992; Oetting et al, 1988; Creson, 1992; Garriott, 1992; Beauvais, 1992; Spence, 1992). The following section will address this factor affecting individual behaviour.

Peer Pressure

Several sources contradict the common perception of all inhalant abusers as being loners (Zarchikoff, 1992; Cox, 1986; Gilchrist, 1987; Saskatchewan Health, 1994; Medina-Mora & Ortiz, 1988). For young users, in particular, inhalant abuse is frequently a group activity. Studies suggest that inhalant abuse may be an activity that provides a sense of belonging to a group and being accepted by it. Friendships appear to be important factors in inhalant abuse. Oetting & Webb (1992) estimate that more than 75% of inhalant abuse is with friends. Over 70% of gas sniffers surveyed reported that they started sniffing because their

friends did. The study revealed that not only do most gas sniffers say they started to sniff due to friends' persuasion, but even more claimed that they would only quit if their friends did. Thus it appears that peer influence is an important factor regulating inhalant abuse behaviour.

Personal Statement

For the past three years, I have been intensely and extensively involved in studying the area of inhalant abuse. I began researching this topic for a psychopathology course at University when I realized how little is known about this subject. Intrigued, I decided to become involved in studying the different stages of inhalant abuse, namely, the prevention, intervention and treatment. I have since then spoken and done presentations to inform and educate local community organizations at the Addictions Foundation of Manitoba, including Aboriginal reserve educators from Shamattawa, MB., and for clinicians at The Child Guidance Clinic of Winnipeg.

Chapter II

LITERATURE REVIEW

This literature review will describe three out of the four stages that are involved in trying to reduce the incidence of inhalant abuse. The first three are primary prevention, secondary prevention or intervention, and tertiary prevention or treatment (International Institute on Solvent Abuse, 1995). These stages have been well researched. However, the fourth stage, aftercare, has been largely ignored. Understanding the nature of relapse is fundamental to developing effective long-term aftercare for the recovering inhalant abuser. A relapse is defined as one or more uses of inhalants after treatment (Orford & Edwards, 1977). Unfortunately, there is little relapse literature on inhalant abuse and, therefore, one must extrapolate from the existing relapse literature on alcohol and drug abuse. The work of Marlatt and his colleagues offers a cognitive-behavioral model that explains the relapse process. This model has been universally accepted and has had a remarkable influence on the field of "drug addiction" (Allen, Lowman, & Miller, 1996). The following section will describe this model and its potential for explaining relapse in inhalant abuse.

Primary Prevention

The aim of primary prevention is to decrease the possibility of solvent abuse and increase the possibility of growth and development of individuals and groups of children and adolescents (Solvent Abuse Committee, 1995). Programs focused on primary prevention are presented to as many people as possible, but focus especially on youth who have not yet used

solvents. The responsibility for these programs is community wide and the programs take place within the home, at work and/or school. Some programs that are offered include the Eden Youth Inhalant Abuse Information and Training Project (1992) and the Be A Prevention Player (BAPP) Resource for Inhalant Abuse Prevention Education (1997). Both programs have been well received and recognized as prevention education programs and resources.

The problem with many of these prevention programs is that the focus is usually narrow, encompassing only one aspect of prevention, with the most common prevention strategy being the provision of information to children about the ill effects of solvent abuse (Smart, 1986; Spence, 1992). However, Bachrach & Sandler (1984) posit that this information alone will not usually give a child the skills needed to refuse drugs. They emphasize that a passive drug education approach is unlikely to be effective and that community, family and peer influences need to be targeted in tandem.

Secondary Prevention

The goal of secondary prevention is to reorganize and return stability (Solvent Abuse Committee, 1995). A solvent abuse program comprised of secondary prevention would be aimed at at-risk individuals, groups and communities. Secondary prevention programs usually involve crisis intervention and crisis therapy. The intervention is usually made by trained workers and therapy is offered by therapists specially trained to deal with crisis situations and people in crisis (Solvent Abuse Committee, 1995). The intervention usually occurs immediately after the crisis situation, with the victim and whenever possible, with their families. Intervention can take place at home, school, work, community or clinical setting.

On the other hand, one of the problems with intervention programs is that some communities, especially indigenous communities find it difficult to adapt recent mainstream models of intervention as they are not congruent with their values and needs (Brady, 1995). Furthermore, Beauvais (1992) indicates that solvent abusers seem to disappear from school-based surveys beginning in Grade 8, due to early school dropout. As a result, many young inhalant abusers cannot be reached for intervention in the school setting.

Tertiary Prevention

Inhalant abusers are reported as being among the most difficult clients to treat effectively (Beauvais, 1992; Smart, 1992; Zarchikoff, 1992; Oetting & Webb, 1992; Rosenberg & Sharp, 1992), with a great many returning to abusing. Inhalant abusers present considerable differences in their clinical profiles to greatly decrease the likelihood of their successful treatment within mainstream drug and alcohol programs. A fundamental problem is that most programs are designed for adult alcoholics, and are not equipped to deal with the unique problems faced by an adolescent population, and, particularly, with a population abusing solvents.

A major difference between alcohol, drugs, and inhalants is that most alcohol and drugs are designed to be consumed by the body, while inhalants are not. Inhalants are poisonous products, not drugs and they are released slowly from the fatty tissues back into the bloodstream (Solvent Abuse Committee, 1995). Therefore, the complete elimination of volatile inhalants takes much longer than the elimination of alcohol or drugs.

Outside of a general agreement that mainstream drug and alcohol programs do not

work well for inhalant abusers, there appears to be little evidence about what works well with regard to treatment. Some recommend lengthy residential programs (Zarchikoff, 1992; Beauvais, 1992; Saskatchewan Health, 1994). Others indicate that these do not work because in many cases residential programs are unable to address family, social and community issues (McTimoney, 1990; McSherry, 1992). Therefore, clients are being returned to the same conditions that contributed to the development of inhalant abuse.

The analyses of relapse episodes (Cummings, Gordon, & Marlatt, 1980; Marlatt & Gordon, 1980; Marlatt & Gordon, 1985; Marlatt, 1996), indicate there are more similarities than differences in relapses across the various addictive behaviours. The same high-risk situations are frequently found to be associated with relapse, regardless of the particular problem involved (e.g., problem drinking, smoking, gambling, heroin use, or overeating). A high risk situation is defined broadly as any situation that poses a threat to the individual's sense of control over their behaviour and increases the risk of potential relapse (Marlatt & Gordon, 1985). There seems to be a common mechanism underlying the relapse process across addictive behaviours, which could apply to the addiction of inhalants.

