1998

A Study of the Relationship Between Substance Abuse Treatment and Motivation

Karen A. Lathrop

A STUDY OF THE RELATIONSHIP BETWEEN SUBSTANCE ABUSE TREATMENT AND MOTIVATION

Karen A. Lathrop, B.S.

An Abstract Presented to the Faculty of the Graduate School

of Lindenwood University in Partial Fulfillment of the

Requirements for the Degree of

Master of Art

1998

ABSTRACT

The relationship between motivational level and participation in a thirty day substance abuse treatment center was examined for 22 recovering substance abusers. Participants included 22 female clients at Bridgeway Counseling Services, Inc. The participants volunteered to complete the Readiness to Change Questionnaire- Alcohol, the Readiness to Change Questionnaire-Drug, and a personal data form which contained demographic questions. Where it was predicted that there would be no relationship between motivational level and participation in a thirty-day substance abuse treatment program, it was found that there was a positive relationship. That is, participation in the thirty-day substance abuse treatment program increased the motivational level of the participants.

A STUDY OF THE RELATIONSHIP BETWEEN SUBSTANCE ABUSE TREATMENT AND MOTIVATION

Karen A. Lathrop, B.S.

A Thesis Presented to the Faculty of the Graduate School

of Lindenwood University in Partial Fulfillment of the

Requirements for the Degree of

Master of Art

1998

COMMITTEE IN CHARGE OF CANDIDACY

Pamela Nickels, Ed.D

Director of School and Professional Counseling

Steve Deimeke, L.P.C

Donna Noonan, Ph.D

Adjunct Faculty

DEDICATION

To C.T.: My gift

TABLE OF CONTENTS

I. INTRODUCTION....1

II. LITERATURE REVIEW....5

Addiction....5

Substance Abuse....6

Motivation....9

Stages of Change....10

Intervention and Substance Abuse....15

Motivational Intervention....18

III. METHOD....23

Subjects....23

Materials....23

Procedure....25

IV. RESULTS....28

V. DISCUSSION....32

APPENDICES....37

A. Cover Letter....37

B. Personal Data Form....38

C. Consent for the Release of Confidential Information....39

D. Readiness to Change-Alcohol Questionnaire....40

E. Readiness to Change-Drug Questionnaire....41

REFERENCES....42

CHAPTER 1

INTRODUCTION

Addiction continues to be a major problem with astonishing costs in dollars and human suffering (Astel, 1995). More addictions are being discovered and new addicts are being identified. In America there are an estimated 20 million or more alcoholics, 20 million compulsive gamblers, 25 million love and sex addicts and 80 million eating-disordered individuals in the United States (Peele, 1989).

Substance abuse is a prominent health and social problem in America. It causes employment problems, legal difficulties, family disruptions, welfare, treatment and support, and high mortality rates. Misuse of drugs and alcohol accounts for tens of thousands of deaths each year, including nearly one-half of all accidental deaths, suicides, and murders (Special Report, 1989).

Substance abuse is devastating to males as well as to females but manifests itself in unique ways among women. Women have an increased risk of risk of death from liver disease or cirrhosis, serious gynecological and obstetric dysfunction's such as infants born with fetal alcohol syndrome, and AIDS as a result of injection drug use or sexual contact with an HIV drug user (Watson, 1994).

Women typically have a dual diagnosis that includes substance abuse and depression, anxiety, or other mood disorders. In a study of 20,000 adults 65 percent of female alcoholics had a second diagnosis, compared to 44 percent of males with a second diagnosis (Center for Substance Abuse Treatment, 1994).

Treatment of substance abuse is difficult. The vast majority of abusers do not enter treatment. Many do not believe they have a problem. Women engage in shame and self-blame behavior, which is an additional deterrent from seeking help (Kingree, 1995). Women are often reluctant to admit their need for treatment. They may fear social rejection or loss of their children. For many women poverty racial discrimination, psychiatric disorders, ethnicity, and age may further inhibit them from seeking treatment (Center for Substance Abuse Treatment, 1994).

In treatment, women are historically seen by the mental health profession as among the most resistant to change. They are believed to be difficult to engage in treatment and highly ambivalent about treatment (Watson, 1994). There is a high early dropout rate from many treatment programs (Zweben, 1989). Attrition rates can range from 28-80% during the first month of treatment (Watson, 1994).

Motivation and readiness to change are viewed by clinicians as critical factors in understanding why substance abusers seek or stay in treatment programs. Lack of proper motivation has been used to explain failure to enter, continue in, comply with, and succeed as a result of treatment since the early days of psychoanalysis (Miller, 1988).

Motivation for treatment is important as studies consistently document the correlation between retention and effectiveness of treatment. In general, longer treatment tenure is associated with more favorable posttreatment

outcome. Factors which describe the changing characteristics of the individual (e.g., motivation and readiness) appear more relevant to retention than those which describe unchangeable characteristics, such as demography or background variables (De Leon, Melnick, & Kressel, 1997).

Motivation is frequently described as a prerequisite to treatment. Without it the therapist can do nothing. Motivation is seen as a dynamic series of stages through which people progress and regress. The five stages of change are described as precontemplation (not thinking about change), contemplation (thinking about change and that it may be a good idea), preparation (starting the psychological and intellectual preparations necessary to change), action (active efforts to change a particular behavior occur), and maintenance (changes have been made and are maintained), (Isenhart, 1994).

Treatment goals must fit with client's stage of change. The goals are different, according to the client's stage (Isenhart, 1994). Individuals at different stages require different interventions. For example, the expectation of total abstinence from precontemplators may not be an appropriate goal. Precontemplators may not consider the need for abstinence since there is no acknowledgment that a problem exists. A more appropriate goal may involve moving clients through the stages to the point where a problem is determined to exist (Prochaska, 1994).

Motivational level is susceptible to the treatment environment and

therapeutic relationship. Therapists and clients share responsibility for a client's level of motivation (Isenhart, 1994). There is an increase of probability of entering, continuing, and complying with treatment if therapists practice motivational intervention (Miller, 1988).

Eight general characteristics of motivational intervention include advice giving, providing feedback, goal setting, role playing, maintaining contact, providing choices, and decreasing the desirability of the problem behavior, (Miller, 1988).

