

AN ABSTRACT OF THE DISSERTATION OF

Dana B. Doerksen for the degree of Doctor of Philosophy in Counseling presented on February 12, 2009.

Title: The Change in Alcohol Consumption of Important People to Clients.

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Cass Dykeman

*The Change in Alcohol Consumption of Important People to Clients* measures the relationship between outcomes of clients' alcohol treatment and the changes in alcohol consumption by important people (IP) in clients' social networks. The prevalence of alcoholism in America continues to negatively impact individuals and society, yet few people with alcohol use disorders are experiencing recovery support and treatment. In the literature, numerous studies investigate if and how social variables influence clients' outcomes in alcohol treatment; however, there is a paucity of research that addresses if and how clients' outcomes influence the alcohol consumption of important people who may also struggle with alcohol abuse or dependence. The Project COMBINE database and IP instruments (from the 16-week treatment period) were used for this study, and a total of 688 clients were included. The Chi-square and Cramer's V tests revealed no statistical significance between the two variables. These results suggest a need for future research to address: diverse client-IP samples, involvement of IP in treatment, demographic data for client-IP, identification of each IP, the potential delay of influence of clients' outcomes on IP, and additional client-IP associations that inform addictions counseling, counselor education, and supervision.

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The Change in Alcohol Consumption of Important People to Clients

by

Dana B. Doerksen

A DISSERTATION

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degree of

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I understand that my dissertation will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my dissertation to any reader upon request.

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Dana B. Doerksen, Author

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## DEDICATION

To God Be The Glory (Galatians 1:3-5)

## Chapter One: Introduction

Alcohol related problems impact a multitude of people, individually and systemically (National Institutes of Health [NIH], 2000; World Health Organization [WHO], 2004). Alcohol consumption dramatically affects individuals with alcoholism but also heavily impacts their families (Johnson, 2001; Maffli, 2001; Roberts & McCrady, 2003) and other significant people in their lives (Valente, Gallaher, & Mouttapa, 2004), some of whom seriously struggle with problems of alcohol consumption themselves (Dawson, Grant, Chou, & Stinson, 2007; Humphreys, Moos, & Cohen, 1997; Pernanen, 2001). Over 17 million American adults meet the diagnostic criteria for alcohol abuse or alcoholism (Grant et al., 2006), with only 20% receiving treatment (Booth, Fortney, Curran, & Kirchner, 2001). These prevalence rates and treatment statistics indicate a clear need to assist the 13.6 million people who are untreated and not experiencing recovery support (Anton et al., 2006; Humphreys & Klaw, 2001; Weisner, Matzger, & Kaskutas, 2003). In response, the primary research focus of this study queried if it is possible for treatment to benefit clients while also benefiting those in their social networks, who might be among the 13.6 million people with untreated alcohol abuse or dependence.

This dissertation explores the potentially synergistic relationship between clients' outcomes in alcohol treatment and the alcohol consumption of people who are important to those clients. If clients' successful treatment outcomes correlate with a decrease in problematic alcohol consumption by important people (IP) in clients' lives, would this empirical research contribute to the preparation of counselors,

systemic treatment approaches, increases in recovery support for people with alcohol problems, education on prevention, funding decisions, and future research. In summary, this research observes changes in the alcohol consumption status of IP as a result of clients' treatment outcomes--compared to previous research that studied changes in clients' drinking as a result of treatment and social influences--and, thus, this study will uniquely inform theory, counselor preparation, and practice in the area of addictions counseling and counselor education.

### *Overview*

This chapter provides an overview of the following topics: the problem, the rationale, Project COMBINE, the purpose, the research question, the variables, the hypotheses, a glossary of terms, and an outline of Chapters Two, Three, Four, and Five.

### *Problem and Rationale*

A review of the literature shows that the need to address problems related to alcohol consumption is evident and vital (Miller, 2004; NIH, 2000; Pettinati et al., 2004; WHO, 2004), as is the need to assist people who are not in treatment or receiving support (Anton et al., 2006; Booth et al., 2001; Dawson et al., 2007; Humphreys et al., 1997; Pernanen, 2001). Specifically, over 13 million people with alcohol use disorders (AUD) are not receiving treatment or assistance (Grant et al., 2006). Institutes of higher education, for instance, are implementing ways to prevent alcohol and drug problems (Education Department General Administrative Regulations, 2007), yet problems persist due to a plethora of influences, such as

sociocultural expectations (Chen et al., 2008; Wild, 2002) and perceived drinking norms (Epstein, Griffin, & Botvin, 2008). Similarly, the literature includes comprehensive research studies on treatment efficacy (e.g. Project MATCH Research Group, 1997), yet a high percentage of Americans still struggle with alcohol abuse and dependence (Anton et al., 2006; Grant et al., 2006). With alcohol consumption as a persisting issue--even with current research, education, prevention, and treatment approaches--are there alternate ways in which to approach problematic alcohol consumption?

National, professional, and academic entities are attempting to address the devastating effects of alcohol misuse and to pursue effective approaches to prevention, education, and treatment. For example, the Council for Accreditation of Counseling and Related Educational Programs (CACREP) adopted 2009 Standards that add Addiction Counseling as a program area (CACREP, 2008). Colleges and universities now annually distribute information related to alcohol and substance abuse, in accordance with the Drug-Free Schools and Communities Act (34 CFR Part 86; Education Department General Administrative Regulations, 2007). Furthermore, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) sponsored two large-scale, randomized control trials, Project MATCH (1997) and Project COMBINE (2004), to determine effective alcohol treatments. However, despite extensive efforts to decrease systemic alcohol problems, the meta-analyses in the literature indicate a continued need for research in this area (Miller & Wilbourne, 2002; O'Farrell & Fals-Stewart, 2003; Pinsof & Wynne, 1995).

Research in the field of addictions has justifiably concentrated on the negative impact alcohol abusers have on their families and communities (Benishek, Dugosh, Faranda-Diedrich, & Kirby, 2006; Dawson et al., 2007; Haugland, 2005; Hill & Thomson, 1997; O'Farrell & Fals-Stewart, 2003). Intergenerational transmission and issues related to children of alcoholics have been included in articles addressing the damaging effect of alcohol abuse and dependence (Johnson, 2001; Jones, 2007; Maffli, 2001; Tubman, 1993). The negative impacts on communities include economic costs, demands on resources, and too narrow of a focus on research. For instance, researchers have investigated the clinical effectiveness and financial costs of alcohol treatment (Bottlender & Soyka, 2005; Holder et al., 2000; Project MATCH Research Group, 1997), while some have examined the reliability of alcohol assessment instruments for treatment purposes (Donovan, Kivlahan, Doyle, Longabaugh, & Greenfield, 2006; Tonigan, Miller, & Brown, 1997). While studies such as these, with an intense focus on the harmful and costly consequences of clients' alcohol consumption, are essential to addictions counseling, they may overlook the intricacies of how clients are influenced by their social networks and, in turn, how those social networks are influenced by clients (Pernanen, 2001; Tracy, Kelly, & Moos, 2005).

Many studies have examined the social and environmental influences on alcohol use disorders and treatment outcomes (Beattie, 2001; Capone & Wood, 2008; Longabaugh, Wirtz, & Stout, 2001; McCrady et al., 2006; Meyers & Squires, 2001), but these have attended only minimally to treatment outcomes influencing social relationships, especially those that decrease alcohol consumption in clients' social

networks. Research that seeks to promote alcohol-specific support, understand social investment, and discover specific pre-treatment characteristics of social relationships in order to predict clients' treatment outcomes is empirically and clinically valuable (Manuel, McCrady, Epstein, Cook, & Tonigan, 2007; Tracy et al., 2005; Zywiak, Longabaugh, & Wirtz, 2002). However, because only 20% of individuals with drinking problems in America are receiving treatment (Booth et al., 2001; Grant, 1997), there appears to be a need to also focus on individuals who are untreated (Anton et al., 2006; Humphreys & Klaw, 2001; Weisner et al., 2003).

A review of the literature reveals a lack of studies that explore the relationship between clients' outcomes in alcohol treatment and the alcohol consumption of IP in those clients' social networks. Therefore, this dissertation builds upon scholarly research, specifically Project COMBINE, as a means to explore this alternative approach related to clients' treatment outcomes influencing the problematical alcohol consumption of IP.

### *Project COMBINE*

Project COMBINE, which stands for Combined Pharmacotherapies and Behavioral Interventions, was a multi-site clinical trial funded by the NIAAA to investigate effective combinations of treatments for clients with alcoholism. The COMBINE randomized controlled trial was conducted from January 2001 to January 2004 and included 1,383 volunteers with the primary diagnosis of alcohol dependence (Anton et al., 2006). In order to obtain a diverse and generalizable population sample, Project COMBINE was comprised of eleven sites from public and private sectors,

including hospital and university facilities in the United States (Miller, 2004). The treatments included nine randomly assigned combinations of medications (placebo, no pills, naltrexone, and acamprosate) and behavioral therapies (medical management [MM] and combined behavioral intervention [CBI]), with no pills plus CBI serving as the control condition of the study (Pettinati et al., 2004).

At the start of Project COMBINE, structured initial interviews were conducted and included assessment of drinking histories and recent heavy drinking, health histories, reports of social networks and important people to the client, and evaluation of readiness for change (Miller, 2004). A baseline date of abstinence from alcohol was obtained for each participant, with a minimum requirement of four days of abstinence prior to initiating treatment (Miller, 2004). Throughout treatment, related assessment documents, such as the Important People (IP) instrument and Form 90, were submitted to and completed by participants at standardized intervals (Anton et al., 2006). All treatment combinations occurred over a 16-week period with a 1-year post-treatment period, and COMBINE outcomes were defined in terms of percentage of days abstinent and any time(s) returned to heavy drinking (Anton et al., 2006).

The IP instrument was developed for Project COMBINE to identify and assess clients' social networks, especially those supportive of clients' treatment participation (Longabaugh & Zywiak, 2002). This instrument was adapted from the Important People and Activities (IPA) instrument used by Project MATCH (Clifford & Longabaugh, 1991) and originally influenced by Beattie and Longabaugh (1986). Researchers used Form 90 to document data regarding clients' alcohol consumption

(Miller, 1996). For the study described in this dissertation, Form 90 and the COMBINE IP instrument were utilized, attending to percentage of days abstinent, respectively, and level of the important people's (IP's) importance and alcohol consumption.

### *Purpose*

The purpose of this study was to explore the relationship between clients' treatment outcomes and the alcohol consumption of IP in clients' social networks. As noted above in the Problem and Rationale section, a review of the literature revealed a research gap in this area (Humphreys & Klaw, 2001; Pernanen, 2001; Weisner et al., 2003), yet numerous people struggle with alcohol problems and only some of them receive treatment (Anton et al., 2006; Booth et al., 2001; Grant et al., 2006). This study contributes to empirical research related to whether treatment outcomes influence the alcohol consumption of IP who struggle with alcohol abuse or dependence. Therefore, the results of this research are relevant to clinical practitioners, counselor educators, addiction counselors, policy makers, and researchers. This knowledge can inform how to approach and fund education, prevention, and treatment, to prepare counselors to effectively involve clients' social networks in treatment, and to discover future directions for research in the field of addiction counseling and counselor education.

### *Research Question*

For this study, the research focus was the alcohol consumption status of IP as related to clients' percentage of days abstinent at treatment outcomes. Thus, this study

examined the following research question: Is there a relationship between (a) clients' treatment outcomes and (b) alcohol consumption changes of the clients' IP?

### *Variables*

Two categorical variables are present in the research question. Variable A is the status of clients' treatment outcomes. In this study, this outcome status variable is binomial (abstinent or non-abstinent). Variable B is the status of IP's alcohol consumption. In this study, this consumption status variable is trinomial (increased, decreased, or unchanged). The two categorical variables, outcome and consumption, have two and three levels respectively. Please see Table 1.1.

Table 1.1. Variables

Variable A	Status of Clients' Treatment Outcomes (abstinent or non-abstinent)
Variable B	Status of IP's Alcohol Consumption (increased, decreased, unchanged)

### *Hypothesis*

For the above research question, the following hypotheses inform the research design and data analysis:

H<sub>1</sub>: There is a relationship between clients' treatment outcomes status (i.e., Abstinent or Non-abstinent) and the alcohol consumption status of IP (i.e., Increased, Decreased, or Unchanged).

H<sub>0</sub>: There is no relationship between clients' treatment outcomes status (i.e., Abstinent or Non-abstinent) and the alcohol consumption status of IP (i.e., Increased, Decreased, or Unchanged).

### *Glossary*

The following glossary is designed to assist the reader by defining technical terms used throughout this dissertation. The glossary is in alphabetical order and can serve as a reference for the definition of constructs and variables investigated in this study.

Alcohol Consumption (AC) at the Start of Treatment (TB): Item G on the IP-II, which states, “How often does this person drink alcohol? The frequency of drinking answers range from 7 (daily) to 0 (not in past 4 months; Longabaugh & Zywiak, 2002).

Alcohol Consumption (AC) at Treatment Completion (T16): Item D on the IP-FUI, which states, “How often does this person drink alcohol?” The frequency of drinking answers range from 7 (daily) to 0 (not in past 4 months; Longabaugh & Zywiak, 2002).

AUD: Alcohol Use Disorder.

CBI: Combined Behavioral Intervention, the Project COMBINE behavioral intervention (Anton et al., 2006).

Form 90: A structured assessment interview for drinking and related behaviors and specific details related to clients’ percentage of days abstinent (Miller, 1996).

Important People (IP, Important People [plural]; IP’s, Important People’s [plural possessive]): Ten or fewer people in a client’s social network who the client identifies as important on the Important People (IP) instruments (Longabaugh & Zywiak, 2002).

Important People Follow-Up Interview (IP-FUI) Instrument: The follow-up instrument used at the end of treatment to assess who is in the client's social network, which people are important, and if they are supportive of the client's participation in treatment (Longabaugh & Zywiak, 2002).

