Treatment Integrity in a Community Based Substance Abuse pilot Program for Individuals With Concurrent Disorders

by

Jessica Nickason

A thesis submitted to the School of Community Services in partial fulfillment of the requirements for the degree of Bachelor of Applied Arts in Behavioural Psychology

St. Lawrence College
Kingston, Ontario
Canada
April, 2008
ABSTRACT

The purpose of this study was to examine the treatment integrity of a substance abuse pilot program delivered in a community setting to individuals with concurrent disorders. Referrals were made from within a mental health agency and participants were selected using information from a semi-structured, pre-program interview. Five participants were selected to take part in the program, all male, with an age range of 21 to 53 years. Psychological disorders of participants varied from paranoid schizophrenia, attention deficit disorder (ADD), depression, and posttraumatic stress disorder. Two of the participants were seeking treatment for marijuana use and three participants were seeking treatment for alcohol use. The program consisted of nineteen, two-hour sessions, divided into four modules. Program sessions were held twice a week at a vocational resource center. The program included a facilitator, co-facilitator and observer. Using direct observation, data on treatment integrity was collected by the observer during each session using a task analysis checklist. In addition, participant satisfaction surveys were administered at the end of each module and a program evaluation feedback form was completed during the final session. Results from the treatment integrity checklist specified that 58.75% of the program content was delivered by facilitators, with a standard deviation of 15.35. A chi-square analysis was used to investigate the data indicating a significant difference between the expected amount of content delivered versus the actual amount of content delivered in each session, $X^2(1, n = 2) = 4.52, p < .05$. A two tailed t-test for related samples was used to analyse the participant satisfaction surveys finding significant results at the .05 level of confidence on modules one and two for statement five $t(2) = 4.303, p < .05$. It was concluded that relapse prevention techniques could be implemented in an integrated service delivery model. In addition, this research advocated for the inclusion of participants with co-occurring psychological disorders in treatment studies for addictive disorders.
ACKNOWLEDGMENTS

I would like to thank Lana Di Fazio, my thesis supervisor who provided me with feedback and guidance throughout this entire experience. I thank Steve Dine for giving me the opportunity to work on this project. To the program facilitators and all involved at the agency, a big thank you for your help in getting this program off the ground. I would like to send a special thank you to all of my professors at St. Lawrence College; all of whom I have gone to during this study for advice and direction. Finally, thank you to my friends who supported and encouraged me over the past four years.
# Table of Contents

ABSTRACT.................................................................................................................................... ii  
ACKNOWLEDGMENTS ............................................................................................................. iii  
LIST OF TABLES AND FIGURES............................................................................................... v  
Chapter I: Introduction .................................................................................................................... 1  
  Purpose of the Study ................................................................................................................... 2  
  Overview ..................................................................................................................................... 2  
Chapter II: Literature Review ......................................................................................................... 3  
  Addiction and Relapse Prevention .............................................................................................. 3  
  Treatment Considerations ........................................................................................................... 4  
  Substance Abuse and Corrections Research ............................................................................... 5  
  Implementation and Program Integrity ....................................................................................... 6  
Chapter III: Format/Methodology ................................................................................................... 9  
  Participants .................................................................................................................................. 9  
  Design of Project ........................................................................................................................ 9  
  Measures ................................................................................................................................... 10  
  Procedure .................................................................................................................................. 10  
Chapter IV: Results ....................................................................................................................... 12  
Chapter V: Discussion .................................................................................................................... 16  
  Program Changes ...................................................................................................................... 16  
  Strengths ................................................................................................................................... 17  
  Limitations ................................................................................................................................. 17  
  Multi-Level Challenges to Service Implementation ................................................................. 18  
  Contribution to Behavioural Psychology Field ........................................................................ 18  
  Recommendations for Treatment Research .............................................................................. 19  
Reference ...................................................................................................................................... 20  
Appendices.................................................................................................................................... 22  
  Appendix A: Pre-Program Interview ........................................................................................ 22  
  Appendix B: Treatment Integrity Checklist ............................................................................... 32  
  Appendix C: Participant Satisfaction Survey—Module One ..................................................... 33  
  Appendix C: Participant Satisfaction Survey—Module Two ..................................................... 34  
  Appendix C: Participant Satisfaction Survey—Module Three ................................................... 35  
  Appendix C: Participant Satisfaction Survey—Module Four .................................................... 36  
  Appendix D: Program Evaluation Feedback ............................................................................ 37  
  Appendix E: Graph for total percentage of content delivered with a trend line ....................... 38  
  Appendix F: Raw scores for participant satisfaction surveys ................................................... 39  
  Appendix G: Raw scores for program evaluation surveys ....................................................... 40
LIST OF TABLES AND FIGURES

Table 1. Treatment integrity results for implementation checklist .......................... 23
Figure 1. Total percentage of content delivered ......................................................... 24
Figure 2. Frequency distribution for participant satisfaction surveys for module one and
two ......................................................................................................................... 25
Figure 3. Frequency distribution for participant satisfaction surveys for module three and
four ......................................................................................................................... 26
Chapter I: Introduction

The term concurrent disorder is used to refer to an individual diagnosed with a mental illness and substance use disorder (SUD). Traditionally, persons who suffered from a concurrent disorder received separate and independent mental health and substance abuse treatment (Calderwood & Christie, 2003). Other names used to refer to concurrent disorders are: comorbid disorder, dual diagnosis, and co-occurring disorders. Mental health services have long viewed mental illness as a disease and have been focused on the use of psychotropic medication with the aid of medical professionals for treatment. Substance abuse on the other hand has not been viewed as a disease, but considered to be ‘bad’ behaviour that complicated treatment or as an attempt to self medicate. A split in the services, provisions and treatments provided for substance abuse and mental health professionals has resulted in poorer treatment outcomes for an individual with concurrent disorders as compared to a person with a single diagnosis. Identification of some of the additional challenges to assessment and diagnosis of concurrent disorders has demonstrated a strong need for more empirically validated, research based, intervention models.

Skills based approaches have utilised cognitive-behavioural therapy (CBT), and have emerged in the field as highly successful models of treatment for substance abuse. These models emphasised social learning theory (SLT), which highlight the role of cognitive, emotional, and environmental influences on the shaping and maintenance of substance use behaviour.

Many clinical and epidemiological studies have demonstrated the association between substance abuse and mental illness. In a survey of twenty thousand persons in the United States, The Epidemiological Catchment Area Study (ECA) conducted by Regier et al., (1990) found that having a psychiatric illness places an individual at twice the risk for alcohol use disorder; and more than four times the risk for drug use disorder. Looking at it from a substance abuse perspective, the association between mental illness and SUD is strengthened further. Individuals with drug dependence are nearly seven times more likely to report a severe mental illness than those without drug dependence. Clinical studies reported by Bennett (in Miller & Weisner, 2002) have demonstrated similar results between mental illness and SUD, indicating that one-third to three-quarters of general psychiatric patients meet the criteria for concurrent disorder. Within this group an alcohol use disorder places an individual at three times greater risk, and a drug disorder places an individual at five times greater risk for a concurrent mental illness. With such a high prevalence rate it is almost certain that all mental health and social service workers will at one time or another come into contact with clients with a concurrent disorder.

Concurrent disorders have a far greater impact on the individual’s overall functioning than single diagnosis patients. Bennett (2002) also reported that persons with concurrent disorders have more severe symptoms of mental illness, more hospitalisations, more frequent relapses, poorer life functioning, higher rates of violence and suicide, increased risk of homelessness, and more legal involvements than single diagnosis individuals. An increased array of impairments experienced by concurrent disordered clients results in clinicians experiencing additional difficulties in discerning client symptomology. Clinicians are faced with discriminating which of the client’s symptoms are due to psychological processes and which are due to the presence of substances. The overlap of symptoms makes it hard for professionals to provide correct assessment in order to deliver effective treatment for one or both of the disorders present. In addition to this, clients may not be forthcoming with information about their patterns of alcohol and substance use, leaving it up to the clinician to discern if there is a concurrent
disorder present, and the severity of this issue. Clearly, whether examining the issue from either a mental health or substance abuse perspective, the added variables that arise with the combination of these disorders have significant effects on clients that must be addressed.