Statement of Purpose

Motivation and readiness to change are important factors in successful recovery from substance abuse. The current study was designed to evaluate the relationship of motivational level of clients before and after participation in a thirty-day women's substance abuse treatment center. The following question was posed: Does a thirty-day residential treatment program affect motivational level for recovery.

Hypothesis

In order to address this question, the following hypothesis was formulated:

There is no relationship between level of motivation and participation in a thirty-day substance abuse residential treatment center.

CHAPTER II

REVIEW OF THE LITERATURE

Addiction

There are many definitions for the term "addiction" (Astel, 1995). Below are some of the commonly used definitions used today.

Addiction is characterized by chronic episodes of relapse behavior described as being the rule rather than the exception. Approximately 60% of patients who complete treatment for an addiction relapse within the first 90 days (Rotgers, 1996).

Cook (1991) describes addiction as an excessive attachment to an experience that is harmful to individuals. They feel compelled to repeat the experience over and over. Addiction may be described as more of the unwillingness or inability to feel bad than it is about the desire to feel good. It is a way to handle negative feelings. It is used as a process to take away intolerable reality (Loughhead, 1991).

Donovan & Marlett (1988) define addiction as a complex, progressive behavior pattern having biological, psychological, and behavioral components. Individuals have an overwhelming pathological involvement, compulsion to continue, and reduced ability to exert personal control over the addiction. The behavior pattern continues despite the negative impact on the people's lives. There is a dependence, either on a physiological or a psychological level, that may lead to withdrawal distress when individuals are unable to engage in the

behavior (Donovan & Marlatt, 1988).

Donovan and Marlatt continue to state that there may be an increasingly high need for the behavior. Tolerance for the behavior maybe formed. A craving, having both physiological and cognitive underpinnings, may be experienced, as well as a strong desire and perceived need for the experience.

According to the DSM-IV, substance dependence is defined by three or more of the following in a 12-month period: tolerance, withdrawal, compulsive use, unsuccessful efforts to cut down on use, a great deal of time spent in obtaining substances, daily activities revolve around the substance, and substance use is continued despite knowledge of physical or psychological problems (American Psychiatric Association, 1994).

The above definitions share the common element that the addict is trapped within a cycle that consists of seeking a mood altering experience which has ceased to produce the benefits it once did. The high is pursued despite harmful and self-destructive consequence (Astel, 1995). According to Alcoholics Anonymous this cycle is a form of insanity, doing the same behavior over and over, expecting different results (Miller & Mahler, 1991).

Substance Abuse

Substance abuse is a serious health and social problem in the United States. Repercussions from substance abuse include employment problems, legal difficulties, family disruptions, health problems, and mortality from accidental deaths, suicides, and murders (Carter, 1993).

Substance abuse is devastating to both men and women but has greater adverse effects on women. Generally speaking, women experience the physical, psychological and socio-cultural effects of substance abuse earlier and to a larger extent than men do (Lex, 1991). For instance, female drinkers develop cirrhosis of the liver at an earlier age than male drinkers do. Females are typically smaller than males and have less water in their bodies to counteract the concentration of alcohol. Consequently, females are more prone to side effects such as vomiting, slurred speech, mood swings, hangovers, and depression (Orford & Keddie, 1985).

AIDS was the second leading cause of death for American women between the ages of 25 and 44 in 1992 (Center for Substance Abuse Treatment, 1994). Chronic female substance abusers are at risk of contracting AIDS through injection of drugs and high risk sexual activity with partners who are injection drug users. Females who use any mind-altering drug are at risk of sexually transmitted diseases such as syphilis, gonorrhea, and chlamydia. Substance abuse lowers inhibitions and decision-making ability is altered, increasing the likelihood of females to engage in risk-taking behavior such as involvement with multiple partners or unprotected sex (Kingree, 1995).

Substance abuse causes serious gynecological and obstetric dysfunction's (infertility, problem pregnancies). A developing fetus can be seriously effected. There may be more rapid development of cardiovascular, gastrointestinal, and liver disease (Griffin, Weiss, Mirin, & Lange, 1989).

Women who abuse alcohol and drugs are disabled more frequently and for longer periods of time than are men, and women are at a higher risk of death from alcohol-related damage (Kingree, 1995). Further, women who have an alcohol problem are at risk for polysubstance use including use of dependency-producing substances, such as marijuana and cocaine (Orford & Keddie, 1985).

The term dual diagnosis is applied most often to the co-occurrence with substance abuse and major psychiatric disorders. In females this is usually depression, anxiety, and other mood disorders. A dual diagnosis is more common with females than males. In a study of 20,000 adults 65 percent of female alcoholics, compared with 44 percent of males, had a second diagnosis (Stark, 1992).

Females may take cues from the social environment and react to their substance abuse with guilt and shame. Western society has, historically, stigmatized females more often than males with the same addiction problems. Females are considered "unladylike", "fallen women", or failing to meet the traditional role of female tasks such as wife and mother. Females will internalize the stigma associated with substance abuse more often than males (Robbins, 1989).

Women who are at higher risk of becoming a heavy substance users may be more likely to be unemployed because they have already begun to experience problems associated with use (e.g., tardiness or absence from work). In a study on women entering treatment for heroin addiction, most of the women lacked

education and job experience (Center for Substance Abuse Treatment, 1994).

There is a clear relationship between abuse of prescription drugs and education and income. One researcher reports that there are higher rates of frequency and duration of use among older, unemployed, and less educated women (Center for Substance Abuse Treatment, 1994).

Women are historically seen by the mental health profession as among the most resistant to change. They are considered to be difficult to engage in treatment, highly ambivalent about treatment, and have poor motivation (Watson, 1994). They are less likely to seek treatment and more likely to drop out of treatment sooner (Zweben, 1989).

Motivation

Even though motivation is deemed to be of considerable importance, there is much less agreement as to the actual nature of motivation. The term "motivation" is extremely important, but definitely elusive (Rotgers et al., 1996). Definitions include powerful inner drive, an individual's acknowledgment that there are problems, and recognition of the need for change (Brooke, Fudala & Johnson, 1992).