Important People Initial Interview (IP-II) Instrument: The initial instrument used at the beginning of treatment to assess who is in the client's social network, which people are important, and if they are supportive of the client's participation in treatment (Longabaugh & Zywiak, 2002).

MM: Medical Management, the Project COMBINE medication and management intervention (Anton et al., 2006).

Percentage of Days Abstinent (PDA): The percent of given number of days during which the client refrained from drinking any alcohol.

Pretest IP-II-G: Item G ("How often does this person drink alcohol?") in the Important Persons Initial Interview Instrument.

Posttest IP-FUI-G: Item G ("How often does this person drink alcohol?") on the Important Personals Follow-Up Instrument.

Project COMBINE: Combined Pharmacotherapies and Behavioral Interventions, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) national, multi-site, randomized controlled trial to investigate the effective combinations of treatments for alcoholics begun in 2001.

Project MATCH: Matching Alcoholism Treatment to Client Heterogeneity, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) national, multisite, randomized clinical trial of alcoholism treatment begun in 1997.

Qualifier #1: The level of importance at TB (Longabaugh & Zywiak, 2002). Specifically, Item D on the IP-II, which states, “How important has this person been to you?” Answers 4 (important), 5 (very important) and 6 (extremely important) qualify a particular important person for this study.

Qualifier #2: Confirmation that all clients who completed the IP-II at the beginning of treatment (TB) also completed the IP-FUI at the end of the 16-week treatment (T16).

Social Network: People with whom the client has spent time in the past six months (Clifford and Longabaugh, 1991).

TB: Baseline time phase of treatment.

T16: End of the 16-week treatment phase.

Treatment Outcome for this Study: A client’s “percentage of days abstinent from alcohol” as measured for Project COMBINE (Anton et al., 2006).

#### *Overview of Chapters Two, Three, Four, and Five*

Chapter Two of this dissertation provides a review of the literature relating to clients’ treatment outcomes and the alcohol consumption of IP. Chapter Three provides the methodology for this study, including an introduction, research design, participants, instruments, procedures, and data analysis. Chapter Four presents the data

analyses and results. Chapter Five presents conclusions, interpretations, limitations, implications, and recommendations for future research.

## Chapter Two: Literature Review

### *Introduction*

A review of the literature reveals an absence of studies addressing the relationship between clients' outcomes in alcohol treatment and the alcohol consumption of people in clients' social networks. However, numerous studies and articles focus on alcohol consumption, the services rendered to those individuals with alcohol problems, and social influences on client outcome. Building upon the available research and especially Project COMBINE, this study addresses three constructs: client treatment outcome, social influences, and alcohol consumption of IP to the client. In addressing these areas, current research regarding problematic alcohol consumption is reviewed. Then, existing studies of alcohol treatments that involve more than one person are described. Next, existing studies of social influences on clients' outcomes are described based on the review of the literature. Last, systemic approaches to social learning theory are outlined in light of the research question.

### *Problematic Alcohol Consumption*

#### *Definitions of Problematic Alcohol Consumption*

According to the literature, problematic alcohol consumption is often defined by behavioral and situational consequences. According to the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*, the diagnosis of Alcohol Abuse is appropriate when one of the following circumstances occurs within a 12-month period due to recurrent alcohol use: failure to fulfill primary obligations, engagement in hazardous activities, illegal actions, and maintenance of alcohol

consumption despite negative consequences (American Psychiatric Association [APA], 1994). The *DSM-IV* diagnosis of Alcohol Dependence is appropriate when at least three out of seven situations occur within the same 12-month period, including tolerance, withdrawal, increased amounts, unsuccessful efforts to minimize use, increased time spent to pursue and consume alcohol, sacrificed activities due to focus on drinking, and maintenance of alcohol consumption despite negative consequences (APA). Therefore, identifying problematic alcohol consumption involves a thorough assessment of an individual's volume of alcohol consumption, patterns of drinking, and experienced consequences in daily life (Rehm, Taylor, & Room, 2006).

Project COMBINE utilized similar definitions of problematic alcohol consumption to recruit participants. The eligibility criteria for participants in Project COMBINE included alcohol dependence, as noted in the *DSM-IV*, abstinence of 4 to 21 days, and consumption of a certain number of drinks (i.e., 14 for women and 21 for men) per week, all within the 90 days prior to the beginning of treatment (Anton et al., 2006). In addition to the number of drinks per week, other articles in the literature identified alcohol abuse and dependence by the number of drinks consumed per day (Miller, Walters, & Bennett, 2001). For instance, women with four or more drinks and men with five or more drinks during a day would qualify as people with problematic alcohol consumption (Roberts & McCrady, 2003). In the Important People (IP) instrument used in COMBINE, alcohol consumption was delineated by frequency of drinking, such as daily or about every other week (Longabaugh & Zywiak, 2002).

Problematic alcohol consumption is also defined in relation to the research on and clinical use of alcohol assessments, identified variables, and treatment. Donovan, a researcher in the COMBINE trials, states, “Assessment is the cornerstone of good clinical practice . . . [and] the foundation for outcomes research” (Donovan, 2005, p. 93). In other words, the details gathered in assessments inform which variables define and measure treatment outcome. In Project COMBINE, the two primary variables to measure treatment outcome were percentage of days abstinent (PDA) and time to first heavy drinking day (FHDD; Anton & Randall, 2005). Structured assessments were conducted with all clients, and COMBINE researchers recorded drinking details on documents such as Form 90 (Miller & Del Boca, 2004). Thus, successful treatment outcomes for Project COMBINE were associated with a high PDA and FHDD (Anton & Randall). Similarly yet specifically, this study used, exclusively, clients’ PDA (abstinent or non-abstinent) to define and delineate clients’ treatment outcomes status.

#### *The Impact of Problematic Alcohol Consumption*

Alcohol consumption can range on a continuum from no problems to severe impairment and, thus, can impact individuals in varying ways. In the 1992 National Longitudinal Alcohol Epidemiologic Survey (NLAES), the 12 month prevalence rates for alcohol problems in the U.S. indicated that over 30% of adults were engaged in risky consumption levels (Grant et al., 1994). Though many people drink safely, physical effects such as cardiovascular diseases and liver cirrhosis are regularly associated with problematic alcohol consumption (Murray & Huelskoetter, 1987). Also, emotional, spiritual, and mental concerns are not uncommon (Cook, 2007;

Nugent & Jones, 2005; Page & Berkow, 1998). When people “rely on alcohol to relieve their stress [they] are more likely to develop alcohol abuse and dependence” (NIH, 2000, p. 8). A further review of the literature indicated that, in many emergency settings, injuries have a strong correlation with the influence of alcohol (Cherpitel & Ye, 2008), and alcohol related accidents involving automobiles or firearms, for instance, often result in costly medical bills or death (Heien & Pittman, 1993). Notably, the WHO documented in 2004 that global alcohol consumption caused over 1.8 million deaths.

A review of the literature reveals articles summarizing the various costs of alcohol problems. Problematic alcohol consumption affects families and communities as well as individuals (Johnson, 2001; Roberts & McCrady, 2003). Heien and Pittman (1993) documented that the external costs of alcohol abuse in America were over \$10 billion (in 1985) when defined as “costs of injury and death inflicted on third-party victim” (p. 306). From a family systems perspective, approximately one child in every four is exposed to problematic alcohol consumption in the family (Grant, 2000), and studies have shown that parental alcohol problems are associated with some child behavior problems (Jones, 2007; Marsh & Dale, 2005). Furthermore, community and domestic violence are often correlated with the use and abuse of alcohol (Dawson et al., 2007). Clearly, a review of the literature shows both individual and systemic problems related to alcohol consumption.

*Services Related to Problematic Alcohol Consumption*

The concept of a continuum, ranging from no risk to severe problems, offers a visual picture on which to place services related to problematic alcohol consumption (Roberts & McCrady, 2003). Prevention and education are services found on the lower- to midsection of the risk continuum. Related articles in the literature emphasize, for example, incorporating social influences and perceptions of drinking into alcohol prevention programs (Chen et al., 2008; Epstein et al., 2008). Other researchers support prevention and education services by studying the impact of alcohol warning labels and marketing results of television beer advertisements (MacKinnon, Nohre, Cheong, Stacy, & Pentz, 2001; Slater et al., 1996). Services that are regulated by research, legal policies, and programmatic decisions would also fit on the continuum, such as the requirement to annually provide education and prevention on alcohol and drug risks (Education Department General Administrative Regulations, 2007, 34 CFR Part 86). Similarly, CACREP's (2008) recently added programmatic area of Addictions Counseling addressed numerous levels on the continuum from the perspective of prevention, education, supervision, and counseling.

Treatment and treatment providers are another way in which problematic alcohol consumption is addressed and studied (Bottlender & Soyka, 2005; Matano & Yalom, 1991; Oser & Roman, 2007). Self-help groups such as Alcoholics Anonymous (AA), although not formal treatment, function to minimize alcohol consumption and, thus, are often studied (Bodin & Romelsjo, 2006; Tonigan, Miller, & Connors, 2001; Timko, DeBenedetti, & Billow, 2006). Projects MATCH and COMBINE are also

repeatedly referenced throughout the literature on addictions counseling (Giovazolias & Davis, 2005; Mandsager, 2002; Wiley, 2006). The extensive data and related studies provide empirical knowledge about effective alcohol treatment and the training of treatment providers. Sponsorship and funding, by entities such as the NIAAA and the NIH, are also essential components to what services might be available to people with alcohol problems.

#### *Previous Studies Related to Problematic Alcohol Consumption*

The literature reveals an extensive, comprehensive list of studies related to problematic alcohol consumption. As noted in Chapter One of this study, many researchers have researched and written about the negative impact of alcohol and effective treatment options. Two additional recovery approaches are worth mentioning to gain a broad perspective of research on problematic alcohol consumption. The Stages of Change function as a process approach, aligning with clients' motivation towards behavioral change, including the stages of precontemplation, contemplation, preparation, action, and maintenance (and relapse, as relevant; Prochaska, DiClemente, & Norcross, 1992). Motivational Interviewing, according to Miller and Rollnick (2002), is a direct, client-centered counseling approach to help clients move from ambivalence towards change. In the meta-analyses by Miller and Wilbourne (2002), other categories of treatment approaches to problematic alcohol consumption are summarized and include brief interventions, motivational enhancement, medication management, skills training, psychotherapy, marriage and family therapy, and mutual help approaches.

*Current, Unresolved Issues of Problematic Alcohol Consumption*

A review of the literature identifies a contemporary call for more studies on prevention, risk-assessment, and education (Capone & Wood, 2008; Chen et al., 2008; Epstein et al., 2008; Schuckit et al., 2008) as well as treatment efficacy (Anton et al., 2006; Davidson, Gulliver, Longabaugh, Wirtz, & Swift, 2007; Smock et al., 2008). Yet research and treatment cost money, making cost-effective treatments a mutual goal with clinically effective treatments. Similarly focused, the NIAAA funded a study to estimate the mean cost per patient in Project COMBINE (Zarkin, Brad, Mira, Cisler, & Kivlahan, 2005). Similarly, after Project MATCH, studies were conducted to ascertain the costs in relation to delivered treatment (Holder et al., 2000). The conclusions in both studies highlighted the difficulty in comparing short-term versus long-term treatment, client prognosis, medications costs, and payment of staff, office space, and supplies (Holder et al.; Zarkin et al.). Furthermore, when addressing the efficacy of alcohol treatment in the United States, Miller et al. (2001) clarified that only one third of clients avoid alcohol problems within a year after treatment; the other two thirds return to drinking, and a portion of the two thirds decrease their alcohol intake as compared to pre-treatment consumption (Schuckit, Tipp, Smith, & Bucholz, 1997). And, as Anton and his COMBINE colleagues (2006) published, numerous people with problematic alcohol consumption are not receiving treatment, heightening awareness of the need to attend those who are untreated (Booth et al., 2001; Tucker, Foushee, Black, & Roth, 2007).

How do we address these current, unresolved issues of problematic alcohol consumption? Research has been conducted, but more is needed. Financial support for research and treatment exists, but alcohol problems and financial needs remain. Although previous and current research is advancing the field, the mechanisms of change, predictors, mediators, and moderators for recovery are still being discovered. Moreover, many people with problematic alcohol consumption are not receiving needed help. As Rehm et al. (2006) asserted, “Without effective and targeted interventions . . . increases in alcohol-related burden” will continue (p. 503).

#### *Treatment Involving More than One Person*

##### *Clinical Studies Involving More than One Person*

In the literature, numerous meta-analyses exist that focus on alcohol treatment, clients, and the participation of clients’ significant others in treatment. Miller and Wilbourne (2002) reviewed over 350 studies of treatments for alcohol use disorders (AUD), concluding that research is needed to understand differences in treatment efficacy. With that said, Miller and Wilbourne also delineated treatments with the strongest evidence of efficacy, including, among others, brief interventions, social skills training, the community reinforcement approach, and behavioral marital therapy (2002). Similarly, O’Farrell, and Fals-Stewart (2003) reviewed 38 controlled studies to discern the efficacy of marital and family therapy in alcoholism treatment and concluded that behavioral couples therapy (BCT), family systems therapy (FST), and BCT with the support of Alcoholics Anonymous (AA) were most effective. Beattie’s (2001) meta-analyses of social relationships and posttreatment drinking outcomes

highlighted the strength of significant others' involvement in treatment and the connection to client outcome but also suggested more rigorous studies to understand the effects between the two broader constructs. Pinsof and Wynne (1995) conducted an empirical overview of the efficacy of marital and family therapy that included a section on alcohol and drug abuse. In comparison to individual therapeutic approaches, family therapy was significantly more effective for client' short-term abstinence but was not more effective for long-term abstinence (Pinsof & Wynne).

Projects COMBINE and MATCH included research and clinical components addressing clients' social networks. The Important People (IP) and Important People and Activities (IPA) instruments were designed and utilized, in COMBINE and MATCH respectively, to identify clients' social networks, activities, and people supportive of clients' treatment (Clifford & Longabaugh, 1991; Longabaugh & Zywiak, 2002). The focal points were on decreasing pro-alcohol social support and increasing treatment and abstinent support within clients' social networks (Longabaugh et al., 2001; Miller, 2004).

