2016

Factors Associated With Harm Reduction Model Use Among Substance Abuse Counselors

Tiffany Madden
Walden University

Walden University

College of Social and Behavioral Sciences

This is to certify that the doctoral dissertation by

Tiffany Madden

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

Review Committee
Dr. Kelly Davis, Committee Chairperson, Psychology Faculty
Dr. Marlo Walters, Committee Member, Psychology Faculty
Dr. Amy Sickel, University Reviewer, Psychology Faculty

Chief Academic Officer
Eric Riedel, Ph.D.

Walden University
2016

Factors Associated With Harm Reduction Model Use Among Substance Abuse Counselors

by

Tiffany Madden

MS, Walden University, 2009

BS, Ohio Dominican University, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

February 2016

Abstract

Drug overdose death rates in the United States have more than tripled since 1990 with more than 36,000 dying in 2008. In 2007 the estimated cost of drug use to U.S. society due to lost productivity, increased health care, and criminal justice costs was over $193 billion. Previous researchers have found that harm reduction is a viable treatment option within the field of addiction. The guiding premise in the harm reduction approach is that all people can achieve improved psychological and physiological health even if they are unable to be substance-free. However, there remains an important gap in the current literature regarding factors that may influence substance abuse counselorsô use of the harm reduction model. Specific individual counselor independent variables (recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) may play a role in counselors' acceptance of the harm reduction approach as a viable treatment for substance abuse. Therefore, the purpose of this quantitative study was to investigate which variables played a role in counselorsô acceptance of the harm reduction model. This research sampled 100 professional substance abuse counselors selected from the American Counseling Association (ACA) database. Multiple regression analyses were utilized to examine study research questions. Findings of this study indicated that disease and eclectic orientation conceptualizations were significant predictors of harm reduction acceptance, suggesting training targets for increasing acceptance of the harm reduction model among counselors. This is an important contribution to the existing literature and enhances social change initiatives by expanding the use of effective substance abuse treatment options.

Factors Associated With Harm Reduction Model Use Among Substance Abuse Counselors

by

Tiffany Madden

MS, Walden University, 2009

BS, Ohio Dominican University, 2006

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Clinical Psychology

Walden University

January 2016

Table of Contents

Chapter 1: Introduction to the Study

Drug addiction is a complex illness that typically begins with a voluntary act that leads to a compulsive behavior (Tatarsky, 2002). According to Substance Abuse and Mental Health Services Administration's (SAMHSA) National Survey on Drug Use and Health (NSDUH), 23.2 million individuals aged 12 years and older needed treatment for an illicit drug or alcohol problem in 2007, while only 2.4 million received treatment (NIDA, 2009). Based on these statistics it is apparent that although drug addiction treatment is a necessity within the United States, only approximately 10% of those who need such treatment actually receive it (NIDA, 2009).

Background

Initiated to prevent the transmission of HIV among injection drug users, the *harm reduction approach* is a public health method that seeks to reduce damage caused by substance use (Lee, Engstrom, & Petersen, 2011). Harm reduction sets forth practical strategies to assist with safer use, reduced use, and abstinence (Marlatt, 1998). Many individuals believe that immediate and total abstinence from all mind-altering substances is the only acceptable treatment method. The harm reduction approach does not encourage an individual to continue their drug use, but it recognizes that abstinence may not be the individualôs primary goal when initially seeking treatment (Tatarsky, 2002). Acknowledging that each drug user has a unique history, psychology, physiology, and motivations, as well as a social and cultural context for their relationship with drugs (Zinberg, 1984), the harm reduction approach allows counselors to tailor their treatment to the needs of the individual.

Harm reduction is often thought to give individuals permission to use drugs; however, harm reduction can be used as an intervention to obtain sobriety without requiring abstinence at the initiation of treatment or total abstinence during treatment (Marlatt, 1998). The harm reduction approach may have an eventual goal of abstinence, but it allows counselors to establish more flexible treatment goals in order to bring addicts into treatment programs (Walch & Prejean, 2001). The harm reduction approach meets the client where they are at in order to provide a respectful and compassionate treatment approach based on the needs of the client. Five main principles define the harm reduction approach: pragmatism, humanistic values, focus on harms, balancing costs versus benefits, and importance of immediate goals (Bigler, 2005). By utilizing these five principles, counselors may be able to impact society by reducing harm among the substance abuse population. Substance abuse problems have had vast costs to society in terms of healthcare, employability, crime, incarceration, drug and alcohol related accidents, in addition to other factors (Keller & Dermatis, 1999). Proponents of the harm reduction approach have stated that costs to civilization can be decreased (Bigler, 2005), including reduction in crime rates and drug use-related diseases.

Crime Rate Reduction Efficacy

Drug-related crime rates continue to rise within the United States. Over 1.6 million people were arrested in the United States in 2009 for nonviolent drug charges (Drug Policy Alliance, 2011). In Merseyside, a province in the United Kingdom, researchers have indicated that the policy of diverting substance users from the criminal justice system to the treatment system has significantly reduced arrests and legal charges

(Global Commission on Drug Policy, 2011). Moreover, prescription heroin is linked with a reduction in petty crime and enhancements in substance usersô health (Global Commission on Drug Policy, 2011). Based on the above statistics, the use of the harm reduction model may assist with an overall decrease in crime rate.

Disease Reduction Efficacy. Diseases such as HIV and hepatitis continue to spread at an increased rate due to drug use, and several countries have attempted to mitigate this increased incidence through harm reduction efforts. For example, in Switzerland there was an 80% reduction of HIV, hepatitis C, and hepatitis B in injection drug users who had begun injecting since the introduction of a harm reduction treatment model (Somaini et al., 2000). Within the United States, Des Jarlais, Marmor, & Paone, 1996) found that there was a substantial and consistent decline of HIV infection in those entering detoxification that utilized a harm reduction approach. Researchers comparing cities with and without NEPs found that infection rates of HIV had a mean annual decrease of 18.6% (Ritter & Cameron, 2006). The use of the harm reduction model among drug users may assist with reducing the spread of these diseases.

Problem Statement

The estimated cost of drug use to U.S. society in 2007 due to lost productivity and increased health care and criminal justice costs was over $193 billion (U.S. Department of Justice, 2011). In less than a decade this amount has almost tripled as the projected annual cost of substance abuse to society was $67 billion in 1998 (Office of National Drug Control Policy, 1998). According to the Centers for Disease Control and Prevention (CDC, 2012), there are approximately 100 deaths every day due to overdose.

Based on these figures it is apparent that substance abuse is a widespread problem with potentially devastating consequences.

Within the United States, the objective of most substance abuse counseling programs is complete abstinence (MacMaster, 2004). The majority of current substance abuse counselors within the United States have found that abstinence is the best way to help individuals suffering with addiction to drugs and/or alcohol; thus, the abstinence model is used more frequently in treatment settings (Marlatt, 1998). However, the abstinence model may not work for everyone as people typically change in incremental steps, practicing new behaviors and new ways of coping with life over time (DiClemente, Schlundt, & Gemmell, 2004). Moreover, relapse rates range from 40-60% in programs using the abstinence model, thus it is apparent there is a need for other approaches to treat those with substance abuse disorders (McLellan, Lewis, O'Brien, & Klebler, 2000).

Harm reduction is one viable alternative. The goal of harm reduction is to reduce the negative impact of substance abuse and dependence on individuals and communities by decreasing high-risk behaviors (Marlatt, 1998). Using a harm reduction approach can involve teaching individuals about injection safety, risk of HIV/AIDS, and/or offering opioid substitution therapies (Marlatt, 1998). Violence or accidents in social settings account for 99% of alcohol-related sudden deaths, thus a harm reduction approach to alcohol consumption may involve an individual avoiding social drinking (CDC, 2008). Educating individuals about drug mixing is another harm reduction approach as the majority of drug overdoses are a result of mixing multiple drugs (CDC, 2008).

In order to decrease the cost to society due to drug use, it is imperative to teach counselors to embrace models other than abstinence. Project Matching Alcoholism Treatment to Client Heterogeneity (MATCH) was a large-scale, multi-site study to determine what type of treatment worked best with what type of patient (Project MATCH, 2010). Through studies such as Project MATCH (2010), researchers have demonstrated that it is important to find the best type of treatment for a particular type of patient; thus, the harm reduction model should be an encouraged treatment option for counselors if it is the most appropriate form of treatment for a particular client.

From a public health approach, the effectiveness of the harm reduction approach is typically measured by assessing changes in crime, morbidity, and mortality rates (MacCoun, 2009). Researchers have found that countries utilizing the harm reduction approach in relation to alcohol and drug addiction have seen a decrease in crime, wages lost, and hospitalizations (Goddard, 2003). Despite these promising findings, harm reduction is often frowned upon in treatment settings although it may already be used in some ways within the facility (i.e., medication assisted treatments; Marlatt, 1998). For example, medication assisted treatments which are a form of harm reduction are becoming more prevalent as mortality rates increase among substance abusers (Logan & Marlatt, 2010). To date, however, the factors underlying some counselorsô reluctance to accept harm reduction approaches are unclear. Because of this knowledge gap as well as the promise of harm reduction approaches, the purpose of this study is to determine what factors are associated with substance abuse counselors' acceptance of the harm reduction model.

Previous researchers have identified some factors that may relate to counselorsô attitudes about the harm reduction model, including education level, recovery status, and conceptualizations of substance abuse. Knudsen, Gallon, and Gabriel (2006) found that nearly one-third of substance abuse counselors reported having no alcohol or drug (AOD) specific coursework prior to entering the field. Additionally, Knudsen et al. found that less than 50% of counselors reported having an AOD-specific degree or certificate. Lack of AOD education and understanding of substance abuse conceptualizations may be a contributing factor in a counselor's acceptance of the harm reduction model. According to Moyers and Miller (1993), counselors holding the strongest beliefs in the disease model of addiction were more likely to be in recovery themselves and showed less flexibility in setting treatment goals for clients. In the past the majority of substance abuse counselors were in recovery themselves and often had little training in research methodology (Chiauzzi & Liljegren, 1993). Previous researchers have not looked at all these factors in relation to harm reduction specifically. In this project I have attempted to understand current counselor acceptance toward the harm reduction approach by exploring possible contributing factors (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) among counselors who treat substance use disorders (SUDs).

Purpose of the Study

The intent of this study was to use a quantitative approach to determine which variables (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) are associated with a counselorôs

acceptance of the harm reduction approach. No single substance abuse treatment approach is appropriate for everyone (NIDA, 2009). While researchers have shown the effectiveness of the harm reduction approach, little is known about why some counselors are accepting of the harm reduction approach while others are not. This project was unique because it addressed the role of counselors in the use of varying treatment models to assist those suffering with substance abuse problems. If researchers can better determine the factors that contribute to substance abuse counselor choice of treatment modality, then the use of the harm reduction model may be increased. In turn, this may help more individuals who are suffering with alcohol and drug addiction.

Research Questions and Hypotheses

The research questions for this study investigated which factors (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) are associated with substance abuse counselorsô acceptance of the harm reduction model.

Research Question 1: Does substance abuse counselor recovery status impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard, Mallott, & Grindle, 2003)?

H_{01}: There will be no relationship between counselor recovery status and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a1}: There will be a relationship between counselor recovery status and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 2: Does substance abuse counselor education level impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{02} : There will be no relationship between counselor education level and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Ha_2: There will be a relationship between counselor education level and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 3: Does substance abuse counselor age impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{03}: There will be no relationship between counselor age and substance abuse counselorsô attitudes toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a3}: There will be a relationship between counselor age and substance abuse counselorsô attitudes toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 4: Does substance abuse counselor length of time in the field impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{04}: There will be no relationship between length of time in the field of substance abuse and substance abuse counselorsô acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a4}: There will be a relationship between length of time in the field of substance abuse and substance abuse counselorsô acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 5: Does substance abuse counselor conceptualizations of substance abuse, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (e.g., disease, psychosocial, and eclectic orientation), impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale?

H_{05}: There will be no relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys, Greenbaum, Noke, & Finney, 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a5}: There will be a relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three

subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys et al., 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Theoretical Framework for the Study

The theoretical framework for this study was the harm reduction theory. The harm reduction theory proposes that reducing costs to society (i.e., mortality, crime, spread of disease) in substance abuse treatment programs should be an allowable goal if abstinence is not achievable or wanted by the patient (Marlatt, 1998). In the field of substance abuse the stages of change model is often addressed as specific interventions of harm reduction are directed toward a patientôs readiness for treatment (Van Wormer, 2008). The use of harm reduction may be particularly effective for those not in the action stage of change according to the stages of change model (Prochaska, DiClemente, & Norcross, 1992). The harm reduction theory as it relates to the stages of change model will be discussed in more detail in Chapter 2.

According to the International Harm Reduction Association (2006), the harm reduction theory represents policies and programs whose primary goals are to reduce adverse health, social, and economic consequences of mood altering substances to individual drug users, their families, and their communities. The harm reduction theory is supportive of any behavior along the risk hierarchy that minimizes harm and improves quality of life for those individuals who are not able to maintain total abstinence from high-risk behaviors (Marlatt, 1998). The harm reduction theory will be discussed in more detail in Chapter 2.

Nature of the Study

This study has a quantitative focus. Quantitative approaches can provide large, representative samples, confirm or disconfirm theoretical hypotheses, and can summarize numerical data clearly and persuasively (Fassinger & Morrow, 2013). Professional substance abuse counselors were invited to participate in a nonexperimental survey to obtain data. A cross-sectional survey design was used as it allowed many different variables to be compared at one time (Fassinger & Morrow, 2013). A demographic questionnaire was used to assess the counselor background-related independent variables (i.e., recovery status, education level, age, and length of time in the field). The SUSS was used to measure the independent variable of counselors' beliefs about the nature and treatment of substance abuse problems (Humphreys et al., 1996). The Harm Reduction Acceptance Scale (HRAS) was used to measure the dependent variable of counselor's acceptance level of the harm reduction approach (Goddard et al., 2003).

Participants were found through requests sent to American Counseling Association (ACA) members specializing in addictions and dependency within the states of Ohio, West Virginia, Kentucky, Indiana, Michigan, and Pennsylvania. Among these states the 2012 ACA Online Directory had 442 registered counselors who specialized in addictions and dependency. Invitations to participate in the survey were sent to all of the registered counselors in these states. According to the A-priori Sample Size power analysis, a sample size of 91 individuals allowed for a power level of 80%, significance level of .05 and a medium effect size of 0.15 for a multiple regression analysis with four predictors (Soper, 2014). Power level, significance level, and effect size were chosen

based on recommended guidelines (Tabachnick & Fidell, 2007). Thus, even a response rate as low as 21% yielded a sufficient number of participants. Multiple regression analysis was used to determine the factors associated with counselors' harm reduction acceptance. The quantitative analysis of the data should help determine whether a counselorôs recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations are associated with the acceptance of the harm reduction model among substance abuse counselors.