The work of Marlatt and his colleagues offers conceptual explanations of the relapse process and the near-universal acceptance of their cognitive-behavioral model has had a remarkable influence on the field of "drug addiction" (Allen, Lowman, & Miller, 1996). A schematic representation of this cognitive-behavioral relapse model is presented in Appendix A.

Marlatt's Cognitive-Behavioral Model of the Relapse Process

The Marlatt model begins with the assumption that an individual experiences a sense of

perceived control (self-efficacy) while maintaining abstinence from their drug addiction. The longer the period of successful abstinence, the greater the individual's perception of self-efficacy. This perceived control will continue until the person encounters a high-risk situation.

If the individual is able to execute an effective cognitive or behavioral response in the high-risk situation, the probability of relapse decreases significantly. The individual who copes successfully with the situation is likely to experience a sense of mastery or perception of control. Successful mastery of one problematic situation is often associated with an expectation of being able to cope successfully with the next challenging event. The expectancy of being able to cope with successive high-risk situations as they develop is closely associated with the notion of self-efficacy (Bandura, 1977), defined as the individual's expectation concerning the capacity to cope with an impending situation or task. As the duration of the abstinence (or period of controlled use) increases, and the individual is able to cope effectively with more and more high-risk situations, perception of control increases cumulatively and the probability of relapse decreases accordingly.

What happens if the individual is not able to cope successfully with a high-risk situation? It may be that the person never acquired the coping skills involved, or that the appropriate response has been inhibited by fear or anxiety. Or, perhaps the individual fails to recognize and respond to the risk involved before it is too late. Whatever the reason, if a coping response is not performed, the person is likely to experience a decrease in self-efficacy, frequently coupled with a sense of helplessness and a tendency to passively give in to the situation (e.g., "It's no use, I can't handle this"). As self-efficacy decreases in the precipitating high-risk situation, one's expectations for coping successfully with subsequent problem

situations also begin to drop. If the situation also involves the temptation to engage in the prohibited behaviour as a means of attempting to cope with the stress involved, the stage is set for a probable relapse.

The probability of relapse is enhanced if the individual holds positive outcome expectancies about the effects of the drug or inhalant use. Often the person will anticipate the immediate positive effects of the drug or inhalant (e.g., the immediate high and the "escape" from various problems etc.) based on past experience, while at the same time ignoring or not attending to the delayed negative consequences involved (e.g., headaches, nausea, possible central nervous system damage etc.). The lure of immediate gratification becomes the dominant figure in the perceptual field, as the reality of the full consequences of using inhalants recedes into the background. Positive outcome expectancies are a primary determinant of alcohol use and other forms of substance abuse (Marlatt & Rohsensow, 1980), and therefore, should figure prominently as determinants of relapse for inhalant abuse as well.

The combination of being unable to cope effectively in a high-risk situation coupled with positive outcome expectancies for the effects of the old habitual coping behaviour greatly increases the probability that an initial lapse will occur. A lapse is defined as any discrete violation of a self-imposed rule or set of regulations governing the rate or pattern of a selected target behaviour (Marlatt & Gordon, 1985). On the one hand, the individual is faced with a high-risk situation with no coping response available; self-efficacy decreases as the person feels less able to exert control. On the other hand, there is the lure of the addictive habit, the drink, the drug, or other substance, or inhalant). At this point, unless a last minute coping response or a sudden change of circumstance occurs, the individual may cross

over the border from abstinence, or controlled use, to relapse, uncontrolled use. Whether or not this first excursion over the line, the first lapse, is followed by a total relapse depends to a large degree on the individual's perception of the "cause" of the lapse and the reactions associated with its occurrence.

The requirement of abstinence is an absolute dictum of treatment (Marlatt & Gordon, 1985). From this all-or-none perspective, a single drink or one sniff of an inhalant is sufficient to violate the rule of abstinence: once committed, the deed cannot be undone. Unfortunately, most people who attempt to stop an old habit, such as drinking or sniffing inhalants, perceive quitting in this "once and for all" manner. To account for the reaction to the transgression of an absolute rule, a mechanism called the Abstinence Violation Effect (AVE) has been postulated (Marlatt, 1978; Marlatt & Gordon, 1980; Marlatt & Gordon, 1985; Marlatt, 1996). The AVE is hypothesized to occur under the following conditions: prior to the first lapse, the individual is personally committed to an extended or indefinite period of abstinence. The intensity of the AVE will vary as a function of several factors, including the degree of external justification, the strength of prior commitment or effort expended to maintain abstinence, the duration of the abstinence period, the presence of significant others, the perception of the initial lapse as a voluntary choice of pre-planned activity, and the subjective value or importance of the prohibited behaviour to the individual. Marlatt & Gordon (1985) hypothesize that the intensity of AVE is augmented by the influence of two key cognitive-affective elements: cognitive dissonance (conflict and guilt) and apersonal attribution effect (blaming the self as the cause of the relapse).

According to Festinger's original theory (1964), cognitive dissonance is assumed to

develop out of a disparity between the individual's cognitions or beliefs about the self, for example, as an abstainer, and the occurrence of a behaviour that is directly incongruent with this self-image (e.g., engaging in the forbidden act). The resulting dissonance is experienced as conflict or guilt ("I shouldn't have, but I did"). This internal conflict acts as a source of motivation to engage in behaviours or cognitions designed to reduce the dissonant reaction. To the extent that the behaviour has been used as a coping response to deal with conflict and guilt in the past, it is likely that the individual will engage in the previously prohibited behaviour in an attempt to reduce the unpleasant reactions. An inhalant abuser, for example, who "falls off the wagon" for the first time may continue to use inhalants after the first lapse in an attempt to relieve the conflict and guilt associated with the transgression itself, particularly if the person used to sniff inhalants in the past when feeling guilty or conflicted. Continued use of inhalants in an attempt to reduce feelings of guilt may be mediated by negative reinforcement (sniffing inhalants to escape from unpleasant emotional states).

It is possible that the individual will attempt to reduce the dissonance associated with the first slip by cognitively altering the self-image so as to bring this in line with the new behaviour. Someone who takes their first "sniff," for example, may reject the former self-image of an abstainer in favor of a new image that is consistent with the emergence of the prohibited behaviour: "This just goes to show that I am a "sniffer" after all, and that I can't control my sniffing once it starts." In either case the result is the same: the probability increases that the lapse will escalate into a full relapse.

The second component of the AVE is a self-attribution effect, wherein the individual attributes the cause of the relapse to personal weakness or failure (Marlatt & Gordon, 1985).