#### *Clinical Studies Involving Groups*

Additional studies in the literature that focus on the involvement of more than one person in alcohol treatment are about group work (DeLucia-Waack, Gerrity, Kalodner, & Riva, 2004; DePaul Oxford House Research Team, 2005; Kelly, 2005). Self-help groups such as AA are an example. Although traditional 12-step programs are not organized or advertised as alcohol treatment, research indicates effectiveness in helping certain people to pursue and achieve abstinence (Tonigan et al., 2001;

Moos, 2008; Timko et al., 2006). However, the predictive value of mutual-help groups to client abstinence is controversial, with differing research results (Bodin & Romelsjo, 2006; Tonigan et al., 2001). Researchers are also studying groups designed for alcohol treatment such as Solution-Focused Group Therapy (Smock et al., 2008). In general, group work specialists emphasize the value of experiencing new, pro-recovery social skills in an interpersonal context, not simply intrapersonal, since the negative impacts of alcohol often occur within a relational context and include more than one person (Matano & Yalom, 1991; Page & Berkow, 1998).

#### *Summary of Treatment Involving More than One Person*

The literature also includes research involving alcohol treatment and the involvement of more than one person in clients' treatment. However, as noted in Beattie's (2001) meta-analysis, more research is needed to understand the effects of social relationships and treatment outcomes. In the next section, existing studies of social influences on client outcome will be described.

#### *Social Influences on Client Outcome*

##### *Terms and Definitions of Social Influences*

A review of the literature reveals a variety of terms and definitions of social influences that directly or indirectly impact clients in alcohol treatment. Social environmental influence is a broad term, including relationships, occupation, geographic space, and other environmental dynamics (McCrary et al., 2006). Clifford and Longabaugh (1991) described a social network as the people with which a client has spent time in the past 6 months and who support the client's abstinence or

drinking; this was an operative definition for the IP instruments. Zywiak and colleagues (2002) described social investment as the size of the daily network and the dependence upon a given important person in that network. Similarly, Valente et al. (2004) highlighted the influence of social behaviors and reinforcement with the age-old saying: “Birds of a feather flock together.” Beattie (2001), however, emphasized relational structure (status), function (practical support), and quality (mutual investment) as major influencers. In summary, social influences include the number of people in the network, amount of time spent, shared activities, acknowledgement of importance, mutual reinforcement, and the overall social environment (Longabaugh & Morgenstern, 1999).

#### *Social and Systemic Variables*

The literature reflects a substantial number of studies on social influences and problems of alcohol consumption (McCrary et al., 2006), reinforcing the role of social and systemic variables. Beattie and Longabaugh’s (1986, 1999) research identifying the strength of alcohol-specific versus general support is a foundation for other studies on the efficacy of social networks impacting client outcome (O’Farrell & Fals-Stewart, 2003). Test measurements, comparing two treatments, included the variables of support for drinking or support for abstinence (Davidson et al., 2007). Zywiak and colleagues (2002) found that patients with social networks including mostly non-drinkers and recovering alcoholics were more likely to maintain recovery after the end of treatment. Also, based on a community sample of married men with alcohol problems, client outcome was strongly associated with two systemic, interpersonal

factors: having a spouse without alcohol problems and having a large social support network (McAweeney, Zucker, Fitzgerald, Puttler, & Wong, 2005). Thus, understanding the relationship between the social variables and treatment outcome may lead to knowledge about certain variables predicting client outcomes (R. Longabaugh, personal communication, August 22, 2008).

#### *Summary of Social Influences on Client Outcome*

The literature includes research addressing social influences and client outcome. Some researchers have studied the influence of partner variables in predicting spouses' long-term recovery (McAweeney et al., 2005) while some have studied a community reinforcement approach to positively impact clients (Meyers & Smith, 1995; Meyers & Squires, 2001). Other researchers such as Longabaugh and Wirtz (R. Longabaugh, personal communication, January 13, 2009) are currently studying the predictive value of social variables from baseline IP instruments in connection with clients' treatment outcome. Therefore, if certain social variables can positively influence clients' treatment outcomes, is it possible that certain variables of clients' outcomes could positively influence IP in clients' social networks? If so, would this research inform ways to reach people with problematic alcohol consumption who have not received treatment or support?

#### *Systemic Approaches to Social Learning Theory*

##### *Systemic Approaches*

Systemic approaches are grounded in the perspective that the whole exists as interrelated, symbiotic subgroups (Powell, 2004) whereby interpersonal relationships

define human existence and meaning (Carter & McGoldrick, 1999). Important relationships within one's social network and family provide the structure by which identity, interrelatedness, separateness, a sense of belonging, culture, and growth occur (Carter & McGoldrick). Circular causality, for example, is a process of interacting in which each person's behavior influences and reinforces other people's behavior within the context of the relationship (Davis, 1996). These influential interactions involve communication feedback-loops, referred to as second-order cybernetics (Bateson, 1972). First-order cybernetics involve an external observer who seeks to understand and alter a system's homeostasis and self-regulation, while second-order cybernetics emphasize that the external person is inherently in the relational, contextual system (Goldenberg & Goldenberg, 2000).

### *Social Learning Theory*

Social Learning Theory suggests that substance use is affected by the behavior and reinforcement of others (Bandura & Barab, 1973; Valente et al., 2004). Those reciprocal interactions are repeated in a feedback-loop, per se, between personal factors, cognitive and behavioral functions, and one's social environment (Read, Wood, & Capone, 2005). Modeling and observing are also essential components of Social Learning Theory (Valente et al.). Consequently, social interactions combined with each person's personal perspective impact self-efficacy and motivation (DiClemente, Carbonari, Montgomery, & Hughes, 1994; Miller, 2004). Through these types of social interactions and influences, behavioral outcomes emerge within a relational, contextual environment.

*Alcohol Treatment: A Systemic Approach to Social Learning*

DiClemente and colleagues (1994) emphasized that social influences positively impact individuals' experiences, enhance self-efficacy, and influence motivation. This type of systemic approach to social learning and alcohol recovery serves as a valuable framework to explore the relationship between clients' treatment outcomes and the alcohol consumption of IP in clients' social networks.

*Conclusion*

Problems related to alcohol use disorders continue to negatively impact people individually and systemically (Miller, 2004; NIH, 2000; Pettinati et al., 2004; Roberts & McCrady, 2003; WHO, 2004), yet many of those people with alcohol abuse or dependence are not receiving needed treatment, medical assistance, or recovery support (Anton et al., 2006; Booth et al., 2001; Grant et al., 2006; Weisner et al., 2003). Thus, alternate interventions need to be investigated (Humphreys & Klaw, 2001). Accordingly, this research explored the relationship between clients' treatment outcomes and the alcohol consumption of people in their social networks to determine if clients' outcomes could vicariously benefit those IP who also struggled with alcohol problems but were not receiving recovery support. This empirical research provides an innovative approach to counseling, complements the programmatic addition of Addiction Counseling in counselor education and supervision (CACREP, 2008; Powell, 2004), and has the potential to enhance addiction counselor competencies-- clinically, educationally, and in supervision. In conclusion, the goal of this dissertation

is to inform theory, preparation, and practice in the area of addictions counseling and counselor education.

## Chapter Three: Methodology

This chapter outlines the methods employed in this study. Specific methodological areas include an introduction, research design, participants, instruments, procedures, and data analysis.

### *Introduction*

This study utilized the dataset from Project COMBINE, a multi-site, randomized control trial sponsored by the NIAAA from 2001 to 2004. Although the primary focus of Project COMBINE was to investigate effective combinations of treatments for alcoholics (Anton et al., 2006), this study focused on data related to clients' identified social networks and any changes of alcohol consumption by people important to clients while they underwent treatment.

### *Research Design*

This study employed a correlational design to answer the  $H_1$  and  $H_0$  (Shadish, Cook, & Campbell, 2002).

### *Participants*

Participants for this study were clients who were members of Project COMBINE. As of September 2003, COMBINE participants included 1,383 adult volunteers (about 30% women and 70% men), with a median age of 44 years (Anton et al., 2006). The project was comprised of 11 sites from public and private sectors, including hospital and university facilities in the United States (Miller, 2004). Over 70% of the participants had a minimum of 12 years of education, over 40% were married, and 23% were from an ethnic minority (Anton et al., 2006). As noted in the

*Journal of the American Medical Association*, baseline characteristics of participants were comparable and without significant differences (Anton et al., 2006).

COMBINE participants were recruited by advertisements or from clinical referrals at the treatment sites (Anton et al., 2006). Eligible criteria included a primary diagnosis of alcohol dependence, 4 to 21 days of abstinence, and specific alcohol consumption (about 21 or more drinks per week for men, and 14 or more drinks per week for women) during a consecutive 30-day period within 90 days of the baseline assessment (Anton et al., 2006). Exclusion criteria included other substance abuse (besides nicotine and cannabis), medication for psychiatric disorders, and unstable medical conditions (Anton et al., 2006). The COMBINE Coordinating Center randomly assigned eligible participants to treatments using “a permuted block design, using blocks of 9, stratified sites” [*sic*] (Anton et al., 2006, p. 2,004).

The population for this study was drawn from the Project COMBINE database. The focus was on people indicated as important on the Important People Initial Interview (IP-II) Instrument (see Table 3.2, p. 32) at the beginning time of treatment (TB; Longabaugh & Zywiak, 2002). Two qualifiers, done in sequence, narrowed the scope of this study.

Qualifier #1: On Item D of the IP-II instrument, the client must initially describe the IP as important, very important, or extremely important (numbers 4, 5 and 6, respectively).

Qualifier #2: The researcher confirms that all clients who completed the IP-II instrument also completed the IP-FUI instrument at the end of the 16-week treatment

(T16). Those clients who completed IP instruments during those times were included in this study; if IP instruments were not completed throughout treatment, then those clients were not included in this study.

### *Instruments*

This study utilized portions from three instruments developed for Project COMBINE (Miller, 2004; Pettinati et al., 2004). Table 3.1 shows which instruments were used, the abbreviations used for this study, the purpose of each instrument, and the number of items.

Table 3.1. Instruments Used for this Study

	Instrument name from COMBINE	Abbreviation for this study	Purpose of the instrument	Number of Items
1	Form 90-AIR/ED (AED version A)	Form 90	Gather data, especially amount of client's alcohol consumption	47
2	Important People Initial Interview	IP-II	Identify clients' social network and assess treatment support	9
3	Important People Follow-Up Interview	IP-FUI	Continue to assess treatment support of important people	7

Form 90, as designed for Project MATCH, is a structured interview with an emphasis on obtaining each client's amount of consumed alcohol (Miller & Del Boca, 1994; Project MATCH Research Group, 1997), as presented in Appendix A. Two separate test-retest reliability samples resulted in "relatively consistent outcome measures of drinking," especially with reliability specific to drinking outcome indices "(all  $r$  values  $\geq .88$ )" (Tonigan et al., 1997, p. 363). The second of the two test-retests (intraclass correlation coefficients) ranged from good (0.74) to excellent (1.00) on "all

key summary measures of alcohol consumption” and also highlighted that Form 90 is a “reliable instrument to measure alcohol consumption retrospectively *across time*” (Tonigan et al., pp. 358, 363). Also, Form 90 has “reasonable convergent validity” (Miller, 1996) and tests what it was designed to test, outcome measures of drinking (Tonigan et al.). Consequently, this study accessed Form 90 for the single purpose of utilizing clients’ percentage of days abstinent at T16 (end of treatment).

The Important People (IP) instruments were developed for Project COMBINE to identify and assess clients’ social networks, especially those supportive of clients’ treatment participation (Longabaugh & Zywiak, 2002). These COMBINE instruments were adapted from the Important People and Activities (IPA) instrument used by Project MATCH (Clifford & Longabaugh, 1991) and originally designed by Beattie and Longabaugh (1986). For this study, the Important Person Initial Interview (IP-II) and Important Person Follow-Up Interview (IP-FUI) served as two of the main measuring instruments. Table 3.2 shows the IP-II items that were used for this study; Appendix B presents the entire IP-II instrument. Similarly, Table 3.3 and Appendix C identify the item in the IP-FUI instrument that was used for this study.

The IP instruments used in Project COMBINE did not receive reliability or validity studies, although the IPA instrument in Project MATCH did. However, initial training on the administering of COMBINE instruments occurred but was not maintained; thus, the reliability of the COMBINE IP instruments “would not be as good as what was achieved in MATCH” (R. Longabaugh, personal communication, August 22, 2008). Yet, the IP-II and IP-FUI instruments were “shorter and simpler to

Table 3.2. Important People Initial Interview (IP-II) Instrument: Items A, D, and G (Longabaugh & Zywiak, 2002)

Item	Categories	Definitions
A	Name(s) of Important People	(The maximum number of names is ten.)
D	How important has that person been to you?	6 = extremely important, 5 = very important, 4 = important, 3 = somewhat important, 2 = not very important, 1 = not at all important
G	How often does this person drink alcohol?	7 = daily, 6 = three to six times a week, 5 = one or two times a week, 4 = about every other week, 3 = about once a month, 2 = less often than monthly, 1 = once in past 4 months, 0 = not in past 4 months, 8 = don't know

Table 3.3. Important People Follow-Up Interview (IP-FUI) Instrument: Item G (Longabaugh & Zywiak, 2002)

Item	Categories	Definitions
G	How often does this person drink alcohol?	7 = daily, 6 = three to six times a week, 5 = one or two times a week, 4 = about every other week, 3 = about once a month, 2 = less often than monthly, 1 = once in past 4 months, 0 = not in past 4 months, 8 = don't know

administer” as well as “highly structured,” increasing the plausibility of inter-rater reliability (R. Longabaugh, personal communication, August 22, 2008). Validity tests are not currently available (R. Longabaugh, personal communication, January 13, 2009).