Definitions

Alcoholics Anonymous (A.A.): A worldwide fellowship of men and women whose primary purpose is to carry its message of recovery to any alcoholic seeking help (Smith & Wilson, 2001).

Abstinence: The act of refraining from indulging in a behavior (i.e., drug use, alcohol use, sexual act, etc.; Planes et al., 2009).

Human Immunodeficiency Virus (HIV): A virus that attacks the immune system and causes Acquired Immune Deficiency Syndrome (AIDS) (Planes et al., 2009).

The Minnesota Model: Considers addiction to be a genetically determined, disabling condition that requires abstinence while following the principles of AA and NA (Cook, 1988).

Moderate drug use: Substance use that is significantly more than abstaining from using illicit substances but significantly less than daily illicit substance use (Johnson, Bickel, & Baker, 2007).

Narcotics Anonymous (N.A.): A worldwide fellowship of men and women that encourages a relationship with a higher power to promote recovery among those suffering with an addiction (Moos & Moos, 2004).

Needle Exchange Programs (NEPs): were started in the 1980s to reduce the number of shared needles among injection drug users (Kelley, Murphy, & Lune, 2001).

Opioids: Prescribed to manage physical pain; however, they are often misused and abused which results in a diagnosis of opioid-dependence (Gregory, 2013).

Recovery: Acknowledgement that one is chemically dependent, avoidance of mood-altering chemicals, increased self-awareness, and acceptance of taking responsibility for personal actions (Zelvin & Davis, 2001).

Relapse: The return to drug or alcohol use after a significant period of abstinence (Cherubin & Sapira, 1993).

Risk hierarchy: Used to rank areas of concern among substance abuse populations (Marlatt, 1998).

Stages of change model: An increasingly utilized perspective in substance abuse treatment that suggests a five-stage process individuals must rotate through, including: precontemplation, contemplation, preparation, action, and maintenance (Prochaska et al., 1992).

Substance use disorder (SUD): A pattern of drug use that results in repeated adverse social consequences and is clinically diagnosed as mild, moderate, or severe (American Psychiatric Association, 2013).

War on Drugs: A term coined by President Nixon in 1969 to prevent new addicts and rehabilitate those who were already addicted (Dowling, 2004).

Assumptions

Several assumptions were made in this research study. It was assumed that the participants in the study would complete the questionnaires truthfully and to the best of their ability. While there is always a risk that self-reported data is distorted either consciously or unconsciously researchers have found that self-reports often correlate very highly with official data (Meleis & Dagenais, 1980). Additionally, it was presumed that the instruments (i.e., demographic questionnaire, HRAS-R, and SUSS) used were appropriate means for measuring the designated variables.

Scope and Delimitations

The results of this study were limited to ACA members only. Other branches of professionals (i.e. psychologists, social workers, etc.) were not within the scope of this study, which limits the scope of the study to the ACA.

Limitations

This study sought participants from any state within the United States listed with the ACA website due to time and budgetary constraints. The quality of the research was not degraded in any way but could be expanded on in the future. Prospective studies may look at a larger geographical area for comparison. Additionally, because this study relies on cross-sectional, correlational data, it cannot determine causal relationships among the variables. Within this study self-selection bias of participants may also have been a limitation as only those interested in harm reduction may have completed the survey.

Self-selection bias occurs when a particular group of the population, which has different values than the general population, has lower nonresponse rates and is consequently over represented in the sample (Whitehead, 1991) and may occur due to recruitment wording (Freyd, 2012). Care was taken to word recruitment materials in ways that minimize self-selection bias.

Significance

This research filled a gap in the literature as to what influences (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) a substance abuse counselorôs chosen treatment modality. It adds to the existing body of literature on the harm reduction approach to substance abuse treatment, as little is known about why some counselors accept the harm reduction model and others do not. Increased understanding of counselor factors associated with greater acceptance of harm reduction approaches can provide information on who to target for training opportunities within the field, as well as suggest ways to tailor such training to meet specific counselorsô needs, in order to improve acceptance of the harm reduction approach. Ultimately, greater acceptance of the harm reduction approach may allow a greater number of individuals suffering from SUDs to be served. This research can thus encourage social change by expanding substance abuse treatment options which will likely lead to a decrease in rates of morbidity and relapse.

Summary

Substance abuse is an epidemic that may be ameliorated by harm reduction approaches. In 2011 an estimated 22.5 million Americans over the age of 11 years had

used an illicit drug or abused a psychotherapeutic medication (such as a pain reliever, stimulant, or tranquilizer) within the past month (NIDA, 2012). With so many individuals experimenting with illegal substances, it is imperative that more than one treatment option be offered. Many counselors may think that they have to choose between abstinence and harm reduction; however abstinence can be a goal of the harm reduction approach (Marlatt, 1998). Supporters of the harm reduction approach have asserted that costs to the public can be lessened with the use of the harm reduction model (Bigler, 2005); thus it is imperative to explore the determining factors that lead substance abuse counselors to a specific treatment modality.

Chapter 2 includes a review of the existing literature with regard to the efficacy of the harm reduction model. The chapter begins with a description of the harm reduction theory which is the theoretical framework for this paper. Chapter 2 also includes a discussion of literature that challenges the outcomes of the research in these areas. The chapter ends with how prior research influences this research.

Chapter 3 describes the methodology used to study the research questions. This chapter discusses the use of multiple regression analysis as a valid means to analyze the association between various factors (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) and acceptance of the harm reduction model. The chapter includes a description of the sample population, procedures, ethical considerations, measures, and analysis of the data.

Chapter 2: Literature Review

Introduction

This literature review established the need for continued research concerning the value of determining the factors (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) that lead substance abuse counselors to a specific treatment modality. The variables that lead to the acceptance of the harm reduction model among counselors have yet to be thoroughly explored. The goal of the majority of substance abuse counseling programs within the United States is total abstinence (MacMaster, 2004), but according to the National Institute on Drug Abuse (2009), no single treatment approach is appropriate for everyone. The harm reduction approach can be utilized to assist with a number of treatment goals including total abstinence.

The theoretical framework of this dissertation was rooted in the harm reduction theory. Empirical research showing the need for nonabstinence based treatment modalities in the field of substance abuse appears in various peer-reviewed journals and books. This chapter provides a review of the theoretical models of substance abuse, as well as harm reduction and abstinence-based treatment modalities. Research that depicts a correlation between various counselor variables (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) and choice of treatment modality was incorporated into this chapter, in addition to a history of practice of the harm reduction model. In order to have an impartial discussion of the literature, this chapter also includes a discussion of research that challenges some

of the results of research in these areas. The chapter concludes with an account of how past research has influenced this study.

Literature Search Strategy

A search of literature was conducted digitally through electronic psychology and databases such as PsycINFO, PscyARTICLES, and Academic Search Complete. The list of search terms used to conduct the literature search included substance abuse, harm reduction, treatment modalities, and counselor acceptance. The sources of articles attained and reviewed for this study were found digitally as well as traditionally through existing print versions of professional journals. There were multiple books that were also secured which provided overviews of the harm reduction approach.

Theoretical Foundation

Abstinence is at the core of the most prominent models of understanding and treating SUDs. While many of these theoretical models have been around for decades, their use is dependent on the treatment facility's discretion or counselor's choice instead of meeting the patient where they are at. The theoretical models of substance abuse that were compared are the moral, medical, stages of change, disease, Minnesota, biopsychosocial, and the harm reduction models. While each model explored may sound similar, each is unique in its own way.

Moral Model.

The basic premise of the moral model of substance abuse treatment is founded on the idea that those who do not adapt to what the majority of society deems as appropriate cannot be good moral people and cannot be useful providers to their family and

community (Garlitz, 2007). The moral model, which is abstinence based, states that individuals are alcoholics because of moral weakness (Brickman et al., 1982). It is the individual who is responsible for causing the problem, and their inability to solve the problem is due to lack of motivation (Brickman et al., 1982).

According to the moral model, the behavior of those with SUDs is seen as sinful, and incarceration is an ideal and common method of forcing abstinence (Marlatt & Witkiewitz, 2010). One area of concern related to the moral model is the judgment that is placed upon those that have a substance use disorder as this model views addiction as a choice (Marlatt et al., 2001). The moral model is consistent with the beliefs of the *War on Drugs* mentality which identifies substance use as a common evil rather than a public health issue (Marlatt et al., 2001).

Medical Model.

The medical model views addiction as a complex illness with a biological etiology that is rooted in heredity and physiology (Brickman et al., 1982). The medical model recognizes that substance abuse is more than a moral weakness. Within the medical model, a physician is the primary mode of treatment delivery while abstinence from the chemical is the ultimate goal. The medical model does not focus on psychological or social problems but instead involves dealing with the physical consequences of the addiction (Brickman et al., 1982). One concern regarding the medical model is that it does not take into consideration any of the psychological and social aspects that may influence an individualôs addiction.

Stages of Change Model.

The stages of change model is a transtheoretical approach that was first presented in 1986 as a way of explaining how smokers were able to break their nicotine habit successfully (Prochaska et al., 1992). The focus of this model is on an individualôs motivation to change through a five-stage process (i.e. precontemplation, contemplation, preparation, action, and maintenance) (Van Wormer, 2008). Individuals should be in the action stage of change in order to seek abstinence as a treatment goal (Prochaska et al., 1992). According to Prochaska et al. (1992), the vast majority (85%-90%) of individuals suffering from addiction are not in the action stage of change, thus abstinence-based substance abuse prevention services may not always be an appropriate treatment option.

Disease Model.

The disease model of substance abuse emerged within the United States in the 1930s and 1940s (Miller & Kurtz, 1994). The disease model of substance abuse treatment defines addiction as a major illness that involves loss of control and denial which is only improvable by immediate abstinence (Denning, 2005). The disease model deems people who abuse substances as ill and in need of treatment which is a more humane belief than prior models (Marlatt et al., 2001). Unlike the medical model, the disease model focuses on psychological or social problems instead of physical consequences only.

According to the disease model, addiction is a progressive illness with no cure and abstinence is the only known way to halt its progression (Marlatt & Witkiewitz, 2010). Individuals are not blamed for their addiction but are responsible for managing the problem using strategies taught within treatment (Brickman et al., 1982). One area of

concern related to the disease model is that it fosters dependency (Brickman et al., 1982) in that it states that those with SUDs are incapable of making their own decisions. Anyone who then cares for an individual with an addiction under the disease model will then feel it necessary to take away their ability to make their own choices until abstinence is reached.

Minnesota Model.

The *Minnesota model* considers addiction to be a genetically determined, disabling condition that requires abstinence while following the principles of a 12-step program (Cook, 1988). Alcoholics Anonymous (AA) utilizes the Minnesota Model which combines the disease modelôs sense of etiology but adds a spiritual component in addition to emphasizing social support and acceptance of a higher power (Marlatt & Witkiewitz, 2010). The Minnesota model requires complete abstinence as a treatment goal (Yalisove, 1998).

Biopsychosocial Model.

The biopsychosocial model focuses on the biological, psychological, and social aspects that influence and withstand alcohol and drug abuse (Wiltsek, 2004). It is based on the belief that addictions are caused and maintained by a variety of factors including biology, individual history and learning, co-occurring problems, and environmental factors (van Wormer & Davis, 2008). Counselors who follow this model test the assumptions of other models and acknowledge that genetic tolerance, metabolism, and brain sensitivity are possible factors in the addiction (Wiltsek, 2004). Abstinence is the goal of the biopsychosocial model which is still utilized in many treatment centers by

counselors and addiction specialists (Wiltsek, 2004).

Model Failures.

While all of the models reviewed above (i.e., moral, medical, stages of change, disease, Minnesota, and biopsychosocial models) have provided theoretical foundations for the development of successful substance abuse treatments, drug use in the United States continues to rise. Since 1990 deaths from drug overdoses within the United States have more than tripled (National Vital Statistics System, 2008). Annually, the United States. spends over $51 billon on the War on Drugs (Drug Policy Alliance, 2011). Civil and criminal courts continue to blame defendants for behaviors committed under the influence (Miller & Kurtz, 1994). The United States has seen a drastic increase in arrest rates for drug charges which implies that the War on Drugs mentality may not be working. In 2004 there were approximately 333,000 individuals within the U.S. incarcerated for illegal substance use (Mumola & Karberg, 2006). In 2009 over 1.6 million people were arrested in the U.S. for nonviolent drug charges (Drug Policy Alliance, 2011).

The field of addiction treatment has sustained criticism for providing uniform treatment approaches that vary little from person to person and are based predominantly on the Minnesota Model (Collins, 1995). While the Minnesota model may work for some, its effectiveness is not empirically supported (Hunt, Barnett, & Branch, 1971; Veach, Remley, Kippers, & Sorg, 2000). Confrontation groups and A.A. are at the core of the Minnesota model which mandates that patients face their addiction and its consequences which may be a reason for its ineffectiveness (Yalisove, 1998).

All of the above models except the stages of change require complete abstinence as the treatment goal which may explain why none of these models have been completely effective in treating those with a substance use disorder. Requiring abstinence can hinder the potential for addiction treatment service settings in addressing the array of medical and psychosocial problems clients may present with (Marlatt, Blume, & Parks, 2001). According to Marlatt & Tapert (1993) treatment retention and post-discharge outcomes could be improved if policies were eliminated that require total abstinence for service entry and retention. Treatment outcomes should be defined in ways other than achievement of total abstinence as treatment can benefit even clients not yet ready for a goal of total abstinence (Tatarsky, 2002).

Limited research currently exists on efficacy rates of each treatment model individually. As of 2009, the majority of substance abuse treatment facilities in the United States utilized substance abuse counseling that incorporated relapse prevention, cognitive-behavioral therapy, 12-step facilitation, and motivational interviewing (SAMHSA, 2010). Approximately one third achieve permanent abstinence from their first serious attempt at recovery while one third have chronic relapses that result in eventual death from chemical addiction (SAMHSA, 2006).

Harm Reduction Model.

The practice of harm reduction was initially documented in 19th century England (Berridge, 1993), and one of the earliest examples of application of the harm reduction approach in the United States occurred in 1972 (Duncan, Nicholson, Clifford, Hawkins, & Petosa, 1994). The harm reduction model does not condone or encourage substance

abuse, but it accepts substance use as a universal behavior within all societies (Gleghorn, Rosenbaum, & Garcia, 2001). Complete abstinence is the ideal form of harm reduction for those who abuse substances (Marlatt & Tapert, 1993); however this cannot be obtained by all so the treatment focus is on the immediate problems of the use itself in order to minimize consequences (Riley et al., 1999). Harm reduction supports any movement along the risk hierarchy (e.g., use of needle exchange program, reduced use, practicing injection safety) that minimizes harm and improves an individualôs quality of life (Marlatt & Tapert, 1993). Medication assisted treatment is a form of harm reduction that is currently utilized by numerous treatment facilities to assist those who could not otherwise abstain.