Rather than viewing the lapse as a unique response to a particularly difficult situation, the person is likely to blame the cause of the act on such factors as lack of willpower or internal weakness in the face of temptation. People often draw inferences about their own personality traits, attitudes, and motives from the observation of their own behaviour (Bem, 1972). To the extent that the person feels personally responsible for "giving in," attribution theory predicts that the person will attribute this failure to internal or personal causes. If the lapse is viewed as a personal failure in this manner, the individual's expectancy for continued failure will increase. If one feels weak-willed or powerless for giving in to their first "sniff" or abuse of inhalants, for example, the expectation of resisting the second or third "sniff" is correspondingly lower. Once again, the bottom line is the same: an increased probability that the lapse will soon snowball into a full-blown relapse.

A third factor to be considered in the relapse process is the subjective effect of the substance or activity experienced by the user following the first lapse (Marlatt & Gordon, 1985).

Although these effects differ with the type of drug or other activity, many drugs produce an initial high or state of arousal which is experienced by the individual as a pleasant or euphoric state. Addictions such as alcohol, drugs, inhalants and tobacco produce an initial state of physiological arousal (increased heart rate and other autonomic reactions) that may be subjectively experienced by the user as an increase in energy or power (Marlatt & Gordon, 1985). When this increased sense of power is experienced, the use of the substance to counter the individual's prior feelings of personal powerlessness (low self-efficacy) in the high-risk situation is strongly reinforced.

retrospective responses of persons with addiction to open-ended questions (Cummings, Gordon & Marlatt, 1980; Marlatt, 1996). These questions formed the Reasons for Drinking Questionnaire (RFDQ) and from this, three classifications or factors were found. Results indicated that the predominant factor was negative emotions; the second factor consisted of social pressure and positive emotions; and the third consisted of physical withdrawal, wanting to get high, testing control, substance cues and urges to drink.

Despite the obvious limitations of retrospective self-reports of relapse factors, however, studies continue to replicate Marlatt's essential findings in his early studies of relapse triggers: that contextual factors such as the experience of negative-emotional states and exposure to social pressure constitute high-risk situations for relapse to alcohol and substance use (Hodgins, el-Guebaly & Armstrong, 1995), whether assessed prospectively or retrospectively.

The "good news" about research findings on relapse precipitants is that the assessment of a client's high-risk situations for relapse gives both the client and the therapist a "handle" on how to cope with relapse risks or actual lapses. Rather than viewing "relapse" as an indicator of treatment failure (or as a reason for discharging alcoholics from treatment), it can be dealt with in a pragmatic manner as an error, a lapse, a slip or temporary setback, and not an inevitable collapse on the road to recovery. Teaching people about high-risk situations and how to cope with them more effectively is the essence of relapse prevention.

This study will provide a more personal, first hand look at what two recovering inhalant abusers perceive as important issues regarding their relapse experiences. The individual

This study will provide a more personal, first hand look at what two recovering inhalant abusers perceive as important issues regarding their relapse experiences. The individual interviews will be expected to reflect on issues surrounding similar relapse factors as described by Marlatt's model, as well as on the personal challenges each face everyday (e.g., resisting sniff, difficulty in quitting sniff).

Research Purpose

The purpose of this study was to explore the relapse experiences of recovering inhalant abusers based on the relapse factor's of Marlatt's Cognitive-Behavioral Model of the Relapse Process. The drastic rise in the incidence of inhalant abuse, and the particular risk to Aboriginal peoples is a significant issue and a costly burden for human service systems in both the short and long term. The consequent lifetime impairment of the ability to function mentally, physically, and socially, is of particular concern. Common long-term effects that are characteristic of inhalant users range from psychological to varying degrees of damage to the brain and other organs, with some damage appearing irreversible (Solvent Abuse Committee, 1995). The combination of poor concentration, lack of insight into problems, lack of adequate coping skills, impulsivity, and unpredictability creates problems that leave community workers and counselors feeling frustrated and helpless.

The research question in this study was:

Is Marlatt's Cognitive-Behavioral Relapse Model useful in understanding inhalant abuse relapse? (The following three examples explain what responses/themes would provide support for what aspects of the model)

-Themes pertaining to the negative effects of sniff (e.g., causes a depressed mood, the tendency for violent, suicidal and aggressive behavior) provide support for the “delayed negative consequences” aspect of the model.

-Themes pertaining to the positive effects of sniff (e.g., elevates mood, makes one fearless and pushes away bad problems) provide support for the “positive outcome expectancies” aspect of the model.

-Themes pertaining to being unable to execute an effective cognitive or behavioral response in a high-risk situation (e.g., not assertive in counteracting the social pressures to use sniff), leads to a decrease in the perceived control and self-efficacy aspects of the model.

Chapter III

METHOD

Sample

Originally, four adolescents or young adults that had completed a treatment program and relapsed were to be interviewed separately. Due to subject unavailability, only two adults were able to participate in the study. They were both selected from the researcher's contact (Sue Sinclair) at the Main Street Project Inc., where clients are primarily Aboriginal.

Participants included a thirty year-old Aboriginal female, Susan (pseudonym) and a thirty four year-old Aboriginal male, Dave (pseudonym). Both have completed more than one treatment program and have relapsed each time.

Historically, Aboriginal systems of philosophy, healing, politics and ways of life have suffered injustices from oppressive colonial governments. The impacts of colonialism has threatened Aboriginal communities' health and quality of life, and is reflected in an United Nations report that ranks Canada as having overall one of the highest standards of living while First Nations Communities ranks 60th. High rates of suicide, alcohol and substance abuse among Aboriginal Peoples reflect the need to explore new counselling strategies for Aboriginal healing. Further, Battiste (1995) added the possibility that social stress in Aboriginal communities, indicated by high levels of poverty, alcohol and substance abuse, child abuse, and crime could be diminished solely by a new educational (treatment) system. The call for different and culturally relevant models is clearly needed. Therefore, the findings of this study may point to the need for supporting Aboriginal culturally relevant treatment strategies (Fitznor, 1999)..

Procedure

This research was conducted by using a semi-structured interview guideline incorporating several open-ended questions from Marlatt's Cognitive-Behavioral Model (Appendix B). The interview guideline was developed to provide a systematic guide to the interview process. Each session was tape-recorded (with written consent from the participant, Appendix C), in order to conduct transcript analysis following the interviews. All tapes were destroyed after transcription and pseudonyms were used for both participants and other individuals they talked about. Each participant was given a gift of appreciation for participating in the interview.

Participants

Participants were interviewed for approximately one hour at the Main Street Project Inc. Each interview was guided by the semi-structured interview guideline, and participants were encouraged to discuss any issues they felt were important (e.g., personal feelings and challenges).

