12-2022

Examination of the Attitudes Towards Substance Use Treatment Approaches by Substance Use Professionals

Cameron Lacy Ortega
The University of Texas Rio Grande Valley

EXAMINATION OF THE ATTITUDES TOWARDS SUBSTANCE USE TREATMENT APPROACHES BY SUBSTANCE USE PROFESSIONALS

A Dissertation

by

CAMERON LACY ORTEGA

Submitted in Partial Fulfillment of the

Requirements for the Degree of

DOCTOR OF PHILOSOPHY

Major Subject: Rehabilitation Counseling

The University of Texas Rio Grande Valley

December 2022

EXAMINATION OF ATTITUDES TOWARDS SUBSTANCE USE TREATMENT APPROACHES BY SUBSTANCE USE PROFESSIONALS

A Dissertation
by
CAMERON LACY ORTEGA

COMMITTEE MEMBERS

Dr. Jeong Han Kim
Chair of Committee

Dr. Bruce Reed
Committee Member

Dr. Saara Grizzell
Committee Member

December 2022

ABSTRACT

Ortega, Cameron L., Examination of the Attitudes Towards Substance Use Treatment Approaches by Substance Use Professional. Doctor of Philosophy (PhD), December, 2022, 82 pp., 9 tables, references, 90 titles.

This quantitative study focuses on substance use professionals and students who are seeking employment in substance use treatment or support services. The substance use treatment profession started as a group of people who were supporting each other in recovery through abstinence based practices and has developed in to a recognized profession with multiple methods of treatment approaches. Abstinence based treatment has been and continues to be the primary method of treatment preferred in the United States. Since the 1980, harm reduction increased in application in the profession, but remains a less popular method of treatment. This study examines substance use professional and students ($N = 141$) interested in employment in substance use treatment or support attitudes in harm reduction and whether their beliefs towards these treatment approaches were associated with their personal characteristics. Goddard's (2003) Harm Reduction Acceptability Scale and a demographic survey form were utilized to measure the variables. Overall, results from One-Way Analysis of Variance showed that current and aspiring substance use professionals have favorable attitudes towards harm reduction. In addition, results showed there was a difference in attitudes towards harm reduction based on age, ethnicity/race, level of education, U.S. regions, licenses/certifications, and employment settings.

DEDICATION

This study is dedicated to persons who work in substance use treatment, prevention, support, and education. Thank you for all the hard work, sacrifice, and dedication to the profession.

ACKNOWLEDGMENTS

I first and foremost would like to thank Dr. Jeong Han Kim, my dissertation chair, for his consistent support and dedicated guidance towards the completion of my dissertation. This dissertation could not have been completed without my committee comprised of Drs. Bruce Reed and Saara Grizzell. Thank you for the much-needed feedback, advice, and support. Your belief in me to be able to complete this is what kept me moving forward.

Completing my dissertation also could not have been completed without the amazing support that I received from my husband, Mike. Thank you for listening to me talk about statistics constantly and pretending to understand what I was talking about. That is love.

Thank you to my two daughters, Madelyn and Genevieve, who were the most patient and understanding while I was working on this project. I promise all the movie nights from here on with all the movie snacks.

TABLE OF CONTENTS

Page

LIST OF TABLES

Page

CHAPTER I

INTRODUCTION

June of 2021 marked the 50th year of the War on Drugs, a campaign by president Nixon goal to eliminate the social, economic, and health problems associated with drugs and drug abuse. The campaign against the War on Drugs has made little impact with a 13% rise in drug use in Americans 12 years and older since 1999 (Substance Abuse and Mental Health Administration, SAMSHA, 2019). The War on Drugs campaign was punitive and created harsher prison sentences and with no aim at treatment or support for persons with substance use disorders (Friedman et al., 2006). It is estimated that nearly more than 70,000 Americans died from a drug overdose in 2019 (Center for Disease Control, CDC, 2021).

The predominate treatment modality in the United States is abstinence-based model (Davis & Rosenburg, 2013). A national study was conducted and found that 99% of substance use treatment facilities reported an abstinence-based orientation with 93% of the facilities guided by a 12-step model of recovery requiring abstinence as the outcome of treatment (MacMaster, 2004).

The 12-step model, an abstinence-based model, is based on the development of Alcoholics Anonymous (A.A.) that emerged in the 1930 when a group of alcoholics joined together to support each other in recovery (White, 2014a). Through a series of funding efforts and media attention, A.A. became known across the world. A.A.'s foundational program was

based in religious affiliation and on the recovery process rather than the reasons "why" addiction developed (MacMaster, 2004).

The abstinence-based model of treatment is based on a disease or moral model approach that views drugs as bad or illegal (Marlatt & Witkiewitz, 2010). The goal of the abstinence-based model of treatment is to eliminate the use of mood-altering substance, including medication to assist in long term recovery, to in turn eliminate negative effects from the substance use. Harm reduction is a set of policy and programs that takes into consideration meeting people "where they are at" and is aimed at reducing drug-related harm. The abstinence-based model emphasizes the complete abstinence of drug use including medication for the start of treatment. The result of a harm reduction approach looks toward a reduction of adverse effects on health, social, and economic consequences of drug use among persons who use drugs and their families (Friedman et al., 2006). Research states that harm reduction was originally developed in the 1980s when HIV/AIDS and hepatitis B was spreading among persons who inject drugs (PWID). To reduce the harm associated with injecting drugs the development of needle exchange programs (NEP) was introduced. NEP provide sterile injection equipment to persons who inject drugs to reduce the spread of diseases and provide access to HIV testing and substance use treatment (Normand et al., 1995). The NEP were successful in reducing transmission of HIV/AIDS and hepatitis B among PWID. In addition, harm reduction utilizes medication assisted treatment (MAT) for opioid use disorder and includes medication such as buprenorphine, naltrexone, and methadone for preventing opioid relapse and maintenance (Connery, 2015). Studies have shown MAT to be an effective method for treatment, commonly used for persons who have an opioid disorder. Persons who use MAT have reported double rates of opioid-abstinence outcomes with medication as compared to non-medically assisted treatment (Connery, 2015).

Harm reduction as a practice has been adopted in most Western Europe and industrialized nations (Des Jarlais, 2017). The effectiveness of harm reduction has been widely documented in European studies in this field (van Santen et al., 2021). The Netherlands adopted harm reduction at the start of the opioid crisis. Such implementation of harm reduction programs has revealed a connection between people who use drugs and the transmission of HIV and hepatitis B and C.

Despite the evidence of the effectiveness of harm reduction, the United States has been less open to this approach (Des Jarlais, 2017). Resistance to harm reduction can be influenced by global drug policies, fears, and stigmatization of persons who use drugs. Historically, drug laws aimed at reducing the harmful effects of drugs on society often focused on this tenet: to solve the problems associated with substance use is to eliminate substance use (Bathje et al., 2019). For harm reduction to become a more accepted approach in the treatment for substance use disorders, persons must accept that substance use will always be a part of our society and that interventions that reduce drug related consequences can be an effective way to address substance use in the United States.

Statement of the Problem

Historically, the field of addiction counseling has been divided into two different professional philosophies of treatment: harm reduction or abstinence (Gallagher et al., 2019). The abstinence-based model for the treatment of substance use disorders is a "all or nothing" approach that attempts to eliminate all substance use and, thus, eliminating negative consequences associated with drug use. This is effective at eliminating substance use related problems, but the approach can be overwhelming and can appear to be punitive and unrealistic to some seeking treatment. To provide context, persons who support harm reduction favor the use of medication-assisted treatment (e.g., suboxone, methadone) to support recovery. On the other

side, persons who support abstinence may perceive a person utilizing medication-assisted treatment as not in "real" recovery. The minimization of a person's recovery perpetuates stigmatization of persons who use substances and the fallacy of "substituting one substance for another".

Abstinence based approaches are influenced by the disease model of addiction. The disease model of addiction centers on looking for a cure for the addiction. The early models of abstinence-based treatment were shock therapy, aversion therapy, and psychosurgery (White, 2014b). Although those approaches are no longer used, the disease model of addiction is supported by the National Institute on Drug Abuse (NIDA) and the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed; DSM-5; American Psychiatric Association [APA], 2013). This disease model, which includes the brain disease model of addiction, is still accepted (Volkow et al., 2016). According to Barnett et al. (2018), evidence has supported the idea that clinicians who support the disease model of addiction are more likely to insist on the abstinence-only treatment goal, less likely to support harm reduction, more likely to refer to 12-step programs as well as impose clinical treatment goals that may not match goals of the client.

Harm reduction finds commonalty with the principles of Carl Rogers' person-centered therapy (Knapp & Kozikowski, 2020). Both harm reduction and person-centered approaches are based on the subjective needs of the client, shared power and decision making between the client and clinician, and development of rapport in the therapeutic relationship (McNeil et al., 2016). The framework for harm reduction holds the belief that substance use, including medication and drugs, is a part of our world and always will be a part of our world; accepting this reality enables us to focus on the reduction of drug-related harm as an alternative to just eradication of drug use. Harm reduction does not exclude abstinence as a treatment goal; rather, harm reduction

acknowledges that abstinence from mood-altering substances is an effective method at reducing substance-related harm. Harm reduction believes abstinence is one of the possible objectives for persons seeking treatment for substance use disorders. Harm reduction acknowledges that substance use can cause harm; however, if used appropriately, many of the harm-related consequences (HIV/AIDS, overdose, accidents) can be reduced or eliminated (National Harm Reduction Coalition, 2021). Studies have been conducted on the effectiveness of harm reduction to reduce substance use and negative consequences associated with the use of mood-altering substances (Miyata et al., 2019; Strang et al., 2008).

Despite the benefits, the growth of harm reduction at a treatment option has been slow in the United States. This may be due the belief that harm reduction approaches may increase crime rates, drug use, and attract more people to use substances (Bathje et al., 2019). Research suggests that harm reduction is a viable and effective method to reduce substance use and negative consequences associated with substance use. Miyata et al. (2019) conducted a double blind randomized clinical trial with 867 individuals who were determined to have an alcohol use disorder. The participants in the study were treated with Nalmefene 20mg, 10mg, or a placebo. All the participants in the study were provided psychosocial support during the trial. The results found that Nalmefene 20mg was statically significant in reducing alcohol consumption among persons with an alcohol use disorder.

The Strang et al. 2008 study provided training on overdose management and naloxone administration to 239 persons who were in treatment for opiates. The participants were given a take home supply of naloxone. In a three-month follow up the researchers found significant improvements in the knowledge about the risk of overdose and administration of naloxone. In the three-month period the participants reported a total of 12 overdoses where naloxone was

used. In those instances where naloxone was administered, a successful reversal of overdose resulted. In six cases of overdose where naloxone was not administered, one resulted in death.

The effectiveness of harm reduction has been widely documented in European studies in this field. The Netherlands adopted harm reduction at the start of the opioid crisis in the mid-1990s (Riley & O'Hare, 2000; Drucker et al., 2016). Such implementation of harm reduction programs has revealed a connection between people who use drugs and the transmission of HIV and hepatitis B and C (van Santen, et al., 2021).

As noted above, promoting harm reduction has several benefits. One way to promote harm reduction is to understand the clinician's belief about the harm reduction approach. Ajzen's (1991) theory of planned behavior posed a person's beliefs lead to attitudes, in which these attitudes influence behavior which can be observed. According to Crano and Prislin (2008), "attitudes guide behavior" (p. 87); said attitudes can be influenced by persons or objects, or even like or dislike of persons, music, experiences, or objects. Overall, attitudes essentially encompass what we feel, believe, and how we behave about everything.

To understand this phenomena, social learning theory (Bandura, 1977) provides a foundation for the explanation of attitude formation and behaviors. The theory argues that while the development of new cogitations and behaviors can occur through direct experiences that involve trial and error and the selection of effective responses, most persons develop beliefs and behaviors by observing others through modeling. When models express attitudes or beliefs, the observer may adopt those attitudes and behaviors as well (Seiger, 2005).

The proposed study theorized that a person's attitudes in the harm reduction and abstinence-based approaches influences attitudes towards substance use treatment approaches. Those attitudes towards substance use treatment approaches further influence the persons

application of harm reduction and abstinence-based approaches, creating better clinical outcomes.

According to current literature, attitudes toward substance use treatment approaches is conceptualized as belief in harm reduction and abstinence approaches (Lee et al., 2011), measured in terms of total score of Goddard's Harm Reduction Scale. The proposed study attempts to fill the gap in the existing literature by exploring the attitudes of substance use treatment approaches. It is proposed that substance use counselors' attitudes in substance use treatment approaches may be a primary factor in their willingness or unwillingness to use harm reduction principles in their treatment for person who seek substance use treatment.

Purpose of the Study

The purpose of the study is to explore attitudes in substance use treatment approaches held by substance use counselors and compare clinician's belief toward treatment modality based on the clinician's demographic and employment characteristics.

Research questions

1. What are the overall attitudes of substance use counselors towards substance use treatment approaches?
2. Are there differences in attitudes towards harm reduction approaches based upon demographic factors (i.e., age, gender, ethnicity/race, state of residency, level of education, area of educational study, substance use history)?
3. Are there differences in attitudes toward harm reduction based upon employment factors (i.e., employment setting, years working in substance use treatment, type of license)?

Definition of Terms

12-Step Model of Recovery*:* Is a model of recovery based of the structure of Alcoholic Anonymous. The 12-step model of recovery uses a 12-step plan to assist someone achieve and maintain abstinences from mood-altering substances. A core belief of the 12-step recovery model is that one cannot overcomes addiction without surrendering to a higher power (Witbrodt & Kaskutas, 2005).

Alcoholics Anonymous (A.A): Is a peer support group that supports participants in reaching and maintaining abstinence from mood-altering substances through a 12-step model.

Abstinence: is often referred to as sobriety. Abstinence is the practice of elimination of all mood-altering substances (Washton & Stone-Washton, 1990).

Disease Model of Addiction*:* Views addition as a biological, neurological, and genetic condition. The disease model of addiction is supported by the American Society of Addiction Medicine (Mee-Lee et al., 2022).

Moral Model of Addiction: Views addiction as product of choice and lack of will-power and as a desire for a person not to make changes in their lives. This model of addiction is commonly supported by religious ideals (Mercadante, 2015).

Harm Reduction: is a set of policy and programs that takes into consideration meeting people "where they are at" and reducing drug-related harm. The concept of harm reduction is to reduce the adverse effects on health, social, and economic consequences of drug use among persons who use drugs and their families (Friedman et al., 2006).