Motivation in the addiction field is seen as clients' willingness to become actively involved in treatment. There is a determination to change and preparedness to make sacrifices for therapy (Brooke et al., 1992). Motivation can be determined by the client's readiness to acknowledge a problem, request of treatment, cooperation with treatment, or all three (Rotgers et al., 1996). It is

often used as an antonym for terms such as denial and resistance and a synonym for constructs such as acceptance and surrender (Miller, 1988).

Emphasis on the role of clients' motivation has been strong in the treatment of addictive behaviors. A survey of addiction counselors revealed that 75% believed client motivation to be important to recovery, and 50% viewed it as essential (Miller, 1988). It is frequently described as a prerequisite, without which therapists can do nothing. Motivation is necessary for individuals to enter, continue in, comply with, and succeed in treatment (Simpson & Joe, 1993). Lack of proper motivation is a common attribute of treatment failure (Kampen, 1989).

Stages of Change

Motivation as applied to addictive behaviors and substance abuse has been dominated by a perspective that clients are "in denial" as a natural consequence of their "disease" and, through treatment, break through that denial and become motivated for change (Isenhart, 1994). The most significant change has involved viewing motivation as a dynamic series of changes through which people progress and regress.

When individuals change from problematic to more healthy behaviors they often move through five stages of change. These stages include precontemplation, contemplation, preparation, action, and maintenance (Division of Alcohol and Drug Abuse, 1994). The stage of change notion is based on the idea that clients progress and regress through these stages as a

natural part of the change process. Clients' motivation (i.e., stage of change) is a function of immediate and acute situational, interpersonal, and intrapersonal dimensions (Isenhart, 1994). More ingrained factors such as personality style and background factors may have relatively minimal influence in clients level of motivation at any given time (Isenhart, 1994).

Precontemplation is the stage at which there is no intention to change behavior in the foreseeable future. Many individuals in this stage are unaware of their problems (Prochaska, DiClemente, & Norcross, 1992). Typically, about 50% of populations at risk are in the precontemplation stage (Prochaska, 1994).

Precontemplators enter treatment with the wish to change others or the environment, or they feel coerced into coming in to treatment by the courts or significant others. These clients are not choosing to change themselves (McConnaughy, E., DiClemente, C., Prochaska, J., & Velicer, W., 1989). Usually they feel coerced into changing the addictive behavior by a spouse who threatens to leave, an employer who threatens to dismiss them, parents who threaten to disown them,, or courts who threaten to punish them. They may even demonstrate change as long as the pressure is on. Once the pressure is off, however, they often quickly return to their old ways (Prochaska et al., 1992). Precontemplators do not intend to change the problem behavior in the near future, typically within the next six months. There is no intention or serious consideration to change. Resistance to recognizing or modifying a problem is the hallmark of precontemplation (Prochaska et al., 1992).

Contemplation is the stage in which people are aware that a problem exists and are seriously thinking about overcoming it but have not yet made a commitment to take action (Miller & Heather, 1984). Contemplators are aware of a distressing life situation and are interested in determining whether the problems are resolvable and whether therapy could be helpful (McConnaughy et al., 1989).

There is a weighing of the pros and cons of the problem and the solution to the problem. There is a struggle with the positive evaluations of the additive behavior and the amount of effort, energy, and loss it will cost to overcome the problem (Prochaska et al., 1992). People can stay stuck in the contemplation stage for long periods. In one study of a group of 200 smokers, the group stayed in the contemplation stage for two years (Miller & Heather, 1984).

Serious consideration of problem resolution is the central theme of contemplation. Individuals who state that they are serious considering changing the addictive behavior in the next six months are classified as contemplators (Prochaska et al., 1992).

Preparation is a stage in which individuals intend to take action in the next month and have unsuccessfully taken action in the past year. There may have been some small behavioral changes. These changes have not yet reached a criterion for effective action, such as abstinence from alcohol abuse (Prochaska et al., 1992). Individuals make goals and set priorities to prepare to change (Division of Alcohol and Drug Abuse, 1994). There is a serious commitment to

change (DiClemente et al., 1989).

In the action stage clients have begun to work on changing and seek help in implementing active strategies (McConnaughy et al., 1989). Clients are ready to learn new skills necessary to change their behaviors and learn new adaptive habits (Division of Alcohol and Drug Abuse). Individuals are ready to modify behavior, experiences, or the environment in order to overcome the problem. Action involves the most overt behavioral changes and requires considerable a commitment of time and energy (Prochaska et al., 1992).

Modifications of the addictive behavior made in the action stage tend to be most visible and receive the greatest external recognition. People, including professionals, often erroneously equate action with change. As a consequence, they often overlook the requisite work that prepares the changers for action and the important efforts necessary to maintain the changes following action (Prochaska et al., 1992).

Individuals are classified in the action stage if the addictive behavior has been successfully altered from one day to six months. This means reaching a particular criterion, such as abstinence. Modification of the target behavior to an acceptable criterion and significant overt efforts to change are the hallmarks of action (Prochaska et al., 1992).

Maintenance is the stage where there have already been changes made in problem areas and treatment is sought to consolidate previous gains (McConnaughy et al., 1989). Maintenance is a continuation of change. This

stage extends from six months to an indeterminate period past the initial action. Being able to remain free of the addictive behavior and being able to consistently engage in new behavior for more than six months are the criterion for considering someone to be in the maintenance stage (Prochaska et al., 1992). For some behaviors maintenance can be considered to last a lifetime. Stabilizing behavior change and avoiding relapse are the hallmarks of maintenance (Prochaska et al., 1992).

Taking action to change addictive behavior is not usually successfully maintained on first attempts. Many New Year's resolvers report three or more years of consecutive pledges before maintaining the behavioral goal for at least six months. Relapse and recycling through the stages occur quite frequently as the individual attempts to make or cease addictive behavior (Prochaska et al., 1992).