Treatment outcomes for individuals with concurrent disorders have been less promising than outcomes for individuals with a single SUD or psychological disorder. Individuals with a concurrent disorder have poorer treatment retention and compliance, with symptoms of mental illness being reported as the best predictor of relapse to substance use (Glen & Parsons, 1991). Rosenthal and Westreich (in Miller & Weisner, 2002) stated that clients with a concurrent disorder are often under-diagnosed and undertreated. There is a significant lack of addictions training provided to front line mental health workers, while addiction specialists often do not receive specialised mental health training. The largest problem observed for clients with concurrent disorders is the lack of an integrated treatment system providing mental health and substance abuse treatment in the same setting.

Taking all of these issues into consideration it can be concluded that coordinating services and delivering substance abuse treatment in conjunction with current mental health services will be more effective and produce greater outcomes than if each disorder is treated as independent and separate illnesses. With information regarding the severity of this issue it is necessary to look towards ways to provide more effective and empirically validated services to concurrent disorder individuals displaying a variety of needs.

**Purpose of the Study**

The aim of this thesis was to evaluate the treatment integrity of a substance abuse pilot program delivered in the community to individuals with concurrent disorders. The rationale behind this study was to examine if Relapse Prevention (RP) techniques could be implemented using an integrated service delivery model, and if RP techniques could be used as a treatment technique for individuals with a SUD in combination with a persistent mental illness.

**Overview**

The first chapter of this study consisted of a literature review of RP techniques and its application to addictive disorders. A brief examination of the underlying psychological theory behind RP, SLT, and the major postulations of this theory regarding addictions are discussed. This chapter looked at the role of an individual’s beliefs, expectancies, perceived self-efficacy, as well as the importance and impact of self-monitoring in RP. Following the introduction to RP, the chapter discussed responsivity issues that arise when including individuals with concurrent disorders in treatments studies. Global considerations such as poverty and homelessness are brought to attention as well as specific responsivity factors that need to be taken into consideration when developing treatment groups. Finally, similarities between incarcerated offenders receiving treatment for SUD and individuals with concurrent disorders in the community were drawn. An examination of correctional research into what works for offenders receiving treatment while incarcerated was discussed and used as a starting off point for effective programs delivered in the community, highlighting the importance of treatment integrity.

The second chapter reported the methodology and implementation of the pilot program and provided samples of the different evaluation tools used in this study. Results of the evaluation tools are reported along with a discussion of the findings. Finally, a summary of results and observations as well as the strengths and limitations of this study are addressed and reported.
Chapter II: Literature Review

Addiction and Relapse Prevention

For the last several decades’ traditional models of addiction have focused their attention on the etiology of addiction rather than on understanding how to change addiction. Just like any physiological disease, it was thought that if one could determine the cause of addiction then, and only then, could one discover how to treat and prevent addiction in the future. Many theories of addiction have emerged from this perspective with several treatment modalities following, such as Alcoholics Anonymous/Narcotics Anonymous, self-help, and support groups. Since the 1980s, RP has emerged as a successful treatment approach for individuals with addictive disorders. Many empirical studies have surfaced supporting the use and effectiveness of RP techniques. Within the literature, support for RP techniques in group and individual formats have become known (Schmitz et al., 1997), in addition to RP treatment for gambling addictions (Echeburua, Fernandez-Montalvo, & Baez, 2000), smoking cessation (Davis & Glaros, 1986), eating disorders (Mines & Merrill, 1987) and substance use disorders (Weiss, Najavits, & Greenfield, 1998).

Relapse Prevention, defined by Marlatt and Gordon (1985), is “a generic term that refers to strategies designed to prevent relapse in the area of addictive behaviour” (p. 3). The etiology of addiction follows from self-regulatory theory (Bandura, 1986). The self-regulatory model focuses on the determinants of behaviours and the consequences that follow. This model implies that addictions are acquired through over learned maladaptive habit patterns. The behaviours are considered to be maladaptive because over time they lead to delayed negative consequences. An example of a maladaptive habit pattern would be drinking to reduce stress or over eating to reduce boredom. In reference to addiction, it is the individual’s beliefs and expectations of substance use, as well as the situational and environmental factors that play a major role in the development of an addiction. By understanding the consequences of substance use for an individual it is possible to determine the reinforcing and maintaining properties of substance abuse that contribute to increased frequency.

An important factor in self-regulation and RP is the perceived self-efficacy a person has in controlling and regulating their addictive behaviour. Most psychological theories and interventions have focused their attention on the acquisition of knowledge and performance of skills. There has often been little consideration of the individual’s belief in their own ability and knowledge, or how this belief can affect the individual’s motivation and commitment to change. “Perceived self-efficacy is defined as people’s judgments of their capabilities to organise and execute courses of action required to attain designated types of performances (Bandura, 1986, p. 391)” (Burleson & Kaminer, 2005). In a study of eighty-eight adolescents with substance use disorder, Burleson and Kaminer (2005) investigated if a higher self-efficacy rating was a predictor to abstinence from substances regardless of the treatment condition. A second goal of this study was to explore if youth assigned to cognitive behavioural therapy, with a focus on enhancement of self-efficacy showed superior self-efficacy compared to youth assigned to a non-cognitive behavioural condition. The author’s concluded that measures of self-efficacy were reliable in predicting drug use during treatment. The second goal of the study was only partially supported by the research findings. The author’s suggested that other factors such as the individuals readiness to change, expectancies, therapeutic alliance, and engagement in treatment were all factors that have an effect on self-efficacy; not just the treatment condition.

Specific intervention strategies of RP include self-monitoring, instructions on recognising high-risk situations, modeling, behavioural rehearsal, self-efficacy ratings and feedback. Self-
monitoring has been at the cornerstone of behavioural change theory and is generally considered to be the first step to behaviour change. Self-monitoring techniques in RP are used to reintroduce conscious awareness into the addictive process, which is thought to have a dehabitualising effect for the individual (Marlatt & Gordon, 1985).

Self-monitoring is the procedure of collecting and recording the occurrence of one’s own target behaviours. According to Nelson and Hayes (1981) there are two stages to self-monitoring: observing that the behaviour has occurred and recording the occurrence of the observed behaviour. Data collected by the client is more convenient and readily accessible than with an independent observer. The act of self-monitoring itself produces alterations in response frequency known as reactivity of self-monitoring. The authors examined two different theories of reactivity to self-monitoring and offered their own expansion and synthesis of these theories.

In the cognitive view of self-management Kafner (in Nelson & Hayes, 1981) proposed a three stage model to self-regulation; self-monitoring, self-evaluation, and self-reinforcement/punishment. The cognitive aspects of self-monitoring are the self-evaluation and the overt/covert self-administered consequences contingent on the occurrence of the target behaviour. In this model the individual’s criterion for the target behaviour, and information obtained from self-monitoring is used to evaluate and reinforce improvements of performance to increase the frequency of self-regulation behaviour. Rachlin, (in Nelson & Hayes, 1981) with an operant view of reactivity, agreed that reactivity begins with the recording of the occurrence of the target behaviour. The self-administered consequences, delivered contingent on the occurrence of the target behaviour, served as a cue to remind the individual of the external environmental consequences that control the response frequency of behaviour. In an extension of the operant view of reactivity, Nelson and Hayes (1981) agreed that it is the external consequences delivered that controls the response frequency, but, the stimulus that triggers the environmental consequence is the self-recording procedure itself. Self-recording procedures can include the therapist’s instructions, the recording device, and any training received, in addition to the cognitive aspects mentioned by Kafner.