Medicated Assisted Treatment (MAT): Uses medication to treat substance use disorders and maintain recovery and prevent overdose.

Mood-Altering Substance*:* refers to alcohol and illicit drugs (e.g., marijuana, cocaine, heroin, crack, cocaine) or misused licit substances (e.g., misused prescription or over the counter drugs that are used in greater or more frequency quantities than prescribed)

Person Centered Therapy*:* Developed by Carl Rogers in the 1940s. This approach follows the client's lead in the therapeutic process. Person-centered therapy trusts that people have the ability to facilitate their own changes with counselor empathy and unconditional positive regard to assist in the change.

Substance Use Counselor*:* A licensed/certified professional that provides substance use treatment to persons who have a substance use disorder.

Theory of Planned Behavior*:* Is a psychological theory that links beliefs to behavior. Ajzen (1991) theorized that beliefs lead to attitudes, and attitudes impact behaviors.

Substance Use Disorder: pattern or symptoms resulting in negative consequences in major life domains (e.g., social, employment, psychological, physiological) resulting from the use of substances (American Psychiatric Association, 2013).

Substance Use Treatment: A program (e.g., inpatient, outpatient) facility or individual's private practice that treats substance use disorders.

War on Drugs Campaign*:* In the 1960s, President Nixon declared a "War on Drugs" that increased federal drug control through mandatory sentencing for drug related crimes and no-knock warrants that allowed police officers to enter premises without announcing their presence.

CHAPTER II

REVIEW OF THE LITERATURE

History of Substance Use in the United States

The history of substance use in the United States dates to the 1600s when European settlers traversed the ocean to establish Colonial America (Burns, 2004). Alcohol, a staple in Colonial America, was partaken at all social, religious, and political events, as potable water was often unavailable. Settlers would have episodes of sickness after consuming contaminated water, and alcohol thus became a healthy and socially acceptable substitute. Moreover, alcohol was considered a remedy to many medical ailments in this new land (White, 2014a). Settlers expressed minimal or no concern about alcohol use in the first 150 years after colonist's initial settlement and considered such beverages "essential for good health" (White, 2014a). Concerns about alcohol consumption did not arise until during the Revolutionary War (1775-1783).

In a land fraught with the perils of war, the perceptions about the use of alcohol began to shift (Levine, 1984). "Record consumption of distilled spirits about 1830 worried many Americans who noticed that alcohol in large amounts did not seem to match the claims for it" (Musto, 1989, p. 6). Dr. Benjamin Rush, a revolutionary war physician, is credited with lending credence to the idea of the Temperance Movement (Fehlandt, 1904; Katcher, 1993). Dr. Rush campaigned against the production of distilled alcohol such as gin, rum, and whisky, calling them "ardent spirits" (Katcher, 1993). The end of the Revolutionary War marked a new start besides the challenges of a new nation: the start of the Temperance movement (1920-1933).

Temperance movement campaigns promoted "the social and moral evils of alcohol and generally promoted total abstinence as the remedy" (Yeomans, 2011, p. 38). Said campaigns felt

that abstinence was the solution to develop a moral and sober nation. Temperance groups were run by religious organizations that promoted abstinence from alcohol and promoted public education about the negative implications of alcohol (Yeomans, 2011).

The 1840s saw the emergence of the Washingtonians, members of the Washingtonian Total Temperance Society (White, 2014b). The group predated Alcoholics Anonymous and pledged total abstinence from consumption of alcohol. The Washingtonian movement began to decline because of the belief that religious involvement was not a mandatory element in the journey toward abstinence. The rejection of religious involvement in sobriety was seen as a threat to many churches, which rejected the Washingtonian movement. The movement toward seeing alcohol as a possible deterrent to health was in its fledgling stages; it was not until 1908 that psychoanalyst Karm Abraham coined the term alcoholics to describe persons who used alcohol excessively.

In the 1930s, Alcoholics Anonymous (A.A.) emerged in the form of a group of alcoholics, as they were referred to at the time, that joined to support each other through recovery (White, 2014b). Through a series of funding efforts and media attention, A.A. became known across the world. A.A.'s foundational program was based in religious affiliation and emphasis on the recovery process rather than the reasons "why" addiction has developed.

Over the years, A.A. has grown from an original membership of two persons and by the 1960s had a membership of over 200,000 people in 70 countries (White, 2014b). Around 1940, A.A. experienced an explosive growth through attention from media coverage leading to large financial support from donations and sales from the A.A. "Big Book". During A.A.'s explosive period of growth, A.A. groups were integrated into hospitals and psychiatric institutions. In 1942, A.A. established its first A.A. group in San Quinton prison. These early years of

integration into the hospitals and judicial systems set the foundation for the development of modern addiction programs and as an ally on the war on drugs.

Evolution of the Substance Use Counselor

The Paraprofessional

The development of the addiction counselor came from the needed support for people who had substance use disorder (White, 2012a). The first clinical developed from the role of A.A. sponsors and were often called “A.A. Counselors”. The counselors included from persons who were in recovery and were hired to develop programs such as therapeutic communities, methadone maintenance programs, and outpatient counseling clinics. In the 1960s and 1970s eras the paraprofessional was developed from these counselors. The paraprofessional used techniques such as self-disclosure, mutual recovery support, and adopted techniques from psychiatry, psychology, and social work to assist people in reaching sobriety (Blanco et al., 2022). During this time the emphasis was on the experiences of the person in recovery rather than educational background of the paraprofessional (White, 2012a).

Addiction Counseling Profession

The addiction counseling profession has developed over the last two decades and from this has emerged extended insurance coverage, hospital-based, and private treatment centers, such as inpatient, outpatient, and detoxification services (Blanco et al., 2022). With these formations has developed the necessity for licensure and accreditation standards (White, 2012b). With the legitimacy of the addiction profession higher education requirements have been developed. These developments have promoted higher education institution to incorporate addiction studies into the educational curriculum.

Recovery Renewal

As of late, the trumpet has sounded for a return toward long-term recovery services, once the central mission of addiction treatment (White, 2012b). The acute care model of treatment started to diminish due to the complexity of substance use disorders, and the development of recovery support and more sustained models of recovery were developed. The desire for a more recovery-oriented treatment model is underway, with calls for "diverse pathways and styles of long-term addiction recovery to be carefully mapped. Addiction professionals must be knowledgeable of the growing varieties of recovery experience and recovery cultures" (White, 2012b, p. 4).

Addiction Professionals Licensing and Accreditation

Requirements for substance use counselor licensing vary from state to state as do levels of education needed for certification. The National Addiction Studies Accreditation Commission (NASAC, 2021) is an organization that accredits addiction studies programs at higher education institutions for associates, bachelor's, master's, and doctoral degrees, with NASAC guidelines based on the Addiction Counseling Competencies: The Knowledge, Skills, and Attitudes of Professional Practice (2017) developed by the Substance Abuse and Mental Health Services (SAMHSA). NASAC provides curriculum guidelines that are divided into two parts (a) Knowledge, Theory, and Skill Development; and (b) field practice, and supervised training. However, NASAC does not specifically mention harm reduction as part of the curriculum, and implementation of education on a harm reduction approach left to the discretion of the higher education institution. Therefore, exposure to the harm reduction approach will vary from professional to professional, depending on their education, place of employment, and post-educational experiences.

Theoretical Foundations of Harm Reduction

As previously mentioned, harm reduction is often thought of as a set of policy and programs that takes into consideration meeting people "where they are" with respect to their motivation to change (Marlatt & Witkiewitz, 2010). Harm reduction practitioners and critics agree that there is a lack of conceptual clarity concerning the definition of harm reduction (Riley et al., 1999). The essence of harm reduction is defined by Riley et al. in the statement "If a person is not willing to give up his or her drug use, we should assist them in reducing harm to himself or herself and others" (p. 11). There are five main characteristics to harm reduction: *pragmatism, humanistic values, focus on harms, balancing cost and benefits*, and *priority of immediate goals* (Riley et al., 1999). *Pragmatism* accepts that the use of substances is a part of the human experience. *Humanistic values* focus on the not imparting personal judgements or support for the use of substances. In addition, the basic human rights of dignity and the rights of the person using the drugs is respected. *Focus on harm* is targeted at reducing the negative consequences associated with drug or alcohol use for the person who uses and others. *Balancing cost and benefits* refer to assessment of the significance of the drug use and the harm associated with the use to focus resources on priority needs. *Priority of immediate goals* is focusing on the treatment the persons who are seeking treatment for most significant needs.

Person Centered Approach to Harm Reduction

As stated before, harm reduction can be viewed, in part, as a person-centered approach. One of the key concepts of Roger's (1951) client-centered approaches is the basic sense of trust in the client's ability to make changes when conditions for growth are developed. Roger believed that a climate could be developed that promoted personal growth could be achieved through *congruence, unconditional positive regard*, and *accurate empathic understanding*. *Congruences* is when a therapist is genuine in the relationship, accepting, respectful and provides support.

Unconditional positive regard is the acceptance and caring for the individual seeking treatment. *Accurate empathic understanding* is the ability to genuinely understand the subjective work of the client (Corey, 2013). In person centered therapy the therapist does not select the goals for the client, rather allows the client to define and clarify their own goals and how they are going to reach those goals (Bohart & Watson, 2011).

Harm reduction often focuses on shorter-term goals that may appear more reasonable to a person seeking treatment while reducing the adverse effects of harmful drug use (Hathaway, 2002). Harm reduction approach is an alternative to moralistic, social, and disease models of substance use treatment (Hobden & Cunningham, 2006). Harm reductions preferable long-term goals for substance use treatment is the termination of harmful substance use (i.e., abstinence). What differentiates harm reduction from abstinence-based approaches is that harm reduction does not make abstinence the only acceptable treatment goal or a precondition to receiving services (Mancini et al., 2008). Harm reduction is a holistic approach to substance use treatment that takes in to account all parts of a person's life and provides non-stigmatizing and flexible treatment options with multiple treatment goals. The harm reduction approach is tailored to the needs of the individual (Marlatt & Wikiewitz, 2010).

Stages of Change Approach to Harm Reduction

Perhaps to seek a balance between the above schools of thought, Prochaska and DiClemente (1982) developed the transtheoretical stages of change model, which is often applied to behavioral change involving substance use. The model suggests that there is a five-stage process through which the client progresses. The first stage of precontemplation is the stage in which a person has no intention of making changes. The desire not to change often is aligned with a lack of awareness, or a solution may not be visible to the person. Often during this stage, a

person will come in for substance use services due to outside influences, such as court-mandated orders to clients. The second stage is contemplation when the client begins to gain an awareness of the problem and opens their mind to go the pros and cons of making changes in their life. However, at this stage, they have not committed to change. Once the client processes choices in the contemplation stage, they move to the preparation stage of change. During preparation, the client decides to act and develop plans to implement behavioral changes. At this point, the client moves into the action stage, when the client implements the plan for behavior modification. Lastly, the client reaches the maintenance stage, when the action stages are sustained to prevent returning to old behaviors (Prochaska et al., 1992).

The transtheoretical stages of change model suggests that upon entering treatment, the goal of abstinence may not be a reasonable expectation (MacMaster, 2004). According to MacMaster, (2004), "Harm reduction provides a framework for services users at earlier stages" (p. 359). According to the National Association of Addiction Professionals (NAADAC, 2021), the core of addiction counseling encompasses nine core values. The core value of autonomy is listed first and specifies that each person seeking treatment has the freedom to choose their path. Harm reduction aligns with the core value of autonomy that is set by NAADAC (2021) for substance use professionals.

Resistance of Harm Reduction into Practice

Over the last 30 years harm reduction has been one of the most influential ideas impacting drug treatment policy (McKeganey, 2011). McKegney reports that harm reduction has become a global and social movement that implements new ideas, politics, professional practice, and internal conflicts. As such, this approach is hugely controversial, sitting at the intersection of public health policy and drug law reform. Harm reduction has been central in European Union Policies and other countries, but in the United States there has been resistance to harm reduction

(Rhodes et al., 2010). This resistance can be traced back to the "war on drugs" policy which placed federal and state restrictions on syringe distribution programs. Despite the documented effectiveness of needle exchange programs (Blomé et al., 2021) and methadone maintenance (Mattick et al., 2014) programs there continues to be resistance.

Professionals and persons who are in recovery through abstinence may consider a person on methadone maintenance in a state of "not real recovery". This research conducted by Bathje et al. (2019) found that students' attitudes toward harm reduction were influenced by the stigma of persons who use substances, authoritative beliefs, and relationships with persons who use substances. Their findings support the idea that attitudes of harm reduction are influenced by the stigmatization of persons who use substances and the governance of drug and alcohol legal policies.

Such research has shown that a main barrier to acceptance of the harm reduction approach is a lack of education of the foundations and understanding of harm reduction. Fenster and Monti (2017) conducted a study on medical students to assess their attitudes towards harm reduction. The authors provided a 15-week course on harm reduction. Said study found that students posttest had significantly more attitudes in agreement with harm reduction post-intervention. Goddard (2003) also conducted a study on attitudes toward harm reduction. The professionals were surveyed before and immediately after a two-hour presentation on harm reduction. The results found statically significant favorable attitudes toward harm reduction. This literature suggests that resistance to harm reduction may be due to a lack of education and applications of harm reduction.

Attitudes: Formation, Maintenance, Influence, and Change

Ajzen's (1991) theory of planned behavior theorizes that a person's attitude toward a behavior is based in the belief of the result of that behavior. In other words, a professional that

works in substance use treatment may have beliefs about harm reduction approaches and the effectiveness of those approaches. Those beliefs influence their attitude towards those approaches and the probability of the application of harm reduction approaches. Ajzen further articulated that perceived social pressure that could influence a person's behavior. As stated before, there has been resistance to harm reduction in the United States and this resistance could influence a clinician's willingness to provide harm reduction-based treatment services. Ajzen further theorized that a person's probability to perform an intended behavior may increase as social norms become more favorable towards the behavior. Within Ajzen's theory of planned behavior beliefs, attitudes, social norms influence behavioral intention. The behavioral intention indicates the amount of effort that a person is willing to exert to perform the behavior (Cordano & Frieze, 2000).