Harm Reduction Treatment Defined

Harm reduction treatment is based on the belief that alcohol and drug difficulties including substance abuse and dependence develop in individuals through a unique interaction of biological, psychological, and social factors but does not require abstinence as a treatment goal (Marlatt, 1998). A harm reduction treatment approach falls into a general category of psychological interventions that can vary in theoretical perspective and clinical approach (Tatarsky, 2002). Harm reduction treatment models can be used in outpatient settings, residential treatment, homeless programs, traditional drug treatment programs, medical services, and any other community outreach programs where it is needed. It can be used individually or in a group therapeutic setting (Tatarsky, 2002).

Unlike many other treatment modalities, harm reduction does not require abstinence for admission to a treatment program or as a goal of the treatment (Marlatt,

1998). Instead, it addresses concerns related to drug and alcohol use simultaneously with their social and occupational implications as well as their psychological and emotional impacts (Tatarsky, 2002). Harm reduction can involve complete abstinence or focus on controlled or safer use to increase oneôs overall quality of life.

Treatment Guidelines.

There are no specific guidelines for the use of harm reduction. The course and pace of treatment is determined by the patient while the counselorôs role is to educate on the consequences of the patientôs choices (Tatarsky, 2002). Counselors will focus on immediate, achievable goals which may or may not include abstinence (Ritter & Cameron, 2006). Counselors are responsible for providing support and guidance to help their patients determine how to improve their overall health and wellbeing (Marlatt, 1998).

Counselors may offer various behavioral therapies, referrals for medication, and education on safer use of drugs, managed drug use or abstinence based on the individualôs request. The primary treatment goal of harm reduction is to increase oneôs quality of life rather than require abstinence from substance abuse (Ritter & Cameron, 2006). Counselors may also suggest different treatment options based on a clientôs drug of choice. For example, a client suffering from an addiction to heroin may be in need of a medication assisted treatment (i.e., Buprenorphine, Methadone, etc.) and education on needle safety while a client struggling with an addiction to cocaine may require cognitive behavioral therapy to assist with cravings.

Harm Reduction Approach Efficacy.

The use of the harm reduction model may assist with decreasing usage and rates of relapse. Harm reduction programs in Germany reduced drug use, activities of law enforcement personnel, criminal activities, and drug-related hospital presentations (Fischer, 1995). In Switzerland the use of drug substitution for heroin has reduced consumption among heavier users (Global Commission on Drug Policy, 2011). Harm Reduction strategies have also shown a decrease in problems associated with alcohol use for college-aged drinkers (MacMaster, Holleran, & Chaffin, 2005). In hopes of reducing harm caused by alcohol, Australia presented random breath testing in all states and territories and the advanced reduction of allowable blood alcohol level when driving which led to a decrease in accidents (Hawks & Lenton, 1995).

In 1985 Holland adopted a ñnormalization policyò that utilizes harm reduction programs including, methadone buses, needle exchange, and fieldwork with addicts in the streets, hospitals, and jails (Tatarsky & Marlatt, 2010). Indeed, methadone maintenance therapy, a technique used in the harm reduction model, has been found to reduce the misuse of opioids more than other treatment options (Sees et al., 2000). As of 2011, the Netherlands had the lowest rate of heroin injection in Europe, which scholars attribute to the availability of services including needle exchange and supervised prescription methadone and heroin (Global Commission on Drug Policy, 2011). Switzerland has also moved from punishing to treating substance use through efforts such as drug substitution for heroin , and the effects of this transition have included reduced consumption among heavier users and a decrease in criminal activity associated with the drug trade (Global Commission on Drug Policy).

Needle exchange programs to prevent the spread of infectious diseases have proven efficacious. Preventing one case of HIV costs one-third the amount than providing medical care to an infected person (Satcher , 2000). Research of a mobile NEP-based healthcare delivery system in New Haven, Connecticut found that the service was associated with a 20% decline in IDU ER visits (Pollack, Khoshnood, Blannkenship, & Attice, 2002). Gibson, Flynn, and Perales (2001) examined 42 NEP evaluation studies published from 1989 to 1999 and found that 28 of these studies had favorable outcomes that included substantial evidence that NEPs are effective in preventing HIV risk behavior and HIV seroconversion among injection drug users.

Research on controlled or moderate use of common illicit drugs which is a form of harm reduction indicates that some users of cocaine, opiates, alcohol, and cannabinoids can successfully control or moderate their use patterns (Erickson & Weber, 1994). In an exhaustive review of studies regarding the viability of controlled drinking treatment outcomes Heather and Robertson (1981) asserted that there are at least 74 supporting studies that validate the possibility of controlled drinking by former alcoholics. In summary, research has demonstrated that harm reduction approaches are effective at decreasing use and relapse rates among substance abusers.

History of Practice of the Harm Reduction Approach Outside of the United States.

Harm reduction is practiced worldwide. In 1985 Australia became the first country to introduce harm reduction formally into its national drug policy (Tatarsky & Marlatt, 2010). In 1994 Canada hosted the Fifth International Conference on the

Reduction of Drug-Related Harm and now embraces services that include needle exchange, methadone maintenance, and moderate drinking programs (Tatarsky & Marlatt, 2010). The harm reduction model is becoming increasingly accepted outside of the U.S.

European Harm Reduction.

As early as the 1920s, heroin and cocaine were being prescribed in the United Kingdom to assist those suffering from an addiction (Tatarsky & Marlatt, 2010). While this practice has since fallen out of favor, the UK province of Merseyside continued prescribing the drugs. In 1990 the Merseyside Health Authority sponsored the first international conference on harm reduction in which the Merseyside model was based. HIV is an epidemic of which approximately 16% of those with the disease are infected via injection drug use (CDC, 2011). The guiding principles behind the Merseyside model include: (a) HIV as a greater threat than drug use, (b) treatment goal must not be abstinence, and (c) treatment providers must engage users by providing innovative and flexible services (Global Commission on Drug Policy, 2011). Merseyside programs include prescription drug maintenance, needle exchange, and services for housing and employment. All substance users in Merseyside are encouraged to register with the Drug Dependency Service which offers treatment, including detoxification, however only about 10% who register are interested in abstinence-based treatment (Tatarsky & Marlatt, 2010).

The first needle exchange program was established in Europe in 1984 by an organization of concerned hard drug users known as the Junkie League to end the spread

of hepatitis B (Tatarsky & Marlatt, 2010). Police stations in Amsterdam provide clean syringes on an exchange basis, and many European and Australian cities mechanized syringe exchange machines are available every hour of the day (van Wormer & Davis, 2008). A *normalization policy* was adopted by the Netherlands in 1985 which increased the use of harm reduction programs to include methadone buses, needle exchange, and fieldwork with addicts (Tatarsky & Marlatt, 2010). The Netherlands currently has the lowest rate of heroin injection in Europe, which many attribute to the availability of harm reduction programs (Global Commission on Drug Policy, 2011).

United States Harm Reduction.

The practice of harm reduction has not been as welcomed within the United States as in other countries. The Netherlands, Canada, and the United Kingdom moved away from traditional addiction treatment towards a continuum-of-care model of harm reduction at least a decade prior to the United States (White, 1998). According to the Global Commission on Drug Policy (2011) the emphasis still remains on eradicating illicit drugs within the United States, punishing those who make, distribute, and use them, instead of working to help them become productive members of society.

Although there is controversy about the harm reduction approach within the U.S., some substance abuse treatment centers do utilize harm reduction techniques by way of medication-assisted treatment. Medication-assisted treatments are used to maintain opioid users off of their illicit drug-of-choice by providing a less harmful opioid under medical supervision (Logan & Marlatt, 2010). Methadone, one of the first medications used in the United States to reduce harm among drug users, is a long-acting synthetic opiate agonist

(Stancliff, 2002). Research indicates that methadone maintenance therapy reduces illicit opioid use more than other treatments (Sees et al., 2000). Methadone is a necessary treatment option within the harm reduction model as treatment admission rates for patients with primary opioid problems increased 271% from 1995 to 2005 (SAMHSA, 2010).

Drug use became an even greater public health issue in the U.S. during the HIV/AIDS epidemic of the 1980s to protect users and the community at large (Marlatt & Tatarsky, 2010). Needle Exchange Programs were established to assist with this epidemic. The first Needle Exchange Program (NEP) in the United States was established in New Haven in 1986 in reaction to the HIV/AIDS epidemic; however a federal ban on needle exchange went into effect from 1988 through 2009 which made it difficult for NEPs to survive (Knittel, Wren, & Gore, 2010). Although the ban has been lifted, there are only 203 NEPs across 34 U.S. states, the District of Columbia, the Commonwealth of Puerto Rico, and the Indian Nations (amfAR, 2012).

While the harm reduction approach is not accepted among all treatment providers it is utilized throughout the world. Research has proven that the use of harm reduction can be extremely effective. The harm reduction approach embraces the belief of non-judgment which is essential to treatment (Marlatt, 1998). Within the United States the harm reduction model has been used to treat those with addictions to tobacco, heroin, opiates, and alcohol (Tatarsky, 2002). Medication-assisted treatment, HIV risk reduction education, and syringe exchange programs are forms of harm reduction that are currently utilized in the United States (Tatarsky, 2002).

Implications of Past Harm Reduction Research on Present Research

It is necessary to research the acceptance of the harm reduction model among substance abuse counselors in order to increase the use of treatment methodologies outside of the disease model. It is commonly accepted that substance abuse treatment providers in the United States are primarily oriented around a disease model which may terminate or deny services based on inability to abstain from substance use (Marlatt, 1998). Abstinence-based treatment programs can pose unnecessary barriers, such as requiring abstinence upon admission to those in need of treatment (Marlatt, 1998).

Instead of disregarding those who continue to use substances while in treatment, the harm reduction approach attempts to provide individuals with the same level of care as those seeking abstinence (Harm Reduction Coalition, 2011).There is very little research on moderate drug use as abstinence is the typical goal, however we do know that reductions in quantity and frequency of substance use often result in improved medical, psychological, and social functioning (Marlatt, 1998). Ross and Drake (1992) found that a counselorôs acceptance of treatment modality can be influenced by their attitude toward a specific treatment approach, thus it is imperative that research within the area of harm reduction continues to determine which variables lead to acceptance among counselors.

Literature Review Related to Key Variables

Despite its demonstrated efficacy, the harm reduction approached is often criticized by counselors (Marlatt, 1998). Such criticisms include the belief that the harm reduction approach promotes drug use and fails to get people to abstain (Christie, Groarke, & Sweet, 2008). However, many counselors are unaware that a goal of harm reduction can be abstinence if a patient chooses (Marlatt, 1998). Harm reduction provides an alternative to the moralistic, biopsychosocial, and medical models of typical alcohol and drug treatment by recognizing that some patients may be incapable or unwilling to cease from use (Hobden & Cunningham, 2006).

While not all counselors are accepting of the harm reduction approach, many are advocates. Proponents of the harm reduction approach accept that substance abuse will always exist and argue that society is best served by efforts that will lessen the consequences of inevitable drug misuse (Marlatt, 1998). Research indicates that active substance users desire treatment for goals other than total abstinence (McKeganey, Morris, Neale, & Robertson, 2004). Various factors may play a role in a counselorôs acceptance of the harm reduction model, and an exhaustive review of the current research was completed. Unfortunately, there is limited research in many of these areas, but all that were found is presented below.

Recovery Status.

A counselorôs recovery status may also play a role in their acceptance of the harm reduction model. Those that hold the strongest beliefs in the disease model of addiction are more likely to be in recovery themselves (Moyers & Miller, 1993). Counselors in

recovery tend to be older than non-recovering counselors as they typically come to the substance abuse field as a result of a midlife career change associated with their recovery experience (Powell, 1993). According to Culbreth and Borders (1999), recovering counselors lack specific training in therapeutic skills and hold their recovery status as their primary credential to provide treatment. Like the harm reduction approach, nonrecovering counselors view alcohol and drug problems on a continuum of illness (Lawson, Petosa, & Peterson, 1982) which may increase their acceptance of the harm reduction model; hence, a counselorôs recovery status may impact their choice of treatment modality choice. Lack of research in this area provided limited resources on this topic, thus indicating that more investigation of the relationship between recovery status and acceptance of harm reduction would provide a useful contribution to the field.

Education Level.

Education level may be a contributing factor to acceptance of the harm reduction model among counselors. Eversman (2012) found that harm reduction varies in presence in masterôs degree substance abuse coursework from highly prevalent to not being addressed at all. Lack of knowledge about harm reduction contributes to counselor opposition (Eversman, 2012).

Goddard (2003) measured treatment professionalsô attitudes related to harm reduction prior to and after a two-hour education presentation on harm reduction. Of the participants 43% held a masterôs degree while 42% held a doctoral degree. Goddard (2003) found that participantsô attitudes were significantly more promising after being educated on the harm reduction approach, which may suggest education as a missing

factor for acceptance of this treatment model. Education level may impact the way in which a counselor is able to understand different treatment modalities, and if this is true we may need to review how counselors are placed in certain fields as state certified substance abuse counselors with only a high school diploma and graduate degree level counselors can currently work side by side (Culbreth & Borders, 1999). Importantly, educational training levels often parallel a counselorôs recovery status as non-recovering counselors are more likely to have graduate degrees (Valle, 1979). It is important to consider a counselorôs education level as it may play a role in their acceptance of the harm reduction model.

Age.

A counselorôs age may also play a role in their acceptance of the harm reduction approach. Havranek and Stewart (2006) measured rehabilitation counselorsô attitudes toward harm reduction and found that participants 50 years and older preferred harm reduction more than those under 50 years old. A second body of research indicates that counselors who are older may be less likely to form positive attitudes about or adopt newer strategies (Reidel & Stillson, 2001). Although there are conflicting views and limited research on this topic, it is apparent that there may be a correlation between age and choice of treatment modality among counselors.

Length of time in the Field.

A counselorôs length of time in their field of expertise may play a role in their openness towards newer treatment modalities. Havranek and Stewart (2006) collected data from 604 members of the Ohio Rehabilitation Association in order to compare how

counselors perceive drug related harm and if demographic differences influence counselor attitudes toward drug related harm. Results found that counselors who had been in the field of substance abuse longer were less accepting of harm reduction. Based on these research findings a counselorôs length of time in the field may impact their acceptance of the harm reduction model. Lack of research in this area provided limited resources on this topic, thus indicating that more investigation of the relationship between length of time in the field and acceptance of harm reduction would provide a useful contribution to the field.

There are a variety of factors (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) that may play a role in a counselorôs acceptance of the harm reduction model. Since some of these variables are likely to be correlated (i.e., age and years in the field, age and recovery status, etc.) it is important to examine all variables together. By examining these variables simultaneously, we can establish the relative importance of each, which can provide important information for targeting training regarding the use of harm reduction to those who may be least accepting of the harm reduction approach.