Relapse is the rule rather than the exception with addictions. Individuals usually move through the stages of change in a spiral pattern (Prochaska et al., 1992). In this spiral pattern, people can progress from contemplation to preparation to action to maintenance, but usually relapse. During relapse, individuals regress to an earlier stage. This may cause embarrassment, shame, and guilt. People may become demoralized and resist thinking about change. As a result, they return to the precontemplation stage and can remain there for various periods of time (Prochaska et al., 1992).

Research indicates that the vast majority of relapsers recycle back to the

contemplation or preparation stages. Individuals begin to consider their next action attempt while trying to learn from their recent efforts. The spiral model suggests that relapsers do not revolve endlessly in circles and they do not regress all the way back to the beginning. Instead, each time they recycle through the stages, there is potential to learn from mistakes and doing something different the next time around (Prochaska et al., 1992).

Although some transitions, such as from contemplation to preparation, are much more likely than others, people may move from one stage to any other stage at any time (Prochaska et al., 1992). It is possible for people to be simultaneously engaged in attitudes and behaviors described by more than one stage at the same time. The progression of movement involves a fluctuation in stage involvement at any given point in time (McConnaughy et al., 1989). Each stage represents a period of time as well as a set of tasks needed for movement to the next stage. The time individuals spend in each stage may vary, the tasks to be accomplishes are assumed to be invariant (Prochaska et al., 1992).

Intervention and Substance Abuse

The implication of the stages of change perspective in substance abuse treatment is significant. First, treatment goals must fit with the client's stage of change. The goal is moving clients through the stages. Second, since treatment goals are different, treatment must be matched to client's stage of change. Individuals at different stages of change require different interventions that are consistent with client's stage of change (Isenhart, 1992).

The stage of change model is applicable to addiction treatment, regardless of the type of interventions used. Matching strategies can be employed with each stage of the change process. Adherence or compliance with a particular treatment may reflect problems associated with the contemplation stage, rather than the type of treatment. Clients may be more willing to stay with the treatment, regardless of the format, if there is assistance to help them overcome motivational conflicts and uncertainties (Donovan & Marlatt, 1988).

This perspective maintains that motivational level is influenced by the treatment environment and therapeutic relationship. Therefore, clients and therapists share responsibility for clients' level of motivation (DeLeon et al., 1994).

Therapists' perceptions of client's motivation and prognosis have been found to be related to clients' compliance and outcome. This correlation could be attributed to the therapist's accurate perception of client's motivational characteristics, but it might equally be accounted for by self-fulfilling properties of therapist's expectancies (Schattenfeld, 1989).

An examination on how therapists judge clients' motivation reveals several perceptions. Clients are considered to be motivated if they accept the therapist's view of the problem (including the need for help and the diagnosis), are distressed, and comply with treatment prescriptions. Clients showing the opposite behaviors-disagreement, refusal to accept diagnosis, lack of distress, and rejection of treatment prescriptions-are likely to be perceived as

unmotivated, denying, and resistant (Heather, 1989).

With great consistency, denial has been attributed when clients disagree with therapists regarding certain realities. For example, a belief to which particular importance has been attached is the concept of powerlessness over alcohol. Alcoholics are totally unable to exercise control over alcohol consumption. The clients' refusal to endorse this doctrine is frequently labeled denial (Miller, 1988).

Clients may not disagree with the ideology of alcoholism, but only with its applicability in that client's particular case. Clients may not accept the self-label of addiction. This affects the client's acceptance of need for external help and inability to overcome the problem (Heather, 1989).

Another dimension determining perceptions of motivation involves clients' expressed desire for external help. Problem recognition may be an important determinate. Absence of desire for help is called denial only when an external agent perceives a problem (Miller, 1988).

Higher levels of distress are perceived as contributing to motivation for treatment (Miller, 1988). Clients who are in distress and seek treatment either because of external pressure (threatened loss of job, parent, spouse, probation officer, or social services) or because well-being is disturbed (feels has hit rock bottom) have better treatment outcomes than those not under duress (Cunningham, Sobell, Sobell, & Gaskin, 1994). Hitting bottom occurs when individuals associate the substance abuse with very unpleasant, humiliating,

experiences. The situation becomes intolerable and they confront the fact that the life they are leading is not the life they imagined (Klingemann, 1991).

Motivation may be judged retrospectively, from the degree of compliance and success in treatment. Motivated clients are viewed as ones that do not challenge the authority and prescriptions of the treatment program. They play by the rules. Nonmotivation and denial have been equated with nonacceptance of the treatment program. Clients rated as dependent (overt asking for help, compliance to requests, demands for care taking) are four times as likely to remain in and respond to treatment relative to those who are contradependent (Miller, 1988).

Perhaps the most underestimated and least investigated determinants of motivation are therapists' characteristics. Studies of therapists' behavior during sessions of alcoholism treatment suggest that there are three nonspecific attributes which impact clients. Therapists' characteristics such as hostility, expectancy, and empathy powerfully influence whether clients enter, continue, comply with, and succeed in treatment (Schottenfeld, 1989).

The detrimental impact of therapist hostility and moralizing has been recognized for decades. Therapists are an integral factor in determining whether the relationship is growth promoting or growth inhibiting (Rotgers et al., 1996). It has been found that a confrontational style may elicit resistance from clients. The level of resistance is directly related to the level of confrontation from therapists (Rotgers et al., 1996).

The therapeutic alliance between therapists and clients is an important element in the effectiveness of treatment. An extensive review of studies on psychotherapy outcomes indicated that the therapeutic bond was more important than the therapist's training or experience (Peterson & Nisenholz, 1995). A review of 85 studies reported in the Annual Review of the American Psychiatric Association showed that the strength of the alliance was a better predictor of success than the specific kind of therapy. A crucial therapist characteristic that affects the therapeutic alliance is empathy. Being emphatic reflects a profound interest in the client's world of meanings and feelings. There is a maximum effort to get within and to live the attitudes expressed instead of observing them or diagnosing them (Corsini & Wedding, 1995).

Motivational Intervention

Motivational intervention is a process that influences the probability that clients will take certain recovery-related actions. It is defined as an operation that increases the probability of entering, continuing, and complying with an active change strategy (Miller, 1988). Motivational intervention includes giving advice, providing feedback, goal setting, role playing, maintaining contact, manipulating external contingencies, providing choice, and decreasing attractiveness of problem behavior (Miller et al., 1988).