Due to the fact that reliability tests were not conducted on the COMBINE IP instruments, the reliability tests conducted on the Project MATCH IPA will be referenced, since the IPA was the framework for the IP-II and IP-FUI in COMBINE. The purpose of the IPA was to assess clients’ involvement in their social networks and

activities as related to sobriety or continued drinking. Test-retest reliability was excellent: “the Shrout-Fleiss intraclass correlation was .80, and the product moment correlation was .95” (Clifford & Longabaugh, 1991, p. 116). Validity was assessed from measures of construct and criterion, specifically predictive, concurrent, and postdictive (Clifford & Longabaugh). A research assistant should receive about 2 hours of training prior to administering the IPA instrument, and scoring takes approximately 30 minutes to navigate the 19 items with a scoring key (Clifford & Longabaugh). The IPA instrument was normed on the following two subgroups: alcohol-dependent, treatment-seeking aftercare patients and outpatients (Clifford & Longabaugh).

### *Procedures*

After approval for and receipt of the COMBINE data set, the relevant data was identified. Initially, the data was classified by IP criteria (as noted under the “Participants” section) and participant demographics as follows. In regard to classification of IP criteria, a couple qualifiers existed. Table 3.4 identifies the classification of IP in this study.

Table 3.4. Classification of Important People in this Study

Qualifier	Classification	Instrument/items	Include if . . .
#1	Level of importance clarified	Item D on IP-II	IP = 4, 5, or 6
#2	All IP instruments completed	IP-II and IP-FUI	Client completed IP-II/FUI

First, the researcher identified the numeric figure to represent each client’s one important person; specifically, Qualifier #1 required that the numeric figure be a 4

(important), 5 (very important), or 6 (extremely important), as noted on Item D of the IP-II for the client's singular IP. The percentage of clients with more than one IP was 93.3%, and, based on those clients with identified IP, the mean (average number of IP) was 5.416.

Second, Qualifier #2 required confirmation that all clients who completed the IP-II instrument also completed the IP-FUI instrument at T16. Those clients who did so were included in this study; if IP instruments were not completed at TB and T16, then those clients were not included in this study.

The clients' age, gender, and race/ethnicity were included as demographics for this study and are documented as recorded in Project COMBINE. Age is the first demographic, recorded as a whole number. The second demographic is gender and is presented in Table 3.5 with COMBINE coding. The third demographic is race and ethnicity and is presented in Table 3.6 with COMBINE coding.

#### *Demographic Variables*

Age. The age of each client was recorded as a whole number.

Gender. The gender of each client was recorded as presented in Table 3.5.

Table 3.5. Gender Demographic of Client

Gender	Code
Male	1
Female	2
Missing	-999

Race/Ethnicity. The race/ethnicity of each client was recorded as documented in the Project COMBINE study (see Table 3.6).

Table 3.6. Race/Ethnicity Demographic of Client

Race/ethnicity	Code
American Indian or Alaska Native	1
Asian American or Pacific Islander	2
Black or African American	3
Hispanic American	4
Non-Hispanic White	5
Bi- or multi-racial	6
Other	7
Missing	-999

### *Categorical Variables*

#### *Status of Clients' Treatment Outcomes*

In the treatment outcome category, Variable A (as noted in Chapter One) is the status of clients' treatment outcomes. Each client was assigned to either the abstinent or non-abstinent group. Assignment to the abstinent group occurred when the client had a 100% PDA from TB to T16. Assignment to the non-abstinent group occurred when the client had a 1-99% PDA from TB to T16. See Table 3.7.

Table 3.7. Treatment Outcome Categorical Variable

Treatment outcome	Code
Abstinent	0
Not abstinent	1

#### *Status of Important People's Alcohol Consumption*

In the alcohol consumption category, Variable B (as noted in Chapter One) is the status of IP's alcohol consumption. The alcohol consumption of IP for both the Pretest IP-II-G and Posttest IP-FUI-G can be found in Table 3.8. If clients identified their IP's alcohol consumption as Don't Know or was Missing, that client/IP was not included in this study.

Table 3.8. Alcohol Consumption Categorical Variable

Category	Code
Daily	7
Three to six times a week	6
One or two times a week	5
About every other week	4
About once a month	3
Less often than monthly	2
Not in past 4 month	1
Don't know	-999
Missing	-999

Each important person's alcohol consumption change was determined by subtracting their (initial) IP-II-G score from their (follow-up) IP-FUI-G score, (Item G on the IP-II instrument is represented by the abbreviation of IP-II-G). Table 3.9 contains the coded change results assigned to each important person's change.

Table 3.9. Coded Change Results

Change result (post-test minus pre-test)	Code
If IP-FUI-G minus IP-II-G produces a negative score (i.e., decreased drinking from TB to T16)	0
If IP-FUI-G minus IP-II-G produces a positive score (i.e., increased drinking from TB to T16)	1
If IP-FUI-G minus IP-II-G equals zero (i.e., unchanged in drinking from TB to T16)	2
Missing	-999

### *Data Analysis*

Chi-square was used to determine if there is a relationship between categorical variables, and Cramer's V determined the strength of the relationship (Field, 2005; Siegel & Castellan, 1988). Data analysis was completed via Excel.

### *Human Participants Approval*

The Institutional Review Boards at each of the 11 participating sites approved of the Project COMBINE research process prior to commencing treatment; informed consents were reviewed and signed by participants; certificates of confidentiality, as issued by NIAAA, were discussed with participants; and client participation concluded in 2004 (Anton et al., 2006). Furthermore, the COMBINE data set became public in 2008. Specifically, this study was a secondary analysis of the COMBINE data and, consequently, did not include any contact with or harm to human participants. On October 27, 2008, the Institutional Review Board (IRB) at Oregon State University approved the application (see Appendix D). On November 5, 2008, the Project COMBINE Coordinating Center approval the application for receipt of data.

### *Summary*

This chapter details the methods and procedures that were employed for data collection and analyses in this study. A correlational design was used to answer the  $H_1$  and  $H_0$  (Shadish et al., 2002) related to the following research question: “Is there a relationship between (a) clients’ treatment outcomes and (b) alcohol consumption changes of the clients’ IP?” The proper data analysis for the relationship between categorical variables was Chi-square and for strength of the relationships was Cramer’s V (Field, 2005; Siegel & Castellan, 1988). The results revealed that the two categorical variables were independent, indicating that the null hypothesis should be retained.

## Chapter Four: Results

This chapter presents the results from the statistical analyses used to answer the follow research question: Is there a relationship between (a) clients' treatment outcomes and (b) alcohol consumption changes of the clients' IP? Variable A was the status of clients' treatment outcomes at T16 (end of treatment), with the binomial designation of either abstinent or non-abstinent. Variable B was the status of IP's change in alcohol consumption between TB (baseline) and T16, with the trinomial designation of increased, decreased, or unchanged. Chi-square and Cramer's V were the two statistical techniques used for data analyses.

Results will be presented as follows: first, identification of clients who met Qualifiers #1 and #2 are reported. Second, descriptive findings regarding clients' treatment outcomes are outlined. Third, descriptive findings regarding changes in IP's alcohol consumption are outlined. Then, correlations found through the statistical use of chi-square are presented. Finally, results from the Cramer's V statistical test are presented. The statistical analyses for this study were performed using Excel.

### *Qualifiers #1 and #2: Identified Participants*

The focus of this study was on important people as identified by COMBINE clients on the IP-II (initial instrument) at TB (Longabaugh & Zywiak, 2002). Two qualifiers, done in sequence, narrowed the scope of this study. First, the client needed to describe the important person as important, very important or extremely important on Item D (numbers 4, 5, and 6 respectively) on the IP-II and IP-FUI. Accordingly, the client needed to complete the IP-II at TB and the IP-FUI at T16. Those clients who

completed IP instruments at TB and T16 were included in this study. If IP instruments were not completed at both TB and T16, then those clients were not included in this study. The results related to Qualifier #1 and #2 equaled a total of 688 clients that were appropriate as participants for this study.

*Variable A: Status of Clients' Treatment Outcomes*

This study examined the outcomes of clients' treatment (Variable A) based on the data gathered on the Project COMBINE Form 90. The treatment outcomes were recorded at T16 and, for this study, were designated either abstinent or non-abstinent. Assignment to the abstinent group included clients with a 100% PDA from TB to T16, while assignment to the non-abstinent group included clients with a 1-99% PDA at any time from TB to T16.

Table 4.1 shows the raw data of frequency counts for Variable A. Out of the 688 total clients included in this study, 166 clients achieved 100% PDA from TB through T16. There were 522 clients in this study who had a PDA between 1-99% from TB to T16. Thus, only 25% were abstinent, while 75% of the clients were non-abstinent from TB to T16.

Table 4.1. Raw Data of Frequency Counts for Variable A

	Abstinent	Non-abstinent
Clients' treatment outcomes	166	522

*Variable B: Status of IP's Alcohol Consumption*

This study also examined the change in alcohol consumption by clients' IP (Variable B) based on the data gathered on the IP instruments used in Project

COMBINE. The initial status of IP's alcohol consumption at TB was represented on Item G of the IP-II. Item G addresses how often the important person drinks alcohol. Responses for Item G descend in order from seven to zero and include: Daily, three to six times a week, one or two times a week, about every other week, about once a month, less often than monthly, once in the past 4 months, and not in the past 4 months, with eight representing Don't know (Longabaugh & Zywiak, 2002). Thus, Item G on the IP-II instrument is represented by the abbreviation of IP-II-G on Table 4.2.

The follow-up status of IP's alcohol consumption at T16 was represented on Item G of IP-FUI. Item G addresses how often the important person drinks alcohol. Responses for Item G descend in order from seven to zero and include: Daily, three to six times a week, one or two times a week, about every other week, about once a month, less often than monthly, once in the past 4 months, and not in the past 4 months, with eight representing Don't know (Longabaugh & Zywiak, 2002). Thus, Item G on the IP-FUI instrument is represented by the abbreviation of IP-FUI-G on Table 4.2.

Changes in alcohol consumption by IP are shown in Table 4.2 and were determined by subtracting IP-II-G (initial score) from IP-FUI-G (follow-up score). If the change result score was negative (decreased drinking), then the code of 0 was assigned to that IP. For instance, if an important person scored a 7 on the IP-II-G due to daily alcohol consumption but scored a 4 on the IP-FUI-G due to decreased drinking to about every other week by the end of client's treatment, then the score

(post-test minus pre-test) would be negative (i.e.  $4-7 = -3$ ); therefore, the IP would be coded as a 0 as the change result. If the change result score was positive (increased drinking), then the code of 1 was assigned to that IP. If the change result score was zero (unchanged drinking), then the code of 2 was assigned to that IP.

The coded change results are also summarized in Table 4.2. In this study, code 0 had a total number of 146 IPs. Code 1 had a total number of 96 IPs. Code 2 had a total number of 446 IPs. See Table 4.2 for the coded change results for clients with their first identified IP. Thus, out of 688 IP, about 21% decreased and 14% increased their drinking from TB to T16, leaving 65% with an unchanged drinking status.

Table 4.2. Coded Change Results for All Clients with Their First Identified IP

Post-test	Pre-test	Score	Alcohol consumption	Code	Total codes
IP-FUI-G	- IP-II-G	= Negative	Decreased drinking	→ 0 →	146
IP-FUI-G	- IP-II-G	= Positive	Increased drinking	→ 1 →	96
IP-FUI-G	- IP-II-G	= Zero	Unchanged drinking	→ 2 →	446

#### *Chi-square Analysis*

Pearson's chi-square statistical technique tests the independence of two categorical variables (Field, 2005) and was chosen for this study. There were two possible results: retaining the null hypothesis if the two categorical variables were independent or rejecting the null hypothesis due to correlated association. In other words, chi-square was used to determine if there is a relationship between two categorical variables: Variable A (clients' treatment outcomes) and Variable B (IP's

alcohol consumption change; Courtney, 2006). The binomial variable of clients' outcomes were counted (frequency) and separated into one of two categories: either abstinent or non-abstinent. The trinomial variable of IP's alcohol consumption were counted (frequency of coded change results) and separated into one of the three categories: decreased, increased, or unchanged.

The results of the chi-square test are reflected in Table 4.3, a 2 x 3 contingency table that represents the cross-classification of categorical variables (Field, 2005). The following assumptions for a chi-square test for independence were met: (a) two categories were required, (b) each person was only counted in one cell, and (c) the frequency in each cell was larger than five (Pallant, 2005). This chi-square test "compares the frequency of cases found in the various categories of one variable across the different categories of another variable" (Pallant, p. 287). See Table 4.3 for results of frequency.

In order to determine statistical significance, the computed value of chi-square, degrees of freedom, significance (alpha) level, and tabular value were established. Specifically, using the chi-square ( $\chi^2$ ) equation formula with observed and expected frequencies, the value of the chi-square statistic was (0.6615). The degrees of freedom were calculated by subtracting one from three (rows), subtracting one from two (columns), and multiplying two and one together, resulting in a total of two degrees of freedom. The significance level was set a priori at 0.05, a common alpha level in social science research that indicates the probability of making a Type I error ( $p < 0.05$ ; Courtney, 2006). The critical value of the chi-square distribution, using two

Table 4.3. A 2 x 3 Contingency Table

		Client outcome Abstinent	Client outcome Non-abstinent	Total
IP's alcohol consumption	Increased drinking, Score = positive, thus, Code = 1	20	76	96
IP's alcohol consumption	Decreased drinking, Score = negative, thus, Code = 0	36	110	146
IP's alcohol consumption	Unchanged drinking, Score = zero, thus, Code = 2	110	336	446
Total		166	522	688

degrees of freedom and an alpha level of 0.05, was identified as 5.9915 on the table (Field, 2005). Therefore, to be statistically significant with two degrees of freedom, the chi-square statistic had to be larger than 5.9915.