Summary and Conclusions

It is important to review all existing literature to understand the importance of the acceptance of the harm reduction model. An exhaustive literature search was completed and due to limited research in this area all that was found was presented above. The above literature review establishes the need for continued research concerning the value of determining the factors that lead substance abuse counselors to a specific treatment

modality. It is important to explore the variables that lead to the acceptance of the harm reduction model among counselors as they have yet to be thoroughly explored.

Chapter 3 explores the methodology used to study the research questions. This chapter discusses the use of multiple regression analysis as a valid means to analyze the association between variables (i.e., education level, age, recovery status, etc.) and acceptance of the harm reduction model. Chapter 3 also includes a description of the sample population, procedures, ethical considerations, measures, and analysis of the data.

Chapter 3: Research Method

Introduction

This chapter includes an explanation of this studyôs design, sample, instrumentation, data analysis, and ethical concerns. A summary of the studyôs design includes a justification for why this specific research design was selected. The sample characteristics and size are presented as is an account of the instrumentation. The data collection process and analysis is also be discussed.

Purpose of the Study.

The purpose of this study was to investigate the acceptance of the harm reduction approach among counselors as a treatment model for substance abuse. This study assessed if acceptance of the harm reduction approach to treating substance abuse complications is related to personal characteristics including length of time in the field, education level, recovery status, understanding of substance abuse, and age. While the majority of substance abuse treatment facilities within the United States utilize an abstinence-based treatment model, proponents of the harm reduction approach acknowledge that substance abusers are not always ready to abstain which may make them unlikely to engage in programs that promote abstinence exclusively (Rosenberg & Phillips, 2003). Currently, there is limited research on why some counselors are accepting of the harm reduction model and others are not.

Research Design and Rationale

The purpose of this study was to explore the strength and nature of the impact of five independent variables (i.e., recovery status, education level, age, length of time in the

field, and understanding of substance abuse conceptualizations) on the dependent measure of acceptance of the harm reduction approach to substance abuse treatment. This research was conducted using a quantitative, ex post facto design. An ex post facto design was appropriate for this study because causal relationships between variables are not being studied (Tabachnick & Fidell, 2007). This research study was not attempting to do an intervention or change anyone's behavior. Consistent with the nature of the research questions, an ex post facto design allows the researcher to measure variables as they exist in the real world. A pro of this form of research is ability to observe real world relationships while a con of this form of research is that the researcher cannot infer that one variable causes the other (Tabachnick & Fidell, 2007).

Methodology

Population.

The target population of this study was American Counseling Association (ACA) members who specialize in addictions and dependency. The ACA has more than 56,000 members across the United States and was founded in 1952. The American Counseling Association is the world's largest association exclusively representing professional counselors in various practice settings (ACA, 2014).

Sampling and Sampling Procedures.

The participants of this study included both male and female professional counselors registered with the ACA as specializing in addictions. The sample of professional substance abuse counselors was selected from the American Counseling Association (ACA) to participate via email invitations. At least ninety-one substance

abuse counselors were found via requests sent to ACA Members specializing in Addictions and Dependency within the states of Ohio, West Virginia, Kentucky, Indiana, Michigan, and Pennsylvania. Recruitment continued until at least 91 participants agreed to participate in the study. The inclusion criteria required that a participant is a licensed substance abuse counselor in one of the following states: Ohio, West Virginia, Kentucky, Indiana, Michigan, or Pennsylvania and is an active member of the American Counseling Association. Individuals who did not meet the inclusion criteria were excluded from participating in the study. An *a priori* Sample Size Calculator for multiple regression (Soper, 2014) was utilized to determine appropriate sample size ($N = 91$) with 4 predictors, an alpha of .05, a statistical power level of .8, and a medium effect size of .15, per recommended guidelines (Tabachnick & Fidell, 2007). The *a priori* Sample Size Calculator for multiple regression (Soper, 2014) was also utilized to determine appropriate sample size for research question 5 which has 3 predictors. Given the parameters of 3 predictors, an alpha of .05, a statistical power level of .8, and a medium effect size of .15, per recommended guidelines (Tabachnick & Fidell, 2007), a sample of 76 participants was required. Thus, a total sample of 91 participants was sufficient to conduct the proposed analyses. The use of online surveys likely increased the response rates as online surveys typically reduce response time (Granello & Wheaton, 2004).

Procedures for Recruitment, Participation, and Data Collection.

Participants were recruited from the above six states using the ACA Online Directory. The 2012 ACA Online Directory had 442 registered counselors who specialize in addictions and dependency, and 21% must have responded to obtain target sample

size. An invitation explaining the nature of the study and link to the informed consent to participate in the online survey were sent to all of the registered counselors in these states via email. The invitation can be viewed in Appendix A.

Once a participant showed a willingness to participate in the study by completing the electronic informed consent, they were sent a link via SurveyMonkey to complete the required questionnaires online. SurveyMonkey allowed the questionnaire's author to disable the storage of email addresses and IP address collection. To ensure all identifying information was kept anonymous, the author requested to disable the storage of email and IP addresses collected via SurveyMonkey. The informed consent can be seen in Appendix B. Participants were asked to complete a demographics questionnaire in addition to the HRAS-R and SUSS. All data collected was submitted anonymously as no identifying information was used, and all data was kept confidential. Upon completion of the study participants were able to exit the program by selecting the ñexitò button on the last screen of the study. It was anticipated that the study will involve minimal stress as all participants were trained professionals in the field (i.e., substance abuse counselors). Participants were informed through the informed consent procedure that there is no pressure to participate, that the study is voluntary, that there are no incentives for participants, and that they are able to withdraw at any time without penalty prior to study enrollment. A resource list was developed and was provided to all participants after their participation to address any stress encountered after survey completion. The resource list can be viewed in Appendix B.

Instrumentation and Operationalization Constructs.

A demographic questionnaire was used to request background info (i.e., recovery status, education level, age, and length of time in the field) from each substance abuse counselor. Recovery status was assessed with the following question: Are you currently in recovery from an addiction to alcohol or drugs? Participants were provided with the following response options: yes or no. Education level was assessed with the following question: How many years of education past high school have you completed? Participants were provided with the following response options: *0, 1, 2...15+*. Age was assessed with the following question: What is your age? Participants were provided with the following response options: 18, 19, 20é 66 or older. Length of time in the field was assessed with the following question: How many years have you worked within the field of drug/alcohol addiction? Participants were provided with the following response options: <1, 1, 2...31+. The complete questionnaire is presented in Appendix D.

HRAS-R.

The Harm Reduction Acceptance Scale (HRAS-R) was used to measure the substance abuse counselorsô acceptance of the harm reduction approach (Goddard et al., 2003). The HRAS-R is a 25-item scale that participants are instructed to score based on their personal attitude of each statement. Items 1, 2, 4, 6, 9, 11, 13, 15, 18, 21, 23, and 25 were reverse scored, and the mean was computed across the 25 items. Low scores on the HRAS-R indicate increased acceptance toward harm reduction (Goddard et al., 2003). Participants were asked to respond to statements such as, ñPeople with alcohol or drug problems who want to reduce, but not eliminate, their alcohol or drug use are in denial,ò and answer options are a scale from 1(strongly agree) to 5 (strongly disagree) (Goddard

et al., 2003). The complete questionnaire took less than five minutes to complete and is presented in Appendix E.

Evidence for the reliability of the HRAS-R includes moderately high internal consistency (Cronbachôs alphas ranging from 0.877 pre to 0.929 post test; Goddard, 1999) and moderate 3-week testï retest reliability ($r = 0.825$) (Goddard et al., 2003). Evidence for the validity of the HRAS-R includes its significant correlation with Burt et al.ôs (1994) Temperance Mentality Questionnaire ($r = 0.538$, $p < 0.001$) (Goddard et al., 2003). No evidence was found that this has been previously tested on individuals similar to the identified population. Permission is not required for use of this scale.

SUSS.

The SUSS was used to measure treatment staff membersô attitudes about the nature and treatment of substance abuse problems (Humphreys et al., 1996). The SUSS is a 19-item scale that participants are instructed to answer by scoring 1-5 based on their personal attitude of each statement (i.e., 1 if they strongly disagree, 5 if they strongly agree). The SUSS is made up of 3 subscales: disease, psychosocial, and eclectic orientation. The disease subscale includes items like ñEvery alcoholic or addict is one drink or one hit away from a total relapse.ò The psychosocial subscale includes items such as ñA person can develop alcoholism or drug addiction because of underlying psychological problems.ò Finally, the eclectic orientation subscale includes items like ñAlcoholics and drug addicts have a distinct set of personality traits by which they can be identified.ò The complete questionnaire is presented in Appendix F.

When scoring the SUSS, responses were recoded by subtracting one from each

response, then each subscale had their converted scores summed for analyses (Humphreys et al., 1996). The results of confirmatory factor analysis provided modest support for the hypothesized structure: goodness-of-fit index = .920; X^2(135, N = 329) = 254.38.1. Results also supported the convergent and discriminate validity of the SUSS subscales (Humphreys et al., 1996). No evidence was found that this has been previously tested on individuals within the identified population; however, the study by Humphreys et al. (1996) utilized inpatient substance abuse treatment staff with an average of 16.7 years of education and an average of 8.8 years of experience in treating substance abuse patients, suggesting that this measure was also reliable for the proposed population given their likely similarities. In order to verify that this measure was indeed reliable for the proposed population, a Cronbach's alpha reliability analysis was run. Permission was not required for use of this scale.

Preliminary Analysis.

The Statistical Package for Social Sciences (SPSS) version 13.0 was used for preliminary and main data analysis. The preliminary analysis of this research included data cleaning. Descriptive statistics including means/standard deviations for continuous data and frequencies for categorical data was examined. Data cleaning identified and removed any outliers and was examined for skewness and kurtosis. Variables were transformed as necessary to approximate a normal distribution. Cronbachôs alphas was also identified on study scales to confirm reliability of the selected population (Cohen, 1992).

Assumption testing was conducted for regression analyses. In order for results to be valid the data must meet several assumptions for multiple linear regression. To ensure the ratio of cases to IVs is substantial, the sample size was greater than or equal to 50 + 8m (where *m* is the number of independent variables) (Tabachnick & Fidell, 2007). For this study *m* = 4 for the regression analysis with the most predictors, thus for a sufficient ratio of cases to IVs, the required number of cases was 82. This assumption was met with the proposed sample size (*N* = 91). To ensure the absence of outliers, screening for outliers was performed prior to the regression run, and outliers were deleted, rescored, or the variable transformed (Tabachnick & Fidell, 2007). Absence of multicollinearity and singularity will be identified in screening through high squared multiple correlations, very low tolerance, or multicollinearity diagnostics. Residuals analysis identified independence of errors (Tabachnick & Fidell, 2007). In order to test the assumptions of linearity and homoscedasticity, scatterplots were created using SPSS. The assumption of independence was confirmed with the Durbin-Watson statistic which required the running of a simple test via SPSS. Finally, normality of residuals was confirmed by checking that the residuals of the regression line were approximately normally distributed using a residuals scatterplot within SPSS (Lund Research Ltd, 2013; Tabachnick & Fidell, 2007). If these assumptions were met, two regression analyses were conducted (see below).

Research questions and hypotheses.

This study employed a correlational research design using linear regression analysis. The research questions and the hypotheses reflected this type of analysis. The research questions and hypotheses are listed again for review.

Research Question 1: Does substance abuse counselor recovery status impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard, Mallott, & Grindle, 2003)?

H_{01}: There will be no relationship between counselor recovery status and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a1}: There will be a relationship between counselor recovery status and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 2: Does substance abuse counselor education level impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{02} : There will be no relationship between counselor education level and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Ha_2: There will be a relationship between counselor education level and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 3: Does substance abuse counselor age impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{03}: There will be no relationship between counselor age and substance abuse counselorsô attitudes toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a3}: There will be a relationship between counselor age and substance abuse counselorsô attitudes toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 4: Does substance abuse counselor length of time in the field impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003)?

H_{04}: There will be no relationship between length of time in the field of substance abuse and substance abuse counselorsô acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a4}: There will be a relationship between length of time in the field of substance abuse and substance abuse counselorsô acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Research Question 5: Does substance abuse counselor conceptualizations of substance abuse, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (e.g., disease, psychosocial, and eclectic orientation), impact their

acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale?

H_{05}: There will be no relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys, Greenbaum, Noke, & Finney, 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a5}: There will be a relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys et al., 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Main analysis plan.

For this research study, two regression analyses were proposed. Regression analyses assess if a set of independent variables explains a significant proportion of the variance in a dependent variable; specifically, it allows one to determine how changes in one independent variable influence changes in the dependent variable while holding the other independent variables constant (Garson, 2009). Both continuous and categorical variables may be used as predictors in regression analyses (Tabachnick & Fidell, 2007). The first regression analysis assessed the strength of the relationships of the counselor

background-related independent predictors (i.e., recovery status, education level, age, and length of time in the field) with their acceptance of harm reduction (RQ1 ï RQ4).

The second regression analysis tested RQ5 by assessing the strength of the relationships of the three subscales regarding understanding of substance abuse (i.e., disease, psychosocial, and eclectic orientation) with harm reduction acceptance. For each regression, the predictors were entered into the model simultaneously in order to test their relative importance in predicting harm reduction acceptance (Tabachnick & Fidell, 2007). In order to interpret the results the model summary, ANOVA, and coefficients tables were examined in the output (Lund Research Ltd, 2013). The model summary indicated the level of correlation while the ANOVA table reported how well the regression equation predicts the dependent variable. Lastly, the coefficients table indicated whether a specific independent variable's contribution is statistically significant (Lund Research Ltd, 2013).

Threats to Validity

There are possible threats to the validity of this study. External validity threats could be related to the procedures to be used in this study. Study recruitment was conducted via email and the study was completed via SurveyMonkey. Participants were asked to allow a set amount of time to complete the study but may have been in a hurry and not allowed the amount of time requested which could skew the data. Social desirability may play a role in this study as participants may feel obligated to fill out the questionnaires based on perception of socially acceptable answers. Because all participants were counseling professionals, they may have completed the instruments

based on how they believe a counseling professional should think, feel, and behave, rather than how they actually think and feel about harm reduction. Participants were assured of confidentiality and anonymity to minimize these validity threats. Since participants included only Professional members of ACA who reside in Ohio, West Virginia, Kentucky, Indiana, Michigan, or Pennsylvania, the results were only generalized to that population. The assumptions of regression analyses, including linearity, independence and normality of errors, and homoscedasticity, were examined and verified before the analyses are conducted to avoid any validity threats regarding data analysis and interpretation.

Ethical Procedures.

Careful consideration was given to the nature of this study and its possible effects on the participants. All data was collected anonymously. The study conformed to all IRB requirements and APA ethical standards. The informed consent form was distributed to all potential participants, and provided information on the procedures for participation in the study, confidentiality issues, the voluntary nature of the study, the risks and benefits of participating in the study, as well as a way to contact the researcher and her advisor with individual questions regarding the study.