The simplest intervention is advice to make a change in behavior and providing practical information on how to do so (Miller et al., 1988). The manner in which information is provided can make a difference between a

confrontation-resistance struggle and a therapeutic interaction. Before information is given, it is important to assess whether clients want any information (Miller et al., 1988). In three controlled evaluations, it was found that problem drinkers receiving a minimal "bibliotherapy" intervention showed significant improvement compared with clients randomly chosen for therapist-directed treatment (Miller, 1988).

Offering credible, objective feedback of the client's current problem is a common element of motivational intervention (Miller et al., 1988). An extensive individual assessment provides clients with feedback regarding the status and severity of the addiction-related problems. This establishes the discrepancy between the present state and the desired state, resulting in self-dissatisfaction (Klingemann, 1991).

There may be an initial feedback of negative information to instill motivation for change and later feedback of positive improvement information to consolidate change. This may be accomplished through use of videotape self-confrontation (VSC). Clients are filmed during a period of peak inebriety and view the tape on a later day while sober. The impact has been shown to result in negative self-perception distress, and decreased denial of problems. Videotape feedback of positive behavior at a later date, can increase self-esteem and decrease self/ideal discrepancy (Miller, 1988).

Feedback must be considered in relation to a goal or standard of performance. Feedback in the absence of a provided goal is ineffective, whereas

feedback plus a goal induces marked behavior changes (Miller, 1988). Goal setting is defined as helping clients set specific, demanding, and attainable objectives (Klingemann, 1991). The goals have more impact when they are specific rather than vague, more demanding than easy, and are perceived as attainable (Miller, 1988).

Role-playing interventions have been used to enhance goal commitment. One explanation of a motivational effect of role-play is that it induces dissonance or discrepancy between present and ideal behavior. It has been found that imaginal rehearsal of new behavior increases the probability of performing the action (Miller et al., 1988).

One of the most successful motivational interventions has been continuity of care (Stark, 1992). The dropout rate is reduced by maintaining shorter waiting times for initial assessment and counseling appointments. Several studies showed that follow-up phone calls and letters produced better continuation rates with alcoholics in outpatient settings. Studies also showed that phone calls and personal letters improved return to treatment after missed appointments (Stark, 1992).

It is common for individuals seeking addiction treatment to report one or more sources of coercion involved in their motivation for change (Goldsmith, 1992). Manipulating external contingencies (employer, family, and authorities) to press for change may increase compliance (Martin, Giannandrea, Rogers & Johnson, 1996). If the contingency is in effect for a limited period of time,

compliance characteristically ends at its termination. Nor is increased compliance that is motivated by extrinsic pressure necessarily reflected in superior outcomes (Miller, 1988). Maintenance of contingency-induced change would be anticipated to be best either when the contingency is ongoing (e. g., loss of job) or when the reinforcing aspects have been replaced by new reinforcement contingencies (Goldsmith, 1992).

Another intervention is providing clients with choices. Clients are educated about the procedures and aims of treatment. This ensures that clients understand what is expected of them. This helps them to anticipate and develop plans of action. Clients are allowed to negotiate for the most acceptable treatment options (Stark, 1992). This allows clients to make the final decisions, with therapists acting as resource people. Clients are in the positions to know what is best suits them and are ultimately responsible for carrying out any plans of action (Rotgers et al., 1996).

It has been observed that motivation for change is often highest immediately following a period of acute intoxication (Martin et al. 1996). It is recommended that interventions that keep alive in actual or symbolic from the circumstances which initiated the abstinence have motivational properties (Miller, 1988). Interventions that decrease the perceived attractiveness and increase the salience and immediacy of negative consequences of a behavior should increase the motivation for change (Miller, 1988).

In conclusion, the level of motivation and readiness to change are critical

to successful recovery from substance abuse. Motivation is seen as a series of stages through which people progress and regress as a natural part of the change process (Isenhart, 1994). Matching treatment to the client's stage of change increases the level of motivation to change. Individuals at different stages require different interventions. Matching treatment to clients encourages them to move from problematic behavior to more healthy, productive behavior (Isenhart, 1994).

The concept of motivation within the treatment program involves the therapists and environment as well as clients' determinants. Motivational intervention is a process that influences the probability that clients will take recovery related actions. There is ample data to provide encouraging evidence that entry, continuation, and compliance are behaviors that are highly influenced by motivational interventions (Rotgers et al., 1996).

CHAPTER III

METHOD

Subjects

Clients at Bridgeway Counseling Services, Inc. in St. Charles, Missouri were invited to participate in a study to evaluate motivation and readiness to change. The sample represented in this study consisted of 22 female adults and was a sample of convenience. The age range of the total group was from 29 to 47. The mean age was 34.9. The mode age was 35. The total group consisted of 86.4% (n= 19) who were unmarried and 13.6% (n= 3) who were married. Fifty-nine point one percent (n= 13) of the participants were African American, 36.4% (n= 8) were Caucasian, and 4.5% (n= 1) were Asian (See Table 1). The range of days in treatment was 23 to 40. The mean days in treatment were 29.36 and the mode was 29.

Materials

The Readiness to Change-Alcohol Questionnaire (RTC-12A) and the Readiness to Change-Drug Questionnaire (RTC-12D) are 12 item subsets of a larger scale developed previously by clinicians in the United States and Australia. These questionnaires are short, easy to administer on a self-completion basis. Using a five point Likert scale, this assessment measures the individual's current psychological and motivational profile toward change. The five point format ranges from "strongly disagree" to "strongly agree" and is scored from -2 through 0 to + 2. The range for each scale score is -8 through 0 to

+8.

Four stages of change are identified; pre-contemplation, contemplation, preparation, and action. Precontemplation is the stage where people do not think their habit is a problem and are not ready to change. High scores represent a lack of readiness to change. In the contemplation stage people are thinking about their behavior. The thoughts are often ambivalent as they attempt to balance out the need to change with the difficulties it entails. The preparation stage is when people make goals and set priorities as they prepare to change. In the action stage people are ready to learn the new skills necessary to change their behaviors and learn new adaptive habits.