In this study, the results of the chi-square statistical technique indicated no significance since the computed value chi-square (0.6615) at  $p$ -value (0.7184) was much smaller than the tabular value (5.9915) at alpha (0.05). Therefore, it is appropriate to retain the null hypothesis. In other words, the statistical significance supports the null hypothesis of the research question, indicating that there is no relationship between clients' treatment outcomes and IP's alcohol consumption changes. Specifically, the relationship suggests that the pattern (proportion) of responses is not significantly different and, thus, is independent.

#### *Cramer's V Analysis*

A Cramer's V test was used to determine the strength of the relationships, since the two categorical variables contained more than two categories per variable (trinomial status of alcohol consumption; Field, 2005). For this study, Cramer's V was

used to confirm the conclusion to retain the null hypothesis. Specifically, Cramer's V (0.031008) value was very close to a zero (0) value and far from the possible maximum value of one (1), indicating an extremely low measure of association between binomial types of clients' treatment outcomes and the trinomial types of IP's alcohol consumption changes.

#### *Summary of Findings*

This chapter presented the results of this study. The following results were explained: (a) identification of clients who met Qualifier #1 and #2, (b) descriptive statistics for clients' treatment outcomes, (c) descriptive statistics for IP's alcohol consumption, (d) chi-square statistics describing association between variables, and (e) results from the Cramer's V statistical test. Chi-square showed no significance between clients' treatment outcomes and IP's alcohol consumption change, and Cramer's V showed an extremely low strength of measure between the categorical variables. Chapter Five will address these findings.

## Chapter Five: Discussion

### *Introduction*

This exploratory study investigated the relationship between clients' outcomes in alcohol treatment and the change in alcohol consumption by IP in the clients' social networks, as presented in Appendix E. The Project COMBINE data set was utilized, including clients' responses on the IP instrument at baseline (TB) and the end of the 16-week treatment (T16). This research included a total of 688 clients who described their IP as important and completed IP instruments at TB and T16. The statistical tests of Chi-square and Cramer's V revealed that there were no significant differences between the two categorical variables of clients' outcomes and changes in IP's alcohol consumption. This chapter addresses potential explanations for these findings and possible implications for counselor education, supervision, and addiction counseling. Finally, suggestions for future research will be discussed.

### *Evaluations of the Hypotheses*

The conditions for testing the hypotheses of this study included a clear purpose, randomly assigned participants, identified variables, corresponding methodology, and results. The purpose of this research was to explore the relationship between two variables and, thus, employed a correlational design. The 688 COMBINE clients were included because they identified their primary IP as *important*, *very important*, or *extremely important* (Longabaugh & Zywiak, 2002) and completed IP instruments at both TB and T16. Prior to analysis, the variables were assigned distinct values and, therefore, were defined as categorical. The statistical technique for

categorical variables, Chi-square, concluded that the two variables were independent, and Cramer's V confirmed that the null hypothesis should be retained ( $H_0$ ).

### *Variables*

This study explored the relationship between the status of clients' outcomes in alcohol treatment and the status of change in IP's alcohol consumption. These variables will be reviewed here.

#### *Categorical Variable A: Clients' Treatment Outcomes*

Clients' treatment outcomes were measured by abstinence or non-abstinence from alcohol. Assignment to the abstinent group occurred when the clients were abstinent 100% of the days from baseline to the end of treatment. Assignment to the non-abstinent group occurred when the client had a 1-99% PDA from TB to T16. From the total of 688 clients, about 25% (166) were abstinent while 75% (522) were non-abstinent during the 16-week treatment.

#### *Categorical Variable B: Important People's Alcohol Consumption*

Important people's changes in alcohol consumption were measured using the IP instrument, specifically Item G on the initial instrument (IP-II-G) and on the follow-up instrument (IP-FUI-G) as related to the first IP identified by the client on the IP-II at TB. Each client in this study had only one important person as identified by the client. On Item G, the alcohol consumption categorical variable, clients identified their IP's drinking behavior, ranging from daily to abstinence in the past four months (Longabaugh & Zywiak, 2002). For this study, the IP-II-G score was subtracted from the IP-FUI-G score to determine if the IP's alcohol consumption

decreased, increased, or was unchanged. From the 688 total, about 21% (146) of IP decreased their drinking, 14% (96) increased their drinking, and 65% (446) had an unchanged drinking status from TB to T16.

### *Interpretations*

In this study, no significant differences were detected between the two variables of clients' outcomes and IP's alcohol consumption. Chi-square determined and Cramer's V confirmed that Variable A and Variable B were mutually independent. The following section will discuss potential explanations for these findings. In other words, what inferences can be drawn from the results of this study?

Were important people in the early stages of change? According to Prochaska and DiClemente (1982), individuals who are not interested in making personal yet needed modifications are considered to be in the Pre-Contemplative or Contemplative Stage of Change. This may have been the case for clients' IP, particularly when this study's data from the IP-II instrument indicated that 45% of IP were routine drinkers and 25% of those IP had drinking habits resembling symptoms of alcohol abuse and dependence (APA, 1994). Though, it is possible that the IP in this study were generally supportive of their respective clients' treatments without considering if they, personally, had problems with their alcohol consumption. They may have had a heightened awareness of clients' issues of alcohol dependence but minimal or no self-awareness of their own susceptibility to alcohol related problems. Thus, a distinct lack of relationship between clients' treatment outcomes and IP's alcohol consumption is reasonably plausible.

Were important people lacking motivational readiness for change? When motivation to change and readiness for change are absent, change usually does not occur. In describing the dynamics of change, Miller and Rollnick (1991) highlight a process that includes potential change brought about by recognizing problematic alcohol consumption, experiencing concern about the problem, and responding with a willingness and hope for recovery. Therefore, a state of readiness would have included the IP's personal acknowledgement of ambivalence, confusion, or tension between a desire for change and current contentment in the status quo of drinking. The IP in this study may not have had the motivation or readiness for change. Particularly, if the IP's perspective on and expectations of alcohol were that the act of consuming was more satisfying than abstaining, then their behaviors would, most likely, not reflect change—even if the clients were successful and satisfied in their newly found abstinence (Miller & Rollnick, 1991; Oxford, Krishnan, Balaam, Everitt, & Van Der Graff, 2004).

Did important people lack self-efficacy regarding alcohol abstinence? A personal confidence in successfully abstaining from drinking is necessary, and this competence may not have been present for some individuals in clients' social networks. Research has indicated that self-efficacy, a convincing belief in one's ability to resist alcohol, is a strong indicator of successful recovery steps (DiClemente et al., 1994). In this study, however, those individuals who were directly receiving alcohol recovery treatment and incrementally experiencing increased self-efficacy were the clients, not the IP. Thus, the IP may not have had the corresponding coping skills for

recovery and, therefore, the self-efficacy needed to pursue changes in their alcohol consumption.

Did important people lack systemic support to successfully decrease alcohol consumption? Systemic approaches offer credible explanations regarding why people struggle with change and, in particular, why the important people might have maintained the same alcohol consumption behaviors. For instance, an imposed or even desired change would have been a break from the IP's normal functioning, a departure from the status quo or homeostasis within their personal and relational system (Goldenberg & Goldenberg, 2000). If the IP's social networks were comprised mostly of drinking buddies or if their networks did not have explicit support for alcohol recovery--despite clients' participation in treatment--the IP would likely continue with familiar drinking behaviors and interactions (Beattie, 2001; Homish & Leonard, 2008). Homeostasis is typically maintained because the status quo yields a level of comfort and contentment, even if the desire for change is, disappointingly, not actualized (Bateson, 1972). In other words, consciously or unconsciously choosing not to decrease alcohol consumption may have been an understandable and probable response for the IP without sufficient systemic support.

Were any decreases in important people's alcohol consumption a result of other factors? For some important people, changes in alcohol consumption may have been entirely unrelated to clients' treatment outcomes. As an example, an important person may have had a long-standing bet with a family member to decrease drinking by the New Year and that, coincidentally, transpired during the same timeframe of the

client's participation in treatment. The two occurrences, therefore, would have been independent of one another and void of any associations. Plausibly, this might explain why the status of the IP's alcohol consumption was nondescript and there was no statistical significance detected between this study's Variable A and Variable B. On the other hand, clients' treatment outcomes might have indirectly influenced the IP's alcohol consumption through an unknown third variable (Shadish, Cook, & Campbell, 2002).

Additional inferences can be drawn from the results of this study and will become apparent in the next section on limitations. In other words, some limitations of this study also inform and reveal inferences related to the independence of Variable A and Variable B.

### *Limitations*

There are several limitations related to the results of this study that will be discussed in this section. These limitations are closely tied to the previous section on interpretations.

#### *Use of a Data Set*

This study utilized the data set from Project COMBINE (Combined Pharmacotherapies and Behavioral Intervention) and, consequently, this researcher did not design the original study or have any interaction with the participants. The COMBINE researchers completed interactions with human participants in 2004, and the data set became public in 2008. Although the COMBINE data are extensive and thorough, a secondary analysis, by definition, is constricted by the purpose and

execution of the original study. The primary goal of Project COMBINE was to investigate effective combinations of treatments and medications for clients with alcohol dependence (Anton et al., 2006) and, thus, any other data collected at baseline assessments and throughout treatment were consequential to the project's chief objective. This study's purpose of exploring the relationship between clients' outcomes and the alcohol consumption of IP was not paramount within the objectives of Project COMBINE and, therefore, had limitations related to the use of the data set.

#### *Selection Criteria*

The selection criteria for participants in the COMBINE study were specific and rigid and, thus, impacted this secondary analysis. About 5,000 people were screened yet only 1,383 were included (Anton et al., 2006). Eligible participants had a current diagnosis of alcohol dependence, whereas those with a medicated psychiatric disorder, an unstable medical condition, or drug dependence (other than nicotine, cannabis, or alcohol) were not eligible (Anton et al., 2006). A medical doctor and senior vice president of a research institute suggested that the exclusionary criteria eliminated so many patients that COMBINE findings may not be generalizable to a common population of people with alcohol use disorders (Wiley, 2006). For example, clients with co-occurring diagnoses as frequent as alcohol dependence and posttraumatic stress disorder or depression were excluded, especially if they had a prescription related to mental health issues. Within the editorial section of the *Journal of the American Medical Association (JAMA)*, selectivity for the COMBINE study was explained as having a goal of high internal validity, with low generalizability, yet was

also argued as having baseline characteristics similar to other samples of multisite alcoholism treatment trials (Anton, Miller, O'Malley, Zweben, & Hosking, 2007).

#### *Assessments in Project COMBINE*

Baseline and treatment assessments in Project COMBINE were comprehensive yet stringent for counselors and exceptionally demanding for clients, resulting in research limitations. Counselors' inability to consistently and meticulously adhere to all protocol, medication documentation, and structured therapeutic plans in addition to clients' insurmountable task of clearly responding to all assessment queries within the treatment timeframe were limitations in Project COMBINE that indirectly impacted this study as well. First, any omitted data at baseline hindered subsequent data on those clients (Gastfriend, Donovan, Lefebvre, & Murray, 2005), and a lack of adherence to procedures compromised treatment effectiveness (Swift, 2007). As an example, if a counselor did not administer an IP instrument to a client at TB, then that client may have missed that treatment component and, additionally, was not eligible to participate in this study, a situation that negatively impacted this research. Secondly, the answers on the IP instruments were informative, but limited. As a Principal Investigator for Project COMBINE discussed, self-reports by clients can be particularly distorted, especially during the beginning stages of alcohol recovery (Donovan, 2005). It may have been an unrealistic expectation to ask clients to accurately and comprehensively describe the drinking behavior of those in their social network at TB. Therefore, this study had fewer participants due to the omission of data during COMBINE assessments and potentially erroneous answers on IP instruments

due to clients' difficulties in discerning alcohol consumption when first commencing alcohol treatment.

### *IP Instruments and Confined Timeframe*

The aim of Project COMBINE, as noted above, was to study treatment efficacy for clients with alcoholism; IP instruments were included but not prioritized. Although COMBINE counselors were trained to review assessment information with clients at the start of treatment and at sequential sessions (Miller, 2004), some records were lacking information, such as scores from the IP instrument. Many clients completed IP instruments at TB, but fewer clients completed at T16, and even fewer clients completed instruments during post-treatment assessments. Initially, the intention of this researcher was to utilize data from IP instruments at TB and post-treatment completion (i.e., 1 year after T16), in conjunction with previous research emphasizing that a substantial amount of time is needed to study the change process of recovery (McAweeney et al., 2005; Prochaska et al., 1992). With more time, data from Form 90 and IP instruments might have revealed that more clients were successfully experiencing recovery and, in turn, modeling a lifestyle of abstinence to IP in their social network (Bandura, 1994), possibly resulting in a decrease of alcohol consumption by IP. However, due to the significant amounts of missing data from Project COMBINE, this researcher needed to limit data collection of this study to the 16-week treatment phase in order to make valid inferences about the population from which this sample was drawn (Courtney, 2006). Future research recommendations

include longer treatment periods, more thorough data collection, and a focus on the potential delay of influence of clients' outcomes on IP alcohol consumption.

#### *Identification of Each Important Person*

Any data not acquired in Project COMBINE were not accessible in this study, such as clearly coded identification of the IP. Consequently, this study was uniquely limited due to the absence of a confidential yet exact code that directly corresponded with each important person in COMBINE. This situation notably impaired the effectiveness and results of this study. For instance, the first question on the initial IP instrument asked clients to list those people who are important to them, with a maximum of 10 IP. If a client identified more than one important person--which was a common occurrence (i.e., 93.3%), no structured protocol was established or maintained to identify: (a) the client, (b) the specific important person correlated with that client, and (c) the answers on the IP instrument directly related to that client and particular important person. Therefore, this study only included the first IP identified on clients' IP instruments at TB and T16.