Bandura's (1977) social learning theory provides further explanation of the development of attitudes and behaviors. Social learning theory is based on the tenant human behavior is learned. The theory suggests that behaviors are developed through observing and imitating behaviors that are displayed by others. These behaviors can be experienced through direct and indirect experiences. For example, a substance use professionals' beliefs in harm reduction approaches and could be influenced by exposure of harm reduction approaches displayed by educators, peers, society, and or employment climate. These beliefs or attitudes towards harm reduction approaches could be negative or positive, thus, influencing the substance use professional.

CHAPTER III

METHODOLOGY

Participants

The sample consisted of 141 persons throughout the United States who provide substance use treatment services, peer support services, or were students seeking future employment in substance use treatment or support services. Participants were recruited through a convenience sampling method with assistance from agencies who provide substance use treatment and institutions of higher education with addiction related study such as clinical mental health counseling and rehabilitation counseling. A power analysis was conducted to determine the adequate sample size using G*Power 3.1 (Faul et al., 2009). An a priori calculation yielded a sample size of 128 participants with four comparisons groups at a medium effect size (d = .50) and power of .80. For this study, a minimum sample size of 128 participants was desired. The inclusion criteria set for the study was that a participant must be 18 and over, currently providing substance use treatment or support services, or currently in school pursuing a career in substance use treatment or support (see appendix A).

Procedure

Approval from the University of Texas - Rio Grande Valley (UTRGV) Institutional Review Board (IRB) was received prior to the study to comply with research ethics and protocols (see appendix E). A recruitment email was sent to professionals in the investigator's

network, and institutions of higher education invited to participate as well as invited to forward the survey to others that meet the inclusion criteria.

The participants were directed to complete the online survey established in Qualtrics. The survey consists of 39 questions and contains inclusion screening questions, demographic questionnaire, and a harm reduction approach scale (see appendix A and B). Informed consent was administered prior to engagement in the survey (see appendix C). Participants were informed of the purpose of the study, limitations, risks, and the right to opt out from the survey at any point. To encourage participation in the study eight $25 gift cards from Amazon were raffled to participants that complete the survey. At the end of the survey the participants were provided a link to a raffle survey for the incentive. The raffle information and research survey were kept separately from each other as to not link identifying information with survey responses.

Instrumentation

Two questionnaires were utilized for this research study. The two surveys took 10-15 minutes to complete. The first was the demographic questionnaire. The demographic questionnaire consisted of nine questions pertaining to demographic information (1) gender identity, (2) race/ethnicity, (3) age, (4) state of residence, (5) substance use recovery status, (6) highest level of education (e.g., associate, bachelors, post graduate), (7) educational major (e.g., mental health counseling, addiction counseling, rehabilitation counseling), (8) primary license/certification status (e.g., mental health license, substance use treatment license, certified credential counselor, student) (9) employment setting where services are provided (e.g., detox, inpatient treatment, outpatient treatment, peer support services).

The second instrument used was the Goddard's (2003) Harm Reduction Acceptability Scale (HRAS). HRAS was used to measure participants' attitude toward harm reduction approach. HRAS has been widely used to study attitudes toward harm reduction in social workers (Estreet et al., 2017), administrators of substance use facilities (Rosenberg & Phillips, 2003), and treatment professionals (Goddard, 2003) to name a few. The questionnaire contains 25 items and participants' level of agreement for each item (e.g., It is acceptable to prescribe substitute drugs such as methadone in order to reduce crime and other social problems associated with illicit drug use). Responses are measured on 5-point Likert scale (1= strongly agree; 2= agree; 3= neither agree nor disagree; 4= disagree; and 5= strongly disagree); lower score indicating favorable attitudes towards harm reduction with higher scores suggesting a favorable attitude towards abstinence. Twelve items (i.e., 1, 2, 4, 6, 9, 11, 13, 15, 18, 21 23, and 25) are reversed scored. The Cronbach's alpha of .83 indicates a strong internal constancy (Goddard, 2003). Concerning the validity, HRAS demonstrates a moderate correlation (r= 0.538, P<0.001) with the Temperance Mentality Questionnaire (Burt et al., 1994) designed to measure attitudes towards substance use treatment approaches indicating both convergent and divergent validity.

Data Analysis

The data analyses used was descriptive statistics, one-way analysis of variance (ANOVA), and *t*-Test. The data collected was imported and analyzed using International Business Machines Statistical Package for the Social Science version 27 (IBM SPSS Statistics). This study was to determine whether there was a statically significant mean difference between variables of interest and participants' attitudes towards treatment approaches.

Enders (2010) stated that is common to have 15 – 20% missing data in quantitative studies. To address missing data, the mean replacement approach (mean substitution of any

missing values with the mean of that variable for all other cases) was be used. To meet 80% completion requirements, the demographic questionnaire was accepted if 9 of the items were answered; the HRAS questionnaire was accepted if 20 of the items were answered by respondents. Surveys that did not meet 80% completion were removed for the data set.

Descriptive statistics was used to assess the mean, standard deviation, and normality of demographics from the sample. Data was assessed to ensure there is no significant outliers through boxplots. Outliers were found and data was checked for data entry errors. No data entry errors were found. Data was then assessed for normality through by histogram, skewness, and kurtosis. Skewness values higher than -/+ 2 and kurtosis values -/+ 4 may indicate problems with the normal distribution. Therefore, for this study that skewness values less -/+ 2 and kurtosis values less -/+ 4 was used to evaluate the normality of the data (Blanca et al., 2013). Upon the completion of data cleaning procedure, a reliability analysis of Goddard's Harms Reduction Acceptability Scale was conducted. Goddard's Harm Reeducation Acceptability Scale was found to be highly reliable ($N = 141$; $\alpha = .78$).

To address research question one, descriptive statistics was used to evaluate the attitudes in harm reduction for the population sample. Descriptive statistics such as frequencies and percentages were performed. In addition, the researcher explored the measures of central tendency including mean, median, mode, and standard deviation to learn about the characteristics of the data.

To address research question two and three, one-way ANOVAs and *t*-test were employed and differences in attitudes towards harm reduction approach based on clinician's demographic and employment factors was examined. One-way ANOVAs were used to compare whether the means of two or more groups are statistically different or not, Homogeneity of variance

assumption of ANOVA test was first inspected via the Levine's Test and Post-hoc analysis with Tukey's method was used for pairwise comparison. *T*-test were used to compare means between two groups to determine statistical significance.

CHAPTER IV

RESULTS

Demographics

The survey was initially attempted by 173 individuals, however, only 141 individuals completed the required 80% or more of the demographic questions and HRAS survey. Data was checked for skewness values higher than -/+ 2 and kurtosis values -/+ 4. Skewness and kurtosis values were within acceptable ranges. See table 2 for skewness and kurtosis for HRAS items and total score values.

After cleaning the dataset for missing responses, the mean age of the participants was 32.30 (*SD* = 9.49) the sample was predominately comprised of males 53.9% (*n* = 71), 45.4% females (*n* = 64) and, .7% non-binary (*n = 1)*; *N* = 141). Race/ethnicity (*N* = 141) were identified as: 70.2% (*n* = 99) white/Caucasian, 22% (*n* = 31) Hispanic, 5% (*n* = 7) black/African American, 1.4% (*n* = 2) Asian/Pacific Islander, .7% (*n* = 1) Native American/American Indian, and .7% (*n* = 1) multicultural. Participants reported the highest educational level they achieved (*N* = 141) as follows: 7.8% (*n* = 11) high school diploma, 24.1% (*n* = 34) two-year degree, 49.6% (*n* = 70) four-year degree, and 18.4% (*n* = 26) post-graduate degree. The participants reported the area of study was 33.7% (*n* = 32) addiction studies, 44% (*n* = 62) rehabilitation counseling, 23.4% (*n* = 33) mental health counseling, and 9.9% (*n* = 14) reported other. When asked about the types of licenses or certification the participants held, 55% (*n* = 39) of the participants held a state issued certificate or license as a substance use counselor, 26.2% (*n* = 37) had a state counselor license,

17% (*n* = 24) were a certified counselor, and 17.7% (*n* = 25) were students seeking future employment in substance use treatment or support services. Most of the participants were employed in inpatient treatment services (*n* = 54, 40.4%), followed by outpatient services (*n* = 47, 33.3%), peer support services (*n* = 20, 14.2%), other (*n* = 13, 9.2), and detox services (*n* = 4, 2.8%). When asked if the participants considered themselves a person in recovery almost half reported "no" (*n* = 74, 52.5%) while 47.5% (*n* = 67) reported "yes".

Table 1 contains participants demographic characteristics which includes gender, race/ethnicity, state of residence, U.S. Region, educational level, area of study, license/certification, employment setting, and recovery status.

Table 1

Frequency of Demographic Variables

Characteristic	*n*	%
Gender		
Males	76	53.9
Females	64	45.4
Non-Binary	1	0.7
Race/Ethnicity		
White/Caucasian	99	70.2
Hispanic	31	22
Black/African American	7	5
Asian/Pacific Islander	2	1.4
Native American/AI	1	0.7
Multicultural	1	0.7
State of Residency/US Regions		
Midwest	6	4.3
Illinois	1	.07
Indiana	4	2.8

Table 1 (continued)

Characteristic	*n*	%
Iowa	0	0
Kansas	0	0
Michigan	0	0
Minnesota	0	0
Missouri	0	0
North Dakota	0	0
Nebraska	0	0
Ohio	0	0
South Dakota	1	.07
Wisconsin	0	0
Northeast	11	7.8
Connecticut	1	.07
Main	0	0
Massachusetts	0	0
New Hampshire	0	0
New Jersey	0	0
New York	8	5.7
Pennsylvania	2	1.4
Rhode Island	0	0
Vermont	0	0
Connecticut	1	0.7
South	91	64.5
Alabama	3	2.1
Arkansas	2	1.4
Delaware	1	0.7
District of Columbia	1	0.7
Florida	2	1.4
Georgia	5	3.5
Kentucky	1	0.7
Louisiana	0	0

Table 1 (continued)

Characteristic	*n*	%
Maryland	0	0
Mississippi	0	0
North Carolina	0	0
Oklahoma	0	0
South Carolina	1	0.7
Tennessee	0	0
Texas	54	38.3
Virginia	21	14.9
West Virginia	0	0
West	33	23.4
Alaska	2	1.4
Arizona	7	5.0
California	8	5.7
Colorado	5	3.5
Hawaii	3	2.1
Idaho	3	2.1
Montana	0	0
Nevada	0	0
New Mexico	1	0.7
Oregon	0	0
Utah	1	0.7
Washington	3	2.1
Wyoming	0	0
Educational Level		
High school diploma/GED	11	7.8
Two-year degree	34	24.1
Four-year Degree	70	49.6
Post Graduate Degree	26	18.4
Area of Study		
Addiction Studies	32	22.7

Table 1 (continued)

Characteristic	*n*	%
Rehabilitation Counseling	62	44
Mental Health Counseling	33	23.4
Other	14	9.9
License/Certification		
State issued certificate or license as a substance abuse counselor (e.g. CADC, LCDC)	55	39
State Counselor License (e.g. LPC/LMHC.LCPC)	37	26.2
Certified Counselor (e.g. NCC, CRC)	24	17
None. Currently a student.	25	17.7
Employment Setting		
Detox Services	4	2.8
Inpatient Services	57	40.4
Outpatient Services	47	33.3
Peer Support Services	20	14.2
Other	13	9.2
Person in Recovery		
Yes	67	47.5
No	74	52.5

Note. $N = 141$

Descriptive Statistics

To address research question one, "What are the overall attitudes of substance use counselors towards substance use treatment approaches?" descriptive statistics were used to evaluate the attitudes in harm reduction for the population sample. Participants were asked to complete the Goddard's (2013) Harm Reduction Acceptability Survey (HRAS). The survey consists of 25-item devised in terms of Likert scale (1 = strongly agree, 2 = somewhat agree, 3 = neither agree or disagree, 4 – somewhat disagree, and 5 = strongly disagree). The themes of the questions related to harm reduction and abstinence-based approaches to substance use treatment.

Overall, there was no responses of “strongly agree” or “strongly disagree” reported by the participants.

The participants “somewhat agreed” to the statements “A choice of treatment outcome goals (for example, abstinence, reduced use of drugs or alcohol, safer use of drugs or alcohol) should be discussed with all people seeking help for drug or alcohol problems” (*M* = 1.84, *SD* = .92), ” Drug users should be given honest information about how illicit drugs may be used more safely (for example, how overdose or related health hazards may be avoided)” (*M* = 2.10, *SD* = 1.19), “People with drug or alcohol problems who are not willing to accept abstinence as their treatment outcome goal should be offered treatment that aims to reduce the harm associated with their continued drug or alcohol use.” (*M* = 2.11, *SD* = 1.00). As long as clients are making progress towards their treatment goals, methadone maintenance programmes should not kick clients out of treatment for using street drugs.” (*M* = 2.49, *SD* = 1.05), “People with drug and alcohol problems may be more likely to seek professional help if they are offered at least some treatment options that do not focus on abstinence.” (*M* = 2.13, *SD* = .80), “Making clean injecting equipment available to injecting drug users is likely to reduce the rate of HIV infection” (*M* = 2.22, *SD* = 1.18), “It is possible to use drugs without necessarily misusing or abusing drugs” (*M* = 2.24, *SD* = 1.10), “Pamphlets for educating drug users about safer drug use and safer sex should be detailed and explicit, even if these pamphlets would be offensive to some people” (*M* = 2.09, *SD* = 1.01), and “People with alcohol or drug problems should be praised for making changes such as cutting down on their alcohol consumption or switching from injectable drugs to oral drugs” (*M* = 2.02, *SD* = 1.03).

Participants “neither agreed or disagreed” with the following statements, “Doctors should be permitted to prescribe heroin and similar drugs to treat drug addiction as long as doing so

reduces problems such as crime and health risks" (*M* = 3.19, *SD* = 1.33), "In most cases, nothing can be done to motivate clients in denial except to wait for them to "hit bottom" (*M* = 3.98, *SD* = 1.17), "It is acceptable to prescribe substitute drugs such as methadone in order to reduce crime and other social problems associated with illicit drug use" (*M* = 2.77, *SD* = 1.21), "Measures designed to reduce the harm associated with drug or alcohol use are acceptable only if they eventually lead clients to pursue abstinence" (*M* = 3.40, *SD* = 1.17), "The prescription of substitute drugs such as methadone should be forbidden" (*M* = 3.13, *SD* = 1.36), "People whose drug use is stable should be trained to teach other drug users how to use drugs more safely (for example, how to inject more safely)" (*M* = 2.96, *SD* = 1.26), "Abstinence is the only acceptable treatment option for people who are physically dependent on alcohol" (*M* = 3.16, *SD* = 1.16), "Drug injectors who are not willing to accept abstinence as a treatment goal at the beginning of treatment should be given easy access to clean" (*M* = 2.72, *SD* = 1.23), and "Abstinence is the only acceptable treatment goal for people who use illicit drugs" (*M* = 3.18, *SD* = 1.19).