The instruments directly measure three stages, precontemplation, contemplation, and action. The preparation stage is inferred from the patterning of a client's results. The items representing each of the stages of change are regarded as scales measuring the extent to which the subject endorses that stage of change. High scores on the questionnaires correspond to high motivation to change, and the low scores correspond to low motivation to change.

These instruments have shown good reliability and validity in a wide variety of inpatient and outpatient settings (Division of Alcohol and Drug Abuse, 1994). Results of reliability coefficients showed satisfactory internal consistency for the three stages of change reported as precontemplation = .73, contemplation = .80, and action = .85. Test-retest reliability has been reported as precontemplation = .82, contemplation = .86, and action = .85 (Rollnick et al.,

1992).

Validity was confirmed in an earlier study by comparing subjects' scale scores with their self-identification at a screening with cartoons depicting stages of change. The results confirmed the prediction that the group of subjects endorsing a particular cartoon would obtain their own highest mean score on the scale corresponding to their cartoon choices (precontemplation, $F=7.0$, $df=2, 82$; $p<0.01$; action, $F=19.3$, $df= 2, 83$; $p<0.001$). Validity was confirmed in another study that involved comparison of assignment to a stage of change on the basis of cartoon preference with assignment by means of the highest among raw scale scores. Cohen's weighted kappa coefficient for the data was 0.51, indicating a moderate level of agreement (Rollnick & Bell, 1993). A further form of concurrent validation was to compare allocation to stage of change by the highest raw score from the Readiness to Change Questionnaire with items regarding drinking taken from the screening instrument. The relationship between the two variables was highly statistically significant (Kendall's Tau= -0.341, p, 0.001) (Rollnick et al., 1992).

Consent for the Release of Confidential Information form, a personal data form, and a cover letter were also included. The personal data form included demographic questions. The cover letter included an explanation of the purpose of the study.

Procedure

This researcher was located at Bridgeway Counseling Services, Inc.

Clients attending group therapy were briefed by this researcher about the nature and purpose of the study and were requested to participate. Anonymity was assured to the clients.

Clients answered the questionnaires before treatment as part of the admissions procedure. The intake coordinator of Bridgeway Counseling Services, Inc. administered the questionnaires. At the end of the thirty-day treatment program the clients completed the questionnaires a second time. This researcher administered the questionnaires after treatment.

At the posttreatment testing participants were given a packette that contained the Readiness to Change-Alcohol Questionnaire, the Readiness to Change-Drug Questionnaire a Consent for the Release of Confidential Information form, a personal data form, and a cover letter. Respondents were advised that the total time could take 20 to 30 minutes. They were instructed to complete the forms and physically return the information to this researcher.

Table 1

Sample Descriptives

Days of Recovery	Age	Race 0= Caucasian 1= African American 2= Asian	Marital Status 0= Married 1= Unmarried
24	27	1	1
29	37	0	1
29	40	0	1
27	47	1	0
25	38	0	1
27	30	1	1
28	35	1	1
29	29	0	1
31	36	1	1
28	31	1	0
32	36	1	1
29	29	0	1
30	45	1	1
32	40	1	1
28	38	0	0
34	36	1	1
26	33	1	1
32	30	0	1
40	33	0	1
35	40	1	1
31	30	1	1
25	28	0	1
X=29.36	X=34.9	Caucasian= 8 African American= 13 Asian= 1	Married=3 Unmarried= 19

Each participant was female.

CHAPTER IV

RESULTS

The impact of motivational intervention on substance abusers motivation and readiness to change was measured. The results confirm that motivational intervention increases the motivation and readiness to change from substance abusing behavior to more healthy, non-using behavior. An alpha level of .05 was used for all statistical tests.

Each stage of change was given a value (precontemplative= 0, contemplation= 1, action= 2) to analyze change in pretreatment and posttreatment stages. As shown by the histogram in Table 2 the majority of clients were in the precontemplative stage (not thinking about change) and the least number of clients were in the action stage (active efforts to change a particular behavior). Before treatment 77.3% (n= 17) of the participants were in the precontemplative stage, 18.2% (n= 4) were in the contemplation stage, and 4.5% (n= 1) were in the action stage.

Table 2

Histogram frequency for pretreatment stage

Value Label	Value
PRECONTEMPLATIVE STAGE	.00
CONTEMPLATIVE STAGE	1.00
ACTION STAGE	2.00

COUNT VALUE

17 .00 ----------

4 1.00 ----------

1 2.00 --

I.....I.....I.....I.....I.....I

0 4 8 12 16 20

As shown by the histogram in Table 3 there was a change in stage level after treatment. The majority of clients were in the action stage (active efforts to change a particular behavior) and the least number of clients were in the contemplative stage (thinking that change might be a good idea). After treatment 18.2% (n= 4) of the participants were in the contemplative stage and 81.8% (n= 18) were in the action stage. This is displayed in Table 3.

Table 3

Histogram for posttreatment stage

Value Label	Value
CONTEMPLATIVE STAGE	1.00
ACTION STAGE	2.00

COUNT VALUE

17 .00 ----------

4 1.00 ----------

1 2.00 --

I.....I.....I.....I.....I.....I

0 4 8 12 16 20

The Sign Test was used to evaluate the "Readiness to Change" (RTC) stage between pretreatment (stage 1) and posttreatment (stage 2) scores ($p < .05$, 1 df). Each category was assigned a plus or minus sign. As shown in Table 4 this sample is lopsided with more pluses than minuses. This indicates the null hypothesis is rejected, there is a relationship between motivational intervention and motivation to change. The results show that motivation and treatment recovery positively in the population. This is displayed below in Table 4.

Table 4

Sign Test

STAGE 1 STAGE @ PRETREATMENT

With STAGE 2 STAGE @ POSTTREATMENT

Cases

0 - Diffs (Stage 2 Lt Stage 1)		
21 + Diffs (Stage 2 Gt Stage 1)		(Binomial)
1	Ties	2- tailed P= .000
22	Total	

The Wilcoxon Matched-pairs Signed-ranks Test was used to test the significance of the changes in motivation. Stage 1 (pretreatment) was compared with stage 2 (posttreatment). The results of the Wilcoxen Matched-pairs Signed-ranks Test demonstrate there was a significant change in the "Readiness

to Change" (RTC) stage between pretest and posttest scores (2-tailed p=.001, 1 df, z= -4.0145). This is displayed in Table 5.