Data Analysis

Upon completion of the interviews, the interview tapes were transcribed for analysis. Firstly, each transcript was analyzed for the basic responses to the questions asked in the interview in order to compare similarities and differences in responses of both recovering inhalant abusers. Each transcript was then analyzed by themes (e.g., difficulty quitting or saying "no" to sniff), and then these themes were clustered for higher-order themes (e.g., personal

challenges). A theme is defined as a concept or idea that emerges from the data: some signal trend, some master conception, or key distinction (Bogdan & Biklen, 1992). Themes can be formulated at different levels of abstraction from statements about particular kinds of settings to universal statements about human beings, their behaviour, and situations (Spradley, 1980). Each transcript was analyzed for information regarding the questions asked in the interview, but also for non-verbal information (e.g., avoiding questions by changing the subject, avoiding eye contact), and any factors that may have surfaced beyond the questionnaire format (e.g., social desirability factors). For example, it is not socially desirable to admit that one is abusing one's body (e.g., inhalants) and then continue to do so. This non-verbal information (or observer comments) was integrated with the verbal responses throughout both transcripts as well.

The themes obtained from the interview transcripts of the relapsing inhalant abusers will be compared to Marlatt's Cognitive-Behavioral Model of Relapse.

Limitations

While a qualitative method was deemed appropriate for this exploratory study, the unavailability of suitable participants was an important limitation. A larger number of participants would have added more information, views, and variability to this study. It must also be cautioned that since there were only two participants nonrandomly selected, the results of this preliminary exploratory study may not be generalized. In addition, the validity of Dave's results may have been compromised due to social desirability factors, lack of immediate rapport with the examiner, and the difficulty he had in expressing his true feelings.

Chapter IV

RESULTS

Theme and Cluster Analysis

The following results consist of separate analyses of the themes found within each of two interviews. Each theme will be reported with its frequency of occurrence throughout each interview. The themes were further re-grouped to identify clusters of themes within each interview, and a discussion describing the results from each of the two recovering inhalant abusers interviews follows. The clusters are presented in the order the corresponding themes were recorded during the interview. A “weak” cluster means a low number of total interview responses whereas a “strong” cluster means a high number of total interview responses.

Recovering Inhalant Abuser #1 (Susan)

The interview with Susan was informative as she was quite willing to share her relapse experiences. Rapport was established quickly (Interestingly, Susan and I happened to be wearing the same sweatshirt in a similar colour), and Susan appeared to be genuine and honest in her remarks. In addition, she discussed questions or concerns in an elaborative and seemingly uninhibited manner.

Susan has been “sniffing” since age sixteen. She was first introduced to sniff by her female friend who was “turning tricks for a rag-full of solvent” that they both then shared. Since this first experience, Susan has found it increasingly difficult to quit sniffing as it seems to offer her many positive outcome expectancies (Table 1).

Table 1

Cluster and themes for recovering inhalant abuser #1A

	Number of Responses
Cluster 1: Positive Outcome Expectancies	8
Themes:	
a) To relieve boredom	1
b) To temporarily forget or push away bad feelings/problems (e.g., sexual and emotional abuse)	3
c) To become "fearless"	2
d) To elevate mood and sometimes "trip-out"	2

In Table 1, positive outcome expectancies was the weakest cluster throughout the interview for this recovering inhalant abuser (13% of total interview responses). Positive outcome expectancies are defined as the "anticipated immediate positive effects of the activity based on past experience while at the same time ignoring or not attending to the delayed negative consequences involved." Susan used sniff to relieve boredom (12.5% of cluster responses), to elevate her mood and sometimes "trip-out" (25% of cluster responses), and to become "fearless" so that "no one can do any harm" (25% of cluster responses). It seems more important to Susan that she push away her problems in order to "forget about everything" (37.5% of cluster responses) than any of the other positive outcome expectancies she has regarding sniff. She touched briefly on some of these problems, that she would rather forget. Among these were the sexual and emotional abuse Susan suffered from her family when she was younger.

Table 2

Cluster and themes for recovering inhalant abuser #1B

	Number of Responses
Cluster 2: Delayed Negative Consequences	13
Themes:	
a) Tendency for violent, suicidal and aggressive behaviour	3
b) Lack of hygiene (e.g., has no desire to fix teeth or change dirty clothes)	1
c) Sometimes causes a depressed mood	2
d) Effects body in a negative way (e.g., causes nausea, diarrhea, uncontrollable shaking of the hands, liver/heart/immune system and brain damage)	4
e) Makes one do "crazy things" in order to obtain sniff (e.g., prostitute, scam, mooch and panhandle)	2
f) Lost friends and respect from family ("especially my mom")	1

In Table 2, delayed negative consequences was the second strongest cluster throughout the interview (21.5% of total interview responses). When Susan was asked, "What does sniff do for you that you don't like?" (Appendix B), she recalled these delayed negative consequences of sniff as sometimes making her feel depressed (15% of cluster responses), bringing about a tendency for violent, suicidal and aggressive behaviour (23% of cluster responses), and contributing to a lack of hygiene (8% of cluster responses). Susan explained that this decrease or lack of hygiene occurs when she binges (with sniff): "My hygiene goes down to the point where I don't change my clothes or I don't care about going to the dentist to get my teeth fixed." Other delayed negative consequences of sniff included: the loss of friends and respect from family (especially her mother, 8% of cluster responses),

and it made Susan do some “crazy things in order to get it” (15% of cluster responses). For example, Susan used prostitution, mooching, scamming, and panhandling in order to obtain sniff. Susan was first introduced to prostitution, as a way of obtaining sniff, when she was sixteen years old. She quit this way of life eight years ago and was very proud to have resisted the temptation to go back: “My friend has been peer pressuring me to get back into it (prostitution), but I keep saying ‘no’ because I don’t want to do that anymore.” The delayed negative effects of sniff on her body was also reinforced repeatedly, “it’s very brain-damaging and it gets to you like your liver, lungs, heart and immune system” (31% of cluster responses).