It was clearly stated in the informed consent that all records in this study will remain anonymous and that only the researcher has access to those records. Data was kept safe via secure online backup system (i.e., Carbonite) that only the researcher has access to. Participants were notified that they are free to withdraw from the study at any time during the process. There was no physical risks or benefits for participation in the

study. Participants were notified that there is no obligation to complete any part of the study in which they feel uncomfortable. Informed consent was obtained when the researcher received a completed informed consent form via online submission which signifies that the participant agrees to participate and understands the conditions of the study.

Summary

This chapter reviews this studyôs design, sample, instrumentation, data analysis, and ethical considerations. It also discusses the use of multiple regression analysis as an effective means to analyze the association between variables (i.e., education level, age, recovery status, etc.) and acceptance of the harm reduction model.

Chapter 4 explores the results of this study. Chapter 4 summarizes the results of the analysis and also provides an account of the participants sampled in this study.

Chapter 4: Results

Introduction

The purpose of this chapter is to present the analyses and findings of the current study which examined the factors that are associated with substance abuse counselors' acceptance of the harm reduction model. The variables explored were recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations among professional substance abuse counselors who were members of the ACA.

Five hypotheses were tested in this study. The hypotheses for this study investigated whether individual counselor factors (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) would be associated with substance abuse counselorsô acceptance of the harm reduction model. This chapter will present an overview of study data collection, results, and summary.

Data Collection

Recruitment for the study was to cease when at least 91 participants were recruited. Recruitment was opened in December 2014 and ceased in March 2015 with 100 participants. The IRB approved this increase in participants from 91 to 100 due to SurveyMonkey not closing the study at the initial requested participant number (i.e., n = 91). Initially I intended to focus on recruitment of substance abuse counselors within the states of Ohio, West Virginia, Kentucky, Indiana, Michigan, and Pennsylvania via email; however, due to difficulty with recruitment, the IRB approved participants to be recruited

from any state within the United States of America via the American Counseling Association's web site. The ACA is the world's largest association representing professional counselors in various practice settings and had more than 56,000 registered counselors in the 2015 ACA Online Directory. The study sample was drawn from the 5,492 registered counselors who specialized in addictions and dependency in the 2015 ACA Online Directory. Thus, this study included .0018% of the total ACA population, and .018% of the registered counselors who specialize in addictions. Demographic information on this population was not available. Of the 100 participants all were eligible to respond, but only ninety-four completed the survey in its entirety which equates to a 94% rate of missing data. There were no other discrepancies in data collection.

Results

Descriptive Statistics.

The participants for this study were one-hundred American Counseling Association members who specialized in the field of addictions and resided in the United States. Participant requests were posted on the American Counseling Association's web site. Of the 100 participants 22% (n = 22) were male and 78% (n = 78) were female. Participant ages ranged from 23 to 66 years and older. All participants had completed at least four years of education past high school. Seventeen percent of respondents had previously been in treatment for addiction to alcohol or drugs while one percent is currently in treatment. Twenty-two percent of respondents acknowledged that they are currently in recovery from an addiction to alcohol or drugs. Of the 22% in recovery, approximately half reported that they were following a 12-step model (have a sponsor

and attend at least one 12-step meeting each week). Of the 100 participants, only ninety-four completed the survey in its entirety. Table 1 summarizes the descriptive statistics.

Table 1

Frequency Distribution of Participants' Demographics (N = 100)

Variable		Frequency	Percent
Age			
	18-25	4	4.0
	26-33	13	13.0
	34-41	25	25.0
	42-49	24	24.0
	50-57	15	15.0
	58-65	13	13.0
	66 +	6	6.0
Gender			
	Male	22	22.0
	Female	78	78.0
Number of Year of Education Completed Past High School			
	4-9	78	78.0
	10-14	16	16.0
	15 +	6	6.0
Number of Years Worked Within the Field of Drug/Alcohol Addiction			
	ÒÕ	57	57.0
	6-10	14	14.0
	11-15	15	15.0
	16-20	4	4.0
	21-25	3	3.0
	26-30	1	1.0
	31 +	5	5.0
	Missing	1	1.0

table continues

Variable		Frequency	Percent
Been in Treatment (i.e., inpatient or outpatient) for Addiction to Alcohol or Drugs			
	Yes	18	18.0
	No	81	81.0
	Missing	1	1.0
Currently in Treatment (i.e., inpatient or outpatient) for Addiction to Alcohol or Drugs			
	Yes	1	1.0
	No	99	99.0
	Missing	1	1.0
Currently in Recovery from an Addiction to Alcohol or Drugs			
	Yes	22	22.0
	No	76	76.0
	Missing	2	2.0
Currently in Recovery and Following a 12-step Model			
	Yes	10	10.0
	No	89	89.0
	Missing	1	1.0

Preliminary Analyses. Reliability of utilized measures was confirmed by Cronbachôs alphas. The Cronbach's alpha of the HRAS reliability was .801 (*M* = 2.602; *SD* = .431). The Cronbach's alpha of the SUSS Disease reliability was .841 (*M* = 15.837; *SD* = 5.632). The Cronbach's alpha of the SUSS Psychosocial reliability was .677 (*M* =

5.608; *SD* = 2.408). The Cronbach's alpha of the SUSS Eclectic reliability was .70 (*M* = 10.456; *SD* = 3.970).

Statistical Assumptions. The research questions were investigated using regression analysis. Assumption testing was used to verify validity of the data as several assumptions must be met for multiple linear regression, including nonmulticollinearity, normality, linearity, homoscedasticity, and independence of residuals. The assumption of nonmulticollinearity was confirmed with the use of the Durbin-Watson statistic which was 1.891. The value of the Durbin-Watson statistic can range from 0 to 4, and there is no correlation typically with a range between 1.50 to 2.50 (Tabachnick & Fidell, 2007). The assumptions of normality, linearity, and homoscedasticity were verified with the use of scatterplots via SPSS. The residuals analysis was used to identify any independence of errors. These analyses indicated that all assumptions required for regression analysis were met.

Figure 1.

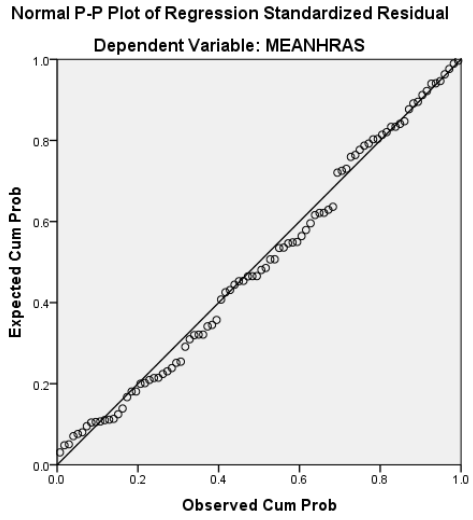


Figure 2.

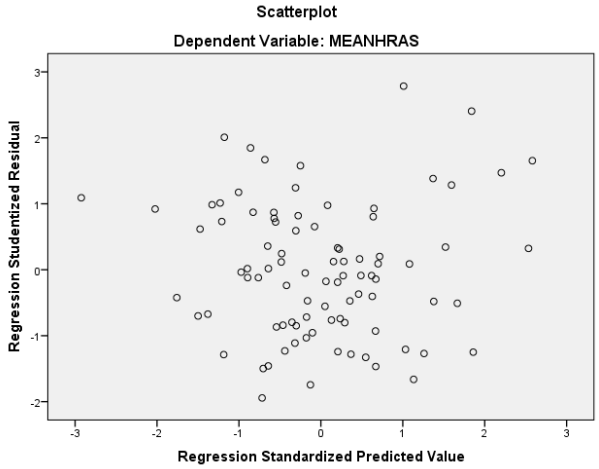


Figure 3.

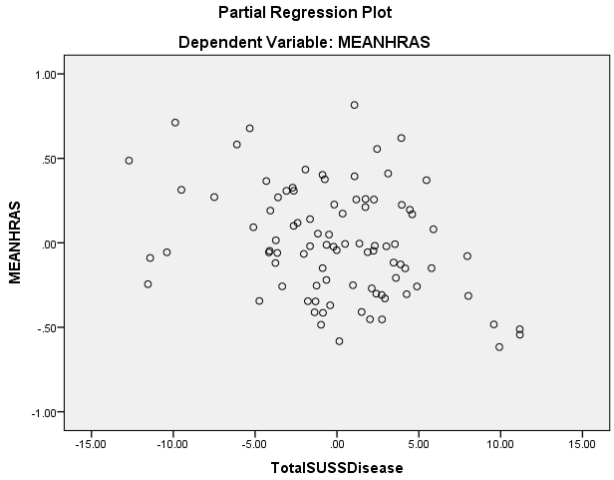


Figure 4.

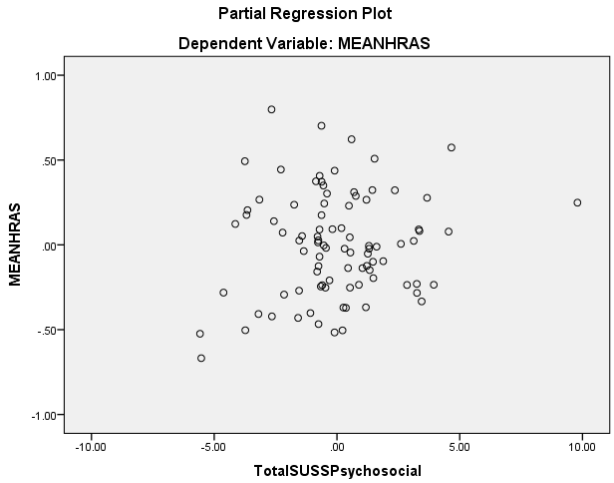
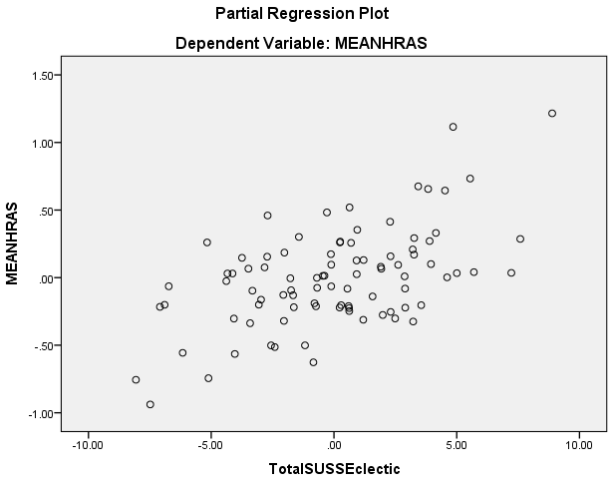


Figure 5.



Main Statistical Analysis.

For this study two regression analyses were completed. The first regression analysis was conducted to examine the strength of the relationships of the counselor background-related independent predictors (i.e., recovery status, education level, age, and length of time in the field) with their acceptance of harm reduction (RQ1 ï RQ4). The second regression analysis tested RQ5 by assessing the strength of the relationships of the three subscales regarding understanding of substance abuse (i.e., disease, psychosocial, and eclectic orientation) with harm reduction acceptance.

Research Questions 1-4.

Does substance abuse counselor recovery status, education level, age, and length of time in the field impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard, Mallott, & Grindle, 2003)?

H_{01}: There will be no relationship between counselor recovery status, education level, age, and length of time in the field and substance abuse counselor

acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

H_{a1}: There will be a relationship between counselor recovery status, education level, age, and length of time in the field and substance abuse counselor acceptance of harm reduction, as measured by the Harm Reduction Acceptance Scale.

Approximately 5% of the total variability in harm reduction acceptance was explained by the predictors of being in recovery, years working in the field, years of education, and age ($R^2 = .046$, $F(4,89) = 1.078$, $p = .372$). See Tables 2 and 3. Each predictor was examined for significance. As shown in Table 4, none of the predictors were significantly associated with harm reduction acceptance scores. Beta scores are presented in Table 4.

Table 2

Summary of Regression Analysis

Model	R	R^2	Adjusted R^2	St. Error of the Estimate
1	0.215	0.046	0.003	0.43122

Table 3

Summary of ANOVA

		Sum of Squares	df	Mean Squares	F	Sig
1	Regression	0.802	4	0.201	1.078	0.372
	Residual	16.549	89	0.186		

Table 4

Summary of Coefficients

	B	Std. Error	Beta	t	Sig.	95% Confidence Interval for B	
						Lower Bound	Upper Bound
Constant	2.416	0.262		9.229	0.000	2.200	3.717
Age	0.001	0.004	0.025	0.200	0.842	-.013	.003
Years of Education	0.022	0.017	0.137	1.248	0.215	-.403	.049
Years Working in the Field	-0.011	0.006	-0.211	-1.713	0.090	-.016	.052
Currently in recovery from an addiction to alcohol or drugs	0.033	0.109	0.032	0.299	0.766	-.205	.228

Research Question 5: Does substance abuse counselor conceptualizations of substance abuse, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (e.g., disease, psychosocial, and eclectic orientation), impact their acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale?

H_{05}: There will be no relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys, Greenbaum, Noke, & Finney, 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction

Acceptance Scale.

H_{a5}: There will be a relationship between substance abuse counselor understanding of substance abuse conceptualizations, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys et al., 1996), and substance abuse counselor acceptance toward harm reduction, as measured by the Harm Reduction Acceptance Scale.

Approximately 51% of the total variability in harm reduction acceptance was explained by the Short Understanding of Substance Abuse Scale subscales of disease, psychosocial, and eclectic Orientation ($R^2 = .512$, $F(3,86) = 30.11$, $p < .001$). See Tables 6 and 7. Each predictor was examined for significance. As shown in Table 8, both the disease and the eclectic subscales were significant predictors of harm reduction acceptance. Stronger beliefs that substance use is a disease were associated with lower acceptance of harm reduction, while more strongly endorsing an eclectic orientation was associated with greater acceptance of harm reduction. Each predictor was examined for significance. Beta scores are presented in Table 8.

Table 6

Summary of Regression Analysis

Model	R	R^2	Adjusted R^2	St. Error of the Estimate
1	0.716	0.512	0.495	0.30941

Table 7

Summary of ANOVA

		Sum of Squares	df	Mean Squares	F	Sig
1	Regression	8.648	3	2.883	30.11	0.000
	Residual	8.233	86	0.096		

Table 8

Summary of Coefficients

		ß	Error	Std. Beta	t	Sig.	95% Confidence Interval for B	
							Lower Bound	Upper Bound
Constant		2.282	0.199		11.481	0.000	1.887	2.667
	Total SUSS Disease	-0.023	0.007	-0.291	-3.412	0.001	-.037	-.010
	Total SUSS Psychosocial	0.016	0.014	0.090	1.183	0.240	-.011	.043
	Total SUSS Eclectic	0.057	0.009	0.521	6.135	0.000	.038	.075

Summary

I this chapter I reviewed the data collection and screening process, demographics, descriptive analyses, and research questions and hypotheses. The purpose of this study was to use a quantitative approach to determine which variables (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) were associated with a counselorôs acceptance of the harm reduction approach. For the first research question none of the predictors were significantly associated with harm reduction acceptance scores. However, for the second research question, both the disease and the eclectic subscales were significant predictors of harm

reduction acceptance. While not all of the results support my research hypotheses, there is a significant relationship between understanding of substance abuse conceptualizations and counselor acceptance of the harm reduction approach.