Participants reported "somewhat disagree" to the following statements, "People with alcohol or drug problems who will not accept abstinence as their treatment goal are in denial" (*M* = 3.52, *SD* = 1.19), "It is not acceptable to teach injecting drug users how to use bleach to sterilize their injecting equipment" (*M* = 3.52, *SD* = 1.23), "People who live in government-funded housing must be drug and alcohol free" (*M* = 3.84, *SD* = 1.14), "Even if their drug use is stable, women who use illicit drugs cannot be good mothers to infants and young children" (*M* = 3.63, *SD* = 1.33), "Prisons should not provide sterilizing tablets or bleach in order for inmates to clean their drug injecting equipment" (*M* = 3.74, *SD* = 1.19), "Opiate users should only be prescribed methadone for a limited period of time" (*M* = 3.55, *SD* = 1.18), and "Women who use

illicit drugs during pregnancy should automatically lose custody of their babies" (M = 3.52, SD = 1.20).

Overall, the total score of the HRAS indicated that the participants had a slightly more favorable attitudes towards harm reduction (M = 2.88, SD = 0.47) than abstinence-based approaches. Table 2 indicates mean scores, standard deviations, and frequencies for all 25 of the Likert questions related to participants acceptability of harm reduction and abstinence-based treatment approaches.

Table 2

Frequency of Goddard's Harm Reduction Acceptability Survey

Items	*n*	*M* (*SD*)	Strongly Agree *n* (%)	Somewhat Agree *n* (%)	Neither agree or disagree *n* (%)	Somewhat Disagree *n* (%)	Strongly Disagree *n* (%)	Skewness	Kurtosis
1. People with alcohol or drug problems who will not accept abstinence as their treatment goal are in denial.	141	3.52 (1.19)	29 (20.6)	57 (40.4)	25 (17.7)	18 (12.8)	12 (8.5)	-.66	-.45
2. It is not acceptable to teach injecting drug users how to use bleach to sterilize their injecting equipment.	141	3.52 (1.23)	35 (24.8)	46 (32.6)	28 (19.9)	21 (14.9)	11 (7.8)	-.51	-.72
3. A choice of treatment outcome goals (for example, abstinence, reduced use of drugs or alcohol, safer use of drugs or alcohol) should be discussed with all people seeking help for drug or alcohol problems.	141	1.84 (.92)	61 (43.3)	51 (36.2)	21 (14.9)	6 (4.3)	2 (1.4)	1.07	.92
4. People who live in government-funded housing must be drug and alcohol free.	141	3.84 (1.14)	48 (34.0)	50 (35.5)	24 (17.0)	11 (7.8)	8 (5.7)	-.92	.14
5. Doctors should be permitted to prescribe heroin and similar drugs to treat drug addiction as long as doing so reduces problems such as crime and health risks.	141	3.19 (1.33)	15 (10.6)	35 (24.8)	33 (23.4)	24 (17.0)	34 (24.1)	.01	-1.21
6. Even if their drug use is stable, women who use illicit drugs cannot be good mothers to infants and young children.	141	3.63 (1.33)	42 (29.8)	46 (32.6)	24 (17.0)	17 (12.1)	12 (8.5)	-.68	-.57

Table 2 (continued)

Item	*n*	*M* (*SD*)	Strongly Agree *n* (%)	Somewhat Agree *n* (%)	Neither agree or disagree *n* (%)	Somewhat Disagree *n* (%)	Strongly Disagree *n* (%)	Skewness	Kurtosis
7. Drug users should be given honest information about how illicit drugs may be used more safely (for example, how overdose or related health hazards may be avoided).	141	2.10 (1.19)	57 (40.4)	40 (28.4)	27 (19.1)	7 (5.0)	10 (7.1)	.99	.20
8. People with drug or alcohol problems who are not willing to accept abstinence as their treatment outcome goal should be offered treatment that aims to reduce the harm associated with their continued drug or alcohol use.	141	2.11 (1.00)	43 (30.5)	56 (39.7)	29 (20.6)	9 (6.4)	4 (2.8)	.83	.37
9. In most cases, nothing can be done to motivate clients in denial except to wait for them to "hit bottom".	141	2.98 (1.17)	15 (10.6)	28 (19.9)	59 (41.8)	17 (12.1)	22 (15.6)	-.14	-.57
10. It is acceptable to prescribe substitute drugs such as methadone in order to reduce crime and other social problems associated with illicit drug use.	141	2.77 (1.21)	23 (16.3)	38 (27.0)	45 (31.9)	19 (13.5)	16 (11.3)	.28	-.70
11. Prisons should not provide sterilizing tablets or bleach in order for inmates to clean their drug injecting equipment.	141	3.74 (1.19)	44 (31.2)	49 (34.8)	24 (17.0)	15 (10.6)	9 (6.4)	-.78	-.26

Table 2 (continued)

Items	*n*	*M* (*SD*)	Strongly Agree *n* (%)	Somewhat Agree *n* (%)	Neither agree or disagree *n* (%)	Somewhat Disagree *n* (%)	Strongly Disagree *n* (%)	Skewness	Kurtosis
12. As long as clients are making progress towards their treatment goals, methadone maintenance programmes should not kick clients out of treatment for using street drugs.	141	2.49 (1.05)	23 (16.3)	59 (41.8)	30 (21.3)	25 (17.7)	4 (2.8)	.43	-.59
13. Measures designed to reduce the harm associated with drug or alcohol use are acceptable only if they eventually lead clients to pursue abstinence.	141	3.40 (1.17)	26 (18.4)	47 (33.3)	38 (27.0)	18 (12.8)	12 (8.5)	-.46	-.55
14. People with drug and alcohol problems may be more likely to seek professional help if they are offered at least some treatment options that do not focus on abstinence.	141	2.13 (.80)	29 (20.6)	73 (51.8)	32 (22.7)	6 (4.3)	1 (0.7)	.58	.53
15. The prescription of substitute drugs such as methadone should be forbidden.	141	3.13 (1.36)	28 (19.9)	32 (22.7)	35 (24.8)	22 (15.6)	24 (17.0)	-.16	-1.13
16. People whose drug use is stable should be trained to teach other drug users how to use drugs more safely (for example, how to inject more safely).	141	2.96 (1.26)	18 (12.8)	37 (36.2)	41 (29.1)	22 (15.6)	23 (16.3)	.17	-.94

Table 2 (continued)

Items	*n*	*M* (*SD*)	Strongly Agree *n* (%)	Somewhat Agree *n* (%)	Neither agree or disagree *n* (%)	Somewhat Disagree *n* (%)	Strongly Disagree *n* (%)	Skewness	Kurtosis
17. Making clean injecting equipment available to injecting drug users is likely to reduce the rate of HIV infection.	141	2.22 (1.18)	44 (31.2)	54 (38.3)	21 (14.9)	12 (8.5)	10 (7.1)	.92	.06
18. Abstinence is the only acceptable treatment option for people who are physically dependent on alcohol.	141	3.16 (1.16)	20 (14.2)	36 (25.5)	42 (29.8)	32 (22.7)	11 (7.8)	-.05	-.82
19. It is possible to use drugs without necessarily misusing or abusing drugs.	141	2.24 (1.10)	41 (29.1)	50 (35.5)	31 (22.0)	13 (9.2)	6 (4.3)	.71	-.12
20. Pamphlets for educating drug users about safer drug use and safer sex should be detailed and explicit, even if these pamphlets would be offensive to some people.	141	2.09 (1.01)	47 (33.3)	49 (34.8)	36 (25.5)	4 (2.8)	5 (3.5)	.83	.54
21. Opiate users should only be prescribed methadone for a limited period of time.	141	3.55 (1.18)	32 (22.7)	54 (38.3)	24 (17.0)	22 (15.6)	9 (6.4)	-.58	-.59
22. Drug injectors who are not willing to accept abstinence as a treatment goal at the beginning of treatment should be given easy access to clean injecting equipment	141	2.72 (1.23)	25 (17.7)	43 (30.5)	34 (24.1)	25 (17.7)	14 (9.9)	.30	-.87

Table 2 (continued)

Items	*n*	*M* (*SD*)	Strongly Agree *n* (%)	Somewhat Agree *n* (%)	Neither agree or disagree *n* (%)	Somewhat Disagree *n* (%)	Strongly Disagree *n* (%)	Skewness	Kurtosis
23. Women who use illicit drugs during pregnancy should automatically lose custody of their babies.	141	3.52 (1.20)	35 (24.8)	42 (29.8)	37 (26.2)	16 (11.3)	11 (7.8)	-.50	-.57
24. People with alcohol or drug problems should be praised for making changes such as cutting down on their alcohol consumption or switching from injectable drugs to oral drugs.	141	2.02 (1.03)	54 (38.3)	46 (32.6)	28 (19.9)	10 (7.1)	3 (2.1)	.89	.05
25. Abstinence is the only acceptable treatment goal for people who use illicit drugs.	141	3.18 (1.19)	23 (16.3)	34 (24.1)	40 (28.4)	33 (23.4)	11 (7.8)	-.40	.05
Total Score	141	2.88 (0.47)						-1.18	1.61

Note. $N = 141$

Inferential Statistics

To address research question two, "Are there differences in attitudes towards harm reduction approaches based upon demographic factors (i.e., age, gender, ethnicity/race, state of residency, level of education, substance use history)?" and research question three, "Are there differences in attitudes toward harm reduction based upon employment factors (i.e., employment setting, years working in substance use treatment, type of license)?", one-way ANOVAs and T-Test were applied and differences in attitudes towards harm reduction approach based on clinician's demographic and employment factors was examined.

Age

Scaled data was collected during the survey and was converted to age bands (e.g., 18-24 years old, 25-34 years old, 35-44 years old, and 45 years old and older) for the analysis. An analysis of variance (ANOVA) was used to test the mean differences on the variables of age band. Levene's Test and was found to be significant at $p = .02$, indicating the violation of the assumption of the homogeneity of variance. A statistically significant between-group difference was found among the four levels of age bands on attitudes towards harm reduction approaches, $F(3, 137) = 6.84$, $p = < .001$). Concerning pairwise comparison, Games-Howell post hoc analysis was used because equal variance could not be assumed (Morgan et al., 2019). Games-Howell test results indicated that persons 25-34 years old and persons 45 years old and older differed significantly in their attitudes towards harm reduction with a large effect size ($p = .019$, $d = 1.16$). Descriptive statistics of the mean scores of each group are presented in table 3.

Table 3

ANOVA Table – Age

	(1) 18 – 24 Years Old		(2) 25-34 Years Old		(3) 35-44 Years Old		(4) 45 years old and older		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	2.82	.53	3.03	.33	2.78	.52	2.47	.58	.0001 (2&4)
	SS		DF		MS		F		Sig.
Between Groups	4.107		3		1.36		6.84		< .001
Pairwise Comparison						MD			Sig.
18 – 24 Years Old		25 – 34 Years Old				-.19648			.31
		35 – 44 Years Old				.04471			.98
		45 Years Old and Older				.35209			.264
25 – 34 Years Old		35 – 44 Years Old				.24120			.99
		45 Years Old and Older				.54857			.019
35 – 44 Years Old		45 Years Old and Older				-.30737			.352

1 (Strongly Agree)…5 (Strongly Disagree)

Race/Ethnicity

An analysis of variance (ANOVA) was used to test the mean differences on the variables of race/ethnicity. African American/Black, Asian, Native American, and Multicultural were combined to an "other" group for analysis due to not enough cases in Asian, Native American, and Multicultural cells mean comparison. Levene's test was found to be significant $p. = .03$, thus violation the assumption of homogeneity of variance. A statically between-group difference was found among the three levels of race/ethnicity towards harm reduction approaches, $F(2, 138) = 10.29$, $p < .001$). Games-Howell was used for pairwise comparison due to equal variances could not be assumed (Morgan et al., 2019). Games-Howell test results indicated that person who were White/Caucasian differed significantly in their attitudes towards harm reduction than persons who are Hispanic/Latino with a medium effect size ($p = .02$, $d = 0.63$) and person in the Other race category with a large effect size ($p < .05$, $d = 1.00$). Descriptive statistics of the mean scores of each group are presented in table 4.

Table 4

ANOVA Table – Race/Ethnicity

	(1) White/Caucasian		(2) Hispanic/Latino		(3) Other		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	2.98	.39	2.69	.52	2.88	.47	.02 (1&2) .05 (1&3)

	SS	df	MS	F	Sig.
Between Groups	4.90	2	2.04	10.29	<.001

Pairwise Comparison		MD	Sig.
White/Caucasian	Hispanic/Latino	.28989	.02
	Other	.63596	.05
Hispanic/Latino	Other	.23496	.52

1 (Strongly Agree)…5 (Strongly Disagree)

Level of Education

An analysis of variance (ANOVA) was used to test the mean differences on the variables of level of education. Levene's test was found to be significant $p. < .001$, thus violation the assumption of homogeneity of variance. A statically between-group difference was found among the four levels of education towards attitudes in harm reduction approaches, $F(3, 137) = 8.22$, $p < .001$). Games-Howell was used for pairwise comparison due to equal variances could not be assumed (Morgan et al., 2019). Games-Howell test results indicated that person who had a 4-year degree differed significantly in their attitudes towards harm reduction than persons who have a high school degree with a large effect size ($p = .03$, $d = 1.18$) and persons with a postgraduate degree with a large effect size ($p = .04$, $d = 0.71$). Descriptive statistics of the mean scores of each group are presented in table 5.