#### *Abstinent or Non-abstinent: Dichotomous Identification*

The dichotomous identification of abstinent or non-abstinent was a limitation instituted by this researcher to explore the relationship between clients' treatment outcomes and the alcohol consumption of IP. Due to a lack of existing studies on this topic in the literature, this researcher chose the dichotomous identification of abstinent or non-abstinent with the initial goal of discovering if a significant association exists between the two categorical variables. Even though this dichotomy is an inadequate

simplification of the complexities of the alcohol recovery process (Donovan, 2005), abstinence in this study was defined as zero consumption of alcohol from TB to T16 where as non-abstinent status included all clients who consumed any alcohol from TB to T16. Even with this polar classification, no statistical significance was detected in this study. For future research, observing the longest duration of abstinence may be a more useful description of clients' recovery and relationship with IP (Miller et al., 2001).

### *Demographics*

The present study included demographics that were specifically related to COMBINE clients' treatment outcomes and IP's alcohol consumption and, thus, may not be broadly generalizable. COMBINE participants were in their mid-40s, 71% had 12 or more years of education, 73% were employed, and 42% were married (Anton et al., 2006), statistics that may not be relevant to a more diverse population as reflected in the United States or generalizable to many clinical settings. In this study, out of 688 clients, about 86% (592) were between the ages of 39 and 59 years, 80% (548) were Non-Hispanic/White, and 68% (468) were male. Although Project COMBINE provided treatment in over 10 different clinical sites across the nation, population diversity was evidently limited in the research sample. Thus, based on the COMBINE demographics, this study's sample is most reflective of Caucasian males in their late 40s. Prevalence rates of alcohol abuse and dependence in the United States specifically include diversity demographics (Grant et al., 2006), and there continues to be a call in the literature to conduct research that reflects this growing diversity within

the population (Booth, Curran, & Han, 2004; Dawson et al., 2007; Homish & Leonard, 2008; McAweeney et al., 2005).

### *IP's Symptoms of AUDs*

This study did not quantify the level of IP's alcohol consumption at the start of clients' treatment and, thus, may reflect related limitations. Specifically, certain IP were not included or excluded based on explicit levels of alcohol consumption, as long as clients designated their IP as important (Qualifier #1) and completed IP instruments at TB and T16 (Qualifier #2). For example, if clients reported on the IP-II-G that their IP drank alcohol "daily", then those IP were included in the study. This inclusion was reasonable since daily drinking might resemble diagnostic symptoms of alcohol abuse or dependence, such as physiological tolerance (APA, 1994). However, if clients reported that their IP drank alcohol "once in the past four months", then these IP were also included in the study. This inclusion of IP, with minimal alcohol consumption, may have skewed this study's data, unless those IP consumed alcohol in larger amounts such as a binge (APA, 1994). In the future, recommended research would include the replication of this study with the addition of a Qualifier #3, to only include IP whose alcohol consumption is daily.

### *Implications for Practice and Counselor Education*

This section will discuss possible implications for counselors, counselor educators, and supervisors. In addition, this section serves as a response to the clear call in the field for a more systematic approach to addictions counseling (Salyers, Ritchie, Luellen, & Roseman, 2005).

### *Departing from the Deficit Model*

Historically, addictions counseling used a confrontational, aggressive therapeutic style to promote abstinence and recovery based on the assumptions that alcoholics deny and avoid the reality of their drinking problems (Miller & Rollnick, 1991). Psychodynamic concepts, such as defense mechanisms and unconscious desires, were already integrated into the field of counseling. By the 1950s, many treatment facilities employed the Minnesota Model, a 12-Step approach, and the Disease Model as a foundation (Powell, 2004). Although the latter named approaches continue to offer viable treatment and support (Powell), perspectives with a deficit approach are disrespectful to clients and marginalize those with alcohol problems (Sue, Arredondo, & McDavis, 1992). Research has indicated that confrontation rarely promotes change; rather therapeutic style and relationship are instrumental (Beattie & Longabaugh, 1986; Miller & Rollnick, 2002; Project MATCH Research Group, 1993) and should include advocacy for and with clients (Lewis, Arnold, House, & Toporek, 2003). Thus, in clinical practice, counselor education, and supervision, counseling models should incorporate theories and practices, such as the interventions used in Project COMBINE, that respect and empower clients in their recovery journey-- including positive regard for people in clients' social networks (Miller, 2004; Rogers, 1951; Seligman, 2006).

### *Including Important People in Clients' Treatment*

Research has shown that the investment, support, and involvement of others in treatment can positively impact clients (O'Farrell & Fals-Stewart, 2003), and related

interpersonal factors can contribute to maintaining recovery (McAweeney et al., 2005; Moos, 2008; Tracy et al., 2005). As Pinsof and Wynne (1995) identified in their meta-analysis on systemic therapies, “the impact of conjoint treatments on abstinence may be influenced by spousal investment in the relationship as well as perceived levels of spousal support” (p. 597). In addition to partner support, other researchers have concluded that a higher level of social investment is associated with decreases in drinking (Beattie & Longabaugh, 1986; McCrady et al., 2006; Zywiak et al., 2002). Thus, counselors are encouraged to strategically incorporate this evidence-based approach into treatment so that people who are invested in clients’ lives can offer social support to clients, possibly resulting in decreased drinking by clients and IP.

#### *Awareness of Motivation and Stages of Change for Client and IP*

Understanding the process of change is critical to those in counselor education, supervision, and addictions counseling (Prochaska et al., 1992). Similarly, awareness of one’s drinking as well as the drinking of peers can influence future decisions about drinking (Nygaard, 2006). Motivation to change and self-efficacy to abstain are components of the Stages of Change in which clients and IP function. In particular, self-efficacy in abstaining generates further motivation towards recovery (DiClemente et al., 1994). “It is suggested then that careful assessment of the stage of motivation and individual-tailored intervention should be an essential element of any treatment program” (Giovazolias & Davis, 2005, p. 172). Consequently, counselors, educators, and supervisors should be keenly aware of clients’ and IP’s Stages of Change and

learn to teach clients and IP about how to identify stages, associate with others in certain stages and, thus, promote recovery.

#### *Collaboratively Building Stronger Social Networks for Client and IP*

Research has shown that social networks can influence clients in both positive and negative ways (Beattie, 2001; Dawson et al., 2007; Longabaugh & Zywiak, 2002; McCrady et al., 2006; Meyers & Squires, 2001; O'Farrell & Fals-Stewart, 2003). Peer relationships impact choices related to alcohol consumption (Borsari & Carey, 2006; Homish & Leonard, 2008); additionally, having a social network of primarily nondrinkers is strongly correlated with abstinence (Witbrodt & Kaskutas, 2005). Therefore, clinical teachers, supervisors, and counselors should actively inquire about clients' social networks and discuss ways to support and maintain their recovery. For instance, if clients' do not have a social network that supports abstinence, one variable in predicting abstinence, counselors could encourage clients' long-term attendance at Alcoholics Anonymous (AA; Kaskutas, Bond, & Humphreys, 2002; Tonigan et al., 2001). Although the relationship between clients' recovery and important people in their social network are multifaceted, efforts towards building stronger social networks within the recovery process are vital for clients and IP.

#### *Counselor Education, Supervision, and CACREP*

The results of this study impact counselor education and supervision in relation to the new 2009 CACREP standards (CACREP, 2008). First, the new programmatic area of Addiction Counseling was recently adopted into the CACREP standards and, consequently, this study informs educational practice and curriculum, counselor

preparations, and supervision of addiction counselors-in-training. Furthermore, aspects of addictions counseling are incorporated, but not infused, into other CACREP areas (C. Beckett, personal communication, September 2, 2008). For instance, in Section II (Professional Identity) under Item G, eight core curricular standards are outlined, clarifying what knowledge is required of all students in CACREP programs; some headings, such as Human Growth and Development, emphasize theories and practices related specifically to addictions counseling (CACREP). Also, the programmatic area of Clinical Mental Health Counseling delineates that educators should teach and students should learn how to assess for substance abuse disorders, especially related to co-occurring mental health issues (CACREP). As Salyers and colleagues (2005) emphasized in their article, *Inclusion of Substance Abuse Training in CACREP-Accredited Programs*--which was published in the journal of *Counselor Education and Supervision*--systematic training is needed in the area of addictions counseling and, Powell would add, in the area of clinical supervision of alcohol and drug abuse counseling (2004).

A framework therefore should be presented if supervisors, educators, policy makers, and counselors are to implement an informed plan of action to provide both effective alcohol treatment for clients and recovery support for people with untreated alcohol problems (Salyers, Ritchie, Luellen, & Roseman, 2005). Therefore, the next section will outline a potential training module as a response to this need and, additionally, will incorporate components of the Combined Behavioral Intervention (CBI) as used in Project COMBINE (Miller, 2004).

### *Training Module*

The Training Module will include five primary categories, as presented in Appendix F. The first category involves individualized client treatment within an empathetic, respectful therapeutic relationship. The second category addresses effective treatment modalities with a focus on motivation, readiness for change, and Stages of Change. It is important to note that these two categories are purposely focused on the 3.4 million clients (20%) who are receiving treatment and not, directly, on the IP. The purpose of this study was to explore the relationship between clients' treatment outcomes and the alcohol consumption of IP. Based on this researcher's assumption that--to positively impact IP--clients need to receive successful, evidence-based treatment, the first two categories of this Training Module highlight treatment approaches for clients.

The third category emphasizes the involvement of important people in clients' social networks. Based on a thorough review of the literature, studies have shown that the social factors listed in category three are associated with behavior leading to abstinence. Thus, counselors, educators, and supervisors might choose to integrate these systemic, relational variables into counseling sessions, curriculum, syllabi, and clinical supervision. The fourth category encourages the teaching of coping skills, the reassessment of the individual's Stage of Change, and the enhancement of self-efficacy. Again, the strategies in category four should inform professionals on many levels. For example, a counselor could use these steps directly with a client in treatment. For a more systemic approach, as suggested by this researcher, the

counselor could involve a client's IP in the treatment and holistically help both the client and the IP in specific areas of recovery, as noted in category four. Also, educators and supervisors could incorporate these concepts into teaching and supervising. The last category highlights successful experiences and the modeling of a lifestyle of abstinence. Here, it is this researcher's hope that, through the principles of systemic approaches and Social Learning Theory, clients' successful steps towards abstinence also incrementally influence IP's movement towards recovery.

Recommendations to include in a Training Module are as follows:

1. Individualized treatment within an empathetic, respectful therapeutic relationship.
  - 1a. Client-specific interventions (Giovazolias & Davis, 2005; Miller, 2004).
  - 1b. Therapeutic style and alliance (Project MATCH Research Group, 1993).
  - 1c. Empathy (Rogers, 1951) and advocacy (Lewis et al., 2003).
  - 1d. Diversity awareness and competency (Sue et al., 1992).
2. Treatment with a focus on motivational readiness for change and Stages of Change.
  - 2a. Motivational approaches (Miller, Zweben, DiClemente, & Rychtarik, 1992).
  - 2b. Cognitive-behavioral approaches (Longabaugh & Morgenstern, 1999).

- 2c. Stages of Change (Prochaska et al., 1992).
- 2d. Abstinence emphasis (Anton et al., 2006; O'Farrell & Fals-Stewart, 2003).
- 3. Involvement of important people in clients' social networks.
  - 3a. Who is in social network and their level of recovery support (Beattie, 2001).
  - 3b. Demographics of client and IP (Humphreys et al., 1997).
  - 3c. Size of social network (Manuel et al., 2007).
  - 3d. Investment of those in social network (Pinsof & Wynne, 1995).
  - 3e. Quality of relationships in social network (Tracy et al., 2005).
  - 3f. Involvement of significant other (Leonard & Eiden, 1999).
  - 3g. Social network of primarily nondrinkers (Witbrodt & Kaskutas, 2005).
  - 3h. Attendance at AA (Kaskutas et al., 2002).
  - 3i. Community Reinforcement Approach (Meyers & Smith, 1995).
- 4. Reassessing Stages of Change, teaching coping skills, and enhancing self-efficacy.
  - 4a. Careful reassessment of stages of change (Giovazolias & Davis, 2005).
  - 4b. Social skills and assertiveness training (Miller & Wilbourne, 2002)
  - 4c. Cognitive-behavioral coping-skills (Longabaugh & Morgenstern, 1999).

- 4d. Convincing belief in one's ability to resist alcohol (DiClemente et al., 1994).
- 5. Successful experiences and modeling a lifestyle of abstinence.
  - 5a. Increased self-efficacy due to successful abstinence (Bandura, 1994).
  - 5b. Awareness of Stages of Change (Prochaska & DiClemente, 1982).
  - 5c. Awareness of systemic, environmental influences (Bateson, 1972).
  - 5d. Awareness of socially persuading others to abstinence (Bandura, 1994).
  - 5a. Maintaining and modeling a lifestyle of abstinence (Bandura, 1994).

Alcohol consumption problems continue to plague Americans, and specific training is needed to better counsel clients in alcohol treatment and to assist those who are not in formal treatment but are affected by alcohol (CACREP, 2008; Salyers et al., 2005). In summary, this Training Module was developed based on a thorough review of the literature and, in the future, needs revisions informed by empirical research.

#### *Implications for Research*

This section includes implications and recommendations for research. Many recommendations center on the need for research to include more accurate and precise data regarding the client-IP relationship, though there are other considerations as well.

First, continued treatment is needed for the 20% of people who meet the diagnostic criteria for alcohol abuse or dependence and receive services; thus,

selecting evidence-based treatment modalities for clients is paramount. Additionally, those modalities should incorporate significant people from clients' social networks with the goal of serving the 80% of people with AUDs who do not receive treatment or recovery support.

Secondly, building upon previous studies that support the involvement of IP in clients' treatment, future research needs to develop the methodological inclusion of IP, the corresponding data collection to better understand the client-IP relationship, and the study of client-IP social factors. Toward that end, data included on IP instruments should concretely match the identification of the client with each respective IP. With thorough and complete data, measuring the correlation between clients' outcomes and IP's alcohol consumption would be more accurate and, possibly, significant.