Chapter 5: Discussion

Introduction

The abstinence model is most frequently used in treatment settings because the majority of current substance abuse counselors within the United States believe that abstinence is the best way to help those that suffer with an addiction to drugs and/or alcohol (Marlatt, 1998). While the abstinence-based model can assist some, it may not work for everyone as people typically change in incremental steps (DiClemente, Schlundt, & Gemmell, 2004). Harm reduction is one viable alternative to an abstinence-based treatment method.

Previous research has identified some factors that may relate to counselorsô attitudes about the harm reduction model, but there remains a significant gap in the current literature regarding factors that may influence substance abuse counselorsôuse of the harm reduction model. The objective of this study was to alleviate the gap of previous research related to harm reduction among substance abuse counselors. Specific independent variables (recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) were examined to determine which if any are associated with counselors' acceptance of the harm reduction approach as a viable treatment for substance abuse. Therefore, the purpose of this quantitative study was to investigate which variables play a role in counselorsôacceptance of the harm reduction model.

The theoretical framework of the study was the harm reduction theory which proposes that reducing costs to society (i.e., mortality, crime, spread of disease) in

substance abuse treatment programs should be an allowable goal if abstinence is not achievable or wanted by the patient (Marlatt, 1998). This quantitative study explored the strength and nature of the impact of five independent variables (i.e., recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations) on the dependent measure of acceptance of the harm reduction approach to substance abuse treatment using an ex post facto design. The results from this dissertation partially supported the hypotheses.

Interpretation of the Findings

Research Questions 1-4.

These questions hypothesized that four independent variables (i.e., recovery status, education level, age, and length of time in the field) would be related to counselorsô attitudes toward harm reduction, as measured by the Harm Reduction Acceptance Scale (HRAS-R; Goddard et al., 2003). The first regression analysis assessed the strength of the relationships of the counselor background-related independent predictors (i.e., recovery status, education level, age, and length of time in the field) with their acceptance of harm reduction (RQ1 ï RQ4). The research found that none of the individual counselor predictors (i.e., being in recovery, years working in the field, years of education, and age) were significantly associated with harm reduction acceptance scores.

While this study did not support a relationship between harm reduction acceptance and the independent variables (recovery status, education level, age, length of time in the field, and understanding of substance abuse conceptualizations), prior

literature has shown a correlation. According to Moyers and Miller (1993) those that hold the strongest beliefs in the disease model of addiction are more likely to be in recovery themselves. Counselors in recovery tend to be older than non-recovering counselors as they typically come to the substance abuse field as a result of a midlife career change associated with their recovery experience (Powell, 1993). Research by Eversman (2012) found that harm reduction varies in presence in masterôs degree substance abuse coursework from highly prevalent to not being addressed at all. One study measured rehabilitation counselorsô attitudes toward harm reduction and found that participants 50 years and older preferred harm reduction more than those under 50 years old (Havranek & Stewart, 2006). A study by Havranek and Stewart (2006) found that counselors who had been in the field of substance abuse longer were less accepting of harm reduction. Research by Goddard (2003) found that participantsô attitudes were significantly more promising after being educated on the harm reduction approach, which may suggest education as a missing factor for acceptance of this treatment model.

It can be difficult to speculate why no significant associations were found between the predictors (i.e., recovery status, education level, age, and length of time in the field) and the dependent variable, which demonstrated acceptable reliability according to Chronbachôs alpha. Perhaps lack of knowledge regarding harm reduction underlies the lack of significant findings in this analysis. More than half of the participants in this study have worked in the field of drug/alcohol addiction for five years or less; thus, many participants may not have had much exposure to the harm reduction model, particularly since harm reduction is not a model typically taught in counseling

programs or used in treatment settings. However, this study did not specifically assess exposure to or training in the harm reduction model; future studies could examine this as a predictor of harm reduction acceptance. Future studies could measure exposure to/training in harm reduction to explicate the above issues.

The theoretical framework of this dissertation was rooted in the harm reduction theory while abstinence is the theoretical framework at the core of the most well-known models (i.e., moral, medical, disease, Minnesota, and biopsychosocial) of understanding and treating substance use disorders (SUDs) (Marlatt, 1998). Clinicians often criticize the harm reduction approach as they believe it promotes drug use and fails to get people to abstain (Christie, Groarke, & Sweet, 2008 Future studies should assess basic knowledge of harm reduction within the study and use that as a covariate and/or predictor variable to ensure participants have an accurate understanding of the harm reduction approach.

While this study did not find that the four independent variables (i.e., recovery status, education level, age, and length of time in the field) were significantly associated with counselorsô attitudes toward harm reduction, it is possible as suggested later in the dissertation that a larger sample size should be obtained to examine whether a level of significance would be reached. As shown in Table 4, education level and recovery status were closest to having statistical significance; thus a larger sample size would increase the statistical power to test for small effect sizes for these variables. Since the effect size was small, a larger sample is required to detect these smaller effects. Having a more diverse population could also impact the results.

It is possible that seeking a sample population that expands beyond the American Counseling Association (ACA) may also allow a level of significance to be reached amongst the variables studied. The theoretical framework of the study was the harm reduction theory which proposes that reducing costs to society (i.e., mortality, crime, spread of disease) in substance abuse treatment programs should be an allowable goal if abstinence is not achievable or wanted by the patient (Marlatt, 1998). Based on the findings in this study, individual-level counselor variables do not appear to be a significant factor in counselorsô acceptance of this model. Thus, other factors may need to be considered when attempting to implement in the harm reduction model in clinical settings.

Research Question 5.

This question hypothesized that the conceptualization of substance abuse, as measured by the three subscales of the Short Understanding of Substance Abuse Scale (SUSS; Humphreys et al., 1996), would be associated with counselor acceptance of harm reduction. The second regression analysis tested RQ5 by assessing the strength of the relationships of the three subscales regarding understanding of substance abuse (i.e., disease, psychosocial, and eclectic orientation) with harm reduction acceptance. Findings demonstrated that approximately 51% of the total variability in harm reduction acceptance was explained by the Short Understanding of Substance Abuse Scale subscales of disease, psychosocial, and eclectic Orientation.

Both the disease and the eclectic subscales were significant predictors of harm reduction acceptance. While no specific research was found related to harm reduction

acceptance and having a disease orientation, the disease subscale represents a belief that addiction is a progressive, incurable disease that can only be halted by abstinence (Moyers & Miller, 1993), thus it seems accurate that those with a disease orientation would be less accepting of harm reduction. The disease model focuses on psychological or social problems and deems people who abuse substances as ill and in need of treatment (Marlatt, Blume, & Parks, 2001). According to the disease model, addiction is a progressive illness with no cure and abstinence is the only known way to halt its progression (Marlatt & Witkiewitz, 2010). The eclectic subscale represents that those suffering with an addiction consists of a diverse population that require different treatment approaches (Moyers & Miller, 1993), thus it makes sense that those with an eclectic orientation would be more accepting of harm reduction as it allows for flexibility in understanding and treating those with substance use disorder.

It is unclear why only two of the subscales were significant predictors of harm reduction acceptance. A psychosocial orientation focuses on the psychological and social aspects that influence and withstand alcohol and drug abuse (Wiltsek, 2004). Much like the biopsychosocial model, it is based on the belief that addictions are caused and maintained by a variety of factors including individual history and learning, co-occurring problems, and environmental factors (van Wormer & Davis, 2008). However, abstinence is the goal of the biopsychosocial model (Wiltsek, 2004) which may explain why the psychosocial orientation was not a significant predictor of harm reduction acceptance. These findings reflect on the harm reduction theory as costs to society could be reduced by encouraging substance abuse treatment programs to utilize harm reduction if

abstinence is not achievable or wanted by the patient (Marlatt, 1998). In this study both the disease and the eclectic subscales were significant predictors of harm reduction acceptance which shows a significant relationship between certain substance abuse conceptualizations and counselor acceptance of the harm reduction approach. These findings suggest that the ways in which counselors conceptualize and understand substance abuse have important relationships with the likelihood of accepting the harm reduction approach to substance abuse treatment.

Limitations of the Study

All research studies have strengths and limitations. The results of this study were limited to ACA members only as a convenience sample; thus, the findings may not generalize to counselors who are not ACA members. A convenience sample can lead to the under-representation or over-representation of particular groups within the sample. If a sample is not chosen at random, the inherent bias in convenience sampling means that the sample may not be representative of the population being studied (Granello & Wheaton, 2004). Other branches of professionals (i.e., psychologists, social workers, etc.) were not within the scope of this study, which limited the scope of the study to the ACA. This study originally only sought participants from 6 surrounding states due to time and budgetary constraints; however, the study design was changed due to lack of participation. The study expanded the participant pool to those within the United States which limited the scope of the study to counselors within the U.S. The study relied on cross-sectional, correlational data, so it could not determine causal relationships among the variables. Within this study self-selection bias of participants was also a possible

limitation as only those interested in harm reduction may have completed the survey. In quantitative research generalizability is statistical which means the study sample is matched to the study population at large to ensure comparability of demographic characteristics. If done correctly then it can be assumed that the findings from the sample are generalizable (Horsburgh, 2003). Validity and reliability are two important aspects in order to approve and validate the quantitative research. According to the results of the Chronbach's alphas the scales utilized in this study were reliable. It is unclear whether the study's sample reflects the population of the ACA as there is no demographic data available on the ACA population. However, other than the potential for self-selection bias there is no reason to believe the sample does not reflect the larger population. The researcher endeavored to minimize self-selection bias through recruitment wording.

Recommendations

This study was unique as it explored investigate which factors (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) were associated with substance abuse counselorsô acceptance of the harm reduction model among ACA members within the United States. In the future it would be useful to expand this study to other branches of professionals (i.e. psychologists, social workers, etc.) as this may change the results.

Several variables within the study were close to reaching a level of significance. Future studies should increase their sample size to examine whether a level of significance could be reached. Future studies should assess basic knowledge of harm reduction within the study and use that as a covariate and/or predictor variable to ensure

participants have an accurate understanding of the harm reduction approach as lack of knowledge about harm reduction contributes to counselor opposition (Eversman, 2012). Increasing the diversity of future studies related to harm reduction is also recommended as this study consisted of 78% males.

Based on the findings of the study I would recommend counselor training that specifically focuses on clinicians who follow the disease model. According to Denning (2005) the disease model of substance abuse treatment defines addiction as a major illness that involves loss of control and denial which can only be improved by immediate abstinence. Training in the eclectic model on harm reduction that educates clinicians who follow the disease model may increase acceptance of the harm reduction approach.

Implications

As it has been explored throughout this study, there is minuscule research that examines what influences a substance abuse counselorôs chosen treatment modality. This study added to the existing body of literature on the harm reduction approach to substance abuse treatment as little is known about why some counselors are accepting of the harm reduction model and others are not. The results of this study allow us to know who to target for training opportunities in order to improve acceptance of the harm reduction approach as we now know that clinicians with a Disease orientation were significantly less accepting of harm reduction approaches.

The implications of the psychosocial orientation not being a significant predictor of harm reduction acceptance suggests that those with a psychosocial orientation could benefit from increased knowledge of the harm reduction approach. This study offers

suggestions that subsequent research efforts should include an assessment of basic knowledge of harm reduction within the study and use that as a covariate and/or predictor variable. The lack of significance among Research Questions 1-4 will allow future studies knowledge on areas that may allow for significance. This research will hopefully encourage social change as it acknowledges a need for training that de-emphasizes the disease model and enhances views on the eclectic model.

The results of this study help to identify those clinicians who could benefit from increased knowledge. Increasing the knowledge of clinicians could allow more individuals and/or families struggling with difficult aspects of addiction to obtain help they may need even if they are unwilling to be completely abstinent. In addition, researchers may be persuaded to expand upon the study of harm reduction acceptance utilizing those clinicians who could benefit from increased knowledge. The results of this study may encourage public policy changes that require acknowledging harm reduction as a viable treatment option.

Conclusion

This study tested five hypotheses to investigate whether specific factors (i.e., recovery status, education level, age, length of time in the field, and/or understanding of substance abuse conceptualizations) would be associated with substance abuse counselorsô acceptance of the harm reduction model. While the use of the abstinence model is the most common in the treatment of addictions, there is a relapse rate range of 40-60% when using the abstinence model alone (McLellan, Lewis, O'Brien, & Klebler, 2000). The findings of this study indicated that clinicians with a disease and/or eclectic

orientation were significant predictors of harm reduction acceptance. The implications of these findings are that stronger beliefs that substance use is a disease were associated with lower acceptance of harm reduction, while more strongly endorsing an eclectic orientation was associated with greater acceptance of harm reduction. Having this knowledge can allow us to expand trainings within the treatment field of addiction to decrease relapse and mortality rates.

References

American Counseling Association. (2014). About us. Retrieved on August 14, 2014 from http://www.counseling.org/about-us/about-aca

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

Berridge, V. (1993). *Harm minimization and public health: An historical perspective*. In Heather, N., Wodak, A., & O¢Hare, P. (Eds.) Psychoactive drugs and harm reduction: From faith to science (pp. 55-64). London, England: Whurr.

Bigler, M. (2005). Harm reduction as a practice and prevention model for social work. *Journal of Baccalaureate Social Work, 10*(2), 69-86.

Brickman, P., Rabinowitz. V. C, Coates, D., Cohn, E.. Kidder, L. (1982). Models of helping and coping. *American Psychologist, 37*, 364-384.

Burke, A., & Clapp, J. (1997a, November). Ideology and social work practice in substance abuse settings. *Social Work*, *42*(6).

Burt, G., Roney, C., Dawes, G., Nijdam, D., Beyerstein, B. L., & van de Wijngaart, G. F. et al. (1994). The ñtemperance mentality:ò A survey of students at a Canadian university. *Contemporary Drug Problems, 21*, 301ï 327.

Centers for Disease Control and Prevention (CDC). (2008). Alcohol related disease impact (ARDI) application. Retrieved from http://apps.nccd.cdc.gov/DACH_ARDI/Default.aspx

Centers for Disease Control and Prevention (CDC). (2010, July). Unintentional drug poisoning in the U.S. Retrieved from

http://www.cdc.gov/HomeandRecreationalSafety/pdf/poison-issue-brief.pdf

Center for Disease Control (2011). HIV in the United States. Retrieved on November 23, 2013 from http://www.cdc.gov/hiv/resources/factsheets/us.htm.