Table 5

ANOVA Table – Level of Education

	(1) High School		(2) 2-Year Degree		(3) 4-Year Degree		(4) Postgraduate		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	2.46	.53	2.94	.29	3.01	.39	2.63	.64	.03 (1&3) .04 (3&4)

	SS	DF	MS	F	Sig.
Between Groups	4.81	3	1.603	8.22	<.001

Pairwise Comparison		MD	Sig.
High School	2-Year Degree	-.47807	.06
	4-Year Degree	-.54483	.03
	Postgraduate	-.16685	.84
2-Year Degree	4-Year Degree	-.06676	.77
	Postgraduate	.31122	.12
4-Year Degree	Postgraduate	.37798	.04

1 (Strongly Agree)…5 (Strongly Disagree)

State of Residency

An analysis of variance (ANOVA) was used to test the mean differences on the variables of U.S. region. Respondents reported state of residency. The states of residency were reduced in the four U.S. regions established by the U.S. Department of Commence Economics and Statistics (2021). The four areas are West (Alaska, California, Hawaii, Idaho, New Mexico, Utah, and Washington), Midwest (Illinois, Indiana, South Dakota), South (Alabama, Arkansas, Florida, Georgia, Kentucky, South Carolina, Texas, and Virginia), and Northeast (Connecticut, Delaware, District of Columbia, New York, and Pennsylvania). Levene's Test and was found to be significant at $p = < .001$, indicating the violation of the assumption of the homogeneity of variance. A statistically significant between-group difference was found among the four levels of U.S. Regions on attitudes towards harm reduction approaches, $F(3, 137) = 9.59$, $p = < .001$). Concerning pairwise comparison, Games-Howell post hoc analysis was used because equal variance could not be assumed (Morgan et al., 2019). Games-Howell test results indicated that persons lived in the West and persons who lived in the Northeast differed significantly in their

attitudes towards harm reduction with a medium effect size (p = .02, d = .72) and from person who lived in the South differed significantly in their attitudes towards harm reduction with a medium effect size (p = .03, d = .55). Games-Howell results also indicated there was a significant difference between persons who live in the Northeast and the South on attitudes in harm reduction approaches with a large effect size (p = < .001, d = .81). Descriptive statistics of the mean scores of each group are presented in table 6

Table 6

ANOVA Table – U.S. Regions

	(1) West		(2) Midwest		(3) Northeast		(4) South		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	2.94	.33	3.04	.27	3.16	.27	2.69	.54	.02 (1&3) .03 (1&4) < .001 (3&4)

	SS	*df*	MS	F	Sig.
Between Groups	5.46	3	1.82	9.59	<.001

Pairwise Comparison		MD	Sig.
West	Midwest	-.09455	.87
	Northeast	-.22278	.02
	South	.25134	.03
Midwest	Northeast	-.12824	.72
	South	.34288	.10
Northeast	South	.47412	<.001

1 (Strongly Agree)…5 (Strongly Disagree)

License and Certifications

An analysis of variance (ANOVA) was used to test the mean differences on the variables of license and certifications. Levene's Test and was found to be significant at p = .20, indicating the violation of the assumption of the homogeneity of variance. A statistically significant between-group difference was found among the four levels of license and certifications on attitudes towards harm reduction approaches, $F(3, 137) = 3.25$, p = .02). Concerning pairwise comparison, Games-Howell post hoc analysis was used because equal variance could not be

assumed (Morgan et al., 2019). Games-Howell test results indicated that persons who were currently a student and persons who were certified counselors differed significantly in their attitudes towards harm reduction with a large effect size (p = .03, d = .92). Descriptive statistics of the mean scores of each group are presented in table 7.

Table 7

ANOVA Table – Licenses and Certifications

	(1) Certificate/License Substance Use Provider		(2) State Counselor License		(3) Certified Counselor		(4) Student		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	2.94	.44	2.80	.49	3.05	.27	2.68	.58	.03 (3&4)
	SS		DF		MS		F		Sig.
Between Groups	2.09		3		.699		3.25		.024
Pairwise Comparison						MD			Sig.
Certificate/License Substance Use Provider		State Counselor License				.1328			.55
		Certified Counselor License				-.11579			.49
		Student				.25615			.22
State Counselor License		Certified Counselor License				-.2486			.06
		Student				.12333			.82
Certified Counselor		Student				.37193			.03

1 (Strongly Agree)…5 (Strongly Disagree)

Employment Setting

An analysis of variance (ANOVA) was used to test the mean differences on the variables of employment. Levene's Test and was found to be significant at p = .03, indicating the violation of the assumption of the homogeneity of variance. A statistically significant between-group difference was found among the four levels of employment setting on attitudes towards harm reduction approaches, $F(4, 136) = 4.25$, $p = < .003$). Concerning pairwise comparison, Games-Howell post hoc analysis was used because equal variance could not be assumed (Morgan et al., 2019). Games-Howell test results indicated that persons who worked in detox services and persons who worked in outpatient treatment differed significantly in their attitudes towards harm

reduction with a medium effect size (p = .002, d = .51). Descriptive statistics of the mean scores of each group are presented in table 8.

Table 8

ANOVA Table – Employment Type

	(1) Detox Services		(2) Inpatient Treatment		(3) Outpatient Treatment		(4) Peer Support Services		(5) Other		
Question	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*M*	*(SD)*	*p*
Total Score	3.12	.05	3.02	.35	2.80	.49	2.84	.43	2.51	.70	.002 (2&3)

	SS	df	MS	F	Sig
Between Groups	3.506	4	.877	4.25	.003

Pairwise Comparison		MD	Sig.
Detox Services	Inpatient Treatment	.09263	.45
	Outpatient Treatment	.31489	.002
	Peer Support Services	.28000	.07
	Other	.60615	.06
Inpatient Treatment	Outpatient Treatment	.22226	.08
	Peer Support Services	.1873	.42
	Other	.51352	.138
Outpatient Treatment	Peer Support Services	-.03489	.99
	Other	.29126	.64
Peer Support Services	Other	.32615	.58

1 (Strongly Agree)…5 (Strongly Disagree)

Additionally, ANOVA was used to test the mean differences on the variables of areas of study. There was no significant differences found for areas of study (e.g., addiction studies, rehabilitation counseling, mental health counseling, other) $F(3, 137) = 1.37$, $p = .174$. A t-test was used to compare mean differences between gender, years as a treatment provider, and recovery status. There were no significant mean differences found for gender, $t(138) = 1.68$, $p =$

.093, years as a treatment provider, $t(139) = 1.33$, $p = .183$, and recovery status $t(139) = -1.47$, $p = .142$. Comparison of total test score for the HRSA for gender years as a treatment provider, and recovery status are presented in table 9.

Table 9

T-Test Table Results

Variable	*N*	*M*	*SD*	*t*	*df*	*p*	*d*
Gender							
Males	76	2.94	.39188	1.68	138	.09	.28
Females	64	2.81	.54308				
Years as Treatment Provider							
0-4 Years	108	2.9115	.44519	1.339	139	.18	.25
5 and more years	33	2.78	.55613				
Recovery Status							
In Recovery	67	2.8203	.47713	-1.475	139	.14	.24
Not in Recovery	74	2.9378	.46808				

CHAPTER V

DISCUSSION

The goal of this research study was to assess substance use professionals' attitudes towards harm reduction approaches in substance use treatment. In the United States, abstinence-based treatment is the predominate model for substance use treatment services (Substance Abuse and Mental Health Administration, SAMHA, 2021). This study aimed to determine if attitudes in harm reduction approaches in substance use services differed between demographic and employment variables. Prior to this study there was limited research on current substance use professional and aspiring substance use professionals' attitudes towards harm reduction approaches.

Attitudes toward harm reduction approaches was measured by the Harm Reduction Acceptability Survey (HRAS; Goddard, 2003). This cross-sectional survey design provided information from substance use professionals and students who were seeking employment in substance use services and their attitudes in harm reduction approaches in substance use treatment and support.

The Overall Attitudes of Substance Use Professionals

Overall, participants in this study reported leaning more toward having favorable attitudes in harm reduction approaches than having a neutral or negative attitudes towards harm reduction. Means scores on the HRAS below a 3.0 indicate a more positive attitude towards

harm reduction while a mean score above a 3.0 indicates a more favorable attitude towards abstinence-based approaches; the professionals and students in this study had an overall average of 2.88, indicating a favorable belief towards harm reduction approaches. The results of this study indicate that perhaps professionals and aspiring professionals may be open to alternatives to abstinence-based approaches that are currently the most practiced approach in the United States.

Studies have been conducted on counselors' attitudes towards harm reduction. In one study Goddard (2003) assessed attitudes towards harm reduction of substance use professionals. Goddard used HRAS to assess counselors' attitudes towards harm reduction prior to a two-hour continuing education on harm reduction. The results of the HRAS indicated a favorable attitude towards harm reduction with a mean score of 2.55. In another study, Havranek and Stewart (2006) examined rehabilitation counselors' attitudes towards harm reduction. In this study, the authors surveyed members of the Ohio Rehabilitation Association using a 10-item scale that was modeled after Goddard's HRAS scale. The results indicated that rehabilitation counselors tended to agree with harm reduction approaches while in treatment, but that all illegal drug use should be avoided.

Attitudes Towards Harm Reduction Approaches Based Upon Demographic Factors

Age

In this study, significant differences were found between the two ages groups of 25-34 years old and 45 years old and older. Persons who were 45 years old and older reported more positive attitudes towards harm reduction approaches. This finding is consistent with current literature as Havranek and Stewart (2006) found similar results in their study. The authors found that respondents who were 50 years old or older favored harm reduction approaches more than

persons who were under 50 years old. This suggest that older participants may be more experienced clinicians who have practiced abstinence based approaches throughout their career, and they have seen a need for additional or alternative forms of treatment. The results may also suggest that younger clinicians may have little or no experience in the substance use treatment field and with the abstinence-based treatment being the primary method of treatment in the United States may feel more comfortable using abstinence-based interventions.

In addition, older clinicians have seen the rise in substance use since the initiation of the War on Drugs in the 1970s. The War on Drugs was not successful at reducing the rates of drug use and instead resulted in a 13% rise in Americans 12 years and older since 1999 (SAMSHA, 2019). Older clinicians have also witnessed the devastating effects of the opioid crisis that started in the 1990s with a reported 564,000 deaths due to overdose from 1999-2020 (CDC, 2021). To combat the alarming rates of overdoses due to opioid use clinicians have utilized harm reduction techniques such as medicated assisted therapies (Volkow et al., 2014). Medicated assisted therapies have been found to be an effective form of treatment that has resulted in an approximately 50% decrease of fatalities due to overdose (Volkow et al., 2014).

This study did not find a difference in the age bands 18 – 24 years old and 35 – 44 years old. Persons in this age group 18 – 24 may not have the lived experiences of the 45 years old and older group. In addition, persons in the 18 – 24-year-old group maybe early clinicians or currently in school pursuing a career in substance use services. These persons may have had minimal exposure to harm reduction approaches, may have may not been introduced to the concepts in an educational setting, or too early to have a particular preferences to a certain approach.

The clinicians in the 35 – 44 year-old group may have had directly seen the development and the impact of the opioid epidemic and have had experience in the application of harm reduction approaches. However, with the United States primarily being an abstinence-based treatment model these clinicians may ideologically be grounded in this approach.

Gender

In this study there was no difference between gender on attitudes towards harm reduction approaches. These findings are not surprising, as research has not found gender differences on the susceptibility to a substance use disorder (National Institute on Drug Abuse [NIDA], 2022). Therefore, the attitudes towards these approaches is likely not to be affected by gender. In addition, professionals who work in substance use treatment and support must meet the same expectations for licensing/certification and education to provide services.

Ethnicity/Race

The study also found a significant difference between race/ethnicity groups. Black, African American, Asian, Native American, and Multicultural were combined to an "other" group for analysis and reported significantly higher levels of acceptability towards harm reduction than the white/Caucasian and Hispanic/Latino. In addition, there were significant differences between White/Caucasian group reporting high levels of acceptability in abstinence-based treatment than with Hispanic/Latino group who reported higher levels of acceptability toward harm reduction. The results contrast with past research that suggests that ethnicity/race do not influence acceptance in harm reduction approaches (Wryobekc & Rosenburg, 2005). An article by Owczarzak et al. (2020) explained that harm reduction centers historically have been confined to urban minority communities rather than white communities. The United States drug policies have long emphasized criminalization and incarceration and had disproportionally impacted minority communities. Thus, priorities have focused on reforming drug policy and

implementing harm reduction programs in areas that have been most impacted (Eversman, 2014). Exposure to harm reduction approaches through life experiences can impact the acceptability of harm reduction approaches; thus, persons in these minority group may have had more exposure to harm reduction approaches through direct or indirect experiences and, as a consequence may report higher levels of acceptability in harm reduction treatment approaches.

State of Residency

This study found a significant difference in attitudes in harm reduction approaches between U.S. regions. As reported earlier, the states of residency were reduced in the four US regions established by the US Census Bureau (2022). The four areas are West (33%, Alaska, California, Hawaii, Idaho, New Mexico, Utah, and Washington), Midwest (4.3%, Illinois, Indiana, South Dakota), South (48.2%, Alabama, Arkansas, Florida, Georgia, Kentucky, South Carolina, Texas, and Virginia), and Northeast (24%, Connecticut, Delaware, District of Columbia, New York, and Pennsylvania). The West Region differed significantly than the Northeast reporting more positive attitudes towards harm reduction and South reporting less positive attitudes towards harm reduction attitudes. Additionally, the South reported more positive attitudes towards harm reduction than the Northeast. The differences in attitudes in harm reduction may be due to population of the regions and the impact of the opioid epidemic in the U.S. Region. McGranahan and Parker (2021) conducted a geography study on the opioid epidemic and the impact that it had on different geographical regions. The study found that rural populations had higher mortality rates than urban populations. The study specifically found that that the Northeast quadrant of the United States (i.e., Connecticut, Main, Maryland, Massachusetts, New Hampshire, New York, Ohio, Pennsylvania, and Vermont) had the highest rates of drug overdose morality due to opioid use.

SAMHA (2021) collected data on substance abuse treatment facilities throughout all 50 states, the District of Columbia, and other jurisdictions. The study found that the total number of treatment facilities increased between 2010 and 2020 and of these facilities, 36 precent offered medicated assisted treatment, an approach of harm reduction.

The respondents in this study were primarily from the South (48.2%) and from Texas (38.3%). A report by the Legislative Budget Board Staff (2019) found that the opioid use and overdoses in Texas are similar to the United States. Financial support has been provided to Texas to combat the opioid crisis and reduce overdose death rates through federal funded programs that provide medicated assisted treatment for person who have an opioid use disorder. The report found that overdose rates in Texas has remained stable from 2012 – 2016 compared to other regions in the United States who has seen an increase of overdose death over the same period. This may account for the South's favorable attitude towards harm reduction approaches as the harm reduction approach to opioid use in Texas has objectively been effective as compared to the nation.