It has been found in reviewing the literature that studies of treatments for addictive disorders have often excluded persons with a psychological disorder from treatment studies. This is not to say that RP techniques have not been found to be effective interventions for persons with a psychiatric illness. In a pilot study using cognitive therapy and RP for individuals with bi-polar disorder Lam et al., (2000) recruited twenty-five manic-depressive bi-polar patients to a randomised pilot study of cognitive therapy and RP. Participants were randomly assigned to either the therapy group (N=12) or the control group (N=11). The control group was ‘treatment as usual’, consisting of routine outpatient and multidisciplinary input from a clinical team. The therapy group consisted of ‘treatment as usual’ in addition to cognitive therapy and RP for approximately six months. Results of this pilot study reported that the control group exhibited more episodes of mania, hypomania, depression, total bi-polar episodes, and hospitalisations than the therapy group. Results of this study were particularly encouraging because in addition to faring better in terms of psychiatric symptoms, the therapy group also performed better on social functioning, self-control behaviour, and coping.

Treatment Considerations

Although explanations for excluding individuals with psychiatric disorders were not given in the research reviewed, it would appear that the added variables presented in participants due to having an additional psychiatric illnesses account for the underlying reasons for their exclusion in treatment studies. Osher and Kofoed (1989) discussed some noteworthy issues that
presented challenges to having individuals with concurrent disorders included in substance abuse treatment studies. Such issues included the heterogeneity of individuals with concurrent disorders, such as differences in the severity of the SUD and psychological disorder. Differences in the substances used, prescribed medications and the degree of dysfunction are all factors that make it extremely difficult to develop a homogeneous group with common variables to use as a control or comparison for obtained results. Although the authors did not specify that the known challenges of concurrent disorders are the reason behind exclusion from research studies, it would appear that professionals in the field are aware of such issues and take them into consideration when developing exclusionary criteria for treatment groups.

There are also many global considerations that must be taken into account when developing exclusionary criteria to treatment studies. Drake and Mueser (2000) reviewed treatment considerations for persons with concurrent disorders. The authors reported that such factors as a high poverty rate, poorer education and illiteracy, as well as a lack of vocational skills contribute to individuals with concurrent disorder experiencing difficulty in treatment studies. Societal issues such as higher rates of homelessness and legal issues often impact negatively on participants in treatment studies and contribute to higher attrition rates. The additional obstacles experienced by individuals with concurrent disorders such as depression, suicidal tendencies, and medication non-compliance, are factors that appear to contribute to treatment exclusion. Clearly, there are many issues to take into account when developing treatment programs for individuals with concurrent disorders.

**Substance Abuse and Corrections Research**

There are many known similarities between incarcerated offenders who received substance abuse treatment within institutional settings in Canada and individuals receiving substance abuse treatment in a mental health outpatient treatment programs. Offenders typically have poor social skills, and come from impoverished neighborhoods. Frequently they are poorly educated and lack literacy skills, have modest vocational abilities, legal issues, and very often have an underlying psychological disorder. The heterogeneity of offenders is also seen in regards to the type and severity of substances used, their level of dysfunction, and presenting symptoms of either the SUD or psychiatric diagnosis, in addition to criminal activities. When compared to Drake and Mueser (2000) the similarities between individuals with psychiatric disorders and incarcerated offenders are many and appear to make comparison of the literature acceptable. It seems plausible that research in what works for offenders can be utilised and adapted to determine effective intervention and programming strategies for individuals with concurrent disorders.

A considerable amount of literature has emerged addressing risk, need, and responsivity principles and their effect on treatment outcomes in correctional programming. Risk refers to matching the intensity of the program to the risk of the offender; high-risk offenders should receive high intensity programming while low risk offenders receive low intensity programming. The need principle states that for programs to be effective they should target the dynamic risk factors of the offenders and their criminogenic needs. Finally, the responsivity principle states that the style and mode of program implementation should be matched to the learning style, cognitive ability, and motivation of the offender. Dowden and Andrews (2004) reported that programs incorporating all three principles into their therapeutic framework have had the most reduction in recidivism rates and greater treatment gains.

These principles were put forth in order to guide rehabilitation efforts for offenders in order to determine what works in reducing recidivism rates. Hubbard (2007) stated that the
responsivity principle has been the least researched of the three principles but has the potential to have the most impact on treatment outcomes. It was reported by the author that there are two types of responsivity, general and specific. General responsivity incorporates the idea that programs are more successful if they utilise a variety of different teaching tools and strategies developed to target the greatest amount of learning styles of the participants. This refers to having many different teaching strategies throughout a program that emphasises verbal, visual, and auditory learning styles of the offenders. The general responsivity principle requires that programs incorporate such techniques as role-plays, problem solving, verbal and visual educational aids, and behavioural rehearsal to reach as many individual learning styles in the program as possible. Andrews (2001) principle of general responsivity suggested the use of the most powerful and effective intervention strategies identified for human beings. The most effective identified intervention strategies that target general responsivity are structured behavioural, social learning and cognitive-behavioural influence models.

The principle of specific responsivity is the notion that personal characteristics such as age, gender, race, intelligence, self-esteem, motivation and history of learning may make the individual more or less acquiescent to treatment. An individual’s personal characteristics such as self-esteem or age may make a person more or less agreeable to treatment and could have a significant impact, positive or negative, on treatment outcomes. These specific responsivity factors must be taken into consideration by clinicians when selecting participants for a treatment group in order to increase their probability of success.

**Implementation and Program Integrity**

Within program research and evaluation treatment integrity is an important aspect to examine in order to ensure that the manipulation of the independent variable occurred as planned. Moncher and Prinz (1991) distinguished two separate, but related issues in regards to treatment integrity. The first issue is related to whether the treatment condition is implemented as it was intended, treatment integrity. The second consideration refers to whether conditions differ from the other in the intended manner so that manipulation of the variables occurs as planned and is referred to as treatment differentiation.

Traditional methods of program evaluation were guided by outcomes of the intervention or treatment. Individuals were assessed, assigned to a control or treatment group, and then re-assessed at follow-up to identify changes in behaviour and functioning. Information about the treatment as it is actually delivered provides evaluators with valuable information about aspects of the interventions that have been only partially implemented, or implemented in a different form than was intended. In order to evaluate the degree of treatment integrity delivered in a different form clinicians must first determine the resemblance between how the treatment was actually implemented compared to the intended treatment implementation (Moos & Finney, 1983).

There are many added incentives to including treatment integrity findings into program evaluations. In addition to being able to provide program staff with information and feedback regarding the implementation of the program, evaluators can provide program facilitators with corrective feedback in order to monitor and improve program delivery. Moncher and Prinz (1991) outlined the methodological problems of psychological research when treatment integrity fails to be demonstrated. In order to make a fair comparison of treatments it is necessary to demonstrate treatment integrity to maintain internal validity. Treatment integrity also pertains to external validity in that replication and evaluation of a treatment requires precise documentation of content and implementation.
In a review of treatment studies, Moncher and Prinz (1991) examined 359 treatment outcome studies for promotion and verification of treatment integrity. The studies reviewed included psychosocial interventions designed to treat a specific problem and had to contain an experimental manipulation of treatment and reports of data. Verification and promotion of treatment integrity was conceptualized as (a) use of treatment manuals for uniformity, (b) supervision of treatment agents to promote adherence to protocol, and (c) checking adherence to protocol by examining actual events in treatment. Of the three procedures used, use of treatment manuals, was found to be the most common within 31.5% of the reviewed studies. In addition, supervision of treatment agents appeared in 21.4% of the studies, and checked adherence to protocol appeared in 18.1% of the studies. Of all the studies reviewed only 5.5% used all three methods for promotion and verification of treatment integrity.