Assuming collection of data is exemplary, treatment over a longer period of time would cultivate those factors that reinforce recovery (McAweeney et al., 2005), such as self-efficacy (Bandura, 1994; DiClemente et al., 1994) and social investment (Pinsof & Wynne, 1995), and develop insight regarding clients' influence on IP. Thus, future research recommendations include longer treatment periods, methodical client-IP data collection, and a focus on the potential delay of influence of clients' outcomes on IP's alcohol consumption. These recommendations for future research would enhance counselors' understanding of social factors involved in clients' treatment of alcohol related problems and the potential to extend the efficacy of treatment into clients' social networks.

In the future, recommended research would include the replication of this study with the addition of Qualifier #3. The selection criteria would limit IP inclusion to those IP whose behavior more clearly reflects problematic alcohol consumption, based on diagnostic criteria (APA, 1994). Specifically, if a new study only included those IP who consumed alcohol daily, as noted on the IP-II-G, then the results would concentrate on the possible association between clients' treatment outcomes and the change in alcohol consumption by IP with daily drinking habits. It is also possible that the addition of Qualifier #4, related to drinking status on the IP-II-F (e.g., heavy, moderate, or light drinker), would further concentrate a study on the correlation between the status of clients' treatment outcomes and the potential change in alcohol consumption of IP with daily, heaving drinking at TB.

Furthermore, even though the results of the randomized clinical trials of Project COMBINE confirmed the efficacy of certain treatment approaches for certain people with the diagnosis of alcohol dependence (Anton et al., 2006), the sample was homogeneous and IP demographics were not available. Therefore, future research must include diverse demographics to be generalizable to a larger population and might also be strengthened through the research design and use of mixed-method approaches and qualitative research. These additions would help counselors, educators, and supervisors understand how different social dynamics influence clients and, perhaps, how demographic social dynamics may enable a client to influence the alcohol consumption of their IP.

### *Conclusion*

In the United States, over 17 million people meet the diagnosis of alcohol abuse or dependence, but only one fifth of those people receive treatment, leaving 13.6 million people without recovery support (Booth et al., 2001; Grant et al., 2006; Humphreys & Klaw, 2001; NIAAA, 2000). Professionals, therefore, are only able to see and respond to a small fraction of people who struggle with alcohol use disorders (AUDs) and an even smaller fraction of those in our communities who are systemically affected by alcohol. Clearly, there is a need for counselors, supervisors, and counselor educators to collaboratively address alcohol abuse and dependence—for and with clients as well as for and with those in clients' social networks.

In accordance with Social Learning Theory and systemic approaches, this researcher hoped to provide an empirically based study that revealed a way for clients to receive effective alcohol treatment while, simultaneously, reaching clients' important people who also struggle with untreated AUDs. Despite the limitations and results, this study informs theory and practice by presenting possible avenues to approach counseling, develop treatment modules, and continue to conduct research. Future work will need to include diverse demographics, accurate IP data collection, longer treatment for clients' successful abstinence related to clients' influence on IP, a measurement criteria of IP's level of alcohol consumption, and additional factors that influence clients and their social networks, such as motivation, self-efficacy, and social investment. Moreover, deliberate integration of advocacy, multicultural competencies, and social justice are essential within therapeutic relationships,

treatment, education, and continued research. Yet, the complexities of this future research may require numerous studies, each with a narrow scope that, when combined, offer systemic understanding and advances in the field. Expanding the efficacy of evidence-based treatment while also including and impacting important people in clients' social networks--by creating a halo effect--is a valuable research agenda and potential therapeutic model.

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## Appendices

Appendix A: Form 90 AIR/ED

**COMBINE**  
**Form 90-AIR/ED (AED ver. A)**

Center	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Participant #	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Participant Initials	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Week	<input type="text"/> <input type="text"/>	Sequence	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
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Date

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through /

## Appendix B: Important People Initial Interview Instrument

Table B.1: Important People Initial Interview (IP-II) Instrument  
(Miller, 2004)

#	Item	Categories	Definitions
1	A	Name(s) of Important People	(The maximum number of names is ten.)
2	B	Relationship to IP	1 = parent, 2 = spouse, 3 = significant other, 4 = child, 5 = sibling, 6 = other relative, 7 = friend, 8 = co-worker, 9 = AA member, 0 = other
3	C	During the past 4 months on average, how frequently have you been in contact with (IP)?	7 = daily (7 times a week), 6 = three to six times a week, 5 = once or twice a week, 4 = every other week, 3 = about once a month, 2 = less than monthly, 1 = once in past 4 months
4	D	How important has that person been to you?	6 = extremely important, 5 = very important, 4 = important, 3 = somewhat important, 2 = not very important, 1 = not at all important
5	E	To what extent is this person generally supportive of you (by helping you think about things, solve problems, and by giving you moral support you need)?	6 = extremely supportive, 5 = very supportive, 4 = supportive, 3 = somewhat supportive, 2 = not very supportive, 1 = not at all supportive
6	F	Drinking status	5 = heavy drinker, 4 = moderate drinker, 3 = light drinker, 2 = abstainer, 1 = recovering alcoholic, 8 = don't know
7	G	How often does this person drink alcohol?	7 = daily, 6 = three to six times a week, 5 = one or two times a week, 4 = about every other week, 3 = about once a month, 2 = less often than monthly, 1 = once in past 4 months, 0 = not in past 4 months, 8 = don't know
8	H	How has this person reacted to your drinking? (Or) How would this person react to your drinking?	5 = encouraged, 4 = accepted, 3 = neutral, 2 = didn't accept, 1 = left, or made you leave when you're drinking, 8 = don't know
9	I	How has this person felt about your coming to treatment?	6 = strongly supports it, 5 = supports it, 4 = neutral, 3 = mixed, 2 = opposes it, 1 = strongly opposes it, 8 = don't know how they would feel about it

## Appendix C: Important People Follow-Up Interview Instrument

Table C.1: Important People Follow-Up Interview (IP-FUI) Instrument  
(Miller, 2004)

Item	Categories	Definitions
G	How often does this person drink alcohol?	7 = daily, 6 = three to six times a week, 5 = one or two times a week, 4 = about every other week, 3 = about once a month, 2 = less often than monthly, 1 = once in past 4 months, 0 = not in past 4 months, 8 = don't know

## Appendix D: Oregon State University IRB Approval Letter



Institutional Review Board • Office of Sponsored Programs and Research Compliance  
 Oregon State University, 312 Kerr Administration Building, Corvallis, Oregon 97331-2140  
 Tel 541-737-4933 | Fax 541-737-3093 | <http://oregonstate.edu/research/osprc/rc/humansubjects.htm>  
[IRB@oregonstate.edu](mailto:IRB@oregonstate.edu)

TO: Cass Dykeman  
 Teacher & Counselor Education

IRB #: 4111 – The Change in Alcohol Consumption by Important People to Clients (Student  
 Researcher: Dana Doerksen)

Level of Review: Exempt

Expiration Date: 10-25-09

Approved Number of Participants: Data only

The referenced project was reviewed under the guidelines of Oregon State University's Institutional Review Board (IRB). The IRB has **approved** the:

Initial Application                       Continuing Review                       Project Revision  
with a (if applicable):  Waiver of documentation of Informed Consent                       Waiver of Consent

A copy of this information will be provided to the full IRB committee.

- **CONSENT FORM:** All participants must receive the IRB-stamped informed consent document. If the consent is in a format that could not have stamp placement (i.e. web site language, email language, etc), then the language must be **exactly** as the IRB approved it.
- **PROJECT REVISION REQUEST:** Any changes to the approved protocol (e.g. protocol, informed consent form(s), testing instrument(s), research staff, recruitment material, or increase in the number of participants) must be submitted for approval before implementation.
- **ADVERSE EVENTS:** Must be reported within three days of occurrence. This includes any outcome that is not expected, routine and that result in bodily injury and/or psychological, emotional, or physical harm or stress.
- **CONTINUING REVIEW:** A courtesy notice will be sent to remind researchers to complete the continuing review form to renew this project, however – it is the researcher's responsibility to ensure that continuing review occurs prior to the expiration date. Material must be submitted with adequate time for the office to process paperwork. If there is a lapse in approval, suspension of all activity including data analysis, will occur.
- **DEVIATION/EXCEPTIONS:** Any departure from the approved protocol must be reported within 10 business days of occurrence or when discovered.

Forms are available at: <http://oregonstate.edu/research/osprc/rc/humansubjects.htm>.

If you have any questions, please contact the IRB Human Protections Administrator at [IRB@oregonstate.edu](mailto:IRB@oregonstate.edu) or by phone at (541) 737-8008.

*Elisa Espinoza Fallows*

Date: 10-26-08

Elisa Espinoza Fallows  
 IRB Human Protections Administrator

Appendix E: PowerPoint Presentation

Slide 1

# The Change In Alcohol Consumption Of Important People To Clients

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Dissertation, Dana B. Doerksen  
Counselor Education, Oregon State University  
Education Hall 107, 9am -11am  
February 12, 2009

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Submitted to:	<p><i>Dr. Cass Dykeman, Committee Chair</i>  <i>Dr. Tracy Bentley-Townlin, Graduate Rep</i>  <i>Dr. Gene Eakin, Committee Member</i>  <i>Dr. Dale Pehrsson, Committee Member</i>  <i>Dr. Ken Winograd, Committee Member</i></p>
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## What is Alcohol Consumption?

**Consumption:** The act of drinking an intoxicating liquid

**When is it a problem?**

**Excessive Drinking with Consequences:**

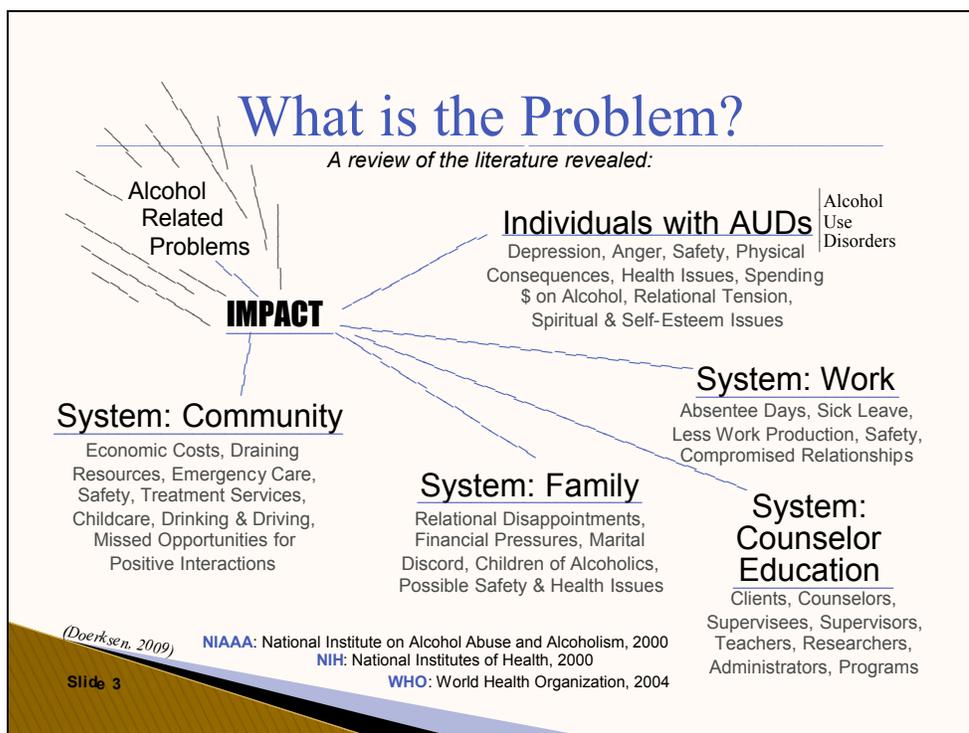
*According to the DSM-IV (APA, 1994):*

(Doerksen, 2009)

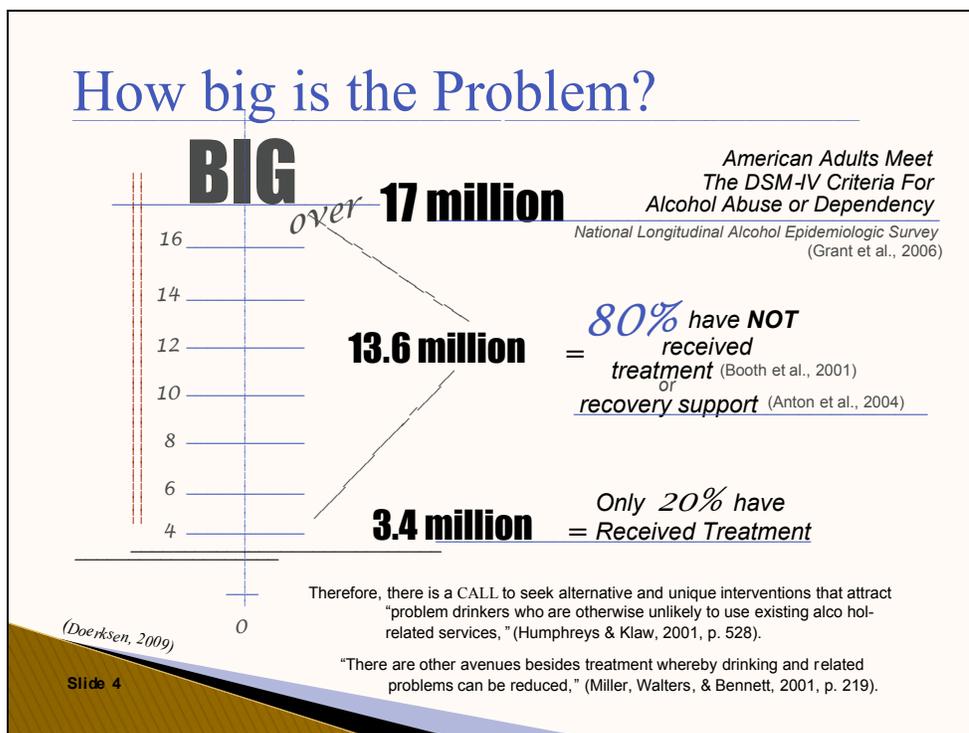
- **Alcohol Abuse & Dependence**  
*One or more of the following:*
  - Internal, **Individual** Consequences  
 > Tolerance, withdrawal, increased amounts, etc.
  - External, **Systemic** Consequences  
 > Failure to fulfill primary obligations, engaged in hazardous or illegal actions, sacrificed activities, etc.