The results of this study suggest that harm reduction approaches, such as, medicated assisted treatment is becoming a more acceptable form of treatment in substance use treatment facilities across the United States. Persons working in treatment facilities who support the use of harm reduction approaches may have a more favorable attitude towards harm reduction as they are able to utilize these techniques and witness the impact this approach has on the person who is recovering from drug addiction.

Level of Education

This study found a significant difference in attitudes towards harm reduction approaches among persons with a 4-year degree and persons who have either a high school degree or

postgraduate degree. The results found that persons with a 4-year degree have less favorable attitudes towards harm reduction approaches than persons with a high school or postgraduate degree. Participants with a high school degree may have developed their attitudes towards harm reduction through direct experiences with harm reduction approaches, such as through employment settings, witnessing someone receive harm reduction treatment approaches, or through their own recovery path. The effectiveness of these approaches and the resulting outcomes may have influenced their favorable attitudes towards harm reduction as compared to persons with a 4 year-degree.

Persons with a 2-year degree and 4 year-degree who may have received formal education on harm reduction and abstinence based approaches may still favor the abstinence based approach. A qualitative study conducted by Sheridan et al. (2018) provides insight to attitudes towards harm reduction approaches for persons who have completed a 2-year or 4-year degree. In this study they explored attitudes toward harm reduction. In the qualitative study the participants reported that the exposure to harm reduction, although helpful to move a person forward in recovery found that abstinence was ultimately the best method for substance use treatment.

There was also a significant difference between persons with a 4-year degree and persons who had a postgraduate degree. Postgraduate degree reported more favorable attitudes towards harm reduction. Participants with postgraduate degrees who work in substance use treatment and support likely have sought out higher education to further develop understanding the impact of substance use on politics and society. As persons seeking postgraduate degree to obtain advanced knowledge in addiction studies may have developed higher levels of critical and abstract

thinking that can lead to positive attitudes toward the incorporation of harm reduction approaches in substance use treatment.

Area of Educational Study

The study did not find a difference in attitudes towards harm reduction between areas of study (e.g., addiction studies, mental health counseling, rehabilitation counseling, and other) As stated before, higher education has set standards that must be addressed in the addiction studies field, mental health field, and rehabilitation counseling field. However, with in these educational standards quantity of the content that must be addressed for substance use treatment approaches (e.g., harm reduction, abstinence) is not specified. In addition, the United States has varying requirements for educational level and area of study that must be obtained that providing substance use treatment. Many states do not require a degree focused on addiction studies to become a professional that provide services or support. The variety of paths that a person can enter the substance use profession may account for the lack of differences in area of study on the attitudes towards harm reduction.

Substance Use History

The study found that there was no difference in attitudes towards harm reduction approaches between recovery status (e.g., in recovery, not in recovery). Other studies have found that the personal recovery status is not a factor in attitudes towards harm reduction (Javadi et al., 2022; Goddard, 2013). One of the core principals of substance use treatment is *autonomy or self-determination. Autonomy* within the substance use profession is a position that the person seeking services has the right to make decisions for themselves (Geppert & Bogenschultz 2009). Professionals in and out of recovery have been exposed to this core principle and are ethically

responsible to apply this principal into their practice and thus their personal recovery status may not impact the attitudes towards harm reduction approaches between groups.

Attitudes Towards Harm Reduction Approaches Based Upon Employment Factors

Employment Setting

This study found that persons who worked in detox treatment facilities have less favorable attitudes towards harm reduction approaches than persons who worked in outpatient treatment facilities. However, there was no difference in attitudes between inpatient treatment, or peer support. These findings are not surprising when one examines substance use treatment though the continuum of care model. According to Mee-Lee and Shulman (2003), The American Society of Addiction Medicine (ASAM) has established five main levels of care for substance use disorders: (1) Medically managed intensive inpatient services (e.g., detox services), (2) Residential/Inpatient Services, (3), Intensive Outpatient/Partial Hospitalization Services, (4) Outpatient Services, and (5) Early intervention services. The authors explained that continuum of care is a system in which clients are placed at a level of treatment based on their needs and are moved up and down treatment levels as needed.

Persons who are entering into medically managed intensive inpatient services (e.g., detox services) receive medically and therapeutic supervision utilizing pharmacological agents to reduce withdrawal symptoms from mood-altering substances (Mark et al., 2002). Detoxification services is generally the first step for persons who are entering into substance use treatment. Generally, persons who are dependent on opioids, sedative, and hypnotics (e.g., benzodiazepine) are likely to experience acute withdrawal symptoms are thus admitted detoxification services (Mark et al., 2002). Typically, the period of stay for detoxification is on average for a week. Persons who work in detoxification units may see the severity of the drug use has on people and feel that abstinence is a more effective way to treat substance use disorders.

Inpatient treatment facilities provide structured 24 hours direct care for persons who have substance use disorders (Reif et al., 2014). Substance use professionals who work with clients in detoxification or inpatient treatment facilities are exposed to higher levels of severity of the drug or alcohol addiction, compared to persons who reported as working in outpatient treatment facilities. Typically, persons who are in inpatient treatment facilitates stay for an average of 28 days are moved to outpatient treatment. This may explain the less favorable attitude towards harm reduction approaches, since medication assisted treatment is often utilized throughout treatment levels, however, outpatient services and peer support services may get to witness the benefits of harm reduction approaches on a person's recovery.

These findings are similar to a study conducted by Blaser and Berset (2019) in which the authors examined nurses' attitudes towards people with dementia. The authors found that the attitudes of the nurses were related to the healthcare setting in which they were employed. The study found that nurses who worked in specialized long term care settings had significantly higher positive attitudes towards persons with dementia than nurses who worked in mixed or homecare settings.

An explanation of the differences in employment setting may not be due to the influence of the employment setting, but the counselor's choice to work in the level of treatment that they are employed. For example, persons who choose to work in outpatient services may already hold more favorable attitudes towards harm reduction. As medication assisted treatment, such as methadone, is commonly provided in outpatient treatment settings.

Years Working in Substance Use Treatment

In this study there was no difference in attitudes towards harm reduction approaches between years working in substance use treatment among participants. Most participants in the

study reported 0 – 4 years (76.6%) of experience working in substance use treatment with a mean of 3.76 years. Although participants with more than 5 years of experience reported more positive attitudes towards harm reduction, the difference between the groups was not significant. Other studies have found that time in the profession had an impact on attitudes towards harm reduction. For example, Havranek and Steward (2006) found that more years of experience in the rehabilitation counseling field led to less favorable attitudes towards harm reduction approaches. In the Havranek and Steward study, the participants had a mean of 15.2 years working as rehabilitation counselors. In the above study the primary responsibility of the rehabilitation counselors was case management services, followed by vocational counseling, and job placement.

Years working in substance use may not affect a person's attitude towards harm reduction as professionals working in substance use treatment and services are exposed to harm reduction approach early and throughout their career. Professionals working in substance use maybe aware of the effectiveness of the variety of approaches available to treat substance use disorders and may utilize these approaches according to the need of the client.

Licenses/Credentials

This study found that certified counselors had less favorable attitudes toward abstinence-based approaches than students who were seeking employment in substance use treatment or support services. Certified counselors are a generalized voluntary certification that is established by professional groups for monitoring the professional behaviors of counselors (Henderson, 2005). A certified credential counselor must complete specifical educational and training requirements set forth by the National Board for Certified Counselors (NBCC, 2022). The graduate-level work required by NBCC focuses on nine content areas related to the counseling

profession. However, NBCC does not specifically specify training in substance use treatment approaches as part of the educational requirements for credentialing.

Havranek and Stewart (2006) examined attitudes of certified rehabilitation counselors (CRC) towards harm reduction approaches. The results of the study found that CRCs had strong feelings for and against specific harm reduction approaches. For example, CRCs agreed (50%) and strongly agreed (29%) that the use of mediated assisted therapy was acceptable for treatment of opioid use disorder, but strongly disagreed (70%) that replacing heroin with marijuana was okay, suggesting that professionals may have different attitudes towards specific harm reduction approaches.

The National Addiction Studies Accreditation Commission (NASAC, 2021) requires that students learn about treatment options available to persons who have substance use disorders, including harm reduction and abstinence-based approaches. Student may not have had the experience in the application of harm reduction approaches as compared to certified counselors. This may account for why students who are pursuing employment in substance use treatment or support reported more favorable attitudes in harm reduction treatment approaches.

Years Working in Substance Use Treatment

In this study there was no difference in attitudes towards harm reduction approaches between years working in substance use treatment among participants. Most participants in the study reported 0 – 4 years (76.6%) of experience working in substance use treatment with a mean of 3.76 years. Although participants with more than 5 years of experience reported more positive attitudes towards harm reduction, the difference between the groups was not significant. Other studies have found that time in the profession had an impact on attitudes towards harm reduction. For example, Havranek and Steward (2006) found that more years of experience in the

rehabilitation counseling field led to less favorable attitudes towards harm reduction approaches. In the Havranek and Steward study, the participants had a mean of 15.2 years working as rehabilitation counselors. In the above study the primary responsibility of the rehabilitation counselors was case management services, followed by vocational counseling, and job placement.

Years working in substance use may not affect a person's attitude towards harm reduction as professionals working in substance use treatment and services are exposed to harm reduction approach early and throughout their career. Professionals working in substance use maybe aware of the effectiveness of the variety of approaches available to treat substance use disorders and may utilize these approaches according to the need of the client.

Limitations and Future Directions

There are several limitations to the study. The first limitation is the lack of generalizability as surveys were administered primarily in Texas (38%) and the South (64.5%); therefore, the study primarily captured a sample of licensed/certified professional in Texas. Although participants were recruited from all states to obtain a comprehensive understanding of treatment professionals' attitudes in harm reduction, obtaining an increased representation from other U.S. regions (West, Midwest, and Northeast) would be beneficial. Another limitation is that the study included professionals actively working in the substance use treatment and/or support as well as student who were seeking employment in substance use services. The experiences with substance use treatment approaches may be vastly different with students having only educational experiences while professional may have had the educational and experiential experiences with harm reduction. A study focused specifically on active substance

use treatment professional or student may provide a better understanding of the attitudes of these groups.

This study measured the overall attitudes of harm reduction approaches in substance use treatment. However, the study is limited as this study was not designed to the capture attitudes in specific aspects of harm reduction (e.g., medicated assisted treatment, needle exchange programs, and prevention programs). An exploration of professional attitudes in specific harm reduction approaches may lead to a more comprehensive understanding of the attitudes and applications of harm reduction approaches in substance use treatment. Another aspect that could be further explored is the professionals' attitudes in harm reduction approaches and the application of the approaches with type of substance that being used by the client. This study suggests that persons who work in detox treatment facilities with more severe diagnosis, or in geographical regions that have been significantly impacted by the opioid crisis may have more positive attitudes in harm reduction approaches. This study is unable to ascertain whether the substance use professional attitudes towards harm reduction approaches are influenced by the type of substance use treated.

Finally, a qualitative research study about professionals' views on harm reduction could expand understanding on how professional have developed their attitudes towards harm reduction. Exploration of the professionals' experiences, values, ideological, political views, and beliefs with harm reduction could develop understanding of their attitudes towards harm reduction and the impact it has on the application of harm reduction approaches in substance use treatment.

Conclusion of the Study

The purpose of this study was to examine the attitudes in substance use treatment approaches by substance use professionals. Results revealed that the professionals have slightly more favorable attitudes towards the harm reduction treatment approach. However, with the current public policies in place, most clinicians do not have the flexibility in their practice to provide harm reduction methods of treatment, other than abstinence, that maybe beneficial for clients who seek substance use treatment services.

While harm reduction continues to be debated as a matter of public policy this study contributes to the small body of knowledge about aspiring and current substance use professionals who provide substance use treatment or support services.

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). https://doi.org/10.1176/appi.books.9780890425596

Ajzen, I. (1991). Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211.

Bandura, A. (1977). *Social learning theory*. Prentice Hall.

Barnett, A., Hall, W., Fry, C. L. Dilkes-Frayne, E., & Carter, A. (2018). Implications of treatment providers' varying conceptions of the disease model of addiction: A response. *Drug and Alcohol Review*, 37(6), 729–730. https://doi.org/10.1111/dar.12844

Bathje, G., Pillersdorf, D., & Du Bois, S. (2019). Authoritarianism, attitudes toward harm reduction and the stigmatisation of people who use drugs. *Alcoholism & Drug Addiction*, 32(2), 77–86. https://doi.org/10.5114/ain.2019.87624

Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences, 9*(2), 78-84. doi:https://doi.org/10.1027/1614 2241/a000057

Blanco, E., Johnson, R., Ortega, C.L., Mercado, F. (2022). *Substance Use and Addiction: How did we get here and how do we recover?*. Dubuque, IA: Great River Learning

Blaser, R., & Berset, J. (2019). Setting matters: Associations of nurses' attitudes towards people with dementia. *Nursing Open, 6*(1), 155–161. https://doi.org/10.1002/nop2.198

Blomé M. A., Bråbäck, M., Alsterberg, S., & Jerkeman, A. (2021). Hepatitis C treatment at a Swedish needle exchange program, a successful model of care – the ACTIONNE study. *The International Journal of Drug Policy*, *96*, 103407–103407. https://doi.org/10.1016/j.drugpo.2021.103407

Bohart, A. C., & Watson, J. C. (2011). Person-centered psychotherapy and related experiential approaches. In S. B. Messer & A. S. Gurman (Eds.), *Essential psychotherapies: Theory and practice* (pp. 1–38). Guilford Press.

Brocato, J., & Wagner, R. (2003). Harm reduction: A social work practice model and social justice agenda. *Health and Social Work, 28(2),* 117-126. https://doi.org/10.1093/hsw/28.2.117

Brown L. S., Jr. (1981). Substance abuse and America: historical perspective on the federal response to a social phenomenon. *Journal of the National Medical Association*, *73*(6), 497–506.

Burns, E. (2004). *The spirits of America a social history of alcohol*. Temple University Press.