The principle of treatment integrity in program implementation and delivery (Andrews, 2001) has been identified in the literature as a necessary component of effective programming in the treatment of offenders. Andrews stated that treatment integrity in programming is “enhanced when a highly specific and concrete version of a rational and empirically sound theory is employed” (p. 4). The specificity of a concrete empirically sound theory yields the use and production of training and program manuals, such as the one used in this study. The integrity of the program is enhanced when staff are selected, trained, and supervised in the use and delivery of the specific program manual and theory.

A fundamental principle of applied behaviour analysis is that empirical demonstration of changes in observed behaviour must be attributed to manipulations of the independent variable. Failure on the part of researchers and clinicians to gather data on treatment integrity, the independent variable, compromises the accuracy and thoroughness of experimental procedures (DiGennaro & Reed, 2007). Noell, Gresham, and Gansle (2002) stated, “inconsistent, inaccurate and unknown levels of implementation of the independent variable creates threats to the study’s internal validity” (p. 52). In addition, failure to assess the accuracy of implementation provides obstacles to the replication and extension of a treatment study. The authors reported preliminary evidence that treatment integrity does matter, and that reduced treatment integrity appears to decrease treatment effectiveness.

Decisions regarding new or existing interventions can also be swayed by treatment integrity. Rezmovic (1984) discusses treatment integrity for programs under evaluation and reported that if a treatment is found to be superior to a comparison treatment then the decision to adopt the particular intervention is valid. Equally, if a treatment fails to demonstrate superiority then the decision to discard the treatment is validated. When a treatment is not implemented as it was designed or intended, decisions to retain or discard a particular treatment may or may not be valid. For these reasons data regarding treatment integrity should be a standard for all policymakers when making decisions regarding the superiority of a treatment and the decision to adopt a specific treatment based on the perceived effectiveness of the intervention.

DiGennaro and Reed (2007) reviewed 152 studies from the Journal of Applied Behaviour Analysis and reported that approximately one-third, or 30%, of the studies included treatment integrity data. The authors also reported that studies that were at the highest risk for inaccurate implementation were interventions implemented by community support services, as they were less likely to be implemented or supervised by researchers. Access to treatment integrity data can assist behaviour analysts with their decisions to modify or make changes to a particular intervention, or to assess if additional training is required for change agents.
The substance abuse program used in this study was modeled and adapted after a correctional program for incarcerated offenders. The program was adapted to target substance use and mental illness in an attempt to answer the need for integrated services for individuals with concurrent disorders. The first step in determining the effectiveness of the adapted program is to record and monitor the implementation of the independent variable. Once an accurate depiction of the actual implementation of the program is established, it is then possible to modify the program to increase the treatment outcomes for participants. The ability to ascertain the effectiveness of a RP program delivered in an integrated service delivery model will allow researchers to make comparisons between traditional models of substance abuse treatment and determine which treatment modality is most effective for treatment of concurrent disorders.
Chapter III: Format/Methodology

This implementation study examined a variety of characteristics of the clients and facilitators who participated in the substance abuse program. Data collected provided information to the agency and program facilitators regarding improvements in the implementation and delivery of the program.

Participants

Participants for the program were selected based on referrals from within the mental health agency. Prior to the start of the program the facilitators interviewed the referred clients using a semi-structured pre-program interview (Appendix A). The program facilitators, using information derived from the pre-program interview, selected participants based on their capability to identify specific situational and environmental variables surrounding their substance use. The variables that were examined in the pre-program interview were the people, places, and events that contributed to the participant’s substance use, as well as information regarding periods of time when interviewees abstained from substances and the reasons contributing to their return to substance use.

Upon completion of the pre-program interview five individuals (N=5) were selected to participate in the program. All of the participants were male, with an age range of 21 to 52 years old, Caucasian, and un-employed. Two of the program participants lived independently, two participants lived at home with their parents, and one participant lived in an in-patient psychiatric unit at the time of the study. Psychiatric diagnoses of participants included paranoid schizophrenic, attention deficit disorder (ADD), depression, and posttraumatic stress disorder (PTSD). Two of the participants were seeking treatment for marijuana use and the remaining three participants sought treatment for alcohol use.

There were a total of nineteen sessions in the program, which was held twice a week for two hours in the afternoon at a mental health vocational resource centre that was familiar to all of the participants. The program consisted of a facilitator, a co-facilitator, and an observer. The facilitator and co-facilitator for the program were Assertive Community Care Team (ACCT) members. Both facilitators were trained Registered Practical Nurses (RPN) who had completed forty hours of training in RP techniques approximately three-months prior to the start of the program. The facilitators had no prior experience with RP techniques and no formal training in program delivery. The observer was a fourth year college student with training in behavioural techniques. The observer collected all data through direct observation during the program sessions. Interrater reliability was not collected on data as the program participants expressed discomfort in having an additional, unfamiliar, observer attend the sessions.

Design of Project

The role of the observer was to attend all sessions of the program in its entirety, and gather data concerning the facilitator’s implementation of the program. The observer gathered implementation data using direct observation and a treatment integrity checklist (Appendix B) in the form of a task-analysis for each session. In addition to gathering data on delivery of the program content, the observer was also in charge of administering confidential participant satisfaction surveys and a program evaluation feedback form. There were three hypotheses stated for this study. The main hypothesis of this study was that the program facilitators would follow the program manual and deliver the program as intended. Results from the implementation checklist would then yield a score of 100%, indicating that all program content had been delivered. A second hypothesis for this study was that the facilitators would deliver equal amounts of content during sessions one to eight and sessions ten to nineteen. Finally, regarding
participant satisfaction surveys, participants were expected to respond to each statement in a neutral manner.

**Measures**

Data on the average number of sessions and the average number of consecutive sessions attended by group participants was gathered using direct observation. Consecutive sessions attended were defined as two or more sessions attended in a row. Information about the characteristics of participants who completed the program as well as information about participants who did not complete the program was gathered. This data was collected using the agency’s case files and through direct observation during the program sessions. The variables that were analysed were age, gender, marital status, education, employment, living situation, and general mental health.

The treatment integrity checklist was developed and completed during each session by the observer and was used to determine the percentage of the program content that was actually delivered by the facilitators. The checklist consisted of a task analysis following the structured procedures of each session. Direct observation of each session was used to determine if each task was implemented by placing a checkmark in either the complete or not complete section of the checklist. Information obtained was used to calculate the percentage of the program content as implemented and completed by the program facilitators.

Process notes and participant satisfaction surveys (Appendix C) were used to corroborate data collected using the treatment integrity checklist in order to make recommendations for training and improvements in the delivery of the program. The participant satisfaction surveys were distributed at the end of each module, with a total of four surveys completed by the end of the program. The participant satisfaction surveys consisted of five statements concerning the overall satisfaction of the program, and five statements regarding specific material and techniques covered in the previous module. All statements were scored on a 5-point Likert scale, ranging from 1= strongly disagree to 5= strongly agree. Information gathered was used to make recommendations for improvement to the delivery and implementation of the program as well as to make changes and recommendations to worksheets and exercises that participants identified as not helpful or difficult to follow and complete. Changes made to the program were done with the intention of improving material in order that responsivity issues were adequately addressed and accounted for in the delivery of the program.

During the final session of the program participants were required to complete a confidential Program Evaluation Survey (Appendix D). This survey consisted of ten statements relating to the presentation and delivery of the program and the facilitators. The evaluation survey was scored on a 4-point Likert scale ranging from 1=poor to 4=excellent.