Center for Disease Control (CDC). (2011). Vital signs: Overdoses of prescription opioid pain relieversð United States, 1999-2008. *MMWR*, *60*, 1-6. Retrieved on July 1, 2014 from http://www.cdc.gov/homeandrecreationalsafety/rxbrief/

Centers for Disease Control and Prevention (CDC). (2012, February). Web-based injury statistics query and reporting system (WISQARS). Retrieved from http://www.cdc.gov/injury/wisqars/facts.html

Cherubin, C. & Sapira, J. (1993) The medical complications of drug addiction and the medical assessment of the intravenous drug user: 25 years later. *Ann Intern Med,* 119, 1017-46. Retrieved from http://archives.drugabuse.gov/diagnosis-treatment/diagnosis2.html

Chiauzzi, E. J., & Liljegren, S. (1993). Taboo topics in addiction treatment: An empirical review of clinical folklore. *Journal of Substance Abuse Treatment, 10,* 303-316.

Christie, T., Groarke, L., & Sweet, W. (2008). Virtue ethics as an alternative to deontological and consequential reasoning in the harm reduction debate. *International Journal of Drug Policy*, 19, 52-58.

Clark, R. E. (2004). The Classical Origins of Pavlov's Conditioning. *Integrative Physiological & Behavioral Science, 39*(4), 279-294.

Collins, G. B. (1995). Why treatment for alcohol dependence is changing. *Alcoholism*

Treatment Quarterly, 12, 23-39.

Cook, C. C. (1988). The Minnesota Model in the management of drug and alcohol dependency: miracle, method, or myth? *British Journal of Addiction, 83,* 625-634.

Cooper, D. E. (1987). The role of group psychotherapy in the treatment of substance abusers. *American Journal of Psychotherapy, 41*(1), 55-67.

Culbreth, J. & Borders, L. (1999). Perceptions of the supervisory relationship: Recovering and nonrecovering substance abuse counselors. *Journal of Counseling and Development*, 77(3), 330-338.

Denning, P. (2005). Harm reduction tools and programs. In L. Erlbaum (Ed.), *Addiction counseling review: Preparing for comprehensive, certification, and licensing examinations* (487-509). Mahwah, N. J.: Taylor & Francis.

Des Jarlais, D., Marmor, M., & Paone, D. (1996). HIV incidence among injecting drug users in New York City syringe exchange programmes. *Lancet*, 348, 987-991.

DiClemente, C.C., Schlundt, D., & Gemmell, L. (2004). Readiness and stages of change in addiction treatment. *The American Journal on Addictions*, 13(2), 103-119.

Dowling, J. (2004). Law enforcement against prohibition. Retrieved on March 9, 2014 from http://www.joycedowling.com/Against-Drug-Prohibition.htm

Drug Policy Alliance (2011). Reducing drug harm. Retrieved March 9, 2014 from http://www.drugpolicy.org/issues/reducing-drug-harm.

Duncan, D. F., Nicholson, T., Clifford, P., Hawkins, W., & Petosa, R. (1994). Harm reduction: An emerging new paradigm for drug education. *Journal of Drug Education*, 24, 281-290.

Epstein, J. & McGaha, A. (1999, Jan.). ATOD-TV: Evaluation of a multimedia program designed to educate the public about substance abuse. *Computers in Human Behavior,*15(1), 73-83. doi: 10.1016/S0747-5632(98)00034-X.

Erickson, P., & Weber, T. (1994). Cocaine careers, control and consequences: Results from a Canadian study. *Addiction Research,* 2 (1), 37-50.

Eversman, M. H. (2012). Harm reduction in MSW substance abuse courses. *Journal of Teaching In Social Work*, 32(4), 392-405. doi:10.1080/08841233.2012.703984

Fassinger, R., & Morrow, S. (2013). Toward best practices in quantitative, qualitative, and mixed- method research: A social justice perspective. *Journal For Social Action In Counseling & Psychology,* 5(2), 69-83.

Fischer B. (1995). Drugs, communities, and ôharm reductionô in Germany: the new relevance of ôpublic healthô principles in local responses. *J Public Health Policy*, 1, 389-411.

Freyd, J. (2012, October). A plea to university researchers. *Journal of Trauma & Dissociation*, 497-508. doi:10.1080/15299732.2012.708613.

Garlitz, D. M. (2007). College studentsô attitudes toward drug addiction: Disease model versus moral model. *Dissertation Abstracts International*, 68(3-B).

Garson, G. D. (2009). Multiple regression. Retrieved on April 13, 2014 from http://faculty.chass.ncsu.edu/garson/PA765/regress.txt

Gibson, D.R., Flynn, N.M., & Perales, D. (2001). Effectiveness of syringe exchange programs in reducing HIV risk behavior and HIV seroconversion among injecting drug users. *AIDS*, 15 (11), 1329-1341.

Gleghorn, A., Rosenbaum, M., & Garcia, B. (2001). Bridging the gap in San Francisco: The process of integrating harm reduction and traditional substance abuse services. *Journal of Psychoactive Drugs, 33*(1), 1-7.

Global Commission on Drug Policy. (2011). *War on drugs: Report of the global commission on drug policy*. Retrieved November 4, 2013, from http://www.globalcommissionondrugs.org/reports.

Goddard, P. (2003). Changing attitudes towards harm reduction amongst treatment professionals: A report from the American Midwest. *International Journal of Drug Policy, 14,* 257-260.

Goddard, P., Mallott, M. A., & Grindle, M. E. (2003, April). Reliability and validity of the Harm Reduction Acceptability Scale. Poster presented at the annual meeting of the Midwestern Psychological Association, Chicago.

Goddard, P. (1999). Altering American treatment professionalsô attitudes toward harm reduction. *Addiction Biology*, 5, 215ï 226.

Granello, D. & Wheaton, J. (2004). Online data collection: Strategies for research. *Journal Of Counseling & Development*, 82(4), 387-393.

Gregory, T. B. (2013). How to safely prescribe long-acting opioids. *Journal Of Family Practice*, *62*(12), S12-S18.

Havranek, J. E., & Stewart, J. R. (2006). Rehabilitation counselorsô attitudes toward harm reduction measures. *Journal of Applied Rehabilitation Counseling*, 37, 38-44.

Hawks, D., & Lenton, S. (1995). Harm reduction in Australia: Has it worked? A review.

Drug and Alcohol Review, 14, 291-304.

Heather, N, & Robertson, I. (1981). Controlled drinking. London: Metheun.

Heiman, G. W. (1999). Research Methods in Psychology. Boston: Houghton Mifflin.

Hobden, K. L. & Cunningham, J. A. (2006). Barriers to the dissemination of four harm reduction strategies: A survey of addiction treatment providers in Ontario. *Harm Reduction Journal*, 3(35).

Horsburgh, D. (2003). Evaluation of qualitative research. *Journal of Clinical Nursing* 12, 307ï 312.

Humphreys, K., Greenbaum, M., Noke, J., & Finney, J. (1996, March). Reliability, validity, and normative data for a short version of the understanding of alcoholism scale. *Psychology of Addictive Behaviors,* 10(1), 38-44. doi: 10.1037/0893-164X.10.1.38.

Hunt, W. A., Barnett, L. W., & Branch, L. G. (1971). Relapse rates in addiction programs. *Journal of Clinical Psychology, 27,* 455-456.

International Harm Reduction Association. (2006, July). Harm reduction theory: Users culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of usersô groups. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1945155/

Johnson, M., Bickel, W., & Baker, F. (2007). Moderate drug use and delay discounting: A comparison of heavy, light, and never smokers. *Experimental And Clinical Psychopharmacology*, *15*(2), 187-194. doi:10.1037/1064-1297.15.2.187

Keller, D. & Dermatis, H. (1999). Current status of professional training in the

addictions. *Substance Abuse*, *20*, 123-144.

Kelley, M. S., Murphy, S., & Lune, H. (2001). A cultural impact of needle exchange: The role of safer-injection mentors. *Contemporary Drug Problems, 28*, 485-506.

Knittel, A., Wren, P., & Gore, L. Lessons learned from a peri-urban needle exchange. *Harm Reduction Journal*, 7. Retrieved November 4, 2013 from http://www.harmreductionjournal.com/content/7/1/8.

Knudsen, J., Gallon, S., & Gabriel, R. (2006, Dec.). Relating substance abuse counselor background to the provision of clinical tasks. *Journal of Psychoactive Drugs, 38*(4), 473-481.

Lawson, G., Petosa, R., & Peterson, J. (1982). Diagnosis of alcoholism by recovering alcoholics and by nonalcoholics. *Journal of Studies on Alcohol*, *43*,1033-1035.

Lee, H., Engstrom, M., Petersen, S. (2011). Harm reduction and 12 steps: Complementary, oppositional, or something in-between? *Substance Use & Misuse,* 46, 1151-1161. doi: 10.3109/10826084.2010.548435.

Logan, D. & Marlatt, G. (2010). Harm reduction therapy: A practice-friendly review of research. *Journal of Clinical Psychology*, *66*, 201-214.

Lund Research Ltd. (2013). Linear regression analysis using SPSS statistics. Retrieved on September 5, 2014 from https://statistics.laerd.com/spss-tutorials/linear-regression-using-spss-statistics.ph

MacCoun, R. J. (2009). Toward a psychology of harm reduction. In G. Marlatt, K. Witkiewitz (Eds.), Addictive behaviors: New readings on etiology, prevention, and treatment (pp. 137-158). Washington, DC US: American Psychological

Association. doi:10.1037/11855-006.

MacMaster, S. A. (2004). Harm reduction: A new perspective on substance abuse services. *Social Work, 49*, 356-363.

MacMaster, S. A., Holleran, L. K., & Chaffin, K. (2005). Empirical and Theoretical Support for the Inclusion of Non-Abstinence-Based Perspectives in Prevention Services for Substance Using Adolescents. *Journal of Evidence-Based Social Work, 2*(1/2), 91. doi:10.1300/J394v02n0106

Meleis, A., & Dagenais, F. (1980). Response bias and self-report on honesty. *Journal of General Psychology, 103*(2), 303-304. doi:10.1080/00221309.1980.9921010

Marlatt, G. A. (1998). *Harm reduction pragmatic strategies for managing high-risk behaviors.* New York, NY: Guilford Press.

Marlatt, G. A., Blume, A. W., Parks, G. A. (2001). Integrating harm reduction therapy and traditional substance abuse treatment. *Journal of Psychoactive Drugs*, 33, 13-21.

Marlatt, G., & Tapert, S. (1993). Harm reduction: Reducing the risks of addictive behaviors. In Baer, J., Marlatt, G., & McMahon, R. (Eds.) *Addictive behaviors across the lifespan: Prevention, treatment, and policy issues* (pp. 243-273). Newbury Park, CA: Sage Publications.

Marlatt, G. & Witkiewitz, K. (2010). Update on harm-reduction policy and intervention research. *Annual Review of Clinical Psychology*, 6, 591-606.

Mattick, R. P., Breen, C., Kimber, J., & Davoli, M. (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. Cochrane

Database of Systematic Reviews, (1), CD002209.

McKeganey, N., Morris, Z., Neale, J., & Robertson, M. (2004). What are drug users looking for when they contact drug services: Abstinence or harm reduction? *Drugs: Education, Prevention, and Policy*, 11 (5), 423-435.

McLellan, A. T., Lewis, D. C., OôBrien, C. P., & Kleber, H. D. (2000). Drug dependence, a chronic medical illness. Implications for treatment, insurance, and outcomes evaluation. *Journal of the American Medical Association, 284,* 1689-1695.

Miller, W. R., & Kurtz, E. (1994). Models of alcoholism used in treatment: Contrasting AA and other perspectives with which it is often confused. *Journal of Studies on Alcohol*, 55, 159-166.

Moos, R. & Moos, B. (2004). Long-term influence of duration and frequency of participation in Alcoholics Anonymous on individuals with alcohol use disorders. *Journal of Consulting and Clinical Psychology*, 72: 81-90.

Moyers, T. & Miller, W. (1993, Dec.). Therapistsô conceptualizations of alcoholism: Measurement and implications for treatment decisions. *Psychology of Addictive Behaviors, 7*(4), 238-245. doi: 10.1037/0893-164X.7.4.238.

Mulvey, K., Hubbard, S., & Hayashi, S. (2003). A national study of the substance abuse treatment workforce. *Journal of Substance Abuse Treatment, 24*(1), 51-57.

Mumola, C. J., & Karberg, J. C. (2006). Drug use and dependence, state and federal prisoners, 2004 (special report). *Bureau of Justice Statistics*, 1-12. Retrieved January 4, 2014 from http://www.ojp.usdoj.gov/bjs/pub/pdf/dudsfp04.pdf

National Institute on Drug Abuse. (2012, Dec.). DrugFacts: Nationwide trends. Retrieved

from http://www.drugabuse.gov/publications/drugfacts/nationwide-trends

National Institute on Drug Abuse. (2009, Sept.). Treatment Approaches for Drug Addiction. Retrieved from: http://www.drugabuse.gov/sites/default/files/if_treatment_approaches_2009_to_nida_92209.pdf

National Vital Statistics System. (2008). Drug overdose death rates by state. Retrieved on September 4, 2014 from http://www.cdc.gov/homeandrecreationalsafety/rxbrief/

NIDA Research Monograph. (1998, June). Cost-benefit/cost-effectiveness research of drug abuse prevention: Implications for programming and policy (No. 176).

Office of Applied Studies. (2002). National and State Estimates of the Drug Abuse Treatment Gap: 2000 National Household Survey on Drug Abuse (NHSDA Series H-14, DHHS Publication No. SMA 02ï 3640). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Office of National Drug Control Policy. (1998). The national drug control strategy, 1998: A ten year plan. Retrieved from https://www.ncjrs.gov/ondcppubs/pdf/strat_pt1.pdf

Ogborne, A.C. & Birchmore-Timney, C. Support for harm-reduction among staff of specialized addiction treatment services in Ontario, Canada. *Drug and Alcohol Review,* 17, 51-58.

Planes, M., Gómez, A., Gras, E., Sullman, M., Font-Mayolas, S., Cunill, M., & Aymerich, M. (2009). What is abstinence? Definitions and examples of abstinence, to prevent the sexual transmission of the HIV virus, According to Spanish University Students. *Behaviour Change*, 26(3), 168-173.

doi:10.1375/bech.26.3.168

Pollack, H., Khoshnood, K., Blankenship, K., & Attice, F. (2002). The impact of needle exchange-based health services on emergency department use. *Journal of General Internal Medicine*, 17, 341-348.

Powell, D. J. (1993). Clinical supervision in alcohol and drug abuse counseling. New York, NY: Lexington Books.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change. *American Psychologist, 47*, 1102-1114.

Project MATCH Research Group. (1997). Matching alcoholism treatments to client heterogeneity: Project MATCH post-treatment drinking outcomes. *Journal on Studies of Alcohol, 58*, 7-29.

Project MATCH: A Study of Alcoholism Treatment Approaches. (2010). Center City, Minnesota, US: Hazelden Publishing.