Burt, G., Roney, C., Dawes, G., Nijdam, D., Beyerstein, B. L., Van De Wijngaart, G. F., Ossebaard, H. C., & Alexander, B. K. (1994). The "Temperance Mentality": A Survey of Students at a Canadian University. *Contemporary Drug Problems, 21*(2), 301–327. https://doi.org/10.1177/009145099402100208

Center for Disease Control and Prevention. (2021). *Drug Overdose Deaths*. https://www.cdc.gov/drugoverdose/data/statedeaths.html

Collins, S. E., Clifasefi, S. L., Nelson, L. A., Stanton, J., Goldstein, S. C., Taylor, E. M., Hoffmann, G., King, V. L., Hatsukami, A. S., Cunningham, Z. L., Taylor, E., Mayberry, N., Malone, D. K., & Jackson, T. R. (2019). Randomized controlled trial of harm reduction treatment for alcohol (HaRT-A) for people experiencing homelessness and alcohol use disorder. *The International Journal of Drug Policy, 67*, 24–33. https://doi.org/10.1016/j.drugpo.2019.01.002

Connery, H. S. (2015). Medication-assisted treatment of opioid use disorder: Review of the evidence and future directions. *Harvard Review of Psychiatry*, 23(2), 63–75. https://doi.org/10.1097/HRP.0000000000000075

Cordano, M., & Frieze, I. (2000). Pollution Reduction Preferences of U.S. Environmental Managers: Applying Ajzen's Theory of Planned Behavior. *Academy of Management Journal, 43*(4),627–641. https://doi.org/10.2307/1556358

Corey, G. (2013). *Theory and Practice of Counseling and Psychotherapy.* Cengage.

Crano, W. D., & Prislin, R. (2008). *Attitudes and attitude change*. Psychology Press. https://doi.org/10.4324/9780203838068

Davis, A., & Rosenberg, H. (2013). Acceptance of Non-Abstinence Goals by Addiction Professionals in the United States. *Psychology of Addictive Behaviors*, 27(4), 1102 1109. https://doi.org/10.1037/a0030563

Des Jarlais, D. C. (2017) Harm reduction in the USA: the research perspective and an archive to David Purchase. *Harm Reduction Journal* 14(51), https://doi.org/10.1186/s12954-017-0178-6

Drucker, E., Anderson, K., Haemmig, R., Heimer, R., Small, D., Walley, A., Wood, E., & van Beek, I. (2016). Treating addictions: harm reduction in clinical care and prevention. *Journal of bioethical inquiry*, *13*(2), 239-249.

Enders, C. K. (2010). *Applied missing data analysis*. New York, NY: Guildford Press.

Estreet, A., Archibald, P., Tirmazi, M. T., Goodman, S., & Cudjoe, T. (2017). Exploring social work student education: The effect of a harm reduction curriculum on student knowledge and attitudes regarding opioid use disorders. *Substance Abuse*, 38(4), 369–375. https://doi.org/10.1080/08897077.2017.1341447

Eversman, M. H. (2014). Trying to Find the Middle Ground: Drug Policy and Harm Reduction in Black Communities. *Race and Justice, 4*(1), 29–44. https://doi.org/10.1177/2153368713517395

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*, 1149-1160. https://doi.org/10.3758/BF03193146

Fehlandt, A. F. (1904). *Century of drink reform in the U.S.* Cincinnati: Jennings and Graham.

Fenster, J., & Monti, K. (2017). Can a Course Change Social Work Students' Attitudes toward Harm Reduction as a Treatment Option for Substance Use Disorders? *Alcoholism Treatment Quarterly*, *35*(1), 83–94. https://doi.org/10.1080/07347324.2016.1257895

Friedman, S. R., de Jong, W., Rossi, D., Touzé, G., Rockwell, R., Des Jarlais, D. C., & Elovich, R. (2006). Harm reduction theory: Users' culture, micro-social indigenous harm reduction, and the self-organization and outside-organizing of users' groups. *The International Journal of Drug Policy*, *18*(2), 107–117. https://doi.org/10.1016/j.drugpo.2006.11.006

Gallagher, J. R., Whitmore, T. D., Horsley, J., Marshall, B., Deranek, M., Callantine, S., & Woodward Miller, J. (2019). A Perspective from the Field: Five Interventions to Combat the Opioid Epidemic and Ending the Dichotomy of Harm-reduction versus Abstinence Based Programs. *Alcoholism Treatment Quarterly*, 37(3), 404–417. https://doi.org/10.1080/07347324.2019.1571877

Geppert C., & Bogenschutz, M. P. (2009). Ethics in Substance Use Disorder Treatment. *The Psychiatric Clinics of North America, 32*(2), 283–297. https://doi.org/10.1016/j.psc.2009.03.002

Goddard, P. (2003). Changing attitudes towards harm reduction among treatment professionals: a report from the American Midwest. *The International Journal of Drug Policy*, 14(3), 257 260. https://doi.org/10.1016/S0955-3959(03)00075-6

Hathaway, A. (2002). From harm reduction to human rights: bringing liberalism back into drug reform debates. *Drug and Alcohol Review, 21*(4), 397–404. https://doi.org/10.1080/0959523021000023270

Havranek, J. E., & Stewart, J. R. (2006). Rehabilitation Counselors' Attitudes Toward Harm Reduction Measures. *Journal of Applied Rehabilitation Counseling, 37*(1), 38–44. https://doi.org/10.1891/0047-2220.37.1.38

Henderson, J. P. (2005). Professional examinations in alcohol and other drug abuse counseling. In R. H. Coombs (Ed.), *Addiction counseling review: Preparing for comprehensive, Certification and licensing examinations* (pp. 577–598). Mahwah, NJ: Erlbaum.

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*(1), 35–35. https://doi.org/10.1186/1477-7517-3-35

Javadi R., Lagana, K., Krowicki, T., Bennett, D., & Schindler, B. (2022). Attitudes toward harm reduction among substance use treatment professionals in Philadelphia. *Journal of Substance Use, 27*(5), 459–464. https://doi.org/10.1080/14659891.2021.1961320

Katcher, B. S. (1993) Benjamin Rush's educational campaign against hard drinking. *American journalof public health*. *83*(2),273-81. doi:10.2105/ajph.83.2.273

Knapp, M., & Kozikowski, A. (2020). Harm Reduction Psychotherapy: A Client With a Substance Use Disorder. *Case Study Approach to Psychotherapy for Advanced Practice Psychiatric Nurses*, 241.

Lee, H. S., Engstrom, M., & Petersen, S. R. (2011). Harm reduction and 12 steps: complementary, oppositional, or something in-between?. *Substance use & misuse*, *46*(9), 1151-1161.

Legislative Budget Board Staff. (2019) *Overview of Opioid Crisis in Texas.* https://www.lbb.texas.gov/Documents/Publications/Staff_Report/2019/4616_Opioid_Crsis.pdf

Levine, H. G. (1984). The alcohol problem in America: From temperance to alcoholism. *British Journal of Addiction, 79*(1), 109–119. https://doi.org/10.1111/j.1360 0443.1984.tb00252.x

MacMaster, S. (2004). Harm Reduction: A New Perspective on Substance Abuse Services. *Social Work, 49(3).* 356-363. https://doi.org/10.1093/sw/49.3.353

Mancini, M. A., Linhorst, D. M., Broderick, F., & Bayliff, S. (2008). Challenges to Implementing the Harm Reduction Approach. *Journal of Social Work Practice in the Addictions, 8*(3),380408. https://doi.org/10.1080/15332560802224576

Mark T. L., Dilonardo, J. D., Chalk, M., & Coffey, R. M. (2002). Trends in inpatient detoxification services, 1992–1997. *Journal of Substance Abuse Treatment, 23*(4), 253 260. https://doi.org/10.1016/S0740-5472(02)00271-4

Marlatt, G. A., & 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., & Mattick, R. P. (2014). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database of Systematic Reviews, 14(*2), CD002207–CD002207. https://doi.org/10.1002/14651858.CD002207.pub4

McGranahan, D. A., & Parker, T. S. (2021). *The Opioid Epidemic: A Geography in Two Phases* ERR-287, U.S. Department of Agriculture, Economic Research Service.

McKeganey, N. (2011). From harm reduction to drug user abstinence: a journey in drug treatment policy. *Journal of Substance Use, 16*(3), 179–194. https://doi.org/10.3109/14659891.2011.580228

McNeil, R., Kerr, T., Pauly, B., Wood, E., & Small, W. (2016). Advancing patient-centered care for structurally vulnerable drug-using populations: a qualitative study of the perspectives of people who use drugs regarding the potential integration of harm reduction interventions into hospitals. *Addiction*, *111*(4), 685–694. https://doi.org/10.1111/add.13214

Mee-Lee, D., & Shulman, G.D. (2003). The ASAM placement criteria and matching patients to treatment. In: Graham, A.W.; Schultz, T.K.; Mayo-Smith, M.F.; Ries, R.K.; and Wilford, B.B., eds. *Principles of Addiction Medicine,* Third Edition. Chevy Chase, MD: American Society of Addiction Medicine, pp. 453–465.

Mee-Lee D., Shulman G. D., Fishman M. J., Gastfriend D. R., Miller, eds. (2022). *The ASAM Criteria: Treatment Criteria for Addictive, Substance-Related, and Co-Occurring Conditions*. 3rd ed. Carson City, NV: The Change Companies

Mercadante, L. (2015). Sin and Addiction: Conceptual Enemies or Fellow Travelers?. *Religions*, *6*(2), 614-625. https://doi.org/10.3390/rel6020614

Miyata, H., Takahashi, M., Murai, Y., Tsuneyoshi, K., Hayashi, T., Meulien, D., Sørensen, P., & Higuchi, S. (2019). Nalmefene in alcohol-dependent patients with a high drinking risk: Randomized controlled trial. *Psychiatry and Clinical Neurosciences*, *73*(11), 697–706. https://doi.org/10.1111/pcn.12914

Morgan, G. A., Barrett, K. C., Leech, N. L., Gloeckner G.W. (2019) *IBM SPSS for Introductory Statistics: Use and interpretation.* 6th ed. New York, NY: Routledge

Musto, D. F. (1989). Evolution of American attitudes toward substance abuse. *Annals of the New York Academy of Sciences, 562,* 3–7. https://doi.org/10.1111/j.1749\6632.1989.tb21001.x

National Addiction Studies Accreditation Commission. (2021). *National Addiction Studies Accreditation Commission Manual*. NASAC.

National Board for Certified Counselors. (2022). *National Board for Certified Counselors and Affiliates.* https://www.nbcc.org/home

National Harm Reduction Coalition. (2021). *National Harm Reduction Coalition*. https://harmreduction.org/

National Institute on Drug Abuse. (2022). *Sex and Gender Difference in Substance Use.* https://nida.nih.gov/publications/research-reports/substance-use-in-women/sex-gender-differences-in-substance-use

Normand, J., Vlahov, D., & Moses, L. E. (1995). *Preventing HIV transmission the role of sterile needles and bleach*. National Academy Press.

Owczarzak, J., Weicker, N., Urquhart, G., Morris, M., Park, J. N., & Sherman, S. G. (2020). "We know the streets:" race, place, and the politics of harm reduction. *Health & Place, 64*, 102376–102378. https://doi.org/10.1016/j.healthplace.2020.102376

Prochaska, J. O., & DiClemente, C. C. (1982). Transtheoretical therapy: Towards a more integrative model of change. Psychotherapy, *Theory, Research and Practice*, 19, 276 288. https://doi.org/10.1037/h0088437

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: application to addictive behaviors. *American Psychologist*, 47, 1102–1114. https://doi.org/10.1037/0003-066X.47.9.1102

Reif, S., George, P., Braude, L., Dougherty, R. H., Daniels, A. S., Ghose, S. S., & Delphin Rittmon, M. E. (2014). Residential Treatment for Individuals With Substance Use Disorders: Assessing the Evidence. *Psychiatric Services, 65*(3), 301–312. https://doi.org/10.1176/appi.ps.201300242

Rhodes, T., Sarang, A., Vickerman, P., & Hickman, M. (2010). Policy resistance to harm reduction for drug users and potential effect of change. *BMJ, 341*(131), c3439–c3439. https://doi.org/10.1136/bmj.c3439

Riley, D., & O'Hare, P. (2000). Harm reduction: History, definition, and practice. *Harm reduction: National and international perspectives*, 1000, 1-26.

Riley, S. 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. https://doi.org/10.3109/10826089909035632

Rogers, C. R. (1951). *Client-centered therapy; its current practice, implications, and theory.* Houghton Mifflin.

Rosenberg, H., & Phillips, K. T. (2003). Acceptability and Availability of Harm Reduction Interventions for Drug Abuse in American Substance Abuse Treatment Agencies. *Psychology of Addictive Behaviors*, *17*(3), 203–210. https://doi.org/10.1037/0893 164X.17.3.203

Schmidt, L. (1995). "A Battle Not Man's but God's': Origins of the American temperance crusade in the struggle for religious authority. *Journal of Studies on Alcohol*, *56*(1), 110 121. https://doi.org/10.15288/jsa.1995.56.110

Seiger, B. H. (2005). *An Exploratory Study of Social Workers' Attitudes Towards Harm Reduction With Substance Abusing Individuals Utilizing the Substance Abuse Treatment Survey (SATS)* (dissertation). ProQuest Information and Learning Company, Ann Arbor, MI.

Sheridan, J., Adams, P., Bullen, C., & Newcombe, D. (2018). An evaluation of a harm reduction Summer School for undergraduate health professional students. Drugs : *Education, Prevention & Policy, 25*(2), 118–129. https://doi.org/10.1080/09687637.2016.1262824

Strang, J., Manning, V., Mayet, S., Best, D., Titherington, E., Santana, L., Offor, E., & Semmler, C. (2008). Overdose training and take-home naloxone for opiate users: prospective cohort study of impact on knowledge and attitudes and subsequent management of overdoses. *Addiction (Abingdon, England), 103*(10), 1648–1657. https://doi.org/10.1111/j.1360-0443.2008.02314.x

Substance Abuse and Mental Health Administration. (2019). *2019 National Survey of Drug Use and Health (NSDUH) Releases*. https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases

Substance Abuse and Mental Health Administration. (2021). *National Survey of Substance Abuse Treatment Service (N-SSATS): 2020.* https://www.samhsa.gov/data/sites/ default/files/reports/rpt35313/2020_NSSATS_FINAL.pdf

Substance Abuse and Mental Health Services. (2017). *Addiction Counselor Competencies: The Knowledge, Skills, and Attitudes of Professional Practice*. U.S. Department of Health and Human Services.