**Procedure**

The observer was introduced to the participants during the beginning of the program. The participants were informed that the observer was a student at the local college and would be collecting data regarding the facilitator’s delivery of the program content. Program participants were informed that their performance in the program was not being assessed and that they would be asked to complete satisfaction surveys throughout the program. Informed consent was obtained from participants and program facilitators during the first and second sessions of the program. The role of the observer was to attend all sessions and to collect data through direct observation regarding adherence to the program manual and to provide feedback and observations of data to the agency team manager.
Module one of the program consisted of five sessions and was an introduction to participants, facilitators, and the program. The material covered in these sessions included the development of guidelines and program expectations, an introduction to basic interpersonal skills, goal setting, and the stages of change model. The program facilitators defined the difference between a slip versus a relapse, substance abuse, and other terms such as dependence, withdrawal and tolerance, in order for all participants to understand the terminology use during the program. Facilitators discussed the importance of self-monitoring to behaviour change and participants were advised that self-monitoring would be an on-going requirement throughout the remainder of the program. Confidential participant satisfaction surveys were distributed and completed by the participants at the end of each module.

Module two started with an introduction to Marlatt’s Relapse Prevention Model and the relapse process. Participants completed the Inventory of Drug Taking Situations (IDTS) and confidence questionnaire (Annis & Martin, 1985) in order to identify their most high-risk situations, and to determine where participants felt the least confident in their ability to abstain. The IDTS questionnaires were discussed and used to identify each participant’s top ten triggers to use, and to begin formulating the relapse prevention plans. Participants were introduced to different models of thinking to help them avoid relapse and to learn the ways in which an individual’s thinking can lead to a slip or relapse. The last session in the module was an individual session in which each of the participants met with the facilitators for twenty to thirty minutes to discuss any concerns either party may have had during the program. This session was also used to review and answer questions regarding any of the material covered, and to complete any un-finished worksheets.

Module three started the process of relapse prevention planning. Program participants received an introduction to problem solving and coping by thinking techniques. Different types of thinking distortions were reviewed in this module. Participants learned how risky thoughts could be harmful and participants were introduced to the process of challenging these risky thoughts using cognitive restructuring techniques. Participants also learned how to identify harmful beliefs that they may have about themselves, others, and the world around them. Once they identified these beliefs strategies were taught how to challenge these beliefs.

Finally, module four expanded on the interpersonal skills introduced during module one by having participants examine and discuss how each of the skills can be applied to individuals or events in their lives. These skills were used to help participants complete their relapse prevention plans. The remainder of this module consisted of finishing at least three relapse prevention plans, program evaluations, and a discussion of the purpose and importance of attending maintenance sessions.
Chapter IV: Results

In total, three of the five participants completed the program. The data collected showed that the participants attended an average of 11.4 sessions and seven was the average number of consecutive sessions attended. Participants who completed the program were male, Caucasian, with an age range of 23 to 52 years old. All lived in the community, two independently, and one with his family. None of the participants reported involvement in a relationship. Program completers were un-employed and received disability benefits. Two had achieved a grade eleven education, and one had graduated from secondary school.

Program non-completers were male, Caucasian, with an age range of 21 to 22 years old. One of the non-completers lived within a psychiatric treatment unit, and the other lived at home. Both had achieved a grade eleven education but were unemployed. One of the non-completers was reportedly involved in a relationship; no data was obtained on the current relationship status of the remaining non-completer.

The main hypothesis, that program facilitators would follow the program manual and deliver all of the program content, was not supported. Test results from the treatment integrity checklist indicated that program facilitators did not follow the program manual as specified and deliver all of the program content. The mean amount of content delivered during the program was 58.75% with a standard deviation of 15.35. Table 1 reports statistical data for the entire program overall, as well as data treatment integrity data for sessions one to eight and ten to nineteen. A visual analysis of the treatment integrity checklist can be seen in Figure 1.

Table 1: Treatment integrity results for implementation checklist.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Overall</td>
<td>58.75</td>
<td>15.35</td>
</tr>
<tr>
<td>Sessions one to eight</td>
<td>69.52</td>
<td>9.17</td>
</tr>
<tr>
<td>Sessions ten to nineteen</td>
<td>50</td>
<td>14.93</td>
</tr>
</tbody>
</table>
Figure 1: Total percentage of content delivered during each session of a substance abuse program.

Figure 1 illustrates a descending trend in the data points (Appendix E), indicating that the percentage of content delivered in the program decreased as the program progressed. Session nine was an individual session designed to help participants complete unfinished worksheets and catch up on any material missed during the previous eight sessions. It was hypothesised that the facilitators would deliver the same amount of content during session ten to nineteen as they did in sessions one to eight. A chi-square analysis was used to evaluate the data obtained. The hypothesis was not supported as facilitators showed significant differences between the expected delivered content versus the total amount of content delivered in each session $X^2 (1, n = 2) = 4.52, p < .05$. When comparing session one to eight versus sessions ten to nineteen a large effect size of 1.5 for phi-coefficient specified that the facilitators delivered less content during sessions ten to nineteen than was expected.

Participant satisfaction questionnaires were analysed on a per statement basis using a two-tailed t-test for related samples. For this analysis only statements one to five were analysed. The rationale was that statements one to five were the same for all modules, which allowed for comparisons of the obtained data. Statements six to ten were different for each module and consisted of statements regarding particular material and techniques covered in the preceding module.

The null hypothesis for this test was that participants would respond in a neutral manner, in this case as a three. Question five for modules one and two on the participant satisfaction surveys was the only item that showed statistical significance, which indicated that participants would recommend the program to others $t(2) = 4.303, p < .05$.

Figure 2 shows the frequency distribution for scores given for statements six to ten for modules one and two.
No statistical tests were conducted on statements six to ten on the participant satisfaction surveys due to the small sample size. In addition, because these statements were different for each module comparisons of scores were not possible. It can be seen that scores for modules one and two ranged from two to five with twenty-two, or 73.3% of the scores being a four or five. Figure 3 reports the respondent scores for statements six to ten on modules three and four.

It can be seen that the respondent scores given to statements six to ten, for module three and four, ranged from three to five with nineteen, or 95% of the scores being a four or five. See Appendix F for raw scores on all participant satisfaction surveys. In total, forty-one, or 82% of all the scores on the participant satisfaction surveys where above a three.

In addition, participants completed confidential Program Evaluations during the final session of the program. Due to the small number of respondents statistical analysis of the data was not possible. Raw scores for the program evaluations can be seen in Appendix G. Of particular interest is statement five, which was rated the lowest amongst all statements by both respondents. Both respondents rated the pace of each session as satisfactory and scored this statement as a two. Respondents rated statement eight of the program evaluation the highest. This statement was rated as excellent, and received a score of four by both participants. This indicated that the respondents felt that there was enough opportunity to ask questions throughout the program. The statement that reported the most range, with a score of two and four, was
statement ten. Participants appeared to offer the most variation in their opinion of how helpful
the skills presented in the program were to them as an individual. One respondent reported that
the skills presented in the program were satisfactory in terms of how helpful they were to him as
an individual, and the other respondent rated the same statement as excellent.
Chapter V: Discussion

The aim of this study was to evaluate the treatment integrity of a substance abuse pilot program delivered in an integrated treatment setting. There were three hypotheses. First, it was expected that facilitators of the program would deliver the entire program content as directed by the program manual. Second, it was expected that the same percentage of program content would be delivered in sessions one to eight as sessions ten to nineteen. The third hypothesis was that participants would respond to the participant satisfaction surveys in a neutral manner.

The first two hypotheses of the study were rejected. The overall implementation of the program content was 58.75%. Statistical and visual analysis indicated that facilitators delivered a smaller percentage of the program during sessions ten to nineteen than during sessions one to eight. Being that the program was successive, and each session of the sessions built off of the previous session, it would appear that a decrease in content delivery would result if the program were not followed as specified by the manual. The third hypothesis was rejected. Statistically significant results were found for statement five on the participant satisfaction surveys for modules one and two. Results indicated that participants responded positively to this statement and they would recommend the program to others.