Reidel, M., & Stillson, K. (2001, May). Examining the debate on abstinence and harm reduction: Do we have to choose? *National Association of Social Workers*, 33rd Annual Alcoholism Institute.

Riley, D., Sawka, E., Conley, P., Hewitt, D., Mitic, W., Poulin, C., Room, R., Single, E., & Topp, J. (1999). Harm reduction: Concepts and practice. A policy discussion paper. Substance Use & Misuse, 34 (1), 9-24.

Ritter, A., & Cameron, J. (2006). A review of the efficacy and effectiveness of harm reduction strategies for alcohol, tobacco and illicit drugs. *Drug & Alcohol Review*, 25(6), 611-624.

Rosenberg, H., & Phillips, K. (2003). Acceptability and availability of harm-reduction interventions for drug abuse in American substance abuse treatment agencies. *Psychology of Addictive Behaviors,* 17, 203ï 210.

Ross, M., & Darke, S. (1992). Mad, bad and dangerous to know: Dimensions and measurement of attitudes toward injecting drug users. *Drug and Alcohol Dependence*, 30, 71-74.

Substance Abuse and Mental Health Services Administration (SAMHSA) (2010). *The N-SSATS report: Clinical or therapeutic approaches used by substance abuse treatment facilities.* Retrieved on August 14, 2014 from http://www.oas.samhsa.gov/2k10/238/238ClinicalAp2k10Web.pdf

Substance Abuse and Mental Health Services Administration (SAMHSA) (2006). TAP 19: Relapse prevention with chemically dependent criminal offenders, counselorôs manual. Retrieved on August 14, 2014 from http://store.samhsa.gov/shin/content//SMA06-4217/19b.htm

Satcher, D. (2000). Evidence-based findings on the efficacy of syringe exchange programs: An analysis from the assistant secretary for health and surgeon general of the scientific research completed since April 1998. Washington, DC: Dept. of Health and Human Services. Retrieved November 20, 2013 from http://www.dogwoodcenter.org/references/Satcher00.html.

Sees, K., Delucchi, K., Masson, C., Rosen, A., & Clark, H. (2000). Methadone maintenance vs. 180-day psychosocially enriched detoxification for treatment of opioid dependence: A randomized controlled trial. *Journal of the American*

Medical Association, 283: 1303-1310.

Soper, D.S. (2014). A-priori Sample Size Calculator for Multiple Regression [Software]. Retrieved from http://www.danielsoper.com/statcalc

Stancliff, S. (2002). Drug treatment and harm reduction. In R. Finklestein, & S. Ramons (Eds.), *Manual for primary care providers: Effectively caring for active substance users* (pp. 71-108). New York, NY: New York Academy of Medicine.

Smith, B. & Wilson, W. (2001). *The Big Book*, 4th Edition. New York, NY: A.A. World Services.

Somaini, B., Wang, J., Perozo, M., Kuhn, F., Meili, D., Grob, P., Flepp, M. (2000) A continuing concern: HIV and hepatitis testing and prevalence among drug users in substitution programmes in Zurich, Switzerland. *AIDS Care, 12*, 449-460.

Substance Abuse and Mental Health Services Administration-Office of Applied Studies. (2010). The TEDS Report: Substance Abuse Treatment Admissions Involving Abuse of Pain Relievers: 1998 and 2008. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Swindle, R., Peterson, K., Paradise, M., & Moos, R. (1995). Measuring substance abuse program treatment orientations: The drug and alcohol program treatment inventory. *Journal of Substance Abuse, 7*(1), 61-78. doi: 10.1016/0899-3289(95)90306-2.

Tabachnick, B. & Fidell, L. (2007). *Using multivariate statistics*. Boston, MA: Pearson Education, Inc.

Tatarsky, A. (2002). Harm reduction psychotherapy: A new treatment for drug and

alcohol problems, Northvale, NJ: Jason Aronson Inc.

Tatarsky, A. & Marlatt, G. (2010). State of the art harm reduction psychotherapy: An emerging treatment for substance misuse. *Journal of Clinical Psychology: In Session*, *66*, 177-122.

The Foundation for AIDS Research (amfAR). (2012). *Syringe Exchange Program Coverage in the United States 2012.* Retrieved on January 16, 2014 from http://www.amfar.org/uploadedFiles/_amfarorg/On_the_Hill/3_29_12_SEP_Map_FINAL.pdf

U.S. Department of Justice. (2011). The economic impact of illicit drug use on American society. Retrieved from http://www.justice.gov/ndic/pubs44/44731/44731p.pdf

Valle, S. K. (1979). *Alcoholism counseling: Issues for an emerging profession.* Springfield, IL: Thomas.

Van Wormer, K. (2008). Counseling family members of addicts/alcoholics: The stages of change model. *Journal of Family Social Work, 11*(2), 202-221.

Van Wormer, K., & Davis, D. R. (2008). Addiction treatment: A strengths perspective (2nd ed.). Belmont, CA: Thompson Brooks/Cole.

Veach, L. J., Remley, T. r., Kippers, S. M., & Sorg, J. D. (2000). Retention predictors related to intensive outpatient programs for substance use disorders. *The American Journal of Drug and Alcohol Abuse, 26*(3), 417-428. doi:10.1081/ADA-100100253

Walch, S. E., & Prejean, J. (2001). Reducing HIV Risk from Compulsive Sexual Behavior Using Cognitive Behavioral Therapy within a Harm Reduction

Framework: A Case Example. *Sexual Addiction & Compulsivity, 8*(2), 113-128. doi:10.1080/107201601753180693.

White, W. (1998). *Slaying the dragon: The history of addiction treatment and recovery in America*. Bloomington, IL: Chestnut Health Systems/Lighthouse Institute.

Whitehead, J. C. (1991). Environmental interest group behavior and self-selection bias in contingent valuation mail surveys. *Growth & Change, 22*(1), 10.

Wiltsek, S. D. (2004). Assessing practicing psychologistsô alcohol/substance use and their treatment attitudes with alcohol using clients: Abstinence vs. harm reduction. *Dissertation Abstracts International, 65*(3-B).

Yalisove, D. (1998). The origins and evolution of the disease concept of treatment. *Journal of Studies on Alcohol*, 469-476.

Zelvin, E., & Davis, D. (2001). Harm Reduction and Abstinence Based Recovery: A Dialogue. *Journal of Social Work Practice in the Addictions*, *1*(1), 121-133.

Zinberg, N. (1984). Drug, set, setting. New Haven, CT: Yale University.

Appendix A: Study Participant Invitation

Date:_____

Dear Mr./Ms./Mrs./Dr. _____,

I am a doctoral candidate in the clinical psychology program at Walden University, and I am seeking research participants for my study entitled, ñFactors in Use of the Harm Reduction Model among Substance Abuse Counselors.ò I am hoping to determine which factors contribute to the acceptance of the harm reduction model among substance abuse counselors. You are receiving this invitation because you are an American Counseling Association (ACA) member who specializes in addictions and dependency and resides within the state of Ohio, West Virginia, Kentucky, Indiana, Michigan, or Pennsylvania.

If you are willing to participate in this online study which will take between 10-15 minutes please complete read and electronically sign the informed consent via attached link.

Sincerely,

Tiffany Madden, M.S., CDCA

Doctoral Candidate, Clinical Psychology

Appendix B: Resource List

In the event you experience any stress related to your participation in this study a list of resources is provided below to assist:

- The Alcohol and Drug Addiction Resource Center 1-800-390-4056
- National Drug Information Treatment and Referral Hotline 1-800-662-4357
- Hopeline 1-800-784-2433
- National Suicide Prevention Lifeline 1-800-273-8255

Appendix C: Demographic Questionnaire

Completion of the demographic questionnaire is significant for determining the influence of variety of factors on the results of this study. All of these records will remain confidential. Any reports that may be published will not include any identifying information of the participants in this study. Please select the appropriate line.

1. What is your age?
    a. dropdown box will include individual numbers ranging from ñ18ò to ñ66 or olderò
2. What is your gender?
    a. male
    b. female
3. How many years of education past high school have you completed?
    a. 0
    b. 1
    c. 2
    d. 3
    e. 4
    f. 5
    g. 6

   h. 7
   i. 8
   j. 9
   k. 10
   l. 11
   m. 12
   n. 13
   o. 14
   p. 15+
4. How many years have you worked within the field of drug/alcohol addiction?
   a. dropdown box will include responses ranging from ñless than 1 year,ò ñone year,ò ñtwo years,ò to ñ31 or more yearsò
5. Have you ever been in treatment (i.e., inpatient or outpatient) for addiction to alcohol or drugs?
   a. Yes
   b. No
6. Are you currently in treatment (i.e., inpatient or outpatient) for addiction to alcohol or drugs?
   a. Yes
   b. No
7. Are you currently in recovery from an addiction to alcohol or drugs?
   a. Yes
   b. No
8. Are you currently in recovery and following a 12-step model (i.e., have a sponsor and attend at least one 12-step meeting each week)?
   a. Yes
   b. No

Appendix D: Harm Reduction Acceptability Scale (HRAS-R)

For each of the following statements, choose the number that corresponds to your personal attitude:

1	2	3	4	5
Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree

(1) People with alcohol or drug problems who want to reduce, but not eliminate their alcohol or drug use are in denial.

1 2 3 4 5

(2) Injecting drug users should be taught how to use bleach to sterilize their injecting equipment.

1 2 3 4 5

(3) A choice of treatment goals, including abstinence, reduced use of drugs or alcohol, and safer use of drugs or alcohol should be discussed with all people seeking help for drug or alcohol problems.

1 2 3 4 5

(4) People who live in government-funded housing should be required to be drug free.

1 2 3 4 5

(5) In order to reduce problems such as crime and health risks, doctors should be permitted to treat drug addiction by prescribing heroin and similar drugs.

1 2 3 4 5

(6) If their drug use does not interfere with their day-to-day functioning (for example, their ability to work, attend school, or maintain healthy relationships), women who use illegal drugs can be good mothers to infants and young children.

1 2 3 4 5

(7) Drug users should be given accurate information about how to use drugs more safely (for example, how to avoid overdose or related health hazards).

1 2 3 4 5

(8) People with drug or alcohol problems who are not willing to accept abstinence as their treatment goal should be offered alternative treatments that aim to reduce the harm associated with their continued drug or alcohol use.

1 2 3 4 5

(9) In most cases, nothing can be done to motivate clients who refuse to admit that they have drug or alcohol problems except to wait for them to ñhit bottom.ò

1 2 3 4 5

(10) To reduce crime and other social problems associated with illegal drug use, substitute drugs such as methadone should be prescribed.

1 2 3 4 5

(11) Prisons should provide sterilizing tablets or bleach in order for inmates to clean their drug injecting equipment.

1 2 3 4 5

(12) As long as clients are making progress toward their treatment goals (for example, holding a job or reducing their involvement in crime), methadone maintenance programs should not kick clients out of treatment for using street drugs.

1 2 3 4 5

(13) Measures designed to reduce the harm associated with drug or alcohol use are acceptable only if they eventually lead clients to pursue abstinence.

1 2 3 4 5

(14) People with drug and alcohol problems may be more likely to seek professional help if they are offered treatment options that donâ t focus on abstinence.

1 2 3 4 5

(15) Substitute drugs such as methadone should be an available treatment option for people addicted to drugs like heroin.

1 2 3 4 5

(16) People whose drug use does not interfere with their day-to-day functioning should be trained to teach other drug users how to use drugs more safely (for example, how to inject more safely).

1 2 3 4 5

(17) Making clean injecting equipment available to injecting drug users is likely to reduce the rate of HIV infection.

1 2 3 4 5

(18) Abstinence should be the only acceptable treatment option for people who are physically dependent on alcohol.

1 2 3 4 5

(19) It is possible to use drugs without necessarily misusing or abusing drugs.

1 2 3 4 5

(20) Pamphlets that educate drug users about safer drug use should be detailed and explicit, even if those pamphlets are offensive to some people.

1 2 3 4 5

(21) Substitute drugs such as methadone should only be prescribed for a limited period of time.

1 2 3 4 5

(22) To reduce the spread of HIV and other blood-borne diseases, drug injectors should be given easy access to clean injecting equipment.

1 2 3 4 5

(23) Women who use illegal drugs during pregnancy should lose custody of their babies.

1 2 3 4 5

(24) People with alcohol or drug problems should be praised for making changes such as cutting down on their alcohol/drug consumption or switching from injectable drugs to oral drugs.

1 2 3 4 5

(25) Abstinence should be the only acceptable treatment goal for people who use illegal drugs.

1 2 3 4 5

Appendix E: Short Understanding of Substance Abuse Scale (SUSS)

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree Nor Disagree	Agree	Strongly Agree

Disease Subscale

1. Every alcoholic and addict must accept that he or she is powerless over alcohol and drugs, and can never drink or use again.

1 2 3 4 5

2. Every alcoholic or addict is one drink or one hit away from a total relapse.

1 2 3 4 5

3. Once a person is an alcoholic or addict, he or she will always be an alcoholic or an addict.

1 2 3 4 5

4. If an alcoholic has a drink, or if an addict takes a hit, they lose control and are unable to stop from getting drunk or high.

1 2 3 4 5

5. There are only two possibilities for an alcoholic or drug addictð permanent abstinence or death.

1 2 3 4 5

6. If an alcoholic or addict is sober or straight for five years, and then starts drinking or using drugs again, he or she is right back where he or she left off in the development of the disease.

1 2 3 4 5

7. People can be born addicts or alcoholics.

1 2 3 4 5

Psychosocial Subscale

1. A person's environment plays an important role in determining whether he or she develops alcoholism or drug addiction.

1 2 3 4 5

2. The society or culture in which one grows up has a significant influence on whether or not one becomes an alcoholic or addict.

1 2 3 4 5

3. Alcoholism and drug addiction are caused, in part, by growing up in a dysfunctional family.

1 2 3 4 5

4. Alcoholism and drug addiction are caused, in part, by what one learns about alcohol and drugs and the drinking/drug use patterns of one's family and friends.

1 2 3 4 5

5. A person can develop alcoholism or drug addiction because of underlying psychological problems.

1 2 3 4 5

Eclectic Orientation Subscale

1. Alcoholics and drug addicts who are forced into treatment do just as well as those who come into treatment on their own.

1 2 3 4 5

2. If an alcoholic or addict isn't motivated, there is not much you can do to help him or her.

1 2 3 4 5

3. There are "problem drinkers" who have significant problems with alcohol, but who are not alcoholic.

1 2 3 4 5

4. Usually if alcoholics and addicts fail to recover in AA/NA or in treatment, it is because they are unmotivated and in denial.

1 2 3 4 5

5. Alcoholics and drug addicts have a distinct set of personality traits by which they can be identified.

1 2 3 4 5

6. Denial is part of the personality of the alcoholic or drug addict.

1 2 3 4 5

7. Except for detoxification, alcoholics and addicts should never be given psychiatric medications such as anti-depressants, lithium, or anti-anxiety drugs.

1 2 3 4 5