Table 3

Cluster and themes for recovering inhalant abuser #1C

Cluster 3: Personal Challenges Themes:	Number of Responses
a) Peer pressure to use sniff (e.g., cannot say “no” when presented with sniff by friends)	5
b) Took responsibility for her peer’s happiness	2
c) Hard to resist as it is so easily accessible (e.g., street dealers everywhere, can easily purchase sniff anywhere)	3
d) Difficulty quitting or saying “no” to sniff	7
e) Learnt to take compliments from others and talk about her feelings	2

In Table 3, personal challenges was the strongest cluster throughout the interview for this recovering inhalant abuser (31% of total interview responses). Susan perceived her

hardest challenge as the extreme difficulty she has in saying “no” and ultimately quitting sniff altogether (37% of cluster responses). For example, she exclaimed: “I can’t kick it (sniff) no matter how many times I try.” Susan recalled that sometimes she is subject to pressure from her peers and finds that she “can’t say no to sniff” when this happens (26% of cluster responses). In addition, sometimes she took the responsibility for her peers’ happiness by sniffing just to please them (10.5% of cluster responses). For example, if Susan refused sniff offered by one of her peers, she received the following comment: “What’s wrong with you, do you think you’re good or something cause you don’t want to do it (sniff).....do you think you’re better than all of us?” In order to prove them wrong and make them happy, Susan said: “it’s easier to just join them.” When asked if it was very important to her that she make her friends happy, Susan replied: “Yah, cause they are the only friends that I have. I feel pressured to say ‘yes’ - I really don’t have any other choice. If I refuse, then I wouldn’t have any friends.” It is important to note that Susan was able to deal with the peer pressure to prostitute, whereas sniff had a greater “hold” or pressure on her.

Other challenges included the easy accessibility of sniff from street dealers coupled with the ability to purchase sniff at almost every convenience store (16% of cluster responses) and how Susan has learnt to take compliments from others and has started to talk about her feelings (10.5% of cluster responses).

Table 4

Cluster and themes for recovering inhalant abuser #1D

	Number of Responses
Cluster 4: Proactive Themes:	10
a) Prevention education to young children re: the dangers of sniff	5
b) Inform authorities re: street dealers and where you can easily obtain sniff	1
c) Tougher provincial and federal laws re: accessibility (e.g., requiring a "painter's permit in order to purchase paint or lacquer)	3
d) Individualized treatment depending on the type of user (e.g., chronic vs. social user)	1

In Table 4, proactiveness was a moderately strong cluster in the interview (16.5% of total interview responses). Proactiveness is defined as "in favour of promoting change." Susan was proactive in expressing the need for tougher provincial and federal laws regarding the accessibility of solvents (e.g., painter's permit needed in order to purchase paint or lacquer etc.), which comprised 30% of total cluster responses. Susan was also proactive in the persual of informing authorities regarding the whereabouts of street dealers (10% of cluster responses). Susan also felt that treatment (for sniffers) should be individualized depending on the type of user. For example, a different treatment would be given to a chronic user as compared to a social user. The latter three themes (tougher laws, informing authorities, and individualized treatment, however, seemed secondary to Susan's expressed advocacy of educating children regarding the dangers of sniff and, thus, prevent them from ever using sniff (50% of cluster responses). This type of "prevention education" taught by a

long-time user will not only help prevent children from using sniff, Susan hoped, but also make her feel good about herself:

“I can warn them and show them what happened to me and how hard it is for me to quit now....it gets harder every year to quit....I wish someone would have warned me before I started. I think it would help me to talk to the young ones.... I think that would make me feel good about myself. I wish someone would have warned me before I started.”

Table 5

Cluster and themes for recovering inhalant abuser #1E

	Number of Responses
Cluster 5: (Advocacy for) Additional Aftercare Themes:	11
a) Individual support (e.g., counseling)	6
b) Sharing and learning with those in similar situations (e.g., group support meetings)	4
c) Support with empathy and understanding (e.g., no confrontation re: sniff problems etc.)	1

In Table 5, advocacy for additional aftercare was a moderately strong cluster in the interview (18% of total interview responses). Aftercare is defined here as “support or services provided to an individual that had treatment for alcohol and other drug use.” Susan advocated highly for individual support (e.g., counseling) as one of the three things she needs (in terms of additional aftercare) to keep her off sniff when treatment ended (55% of cluster responses). Susan also advocated for group support meetings and added that it would not only help herself, but: “help everybody who sniffs to get off the stuff.” Susan commented negatively on some of the group support meetings already in existence as they “put you down or confront you about your sniffing problems.” Susan felt that this confrontation

is not appropriate, especially for those who have encountered physical and verbal abuse.

Susan added that she was brought up in an abusive environment and notes: "I've been called down my whole life. I don't think I want to sit there and listen to it anymore."

Table 6

Cluster summary for recovering inhalant abuser #1 (Susan)

Cluster	Total Response (out of 61 total)	Weight of Response (% out of 100)
1. Positive Outcome Expectancies	8	13%
2. Delayed Negative Consequences	13	21.5%
3. Personal Challenges	19	31%
4. Proactive	10	16.5%
5. Additional Aftercare	11	18%

Table 6 summarizes the clusters, their totaled responses, and cluster weight of response throughout the interview with Susan, recovering inhalant abuser #1. "Personal challenges" was the strongest cluster for Susan (31%), followed by the "delayed negative consequences" (21.5%), "additional aftercare" (18%), "proactive"(16.5%), and "positive outcome expectancies" (13%); respectively.

Recovering Inhalant Abuser #2 (Dave)

Dave was cooperative with the interview process and seemed to enjoy individual

attention and the opportunity to talk about his experiences with sniff. Dave chose his words very carefully and spoke slowly. He was also very attentive to how I was speaking as he assumed my "sophisticated language" (as he called it) meant that I had a high education. Dave did not make much eye contact when speaking or listening to the questions asked. Instead, he gazed upon the wall in front of him. When Dave had difficulty answering questions, he would try to avoid the question by changing the subject. Much time was spent re-directing Dave and trying to draw relevant information out of him. Given extra time and prompting, Dave eventually complied.

Dave impressed as being cautious about showing his real feelings. The validity of Dave's responses may have been somewhat compromised as a result. Social desirability factors may also play a role here and so caution should be taken in interpreting this data.

Dave has been sniffing solvents since he was fifteen years old. He was first introduced to sniff by his best friend who showed him how to sniff gas from the nozzle attached to the tank of his car. Since this first experience, Dave has found it increasingly difficult to quit sniffing as it seemed to offer him many positive outcome expectancies (Table 7).

Table 7
Cluster and themes for recovering inhalant abuser #2A

	Number	of
Responses		
Cluster 1: Positive Outcome Expectancies		8
Themes:		
a) To help forget about problems and painful memories (e.g., loneliness, frustration, Mother's unhappiness)		4
b) To help relax/be calm		2
c) To enjoy singing		1
d) Decreased inferiority or increased courage		1

In Table 7, "positive outcome expectancies" constituted 16% of total interview responses. Dave used sniff to calm himself down and relax (25% of cluster responses), to allow himself to sing (12.5% of cluster responses), and to make him feel less inferior in front of those who intimidate him (12.5% of cluster responses). It seemed more important to Dave that he use sniff to help him forget about his painful memories (50% of cluster responses) than any of the other themes. Dave was very cautious about revealing too much when the subject of these "painful memories" came up, as if discussing this may be too painful for him.