U.S. Department of Commence Economics and Statistics: U.S. Census Bureau. (2021). *2010 census regions and divisions of the United States*. https://www.census.gov/geographies/ reference-maps/2010/geo/2010-census-regions-and-divisions-of-the-united-states.html

van Santen, D. K., Coutinho, R. A., van den Hoek, A., van Brussel, G., Buster, M., & Prins, M. (2021). Lessons learned from the Amsterdam Cohort Studies among people who use drugs: a historical perspective. *Harm Reduction Journal, 18*(1), 2–2. https://doi.org/10.1186/s12954-020-00444-6

Volkow, N. D., Frieden, T. R., Hyde, P. S., & Cha, S. S. (2014). Medication-Assisted Therapies Tackling the Opioid-Overdose Epidemic. *The New England Journal of Medicine, 370*(22), 2063–2066. https://doi.org/10.1056/NEJMp1402780

Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic Advances from the Brain Disease Model of Addiction. *The New England Journal of Medicine, 374*(4), 363–371. https://doi.org/10.1056/NEJMra1511480

Washton, A. M., & Stone-Washton, N. (1990). Abstinence and Relapse in Outpatient Cocaine Patients. *Journal of Psychoactive Drugs, 22*(2), 135–147. https://doi.org/10.1080/02791072.1990.10472539

Witbrodt, J. & Kaskutas, L. A. (2005). Does Diagnosis Matter? Differential Effects of 12-Step Participation and Social Networks on Abstinence. *The American Journal of Drug and Alcohol Abuse, 31*(4), 685–707. https://doi.org/10.1081/ADA-68486

White, W. L. (2012a). *A brief history of recovery orientation in addiction counseling*. Posted at www.williamwhitepapers.com

White, W. L. (2012b). Medication-Assisted Recovery from Opioid Addiction: Historical and Contemporary Perspectives. *Journal of Addictive Diseases*, *31*(3), 199–206. https://doi.org/10.1080/10550887.2012.694597

White, W. L. (2014a). *Early American alcohol and tobacco use*. Posted at www.williamwhitepaeprs.com

White, W. L. (2014b). *Slaying the Dragon: The History of Addiction Treatment and Recovery in America* (2nd ed.). Chestnut Health Systems.

Wryobeck, J., & Rosenberg, H. (2005). The association of client characteristics and acceptance of harm reduction: A policy-capturing study of psychologists. *Addiction Research & Theory, 13*(5), 461–476. https://doi.org/10.1080/16066350500168410

Yeomans, H. (2011). What Did the British Temperance Movement Accomplish? Attitudes to Alcohol, the Law and Moral Regulation. *Sociology* (Oxford), 45(1), 38–53. https://doi.org/10.1177/0038038510387189

APPENDIX A

APPENDIX A

DEMOGRAPHIC QUESTIONNAIRE

INCLUSION QUESTIONS

1. Are you currently providing substance use treatment or support services? (yes/no)

   Qualtrics Logic: (If yes, skip to question 3, if no go to question 2)

2. Are you currently in school or pursuing a career in substance use treatment or support services? (yes/no)

   Qualtrics Logic: (If no on question 1 and 2, skip to end of survey, if yes go to question 3)

3. Are you over the age of 18? (yes/no)

   Qualtrics Logic: (If answered yes on 1 or 2, and answer yes on 3 goes to start of survey, if answered no goes to end of survey)

DEMOGRAPHIC QUESTIONNAIRE

1. How do you identify? (male, female, Non-Binary)
2. What race/ethnicity do you identify with the most? (White/Caucasian, Hispanic/Latino, African American/Black, Asian, Pacific Islander, Native American, Multicultural)
3. Age: _____ (Will be converted to age band)

4. Please indicate which state you live in: _____
5. Do you consider yourself a person in recovery? (yes/no)

   Qualtrics Logic: If yes, goes to 3a, if no goes to question 3b

   a. If yes, how many years in recovery? _____
   b. If no, do you consider yourself _____(Fully recovered, Never in recovery)
6. Highest degree obtained: (High School/GED, Associates, Bachelors, Masters, Doctoral)
7. What was your major in the highest degree received: (Addiction Studies, Rehabilitation Counseling, Mental Health Counseling, Other)
8. What license/certifications do you currently hold? ((1) State Counselor License (LPC/LMHC/LCPC/LPC Associate etc.), (2) Certified Counselor (NCC (National Certified Counselor) or CRC (Certified Rehabilitation Counselor), (3) CADC/LCDC, LCDC Intern or state issued certificate or license as a substance abuse counselor, (4) Student)
9. Years providing substance use treatment. _____ (0-4, 5-10, 10-20, 20+ - will be converted to time bands)
10. What is the primary drug of use treated in your practice? (Alcohol, Hallucinogens, Marijuana, Opioids, Sedatives, Stimulants, Other (text entry)) All that apply
11. Primary setting of services provided: (Detox Services, Inpatient Services, Outpatient Services, Peer Support Services, other)

APPENDIX B

APPENDIX B

GODDARD'S (2003) *HARM REDUCATIN ACCETABLITY SURVEY* (HRAS)

Directions: Indicate the number that corresponds with your personal attitude.

1	2	3	4	5
Strongly Agree	Agree or disagree	Neither agree	Disagree	Strongly disagree

1. ∗People with alcohol or drug problems who will not accept abstinence as their treatment goal are in denial.
2. ∗It is not acceptable to teach injecting drug users how to use bleach to sterilize their injecting equipment.
3. A choice of treatment outcome goals (for example, abstinence, reduced use of drugs or alcohol, safer use of drugs or alcohol) should be discussed with all people seeking help for drug or alcohol problems.
4. ∗People who live in government-funded housing must be drug and alcohol free.
5. Doctors should be permitted to prescribe heroin and similar drugs to treat drug addiction as long as doing so reduces problems such as crime and health risks.

6. ∗Even if their drug use is stable, women who use illicit drugs cannot be good mothers to infants and young children.
7. Drug users should be given honest information about how illicit drugs may be used more safely (for example, how overdose or related health hazards may be avoided).
8. People with drug or alcohol problems who are not willing to accept abstinence as their treatment outcome goal should be offered treatment that aims to reduce the harm associated with their continued drug or alcohol use.
9. ∗In most cases, nothing can be done to motivate clients in denial except to wait for them to “hit bottom”.
10. It is acceptable to prescribe substitute drugs such as methadone in order to reduce crime and other social problems associated with illicit drug use.
11. ∗Prisons should not provide sterilizing tablets or bleach in order for inmates to clean their drug injecting equipment.
12. As long as clients are making progress towards their treatment goals, methadone maintenance programmes should not kick clients out of treatment for using street drugs.
13. ∗Measures designed to reduce the harm associated with drug or alcohol use are acceptable only if they eventually lead clients to pursue abstinence.
14. People with drug and alcohol problems may be more likely to seek professional help if they are offered at least some treatment options that do not focus on abstinence.
15. ∗The prescription of substitute drugs such as methadone should be forbidden.
16. People whose drug use is stable should be trained to teach other drug users how to use drugs more safely (for example, how to inject more safely).

17. Making clean injecting equipment available to injecting drug users is likely to reduce the rate of HIV infection.
18. ∗Abstinence is the only acceptable treatment option for people who are physically dependent on alcohol.
19. It is possible to use drugs without necessarily misusing or abusing drugs.
20. Pamphlets for educating drug users about safer drug use and safer sex should be detailed and explicit, even if these pamphlets would be offensive to some people.
21. ∗Opiate users should only be prescribed methadone for a limited period of time.
22. Drug injectors who are not willing to accept abstinence as a treatment goal at the beginning of treatment should be given easy access to clean injecting equipment
23. ∗Women who use illicit drugs during pregnancy should automatically lose custody of their babies.
24. People with alcohol or drug problems should be praised for making changes such as cutting down on their alcohol consumption or switching from injectable drugs to oral drugs.
25. ∗Abstinence is the only acceptable treatment goal for people who use illicit drugs.

*Reverse key items

APPENDIX C

APPENDIX C

INFOMRED CONSENT

EXAMINATION OF THE BELIEFS IN SUBSTANCE USE TREATMENT APPROACHES INSUBSTANCE USE TREATMENT BY SUBSTANCE USE COUNSELORS

Investigator: Cameron Ortega, M.S.

Background: We are conducting a research study as fulfillment of a Doctoral degree program. Cameron Ortega, Ph.D. Student/Investigator.

Procedure: You will be asked to complete 2 surveys pertaining to beliefs towards harm reduction. The surveys include are The Demographic Survey, and Goddard's (2003) Harm Reduction Acceptability Scale (HRAS) Survey. We will ask you to complete the surveys to the best of your ability. The survey will take approximately 10-15 minutes to complete. Please be advised that you may refuse to answer any question that you do not want to answer, or that you may withdraw from the study at any time without penalty.

Voluntary Participation: Your participation in this study is voluntary; you may discontinue your participation at any time without penalty. If for any reason you decide that you would like to discontinue your participation, simply exit the survey.

You must be at least 18 years old to participate. If you are not 18 or older, please do not participate. You must be a professional who works in substance use treatment or support services or perusing future employment as a professional in substance use treatment or support services.

Anonymity and/or Confidentiality: You should not write your name or any identifying information on the survey. All survey responses received will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), there is no guarantee of the security of the computer on which you choose to enter your responses. As a participant in this study, please be aware that certain technologies exist that can be used to monitor or record data and/or websites that are visited.

Who to Contact for Research Related Questions: For questions about the research itself please contact the researcher, Cameron Ortega, MS (cameron.ortega@utrgv.edu).

Who to Contact Regarding Your Rights as a Participant: This research has been reviewed and approved by the Institutional Review Board for Human Subjects Protection (IRB). If you have any questions about your rights as a participant, or if you feel that your rights as a participant were not adequately met by the researcher, please contact the IRB at (956) 665-2093 or irb@utrgv.edu.

By giving consent below, you indicate that you are voluntarily agreeing to participate in this study and that the procedures involved have been described to your satisfaction.

APPENDIX D

APPENDIX D

RECRUITMENT EMAIL

Hello (participants name),

My name is Cameron Ortega, MS, I am a PhD Student from the School of Rehabilitation Services and Counseling at the University of Texas Rio Grande Valley (UTRGV). I would like to invite you to participate in my research study. The purpose of the study is to explore beliefs in substance use treatment approaches by substance use counselors. This study will specifically explore beliefs towards harm reduction versus abstinence in substance use treatment.

This research study has been reviewed and approved by the Institutional Review Board for the Protection of Human Subjects (IRB) at the University of Texas Rio Grande Valley.

To participate you must be 18 years. You must be a professional who works in substance use treatment or support services or perusing future employment as a professional in substance use treatment or support services Participation in this research is completely voluntary, you may choose not to participate without penalty.

As a participant, you will be asked to complete an online survey which should take about 10-15 minutes to complete. All survey responses received will be treated confidentially and stored on a secure server. However, given that the surveys can be completed from any computer (e.g., personal, work, school), there is no guarantee of the security of the computer on which you choose to enter your responses. As a participant in this study, please be aware that certain technologies exist that can be used to monitor or record data and/or websites that are visited.

If you would like to participate in this research study, please click on the survey link below and read the consent page carefully. If you would like to complete the survey, click on “I agree”. If not, simply exit the web browser or click on “I do not want to participate”.

Participants that complete the survey will have an option to enter a raffle for a chance at one of eight $25 dollar amazon gift card.

Survey Link: https://utrgv.co1.qualtrics.com/jfe/form/SV_9mj7RjeCvhYEaAm

If you have questions related to the research, please contact me by telephone at 956-665-8738 or by email at cameron.ortega@utrgv.edu.

Thank you for your cooperation!

APPENDIX E

APPENDIX E

INTERNAL REVIEW BOARD APPROVAL

The University of Texas Rio Grande Valley
Institutional Review Board

June 21, 2022

Cameron Ortega
College of Health Professions
Via Electronic Routing System

Dear Mr. Ortega:

RE: EXEMPT DETERMINATION FOR **IRB-22-0203 "Examination of Beliefs in Substance Use Treatment Approaches by Addiction Professionals"**

The study in reference has been determined 'Exempt' under the Basic HHS Policy for Protection of Human Research Subjects, 45 CFR 46.104(d). The determination is effective as of the date of this letter within the exempt categories of:

> (2) Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) and (i) the information obtained is recorded by the investigator in such a manner that the identity of the human subjects cannot readily be ascertained, directly or through identifiers linked to the subjects.

Research that is determined to be 'Exempt' under the Basic HHS Policy for Protection of Human Research Subjects is not exempt from ensuring protection of human subjects. The Principal Investigator (PI) is responsible for the following through the conduct of the research study:

1. Assuring that all investigators and co-principal investigators are trained in the ethical principles, relevant federal regulations, and institutional policies governing human subjects' research.
2. Disclosing to the subjects that the activities involve research, and that participation is voluntary, during the informed consent process.
3. Providing subjects with pertinent information (e.g., risks and benefits, contact information for investigators, and IRB/ORC) and ensuring that human subjects will voluntarily consent to participate in the research when appropriate (e.g., surveys, interviews).
4. Assuring the subjects will be selected equitably, so that the risks and benefits of the research are justly distributed.
5. Assuring that the privacy of subjects and confidentiality of the research data will be maintained appropriately to ensure minimal risk to subjects.

Exempt research is subject to the ethical principles articulated in The Belmont Report, found at the Office of Human Research Protections (OHRP) Website:
www.hhs.gov/ohrp/humansubjects/guidance/belmont.html

Unanticipated Problems: Any unanticipated problems or complaints must be reported to the IRB promptly. Further information concerning unanticipated problems can be found in the IRB procedures manual.

BIOGRAPHICAL SKETCH

Cameron Lacy Ortega has been a counselor since 2010, having graduated from the University of Texas Rio Grande Valley with her Doctor of Philosophy in Rehabilitation Counseling in December 2022. She also received her Master of Science in Rehabilitation Counseling from the University of Texas – Pan American in December 2009. Prior to that, she earned a Bachelor of Fine Arts in December 2006. Cameron is licensed by the state of Texas as a Licensed Professional Counselor – Supervisor and Licensed Chemical Dependency Counselor, and provides individual, group, family, and couples for a variety of issues including substance use disorders, trauma resolution. She is also a lecturer at the University of - Texas Rio Grande Valley in the School of Rehabilitation Services and Counseling and serves as the founding Clinical Director of the School of Rehabilitation Services and Counseling Wellness Center. Cameron Lacy Ortega can be reached at Cameron.Ortega@utrgv.edu.