In addition to the data gathered for the study information was also gleaned through the implementation of the program regarding substance use behaviour. Self-report outcome data indicated a positive change in behaviour. By the time the fourteen-week program ended one participant reported being substance free for ten weeks, and a second participant reported approximately five weeks. For the third participant a smaller but noteworthy change was reported. He reported up to twelve consecutive days without substance use for the first time in approximately twenty years.

Highlights from the program evaluations drew attention to the pace of the program, the opportunity to ask questions, and relevance of the material. Participants appeared least satisfied with the pace of the sessions. It appears that this was affected by specific responsivity factors. Several of the program participants were unable to read or write, due in part to a lack of education, information processing and underlying psychological disorders. Extra time and attention was required of the facilitators in order to complete all of worksheets and exercises. This did not appear to affect the participant’s ability to understand the material and concepts but resulted in less of the program content delivered. Process notes taken during observations specify that facilitators often ran out of time towards the end of the sessions. The highest rated statement was the opportunity to ask questions during the program, which indicates that participants felt they had enough opportunity to be engaged during the program. The biggest range found was concerning the relevance of the program material to each participant. This was reflected in the self-report outcome data on substance use behaviour.

Finally, differences were observed in program participants for completers versus non-completers. Program non-completers were, on average, younger than program completers. Environmental factors such as societal norms condoning substance use for youth appear to have made behaviour change more challenging. Factors such as the client’s motivation, readiness to change, and perceived self-efficacy also appeared to have an impact on the treatment outcomes for all participants.

Program Changes

Self-monitoring is considered to be the cornerstone of behavioural change theory and is thought of as the first step to behaviour change. The importance of self-monitoring was reiterated during the pre-program interview and throughout the first module of the program. Participants
however appeared incapable or unmotivated to complete self-monitoring tasks assigned as homework. This could have been due to motivation or responsivity factors. As a result, the program facilitators did not assign self-monitoring homework and all of the self-monitoring tasks were completed by memory during the program sessions. This reduced the accuracy of the data as well as the impact self-monitoring itself has on the participants. As self-monitoring is considered to be a necessary component to behaviour change, not completing the self-monitoring exercises as the program manual specified may have had an impact on the effectiveness of the program.

The role of the observer was also extended beyond that originally intended for the purpose of the study due to familiarity of the material. In addition to observing during the sessions, collecting treatment integrity data, and administering surveys the observer also assisted facilitators and participants when necessary during program sessions. Examples of such interventions included the delivery of RP techniques that facilitators were unfamiliar with and providing extra assistance to participants when completing worksheets and exercises.

**Strengths**

A major strength of this study is the ability to replicate and extend the findings. A structured, manualised technique was followed, which contributed to the reliability and internal validity of the study and aided in maintaining treatment integrity. Use of the same treatment integrity checklists, participant satisfaction surveys, and program evaluation feedback forms will allow for comparisons of future results.

Feedback data was collected through participant satisfaction surveys, program evaluations and treatment integrity checklist. Two perspectives, the observer and the participants provided a more complete assessment of program. The implementation checklist provided facilitators with the ability to review the material that was omitted during the original implementation. Satisfaction surveys provided facilitators with information regarding material that the participants found challenging. The program evaluations provided feedback regarding how well the facilitators met the needs of the participants.

**Limitations**

Because this program was piloted for the first time with a concurrent disorder population no standards exist with which to compare treatment integrity data. Although the program was adapted to meet the needs of concurrent disorders these adaptations have not been studied within the literature. This was the first time the facilitators delivered the program, which implied a learning process and influenced the treatment integrity findings. The results of this study are to be taken as a starting point to build further treatment integrity. Once facilitators are more familiar and comfortable with the material information regarding outcomes and effectiveness can be gathered.

A further limitation of this study was the inability to collect data on interobserver agreement. Data obtained was collected by the observer alone and should be interpreted with caution; as no data are available regarding observer bias or other confounding variables.

It is assumed that the participant satisfaction and program evaluation surveys were biased by the fact that only those participants that completed the program and attended the final session were available to complete all of the surveys. Eighty-two percent of positive scores on participant satisfaction surveys were obtained. If all participants, completers and non-completers, had been available to complete the surveys less positive results would be expected.
Multi-Level Challenges to Service Implementation

There are many challenges to overcome when delivering a substance abuse program to individuals with concurrent disorders. At the client level, working within the motivational stage of each participant can be challenging as each individual starts the program in a different stage or state of readiness to change. In some cases moving the participants from one stage to another can be considered treatment success. The different psychological disorders made it difficult for facilitators to carry on with the program material at times due to interfering psychological processes. This was especially apparent with participants who had a diagnosis of paranoid schizophrenia. Visual and auditory hallucinations made it challenging for these participants to concentrate on program material and would sometimes require the participant to leave the room to avoid panic attacks. Suicidal attempts were also apparent with this diagnosis; one participant had to be removed from the program due to parasuicidal behaviour that rendered him unable to continue attending sessions.

At the program level of service delivery several challenges were presented. The initial training of the facilitators occurred approximately three months prior to the implementation of the program. As the facilitators had a medical background material on RP presented a challenge. Limited time for facilitators to prepare each session also made delivery of the program challenging.

At the organizational level allotting the time and resources of the facilitators presented additional challenges to the implementation of the program. A place to hold the program sessions that was easy to access for all was difficult to obtain. Time for facilitators to adequately prepare and review for each session was not readily available due to additional commitments within the organization. It appears that the resources necessary to run a group in a structured format are not readily available and that organization staffs were already working with limited time and resources. Eight man-hours a week, to prepare for and deliver the program was thought to be excessive for a substance abuse program in an agency where staff and time were already considered limited for the amount of clients that the organization serviced.

Finally, at the societal level many people do not feel that contributing additional time and effort to the development of a substance abuse treatment programs is a worthwhile cause. Within the concurrent disorder population stigma is an especially relevant issue. There is a stigmatising attitude towards individuals experiencing mental illnesses, particularly if the individual is unable to work. This stigma is doubled if the individual has a co-occurring SUD. Society often views substance use as a choice rather than an illness. The stigma that is associated with substance abuse, as well as mental illness, appeared to contribute to the decrease in motivation of clients, as many reported feelings of failure due to their inability to contribute as productive individuals in society.

Contribution to Behavioural Psychology Field

The study presented here contributed to the field of behavioural psychology in answering a need for an integrated service delivery system for individuals with concurrent disorders. This study shows that treatment providers can deliver integrated treatment, and with training can follow a structured treatment manual. The inclusion of individuals with psychological disorders in this treatment study adds to the body literature that has previously proven the effectiveness of RP, but has excluded individuals with psychological disorders. This study contributes to the behavioural psychology field by gathering evidence that individuals with concurrent disorders can participate in CBT studies. Participants were able to identify and modify their own behaviour with assistance and guidance from clinicians. The participants appeared to be satisfied.
with the services that they received based on the satisfaction surveys completed. Further supporting the development of an integrated service delivery model.

Finally, by gathering and reporting on treatment integrity data clinicians can make changes to the program to increase treatment integrity and eventually to improve the overall effectiveness of the treatment.

**Recommendations for Treatment Research**

Future research recommended for this study includes examining the effects of facilitator training on treatment integrity. Examining different types of training, the amount of time spent on training, and the amount of time between the end of training and the onset of program delivery will help identify further ways to maintain and increase treatment integrity. Future research on examining the correlation between treatment integrity and treatment outcomes can further support research indicating that greater treatment integrity leads to improved treatment outcomes. This information can also provide guidelines to the amount of treatment integrity necessary to provide significant treatment outcomes, as well as the impact of specific components of the independent variable on treatment outcomes.