Table 8

Cluster and themes for recovering inhalant abuser #2B

	Number of Responses
Cluster 2: Delayed Negative Consequences Themes:	6
a) Experienced chest pains as a result of sniffing	1
b) Memory capacity decreased as a result of sniffing	1
c) Disliked the use of sniff to "escape" from pain (e.g., mother is unhappy in nursing home)	1
d) Sniff effected body in a negative way (e.g., "it's burning my insides)	3

In Table 8, the "delayed negative consequences" of sniff was the weakest cluster in the interview (12% of total interview responses). Dave recalled the following consequences with inhibition: he experienced chest pains as a result of sniff (16.6% of cluster responses), his memory capacity has decreased (16.6% of cluster responses), and sniff has effected his body in such a negative way that Dave knowingly admitted: "it's burning my insides"(50% of cluster responses). Dave also disliked his use of sniff to "escape from pain" (16.6% of cluster responses). Ironically, this "escape" was also one of Dave's positive outcome expectancies (Table 7). It is interesting that Dave both liked and disliked his use of sniff to "escape from pain."

Since Dave has reported these negative consequences with such inhibition, they may have been underreported. In addition, social desirability factors may have played a role here as it is not desirable to admit socially that one is abusing one's body (in this case, inhalants) and then continue to do so. Therefore, caution should be taken in interpreting these findings.

Table 9

Cluster and themes for recovering inhalant abuser #2C

Cluster 3: Personal Challenges	Number of Responses
Themes:	29
a) Wanted and needed to change immediate environment to get away from "so-called" friends who provide sniff free of charge	8
b) Afraid to die (e.g., "When I die, I'm going to ask myself if I accomplished everything that the Lord has put me here for?")	1
c) Increased strength in order to say "no" to sniff and eventually quit	12
d) (Wanted to) solve everyday problems one at a time instead of running away from them	6
e) Wanted to achieve the "normal stuff" in life (e.g., job, car, wife, kids)	1
f) Wanted to help other solvent abusers quit sniff once he has healed himself	1

In Table 9, "personal challenges" was the strongest cluster in the interview (58% of total interview responses). When reading the following data, one needs to keep in mind that the affect used may mean more than the actual number of responses tallied for each of Dave's challenges. In addition, it is important to mention the affect manifested when Dave was responding to questions pertaining to each theme. For example, Dave became very emotional (with tears welling up in his eyes) when he talked about being afraid to die and not having accomplished what he was put on earth for (3% of cluster responses). Dave only mentioned this challenge/fear once, although the emphasis on certain words ("afraid to die") and the affect (emotional) used, showed that this was perhaps one of his greatest personal challenges. Another example which may also be underreported (for similar reasons) was Dave's challenge

to “achieve the normal stuff” in life (e.g., job/car/wife/kids, 3% of cluster responses). There was almost a sense of embarrassment (on Dave’s behalf) as if he was expected by society to have achieved some or all of this “normal stuff” by this time in his life. According to Erickson (1950, 1968), it seems as though Dave did not successfully resolve his identity crisis during adolescence and, therefore, may suffer from what Erickson calls “identity confusion.”

Some of the other personal challenges that Dave wanted to overcome include: changing his environment in order to get away from his “so-called” friends that are using and providing him with sniff (28% of cluster responses), then trying to solve everyday problems one at a time instead of running away from them (21 % of cluster responses), and finally to become strong enough to say “no” to sniff and eventually quit (42 % of cluster responses). Dave believed that once he has eliminated sniff from his life, he would like to help others do the same (4% of cluster responses): “I want to quit one day and become a counsellor and help solvent abusers like me....help these people get off this chemical, but first.....I need to help myself.”

Table 10

Cluster and themes for recovering inhalant abuser #2D

	Number of Responses
Cluster 4: (Advocacy for) Additional Aftercare Themes:	7
a) Support from a counselor	5
b) "Quality" support (e.g., a counselor that has overcome similar problems with sniff)	2

In Table 10, "additional aftercare" constituted 14% of total interview responses. Dave advocated strongly for individual support from a counsellor (71% of cluster responses), although it was important to him that this be "quality support" (29% of cluster responses): "One of my major concerns would be to find a person that went through the same things I went through." It was also important to Dave that he was off sniff or "straight for awhile" before talking to a counsellor.

Table 11

Cluster summary for recovering inhalant abuser #2 (Dave)

Cluster	Total Response (out of 50 total)	Weight of Response (% out of 100)
1. Positive Outcome Expectancies	8	16%
2. Delayed Negative Consequences	6	12%
3. Personal Challenges	29	58%
4. Additional Aftercare	7	14%

Table 11 summarizes the clusters, their totaled responses, and cluster weight of response throughout the interview with Dave, recovering inhalant abuser #2. “Personal challenges” was the strongest cluster for Dave (58%), followed by “positive outcome expectancies” (16%), “additional aftercare” (14%), and “delayed negative consequences” (12%); respectively.

Chapter V

DISCUSSION

The purpose of this preliminary study was to determine whether Marlatt's Cognitive-Behavioral Relapse Model is useful in explaining inhalant abuse relapse. Understanding the nature of relapse through an existing model is fundamental to exploring the need to prevent inhalant abuse relapse.

Research Question: Is Marlatt's Cognitive-Behavioral Relapse Model useful in understanding inhalant abuse relapse? The results of this study indicated that many of the relapse factors found in Marlatt's model were useful in analyzing and understanding the interview responses of Susan and Dave.

Marlatt's model (1996) begins with the assumption that an individual experiences a sense of perceived control/self-efficacy while maintaining abstinence from their drug addiction. The longer the period of successful abstinence, the greater the individual's perception of self-efficacy. Bandura (1977) defines self-efficacy as the individual's judgement of his/her capacity of producing the behavior (using one's repertoire of interpersonal and coping skills) that will lead to a particular outcome (abstinence). According to the model, the level of self-efficacy continues until the individual encounters a high-risk situation: If the individual is able to execute an effective cognitive or behavioral response in the high-risk situation, the probability of relapse decreases significantly (Marlatt, 1996). Neither Susan nor Dave was able to cope effectively (e.g. they sniffed the first day back from their last treatment facility) in either of their high-risk situations and, therefore, their perception of control and self-efficacy could be considered low. For example, Susan replied, "I would never say no," when asked if she

could refuse or say “no” to sniff. Dave also said “no” when asked the same question.