Table 5

Wilcoxon Matched-pairs Signed-ranks Test

	STAGE 1	STAGE @ PRETREATMENT	
With	STAGE 2	STAGE @ POSTTREATMENT	
Mean Rank	Cases		
.00	0	-	Ranks (STAGE 2 lt STAGE 1)
11.00	21	+	Ranks (STAGE 2 Gt STAGE 1)
	1		Ties (STAGE 2 Eq STAGE 1)
	--		
	22		Total

z= -4.0145 2-tailed p= .0001

CHAPTER V

DISCUSSION

The null hypothesis tested stated that there was no relationship between level of motivation and participation in a substance abuse treatment program. The null hypothesis was rejected. The findings of this study support the claim that the level of motivation, or readiness to change, increased after participation in a substance abuse treatment program. Clients who participated in a thirty-day residential treatment program progressed in their stage of readiness to change from their problematic behavior to healthier behavior.

This study has explored the idea that successful recovery from substance abuse involves clients' motivation level and readiness to change. The relationships described in Tables 2 and 3 show a change in the clients stage level before and after treatment. The stage level increased to a higher level of motivation after treatment. Before treatment 77.3% of the participants were in the precontemplation stage, 18.2% were in the contemplation stage, and 4.5% were in the action stage. After treatment 18.2% were in the contemplation stage and 81.8% were in the action stage.

Table 4 showed that motivation and treatment covary postively ($p<.05$). The Wilcoxen Matched pairs Signed- ranks Test (table 5) showed $p<.05$. This indicated a change between pretest and posttest scores. These changes followed what was described in the literature regarding level of motivation and treatment. Each of the statistical relationships support the belief that appropriate treatment

increases the readiness to change from problematic behavior to healthy, non-using behavior.

The findings of this study were in agreement with the results reported by DiClemente (1993) of a study of commercial and industrial painters who smoked cigarettes. A yearlong intervention program that shifted emphasis over time was offered. It offered motivational messages, action-oriented activities, and community resources. There was a focus on relapse prevention and recycling as the program ended. This comprehensive, stage sensitive intervention demonstrated a significant effect with the painters who received treatment, compared to the painters who received minimal treatment.

Stage-based approaches are used in most of the current self-help manuals for smoking cessation and in staff training at the Cancer Information Telephone Services. A program of personalized, written feedback that focused on the subject's stage status, process activity, and self-efficacy was found to outperform a manual-alone intervention (DiClemente, 1993).

Miller, Sovereign & Krege (1988) reported that even minimal interventions can have a significant impact on drinking behavior. A group of Swedish men who abused alcohol were chosen to receive brief intervention to change their drinking pattern. This group was compared to a control group that received no treatment. The first group showed substantially fewer alcohol-related problems, illnesses, hospitalizations, sick days, and work absences over the subsequent five years, relative to controls.

This study has brought to light the possibility that substance abuse treatment may increase the motivation to change from using behavior to non-using behavior. According to the literature motivation is considered to be a prerequisite to recovery. Motivation is considered necessary for individuals to enter in, continue in, comply with, and succeed in treatment. Without motivation successful recovery is considered unlikely.

The findings of this study support the importance of matching treatment to clients' level of readiness to change. Matching the intervention to clients' motivation level increases the compliance and success in substance abuse treatment. There was significant progression through the stages of readiness to change. This study shows the benefit of motivational intervention to anyone with addictions. Not only those with substance addiction but also addictions such as smoking, shopping, and overeating.

Limitations and Recommendations

Several factors effect the present study including the difficulties of defining and measuring an abstract variable such as motivation. Possible fluctuations of the addicts perceptions of themselves and switching to other addictions may have influenced the readiness to change scores. Self-reported substance abuse may be problematic, as well as the severity of substance abuse within the sample. Another factor that may have influenced the study was the difficulty of measuring the influence of prior treatment on readiness to change.

This was a short-term study focusing on short-term cessation activity,

not long-term abstinence. A long-term study, such as following the participants for six months or a year, may show different movement through the stages of change.

The greatest weakness of the study was the small and non-random sample size. A larger sample size may have produced different results. The non-random sample size may not have been representative of the general population of recovering alcoholics. Another weakness was that only females were studied. Including males in the study may have resulted in a different outcome.

Although the research evidence supporting the change model is already substantial, the model is complex, multivariate, and dynamic. This reflects the complexity of the process of change. There is still a great deal to learn about the process, the transitions between stages, and the phenomenon of recycling and successful maintenance. There are several questions to consider. Are the stages discreet steps, or do they operate more as a continuum? Are there distinct subgroups within stages? Is there an ideal pattern of process use to negotiate the stages successfully? How do relapse and recycling affect stage status?

Although many questions about the change model remain, the research has provided a promising beginning. The model has stimulated new ways of thinking about individuals, natural groupings of individuals, treatment seekers, and self-changers. It has contributed to developing motivational interviewing techniques. Innovative interventions have developed that tailor treatment to a specific stage in the process of change, target subgroups in certain stages, and

match treatments to individual stage status in a dynamic, interactive manner. The "Readiness to Change" questionnaire, which was developed to assess clients' "readiness to change", aids in assigning clients to appropriate stages and matching treatment. The continuing challenge will be to develop stage-relevant, effective interventions that will move individuals a stage at a time toward successfully maintained change.

Appendix A

Cover Letter

My name is Karen Lathrop. I am a Master's level student at Lindenwood University. I am working in conjunction with Dr. Pam Nickels. I am requesting your assistance in gathering information regarding motivation and change.

You will be asked to complete demographic information and two Readiness to Change questionnaires. Your name and identification information will be kept completely confidential. Questionnaires will be destroyed following the study.

You do not have to participate in this study if you do not wish and may stop at any time. If you have any questions either today or at a later time about your participation you may contact me at 447-9674.

Thank you for your cooperation.