(Total word count 8,630)
Reference


Calderwood, K., & Christie, R. (2003). Increasing linkages between addiction and mental health services in Ontario. *Center for Addictions and Mental Health*


Appendices

Appendix A: Pre-Program Interview

Pre-Program Interview

Program Delivered

Moderate □

Low □

Participant

Please Print

Family Name: ________________________

Given Name: ________________________
Interviewer

Name: ____________________________________________

Interview Date: ____________________________

YYYY/MM/DD

Program Site: ____________________________________

2004
Reprinted with permission from Steve Dine, 2008.
**INTRODUCTION TO THE INTERVIEW**

*Introduce yourself and explain the purpose of this interview and how it will be conducted.*

*Review the dates of the program to ensure the individual is available to complete the program.*

### Interview Questions - Opening Segment

**What are your views of being interviewed to take this program?**

**Do you have any concerns about your substance use?**

**How does your substance use and mental illness fit together?**

**Have you thought about making changes to your substance use?**

The rest of the interview will focus on each of these areas, one at a time, so I can gain a better understanding of your drug and alcohol consumption.
When You First Drank

5. How old were you when your first drank?

6. Who were you with the first time you drank?

7. What were you drinking?

8. Where were you when you first drank?

9. Looking back on it now, what were your reasons for drinking for the first time?

10. In what kind of situation did you drink for the first time?

When You First Used Drugs

11. When did you use drugs for the first time?  Age?

12. Who were you with the first time you used drugs?

13. What were the drugs you did during this time?

14. Where were you when you first used drugs?

15. Looking back on it now, what were your reasons for using drugs for the first time?
16. In what kind of situation did you use drugs for the first time?

<table>
<thead>
<tr>
<th>When Drinking or Using on a Regular Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. When did you started drinking on a regular basis? Age?</td>
</tr>
</tbody>
</table>

18. What were you drinking when you started working on a regular basis?

19. How much were you drinking at this time?

20. Who were you with when you were drinking on a regular basis?

21. Where were you when you were drinking on a regular basis?

22. What were some of the significant lifestyle changes that you noticed once you started drinking on a regular basis?

23. Looking back on it now, what were your reasons for drinking on a regular basis?

24. When did you start using drugs on a regular basis? Age?

<table>
<thead>
<tr>
<th>When Using Drugs on a Regular Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. What kinds of drugs were you using on a regular basis?</td>
</tr>
</tbody>
</table>

26. How much were you using on a regular basis?

27. Who were you with when you started using drugs on a regular basis?

28. Where were you?

29. What were some of the significant lifestyle changes that you noticed once you started using drugs on a regular basis?
30. Looking back on it now what were your reasons for using drugs on a regular basis?

31. When did you reach your peak use of alcohol? Age?

32. During your peak use of alcohol what were you drinking?

33. Who were you with during the period of time of your peak use of alcohol?

34. Where were you during this time?

35. During your peak use of alcohol how much were you drinking?

36. What were some of the significant lifestyle changes you noticed during your peak use of alcohol?

37. When did you reach your peak drug use? Age?

38. During your peak drug use period what kinds of drugs were you using?

39. How were you using these drugs?

40. How much were you using during your peak drug use period?

41. Who were you with during your peak drugs use?

42. Where were you during your peak drug use time?

43. What were some of the significant lifestyle changes you noticed during your peak use of drugs?

Explain: Now we want to go back to the timeline and add, or look for, any times that you cut down, or stopped drinking or using drugs. I need to understand more about these ‘breaks in the action.’

Breaks in the action (Note: look for periods of time on the timeline when s/he stopped using. Can be
44. What were the times when you stopped using? For each time (but for no more than 3 time periods),

<table>
<thead>
<tr>
<th>Age</th>
<th>Age</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>45. Why did you stop?</td>
<td>45. Why did you stop?</td>
<td>45. Why did you stop?</td>
</tr>
<tr>
<td>□ Work reasons</td>
<td>□ Work reasons</td>
<td>□ Work reasons</td>
</tr>
<tr>
<td>□ School reasons</td>
<td>□ School reasons</td>
<td>□ School reasons</td>
</tr>
<tr>
<td>□ Financial</td>
<td>□ Financial</td>
<td>□ Financial</td>
</tr>
<tr>
<td>□ Family</td>
<td>□ Family</td>
<td>□ Family</td>
</tr>
<tr>
<td>□ Friends</td>
<td>□ Friends</td>
<td>□ Friends</td>
</tr>
<tr>
<td>□ Relationship/marital</td>
<td>□ Relationship/marital</td>
<td>□ Relationship/marital</td>
</tr>
<tr>
<td>□ Leisure</td>
<td>□ Leisure</td>
<td>□ Leisure</td>
</tr>
<tr>
<td>□ Medical</td>
<td>□ Medical</td>
<td>□ Medical</td>
</tr>
<tr>
<td>□ Mental well-being</td>
<td>□ Mental well-being</td>
<td>□ Mental well-being</td>
</tr>
<tr>
<td>□ Jail</td>
<td>□ Jail</td>
<td>□ Jail</td>
</tr>
<tr>
<td>□ Probation/Parole</td>
<td>□ Probation/Parole</td>
<td>□ Probation/Parole</td>
</tr>
<tr>
<td>□ Other:</td>
<td>□ Other:</td>
<td>□ Other:</td>
</tr>
</tbody>
</table>

46. How long did you not use?  

| □ Work reasons | □ School reasons | □ Financial |
| □ Family | □ Friends | □ Relationship/marital |
| □ Leisure | □ Medical | □ Mental well-being |
| □ Jail | □ Probation/Parole | □ Other: |

47. What helped you to not use?  

48. Why did you start using again?
<table>
<thead>
<tr>
<th>To have a good time</th>
<th>To have a good time</th>
<th>To have a good time</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get rid of unpleasant emotions</td>
<td>To get rid of unpleasant emotions</td>
<td>To get rid of unpleasant emotions</td>
</tr>
<tr>
<td>Pressure from friends/family</td>
<td>Pressure from friends/family</td>
<td>Pressure from friends/family</td>
</tr>
<tr>
<td>Conflict with others</td>
<td>Conflict with others</td>
<td>Conflict with others</td>
</tr>
<tr>
<td>Get rid of pain</td>
<td>Get rid of pain</td>
<td>Get rid of pain</td>
</tr>
<tr>
<td>Get rid of cravings</td>
<td>Get rid of cravings</td>
<td>Get rid of cravings</td>
</tr>
<tr>
<td>Test self control</td>
<td>Test self control</td>
<td>Test self control</td>
</tr>
<tr>
<td>Boredom</td>
<td>Boredom</td>
<td>Boredom</td>
</tr>
<tr>
<td>Cure withdrawal symptoms</td>
<td>Cure withdrawal symptoms</td>
<td>Cure withdrawal symptoms</td>
</tr>
<tr>
<td>Other:</td>
<td>Other:</td>
<td>Other:</td>
</tr>
</tbody>
</table>

### Previous Programs

49. Have you taken other substance abuse programs in the past?

No
Yes. List programs/when/where:

<table>
<thead>
<tr>
<th>Helpful</th>
<th>Not Helpful</th>
</tr>
</thead>
</table>

50. What are some things you found helpful and not helpful with these other programs?

51. We’ve looked at your whole life history of alcohol and drug use during this interview. Looking back at it now, overall, how has your substance use helped and harmed you? (what are the good things and not so good things from your substance use?)

**Note:** Prompt each of the life areas.

<table>
<thead>
<tr>
<th>Helped</th>
<th>Harmed</th>
</tr>
</thead>
</table>

29
### Overall Note: Check according to the participant’s view, not the interviewer’s view.