At this point, the probability of relapse would be enhanced if the individual anticipated the positive outcome expectancies of sniff based on past experience, while at the same time ignoring or not attending to the delayed negative consequences involved. Both Susan and Dave had positive outcome expectancies (e.g., both found it most important to use sniff to help them forget their painful memories) and delayed negative consequences (e.g., both were most concerned with how sniff affected their body in a negative way) regarding sniff. However, there is no evidence that either of them anticipated these positive outcome expectancies of sniff while at the same time ignoring or not attending to the delayed negative consequences involved. It is important to note here that Susan’s and Dave’s weight of response for the positive expectancies of sniff are relatively the same (13% and 16%; respectively), although Susan reported considerably more delayed negative consequences than Dave (21.5% and 12%; respectively). This difference could be due to social desirability factors (e.g., Dave underreported the delayed negative consequences of his addiction to appear more socially desirable), and/or perhaps Dave was less aware of these delayed negative consequences.

For both Susan and Dave, the combination of being unable to cope effectively in a high-risk situation coupled with the importance of using sniff to “forget painful memories” (positive outcome expectancies) greatly increased the probability that an initial lapse would occur. Whether or not this first use of sniff after treatment, the first lapse, is followed by a total relapse depends to a large degree on the perception of the “cause” of the lapse and the reactions associated with its occurrence. Susan’s perception of the cause of her lapse was a lack of support: “As soon as I got back to Winnipeg from Sagkeeng, I started thinking

about that stuff (sniff) right away. When I came back to Winnipeg, I didn't really have support." Dave's perception of the cause, on the other hand, was to get over the loneliness and frustration about his family: "I needed some chemical to take over that loneliness and frustration about my family. I needed something to help me forget about my pain."

Festinger's original theory of cognitive dissonance (1964) is applied to the addiction context. Cognitive dissonance (conflict or guilt) is assumed to develop out of a disparity between the individual's cognitions or beliefs about the self as an abstainer and the occurrence of a behaviour that is directly incongruent with this self-image (e.g., sniffing after treatment). In order to reduce this cognitive dissonance, Susan used sniff as this was the way she dealt with these unpleasant feelings before. Susan's continued use of inhalants was an attempt to reduce her feelings of guilt, which seems to be mediated by negative reinforcement (sniffing to escape from unpleasant emotional states). For example, Susan used sniff to temporarily forget or push away bad feelings regarding the verbal and sexual abuse she suffered when she was younger, "My main problem now is dealing with the sex abuse – That's why I use sniff now to push back all the feelings there."

The second key cognitive-affective element is a self-attributing effect, wherein the individual attributes the cause of the relapse to personal weakness or failure (Marlatt & Gordon, 1985). Rather than viewing the lapse as a unique response to a particularly difficult situation, Susan and Dave blamed the cause of the act on such factors as lack of willpower or internal weakness when they were tempted. "I don't have enough strength and willpower to

say no," said Dave. Susan said repeatedly, "I don't have the strength to say no." When the lapse is viewed as a personal failure in this manner, their expectancy for continued failure will increase. If they feel weak-willed or powerless for giving in to their first sniff, the expectation of resisting the second or third sniff is correspondingly lower. Once again, the bottom line is the same: an increased probability that the lapse will soon escalate into a full-blown relapse. It is interesting to note here that both Susan and Dave perceive their hardest personal challenge as the difficulty in quitting or saying "no" to sniff. In addition, "personal challenges" was the strongest cluster throughout the interview for both (31% and 58%; respectively), although Dave's weighted response was considerably higher.

Another factor to be considered in the relapse process is the subjective effect of the substance or activity experienced by the user following the first lapse (Marlatt & Gordon, 1985). Inhalants produce an initial state of physiological arousal (increased heart rate and autonomic reactions) that may be subjectively experienced by the user as an increase in energy or power. Susan experienced this sense of courage or power when she was high on sniff. This helped her counter her prior feelings of fear or powerlessness (low self-efficacy) in the high-risk situation and thus, her use of sniff was strongly reinforced. For example, Susan said, "I have the courage when I'm on that stuff – it feels pretty good because I know that no one can do any harm to me. I don't fear anybody and I have courage."

It is important to mention that in comparing the clusters between Susan and Dave, Susan presented an additional area of personal interest that Dave did not discuss in his interview. "Proactiveness" was a moderately strong cluster for Susan (16.5% of the total weight of responses). She was particularly concerned with her pursuit of educating children

regarding the danger's of sniff and, thus, prevent them from ever using sniff (50% of cluster responses). Susan was also proactive in the persual of tougher provincial and federal laws regarding the accessibility of solvents and in informing authorities regarding the whereabouts of street dealers. Susan also felt that treatment (for sniffers) should be individualized based on the type of user.

It seems as though Susan has reached a higher stage of recovery where she has been struggling to abstain from inhalants, although clearly needs more support to help her along. Dave, on the other hand, does not mention abstinence and only talks about using inhalants to get away from the pain.

In conclusion, the results found in this study suggest that many of the relapse factors found in Marlatt's cognitive-behavioral model (low perceived self-control/ self-efficacy, ineffective cognitive and behavioral responses in the high-risk situation, attending to the positive outcome expectancies for the initial effects of the substance, dissonance conflict and self-attribution) were useful in analyzing and understanding the interview responses of Susan and Dave. As the relapse factors are similar, it seems as though Marlatt's model could be used to try to understand inhalant abuse relapse. A more comprehensive and in-depth study needs to be undertaken to see if this model could be applied directly to the inhalant abuse context.

Treatment is meaningless if recovered inhalant abusers (such as Susan and Dave) return to the same environment that fostered their addiction without any additional support. Both Susan and Dave felt that they needed more support in aftercare, although stressed the importance that this be of a "quality support". It is also interesting to note that the data indicated that "additional aftercare" was moderately important in their weight of responses

(18% and 14%; respectively) as it was their third strongest cluster. With continued support for these individuals and their communities, access to growing knowledge on the severity of inhalant abuse, and a better understanding of the process and pitfalls, these recovering inhalant abusers could hopefully have a fighting chance to remain inhalant-free.

Recommendations For Future Research

This study could have been strengthened by taking additional factors into consideration. One possibility could involve interviewing the community workers and counsellors from Main Street Project Inc., that work closely with the participants used in this study. This may provide the reader with another perspective on recovering inhalant abusers and suggest alternate ways to possibly decrease the probability of future relapses. More interviews in this manner would also add more information, perspectives, and variability to this study.

In addition, it would be interesting to see if this preliminary study could be applied to a different type or age group (e.g., adolescent recovering inhalant abusers).