Appendix B

PERSONAL DATA

1. NAME_____
2. SOCIAL SECURITY NUMBER_____
3. AGE_____
4. GENDER (circle one) Male Female
5. MARITAL STATUS (circle one) Married Unmarried
6. ETHNICITY (circle one) Caucasian African American Asian Hispanic
7. HOW MANY DAYS IN TREATMENT_____

PLEASE NOTE: Your name and identification information will be kept completely confidential. All questionnaires will be destroyed following the completion of the study.

References

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders, Washington D.C.: American Psychiatric Association.

Astel, J. (1995). A study of the relationship between alcoholism and self-esteem. Unpublished master's thesis, Lindenwood University, St. Charles, MO.

Brooke, D., Fudala, P., & Johnson, R. (1992). Weighing the pros and cons: help-seeking by drug misusers in Baltimore: USA. Drug and Alcohol Dependence, 31, 37-43.

Carter, C. (1993). Treatment of alcoholic women: The effects of gender-specific intervention on treatment outcome (Doctoral Dissertation, Tulane University, 1993). Dissertation Abstracts International.

Center For Substance Abuse Treatment (1994). Practical approaches in the treatment of women who abuse alcohol and other drugs. Rockville, MD: Department of Health and Human Services, Public Health Services.

Cook, D. (1991). Shame, attachment, and addictions: Implication for family therapists. Contemporary Family Therapy, 13(5), 405-419.

Corsini, R., & Wedding, D. (1995). Current psychotherapies. Itasca, IL: F.E. Peacock Publishers, Inc.

Cunningham, J., Sobell, L., Sobell, M., & F Gaskin, J. (1994). Alcohol and drug abusers: Reasons for seeking treatment. Addictive Behaviors, 19 (6), 691-696.

DeLeon, G. Melnick, G. & Kressel, D. (1997). Motivation and readiness for therapeutic community treatment among cocaine and other drug abusers. American Journal of Drug and Alcohol Abuse, 23(2), 169-189.

DiClemente, C. (1993). Changing addictive behaviors: A process perspective. Current Directions in Psychological Science, 2(4), 101-106.

DiClemente, C., McConnaughy, E., Prochaska, J. & Velicer, W. (1989). Stages of change in psychotherapy: A follow-up report. Psychotherapy, 26(4), 494-503.

Dovovan, D. & Marlatt, G. (1988). Assessment of addictive behaviors. New York: The Guilford Press.

Goldsmith, J. (1992). The essential features of alcohol and drug treatment. Psychiatric Annals, 22 (8), 419-424.

Griffin, M., Weiss, R., Mirin, S., & Lange, U. (1989). A comparison of male and female cocaine abusers. Archives of General Psychiatry, 46, 122-126.

Heather, N. (1989). Psychology and brief interventions. British Journal of Addictions, 84, 357-370.

Isenhart, C. (1994). Motivational subtypes in an inpatient sample of substance abusers. Additive Behaviors, 19(5), 463-475.

Kamper, G. (1989). Motivation in the treatment of alcoholism. Addictive Behavior, 14, 197-200.

Kingree, J. (1995). Understanding gender difference in psychological functioning and treatment retention. Drug and Alcohol Abuse, 21(2), 267-281.

Klingemann, H. (1991). The motivation for change from problem alcohol and heroin use. Journal of Addictions, 86, 727-744.

Lex, B. (1991). Some gender differences in alcohol and polysubstance use. Health Psychology, 10, 121-132.

Loughhead, T. (1991). Addictions as a process: Commonalties or codependence. Contemporary Family Therapy, 13(5), 455-470.

Martin, M., Giannandrea, P., Rogers, B., & Johnson, J. (1996). Beginning steps to recovery. A challenge to the "Come back when you're ready approach. Alcoholism Treatment Quarterly, 14(2), 45-57.

Miller, W. (1989). Motivation for treatment: A review with special emphasis on alcoholism. Psychological Bulletin, 98(1), 84-107.

Miller, W. & Heather, N. (1986). Treating addictive behavior. New York: Plenum Press.

Miller, N. & Mahler, J. (1991). Alcoholics Anonymous and the Alcoholics Anonymous model of treatment. Alcoholism Treatment Quarterly, 8, 39-51.

Miller, W., Sovereign, G., & Krege, B. (1988). Motivational interviewing with problem drinkers: The drinkers check-up as a preventative intervention. Behavioral Psychotherapy, 16, 251-268.

Orford, J. & Keddie, A. (1985). Gender differences in the functions and effects of moderate and excessive drinking. British Journal of Clinical Psychology, 24, 265-279.

Peele, S. (1989). Diseasing of america: Addiction treatment out of control. Lexington, MA: D.C: Health and Company.

Peterson, J. & Nisenholz, B. (1995). Orientation to counseling. Needham Heights, MA: A. Simon and Schuster Company.

Prochaska, J. (1994). Strong and weak principles for progressing from precontemplation to action as the basis of twelve problems behaviors. Health Psychology, 13(1), 47-51.

Prochaska, J. DiClemente, C., & Norcross, J. (1992). In search of how people change. Application to addictive behavior, American Psychologist, 24, 1102-1113.

Robbins, C. (1989). Sex differences in psychosocial consequences of alcohol and drug abuse. Journal of Health and Social Behavior, 30, 117-130.

Rotgers, F., Keller, D., & Morgentern, J. (1996). Treating substance abuse. New York: The Guilford Press.

Schothenfeld, R. (1989). Innovative treatment of substance abuse disorders: Impediments to success. Psychiatry, 2, 164-175.

Simpson, D. & Joe, G. (1993). Motivation as a predictor of early dropout from drug abuse treatment. Psychotherapy, (30), 357-368.

Special Report. (1989). A prudent toast to your health. Special Report, 7(10), 3-6.

Stark, M. (1992). Dropping out of substance abuse treatment: a clinically oriented review. Clinical Psychology Review, 12, 93-116.

Watson, R. (1994). Addictive behaviors in women. Totowa: Humana Press.

Zweben, J. (1989). Recovery-oriented psychotherapy: Patient resistance and therapist dilemmas. Journal of Substance Abuse, 6, 123-32.