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## Research on AUDs & Project COMBINE

Alcohol Use Disorders

**Motivational Interviewing** (Miller & Rollnick, 2002)

**Stages of Change** (Prochaska, DiClemente, & Norcross, 1992)

**12-Step Help Groups** (Tonigan, Miller, & Connors, 2001)

**Systemic Approaches** (Bateson, 1972)

**Social Learning Theory** (Bandura, 1994)

**Culturally-competent Therapist** (Sue, Arredondo, & McDavis, 1992)

**Therapeutic Relationship** (Project MATCH Research Group, 1993)

- National, multi-site; Randomized control trial
- Funded by NIAAA / NIH for the purpose of investigating effective combinations of treatments & medications for clients with alcoholism
- About 1,383 participants in the clinical trial

**Alcoholism Treatment**

**CLIENT** (Before) → [E, X, I, P] → **outcome** (After)

**E**: Education CACREP's New Program: Addiction Counseling

**I**: Influences Social Factors

**P**: Prevention 34 CFR Part 86

**Combined Pharmacotherapies & Behavioral Interventions**

<b>CBI</b>	Cognitive Behavioral Interventions
<b>MM</b>	Medical Management
<b>Rx</b>	Placebo, Naltrexone, Acamprosate, No-pills

(Miller, 2004; Pettinati et al., 2004)

*"Without effective and targeted interventions... increases in alcohol-related burdens" will continue (Rehm, Taylor, & Room, 2006, p. 503).*

**Is it possible** for treatment to benefit clients while also benefiting those in their social networks—who might be among the 13.6 million people with untreated AUDs?

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## Important People IP

People in client's social network who the client identifies as important

**GOALS:**  
Observe **Change** in... IP's Alcohol Consumption

**Client's Non-Abstinence** (Before) → [X, X] → **Client's Abstinence** (After)

IP-II-G Important Person → IP-FUI-G IP

**Measure with the...**

	Categories	Definitions	
Initial <b>IP-II-D</b> Item D	How important has that person been to you?	6=extremely important, 5=very important, 4=important, 3=somewhat important, 2=not very important, 1=not at all important	Level of Importance
<b>1</b> Before: Initial <b>IP-II-G</b> Item G	How often does this important person drink alcohol?	7=daily, 6=three to six times a week, 5=one or two times a week, 4=about every other week, 3=about once a month, 2=less than monthly, 1=once in past 4 mon, 0=not in past 4 mon, 8=don't know	25% of IP 45% of IP Whose habits may reflect one or more symptoms of AUDs
<b>2</b> After: Follow-Up <b>IP-FUI-G</b> Item G			

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Slide 7

## Research Question & Hypotheses

**Q:** Is there a relationship between  
 (a)-clients' treatment outcomes and  
 (b)-alcohol consumption changes of the clients' important people?

*Alternate Hypothesis*

**H<sub>1</sub>:** There **is** a relationship between clients' treatment outcome status (i.e. abstinent or non-abstinent) and the alcohol consumption status of important people (i.e. increased, decreased, or unchanged).

*Null Hypothesis*

**H<sub>0</sub>:** There is **no** relationship between clients' treatment outcome status (i.e. abstinent or non-abstinent) and the alcohol consumption status of important people (i.e. increased, decreased, or unchanged).

(Doerksen, 2009)

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## A 2 x 3 Contingency Table

*"A table representing the cross-classification of two or more categorical variables" (Field, 2005).*

**Q:** Is there an **association** between these **two** categorical variables?

**1. Variable A:** Status of Clients' Treatment Outcome (at the end of 16-weeks)  
 (a)-Abstinent Status  
 (b)-Non-abstinent Status

**2. Variable B:** Status of IP's Alcohol Consumption  
 (a)-Increased  
 (b)-Decreased  
 (c)-Unchanged

TABLE	Ab= Clients' Abstinent	N-Ab= Clients' Non-Abstinent	Total (counts)
IP: Increased	20	76	96
IP: Decreased	36	110	146
IP: Unchanged	110	336	446
<b>Total</b>	<b>166</b>	<b>522</b>	<b>688</b>

25% of Clt: Ab

75% of Clt: N-Ab

688 Total IP-Clients

14% of IP: Increased

21% of IP: Decreased

65% of IP: Unchanged

Frequency (counts)

(Doerksen, 2009)

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**A:** The chi-square test indicated that an **association** was **NOT** present between the categorical variables.

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## Pearson's Chi-Square Test

*This test determines the independence of two categories (Field, 2005). Categorical data is inherently not continuous and, thus, does not utilize means. Instead, expected values are used to analyze frequencies.*

**Expected Value Equation:** 
$$\text{Model Value} = E_{ij} = \frac{\text{Row Total}_i \times \text{Column Total}_j}{n}$$

To calculate expected values for each cell: Use the totals--column, row, and frequency (n)--from the contingency table on the previous slide

	Client's (Clt) Outcome	Clt Abstinent	Clt Non-Abstinent	Total of IP-Client	
Observed (actual) Value →	• Count of IP "Increased"	20	76	96	Total of each Row ←
	• Expected Frequencies	23.163	72.837	96	
Model (expected) Value →	• Count of IP "Decreased"	36	110	146	Subtract Model Value FROM Observed Value ↓
	• Expected Frequencies	35.227	110.773	146	
Total of each Column →	• Count of Total IP-Client	166	522	688	Square the Result ←
	• Expected Frequencies	166	522	688	

**Chi-square Equation:** 
$$\chi^2 = \sum \frac{(\text{Observed}_{ij} - \text{Model}_{ij})^2}{\text{Model}_{ij}}$$

Divide by Model Value ←

Then, add each unit, equaling SUM for  $\chi^2$

(Doerkson, 2009; Dr. Tim Bergquist, statistical consultant)

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## Results: Variables = Independent

*To determine statistical significance, the computed values of chi-square (0.6615) and p-value (0.7184), degrees of freedom (2), significance level (0.05), and the critical value (5.9915) were established.*

**1** Chi-square Computed Values

$\chi^2$  test statistic = 0.6615  
(As shown in previous slide)

p-value = 0.7184  
(Calculated by Excel)

**2** Degrees of Freedom (df)

df = 2

The df were calculated by:

- 2 (columns) minus 1 = 1
- 3 (rows) minus 1 = 2
- Then multiply: 1 x 2 = 2

**3** Significance Level, Alpha = 0.05

(A common alpha level for the social sciences)

**4** Critical Value

$\chi^2$  tabular value = 5.9915

(Value identified on table via df and alpha level)

**Q:** Is the computed value larger than the tabular value? Is (0.6615) > (5.9915)? **NO**

**Q:** Is the alpha level larger than the computed p-value? Is (0.05) > (0.7184)? **NO**

**Conclusion:**

**Retain the Null (H<sub>0</sub>) Hypothesis**

**Cramer's V test** was used to confirm the chi-square results and determine the strength of the association between the two categorical variables.

zero

(0)

Test Value of Cramer's V

**(0.031008)**

one

(1)

Cramer's V (0.031008) value is very close to a zero (0) value and far from a one (1) value, indicating an extremely low measure of association between the clients' treatment outcomes and the change status in IP alcohol consumption.

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## Interpretations (regarding the lack of relationship between variables)

*Based on current research in the literature, these questions reflect possible explanations for this study's results:*

- 1 Were important people (IP) in the early **Stages of Change**?  
*(Prochaska & DiClemente, 1982)*
- 2 Were IP lacking **motivational readiness** for change?  
*(Miller & Rollnick, 1991)*
- 3 Did IP lack **self-efficacy** regarding alcohol abstinence?  
*(Bandura, 1994)*
- 4 Did IP lack **systemic support** to successfully decrease alcohol consumption?  
*(Bateson, 1972)*
- 5 Were any changes in IP's drinking a result of **other factors**?

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## Demographics

**Pie Chart - Race / Ethnicity**  
*(According to Project COMBINE)*

Color	Label	Description
Green	1	*American Indian, Alaska Native, Asian American, Pacific Islander, or Other
Red	2	*Black or African American
Blue	3	*Non-Hispanic White
Yellow	4	*Hispanic American

*Sample for Project COMBINE: Mostly... Caucasian men in their late 40s*

**Bar Chart - Age**

Age	Frequency (Number of Clients)
89	~5
79	~10
69	~40
59	59
49	49
39	39
29	~15
19	~5

**Bar Chart - Gender**

Gender	Count
Male (green)	468
Female (blue)	220

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## Limitations

*The limitations are closely tied with the Interpretations and Implications sections of this study.*

- 1 ~ Secondary Analysis of Data Sets**  
*This study was constricted by the purposes of the original COMBINE research design.*
- 2 ~ Selection Criteria & Assessments**  
*Selection was strict & assessments were cumbersome, limiting generalizability and use.*
- 3 ~ IP Instruments and 16-week Timeframe**  
*Missing data & a short treatment timeframe reduced scope of clients' influences on IP.*
- 4 ~ Accurate Identification of Each IP**  
*The absence of confidential yet exact coding for each COMBINE IP impaired this study.*
- 5 ~ Abstinent or Non-abstinent Identification**  
*This dichotomy was an oversimplification of the alcohol recovery process for clients.*
- 6 ~ Demographics of Project COMBINE**  
*Based on COMBINE demographics, this study's sample had low generalizability.*
- 7 ~ IP's Symptoms of AUDs at Baseline**  
*This study did not quantify the level of IP's alcohol consumption at the start of treatment. Thus, data might include IP without an alcohol consumption problem.*

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## Implications

*Possible implications for counselors, educators, supervisors, policy makers, and researchers*

**Training Module**

- 1** Individualized treatment within an empathetic, culturally aware, and respectful therapeutic relationship
- 2** Treatment with a focus on motivational readiness for change and the Stages of Change
- 3** Systemic treatment involving important people in the client's social network
- 4** Reassessment of Clt-IP Stages of Change, teaching coping skills, and enhancing self-efficacy
- 5** Emphasis on successful experiences and modeling a lifestyle of abstinence

*See dissertation for further detail.*

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## Recommended Future Research

- 1 ~ Continue to rigorously study evidence-based treatment modalities
- 2 ~ Investigate best-practices for IP data collection & inclusion in treatment
- 3 ~ Determine the most effective treatment timeframe needed for clients' successful outcomes, as related to clients' influence on IP's drinking
- 4 ~ Replicate this study & add two qualifiers regarding IP drinking problems:  
Qualifier #3: Include only IP with "daily" drinking behaviors  
Qualifier #4: Include only IP with a "heavy" drinking status
- 5 ~ Select samples with diverse demographics, improving generalizability
- 6 ~ Pursue systematic training of addiction counselors in the context of counselor education, counselor supervision, and CACREP standards
- 7 ~ Employ mixed-methods & qualitative research approaches to explore how social factors influence recovery & *specifically*, to study the relationship between clients' outcomes & IP's alcohol consumption

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*(Doerksen, 2009)*

Now, transition to:



Developed by: Dana Doerksen

## Appendix F: Training Module

Alcohol consumption problems continue to plague Americans, and specific training is needed to better counsel clients in alcohol treatment and to strategically assist those who are not in formal treatment but are affected by alcohol (CACREP, 2008; Salyers et al., 2005). In summary, this Training Module was developed based on a thorough review of the literature and, in the future, needs revisions informed by empirical research. Recommendations are as follows:

1. Individualized treatment within an empathetic, respectful therapeutic relationship.
  - 1a. Client-specific interventions (Giovazolias & Davis, 2005; Miller, 2004).
  - 1b. Therapeutic style and alliance (Project MATCH Research Group, 1993).
  - 1c. Empathy (Rogers, 1951) and advocacy (Lewis et al., 2003).
  - 1d. Diversity awareness and cultural competency (Sue et al., 1992).
  
2. Treatment with a focus on motivational readiness for change & Stages of Change.
  - 2a. Motivational approaches (Miller et al., 1992).
  - 2b. Cognitive-behavioral approaches (Longabaugh & Morgenstern, 1999).
  - 2c. Stages of Change (Prochaska et al., 1992).
  - 2d. Abstinence emphasis (Anton et al., 2006; O'Farrell & Fals-Stewart, 2003).
  
3. Involvement of important people in clients' social networks.
  - 3a. Who is in social network and their level of recovery support (Beattie, 2001).
  - 3b. Demographics of client and IP (Humphreys et al., 1997).
  - 3c. Size of social network (Manuel et al., 2007).
  - 3d. Investment of those in social network (Pinsof & Wynne, 1995).
  - 3e. Quality of relationships in social network (Tracy et al., 2005).
  - 3f. Involvement of significant other (Leonard & Eiden, 1999).
  - 3g. Social network of primarily nondrinkers (Witbrodt & Kaskutas, 2005).
  - 3h. Attendance at AA (Kaskutas et al., 2002).
  - 3i. Community Reinforcement Approach (Meyers & Smith, 1995).
  
4. Reassessing Stages of Change, teaching coping skills, & enhancing self-efficacy.
  - 4a. Careful reassessment of stages of change (Giovazolias & Davis, 2005).
  - 4b. Social skills and assertiveness training (Miller & Wilbourne, 2002)
  - 4c. Cognitive-behavioral coping-skills (Longabaugh & Morgenstern, 1999).
  - 4d. Convincing belief in one's ability to resist alcohol (DiClemente et al., 1994).
  
5. Successful experiences and modeling a lifestyle of abstinence.
  - 5a. Increased self-efficacy due to successful abstinence (Bandura, 1994).
  - 5b. Awareness of Stages of Change (Prochaska & DiClemente, 1982).
  - 5c. Awareness of systemic, environmental influences (Bateson, 1972).
  - 5d. Awareness of socially persuading others to abstinence (Bandura, 1994).
  - 5e. Maintaining and modeling a lifestyle of abstinence (Bandura, 1994).