<table>
<thead>
<tr>
<th>Helped</th>
<th>Harmed</th>
<th>No effect</th>
<th>Helped</th>
<th>Harmed</th>
<th>No effect</th>
<th>Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td>School</td>
<td>Financial</td>
<td>Family</td>
<td>Friends</td>
<td>Partners</td>
<td>Leisure</td>
<td>Physical Health</td>
</tr>
</tbody>
</table>

### Looking Ahead

52. What are some goals you have set for yourself?

53. What are you planning to do in order for you to reach these goals?

54. What is the role substance use will play in your plans?

55. Do you think you need help changing your substance use? Why or why not?

56. Overall, what are you hoping to get from taking this program?
57. What suggestions can you give me that would help you get the most from this program?

58. Is there anything else we have not talked about that you think is important for me to know? What are some barriers that may influence your treatment outcome?

Provide an overview of the program, such as the hours, structure of the sessions, expectations.

Explain the consent form and inform the client that they will be required to sign.

Ask for and answer any remaining questions the client has of the program.
Appendix B: Treatment Inegrity Checklist

Session 1

Introductions- all group participants introduce themselves to the other members. Tell members of their interests, age, diagnosis, substance abuse problems, etc.

What happened…

Overview of Program Structure and Expectations
Discuss dates, time, and location of program.
Protocol for absences and lateness.
Explain homework and program requirements.
Discuss confidentiality and limits to confidentiality.
Review and sign ‘therapy contract’.

What happened…

Program Expectations
Each member comes up with one program goal.
Each member comes up with one program expectation.
Each member comes up with a specific situation that they liked to use in.
Distribution and review of worksheet 1.1.
Facilitators ask if anyone requires assistance.
Distribute and review worksheet 1.2.
Facilitators provide assistance to participants who require it.
Ask for volunteers to share program expectations.
Distribute and review handout 1.3.
Wrap-up and discussion.

What happened…
Appendix C: Participant Satisfaction Survey—Module One

Please help us improve our program by answering some questions about the services you have received. We are interested in your honest opinion, whether it is positive or negative. To ensure confidentiality, please do not write your name on this form.

1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

1. I feel that this program is helpful to me.

   1  2  3  4  5

2. The exercises are easy to follow and understand.

   1  2  3  4  5

3. I am learning about my substance use.

   1  2  3  4  5

4. I feel that I am closer to reaching my substance use goals.

   1  2  3  4  5

5. I would recommend this program to others.

   1  2  3  4  5

6. I feel that setting program goals (worksheet 2.1) was a useful exercise.

   1  2  3  4  5

7. I feel I have a better understanding of what ‘I got’ and what ‘I avoided’ (worksheet 2.2) with my substance use.

   1  2  3  4  5

8. Learning about the signs and symptoms of substance abuse/dependence was a helpful learning exercise for me.

   1  2  3  4  5

9. I understand the stages of change (handout 3.5) and where I am in the change process.

   1  2  3  4  5

10. I feel that self-monitoring is useful in helping me reach my goals.

    1  2  3  4  5
Appendix C: Participant Satisfaction Survey—Module Two

Please help us improve our program by answering some questions about the services you have received. We are interested in your honest opinion, whether it is positive or negative. To ensure confidentiality, please do not write your name on this form.

1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

1. I feel that this program is helpful to me.

   1  2  3  4  5

2. The exercises are easy to follow and understand.

   1  2  3  4  5

3. I am learning about my substance use.

   1  2  3  4  5

4. I feel that I am closer to reaching my substance use goals.

   1  2  3  4  5

5. I would recommend this program to others.

   1  2  3  4  5

6. I feel that the IDTS questionnaire and the IDTS confidence questionnaire were helpful in understanding my high-risk situations.

   1  2  3  4  5

7. I feel I have an understanding of the Positive Outcome Expectancies and the Problems of Immediate Gratification that contribute to the relapse process.

   1  2  3  4  5

8. I am able to identify my personal high-risk situations and triggers to using.

   1  2  3  4  5

9. I feel that the ‘Green-Yellow-Red’ model was helpful, and I can apply it to the relapse process.

   1  2  3  4  5

10. I feel that self-monitoring is useful in helping me reach my goal.
Appendix C: Participant Satisfaction Survey—Module Three

Please help us improve our program by answering some questions about the services you have received. We are interested in your honest opinion, whether it is positive or negative. To ensure confidentiality, please do not write your name on this form.

1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

1. I feel that this program is helpful to me.
   
   
   1  2  3  4  5

2. The exercises are easy to follow and understand.
   
   
   1  2  3  4  5

3. I am learning about my substance use.
   
   
   1  2  3  4  5

4. I feel that I am closer to reaching my substance use goals.
   
   
   1  2  3  4  5

5. I would recommend this program to others.
   
   
   1  2  3  4  5

6. I feel that the one-on-one session was necessary in helping me get a better understanding of the material covered so far.
   
   
   1  2  3  4  5

7. I found identifying my internal and external cues a helpful way to tell if there is a problem or if I am heading into the ‘red’.
   
   
   1  2  3  4  5

8. I enjoyed the optical illusions displayed in the program and found that they helped me to see how people can view the same things differently.
   
   
   1  2  3  4  5

9. Being able to identify my thinking distortions (magnifying, jumping to conclusions, etc) helps me to challenge my risky thoughts.
   
   
   1  2  3  4  5

10. The session on identifying harmful beliefs (I must, You must, World must) gave me insight into some of the rigid beliefs I hold.
    
    
    1  2  3  4  5
Appendix C: Participant Satisfaction Survey—Module Four

Please help us improve our program by answering some questions about the services you have received. We are interested in your honest opinion, whether it is positive or negative. To ensure confidentiality, please do not write your name on this form.

1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

1. I feel that this program is helpful to me.
   1  2  3  4  5

2. The exercises are easy to follow and understand.
   1  2  3  4  5

3. I am learning about my substance use.
   1  2  3  4  5

4. I feel that I am closer to reaching my substance use goals.
   1  2  3  4  5

5. I would recommend this program to others.
   1  2  3  4  5

6. I feel that I am better able to deal with social pressure to use from others because of the skills I learned in the program.
   1  2  3  4  5

7. Completing my relapse prevention plans is helpful to me to not slip.
   1  2  3  4  5

8. The relapse management plans helped me learn ways to keep a slip from turning into a relapse.
   1  2  3  4  5

9. I feel that maintenance session will be helpful in dealing with my substance use.
   1  2  3  4  5

10. If offered I would attend the maintenance sessions.
    1  2  3  4  5
Appendix D: Program Evaluation Feedback

Please help us to improve our program by answering a short survey regarding the services you have received. We are interested in your honest opinion whether it is positive or negative. Please read the statements and evaluate each one on a scale of 1-4.

1=poor, 2=satisfactory, 3=good, 4=excellent

1. The material in the program was presented in a way that I now have a better understanding of the relapse process.
   1  2  3  4

2. The information was presented clearly.
   1  2  3  4

3. The material progressed logically from session-to-session.
   1  2  3  4

4. The length (2 hr) of each session was okay.
   1  2  3  4

5. The pace of each session was okay.
   1  2  3  4

6. The facilitators were prepared for each session.
   1  2  3  4

7. The facilitators were knowledgeable about the material presented.
   1  2  3  4

8. There was enough opportunity to ask questions.
   1  2  3  4

9. The facilitators were able to answer my questions.
   1  2  3  4

10. The skills presented in the program are helpful to me.
    1  2  3  4
Appendix E: Graph for total percentage of content delivered with a trend line

Total percentage of content delivered in a substance abuse program for concurrent disorders
Appendix F: Raw scores for participant satisfaction surveys

**Module One**

<table>
<thead>
<tr>
<th>Statements</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Module Two**

<table>
<thead>
<tr>
<th>Statements</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Module Three**

<table>
<thead>
<tr>
<th>Statements</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

**Module Four**

<table>
<thead>
<tr>
<th>Statements</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix G: Raw scores for program evaluation surveys

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2.5</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>