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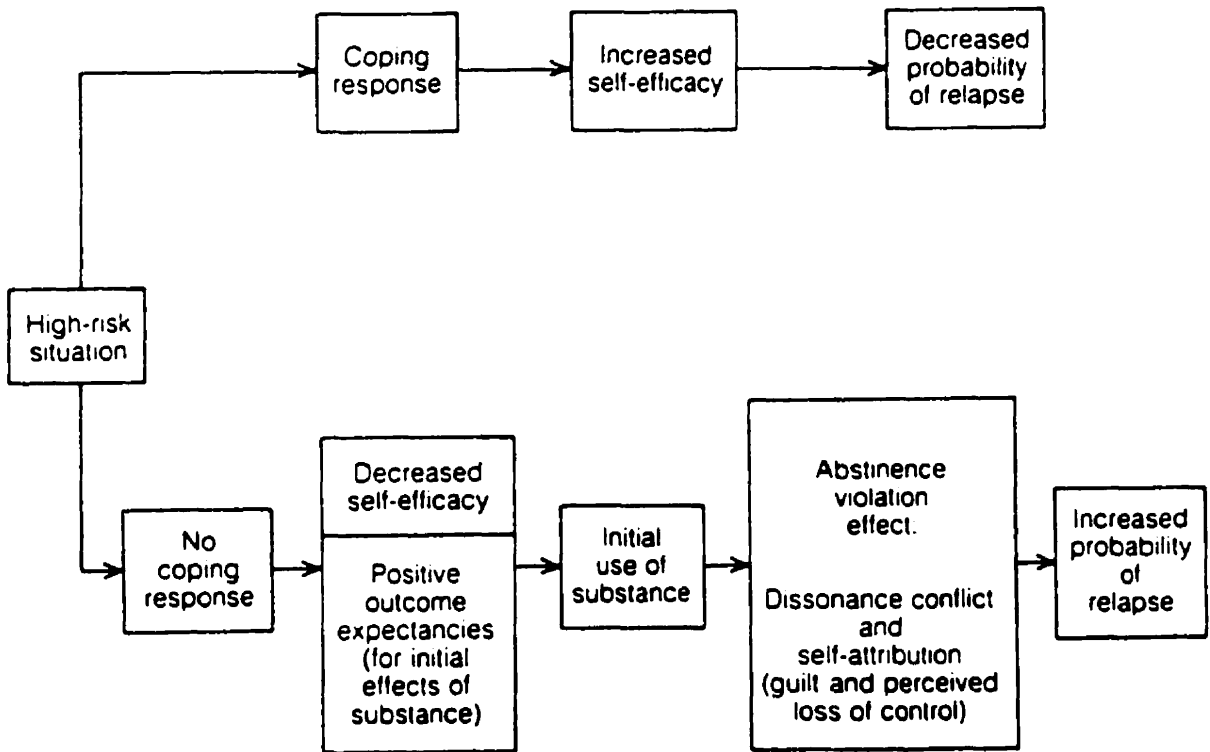
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Epilogue

I am cognizant of the fact that my middle-class, white female background may limit to some extent my understanding of experiences of people in the core area. However, I have been involved in the community since my early school days, helping out on Sundays at soup kitchens and babysitting while parents were clothed and fed. I feel as much empathy and commitment as if they were my own brothers and sisters. It is up to me to convey this to my community. I believe I shall be sensitive and effective.

Appendix A

A Cognitive-Behavioral Model of the Relapse Process (Marlatt, 1996)



Appendix B
Semi-structured Interview for Recovering Inhalant Abusers

What Do I Want To Find Out?

How Will I Find This Out?
What Questions Need To Be Asked?

Perceived Self-Control

1. After treatment, how long were you able to last without using *sniff or sniffing?
2. How many times have you used sniff since treatment ended? (If not given a specific number, ask: 1-3? 4-6? / 7-9? / over 10 times?)
3. Describe the situation around the last time you used sniff? PROBE:
 - Where did it happen? | -
 - Were you alone/ with friends/ or with family?
 - Why did you use sniff this time?
 - Were you planning ahead of time to use it? (whether or not participant felt in control of the decision to use sniff)
4. At the time, were you happy or okay with your decision to use sniff?

Positive Outcome Expectancies

5. What does sniff do for you,
 - that you like?
 - that you don't like?
 - How important is it to you that these things happen?
6. How do you feel about that situation or last use of sniff now?
7. Did someone offer sniff to you after treatment?

Use Of Effective Cognitive Or Behavioral Responses (able to say "no", ability to decision-make & their self-image)

8. How do you feel about refusing sniff/ or saying "no" to sniff? Can you do it?

Appendix B

9. Have you ever felt pressured to use sniff? How do you feel when this happens?

10. Have you ever asked someone to sniff with you?

Perceived Self-Efficacy

11. What kinds of things (behaviours or actions) do you think you need to do in order to stop sniffing?

- In what situations do you think you would need to do these things?

- Do you think it will be difficult for you to do these things? If yes, how difficult will it be?

- How important are these things in stopping you from using sniff?

For each thing (behaviour/action), ask:

1. Can you easily do this _____?

2. Does doing this _____ require a lot of:

- willpower / strength?
- effort / work?
- luck?

3. Do you feel strong enough (confident enough) to do this _____ when you need to?

4. During what times would you use or like to use this _____?

5. Would you like to learn or become better at using this _____?

***SCALE: SNIFF = SLANG TERM USED FOR INHALANTS OR USING INHALANTS**

Appendix C
Permission Form for Recovering Inhalant Abusers

Dear Participant:

I am a graduate student in the Educational Psychology Program in the Faculty of Education at the University of Manitoba. To complete my degree requirements, I will be carrying out a study for my thesis. For the past three years, I have been intensely and extensively involved in the area of inhalant abuse. For example, I have spoken and done presentations to inform and educate local community organizations on the different stages of inhalant abuse, namely the prevention, intervention and treatment.

The purpose of this study is to learn more about what individuals experience after they go through an inhalant abuse treatment program and relapse. I would like to interview you about your relapse experience. The interview will last no longer than one hour and it will take place at a time that is most convenient for you. You will be free to choose to decline any question asked, or withdraw from the interview at any time without penalty.

I will be using audiotapes to record the interviews accurately; however, these audiotapes will be erased at the end of this study in September of 1999. In addition, I will transcribe these audiotapes and use pseudonyms in the transcripts to protect participants' confidentiality.

The final report of the study will be a summary of all the findings without any reference to any individual participant. This summary will be sent out to each participant.

If you have any questions or wish to discuss this matter further with my advisor, please phone Dr. Riva Bartell, Ph.D. at 474-9048/9018.

I, _____, do consent to have Chantal Lisowski conduct an in-depth tape-recorded interview with me. I understand that I can withdraw myself (without penalty) from the interview at any time should I feel it necessary.

Participant's Signature: _____ **Date:** _____

Researcher : Chantal Lisowski
Telephone number: # 452-5192