MEDICATION ASSISTED TREATMENT AND THE THREE LEGGED STOOL: MEDICAL PROVIDERS, CHEMICAL DEPENDENCY PROFESSIONALS, AND CLIENTS

STEVEN MATT MAGRATH

A DISSERTATION

Submitted to the Ph.D. in Leadership and Change Program

of Antioch University

in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

May, 2016

This is to certify that the Dissertation entitled:

MEDICATION ASSISTED TREATMENT AND THE THREE LEGGED STOOL:
MEDICAL PROVIDERS, CHEMICAL DEPENDENCY PROFESSIONALS, AND CLIENTS

prepared by

Steven Matt Magrath

is approved in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Leadership and Change.

Approved by:

Carol Baron, Ph.D., Chair date

Jon Wergin, Ph.D., Committee Member date

Stacy Rasmus, Ph.D., Committee Member date

Adam Kartman, M.D., Committee Member date

Monica Skewes, Ph.D., External Reader date

Acknowledgments

I would like to thank Dr. Adam Kartman, the Washington State opioid treatment providers, the Lummi Nation "Healing Spirit Clinic" Opioid Treatment Program, and all the patients I have come in contact with over the past five years. They have taught me more on this subject matter than my previous 28 years as an addiction professional. I would also like to thank the faculty in the Antioch University PhD in Leadership and Change program, especially my dissertation chair, Dr. Carol Baron, whose countless hours of dedicated support, guidance, encouragement, and personal coaching helped me to realize my educational and life goals. I also thank the rest of my dissertation committee, Dr. Jon Wergin, Dr. Stacy Rasmus, and Dr, Adam Kartman, as well as my fellow Cohort 9 members who enrolled, supported and inspired me along the way. These classmates are now lifelong friends that have played a huge part in my educational and professional development and without them I would not have been able to complete this inspired journey. I also extend my gratitude to my personal supervisor, mentor, and best friend Rosalie Scott who is a respected elder in the Native American community where I have worked for the past 20 years. She helped me to recognize and realize my potential as a leader and trusted me to do this important work with her family and community members. A special gratitude to my loving and patient family, especially my wife Karla of 37 years who has always encouraged me to reach for my dreams and never give up, and to my father who showed me the way into substance abuse use recovery 29 years ago and whom I lost during my scholarly journey two years ago. My most sincere gratitude goes to those caught in the throes of opioid dependence who have shown me what true courage and perseverance is and have allowed me to experience the most challenging and rewarding experience of my personal and professional life. Opioid dependence is often misunderstood by most and underestimated in its severity and

destructiveness. My deepest gratitude goes out to those brave individuals that have reached out for help in order to reconstruct their lives, and overcome a life-threatening illness.

Abstract

Opioid dependence has reached epidemic levels in the United States and around the world. With the increased prescribing of opioid pharmaceuticals and the influx of inexpensive heroin, the health care cost to society has topped $72.5 billion annually (Murphy et al., 2016). Opioid overdose deaths have now surpassed motor vehicle deaths and have tripled since 1990. In some age groups opioid overdose is the leading cause of death. This study seeks to analyze the only field that directly treats this primary brain disease: medication assisted treatment for opioid dependence. The three primary participants in this partnership include: (a) doctors and allied medical providers; (b) substance abuse counselors known in Washington State as Chemical Dependency Professionals (CDPs); and (c) clients affected by opioid dependence. Together they combine medical approaches and psychosocial counseling with clients to attain the goal of recovery. Attitudes and beliefs of these three groups of individuals vary, as do their views toward the medications currently being utilized in the treatment field. This study measures these differences and discusses the implications for clients, medical providers, and CDPs. It was hypothesized that differences in opinions across the three groups about medication assisted treatment, length of time clients should be on medications, and recovery limit positive outcomes. Data were collected via survey from more than 250 clients being treated for opioid dependency and from over 200 professionals (medical and counseling). Descriptive and comparative ANOVA and t-test statistics were used in the analysis. Results indicate that there remain large differences in beliefs and attitudes among the medical providers, CDPs, and clients on key issues related to medication assisted treatment. The gap appears to be especially evident when comparing the two professional groups who treat clients with opioid use disorder. CDPs and medical providers are working from a different set of paradigms and approaches especially as

related to their beliefs about the use of medications. CDPs are generally less supportive of medication assisted treatment. Medical providers and CDPs disagree about the length of time clients should be on medications and the long term goals of opioid dependence treatments. In addition clients in opioid treatment programs that use methadone have significantly different views on many issues from those who use buprenorphine/naloxone (Suboxone®). Findings from this study can be used to improve the services provided to clients to increase provider awareness of the ways that attitudes and perceptions impact treatment outcomes. The electronic version of this dissertation is at AURA: Antioch University Repository and Archive, http://aura.antioch.edu/ and OhioLINK ETD Center, https://etd.ohiolink.edu

Table of Contents

List of Tables

Summary Statement

Medication assisted treatment in the field of opioid dependence is a growing field of major importance to the health of many patients who are addicted to prescription pharmaceutical narcotics, and/or heroin. The incidence of impairment for those people addicted to opioids has continued to rise at an alarming rate, with the results being catastrophic for individuals, their families, and overall public health. The focus of this dissertation project has been on analyzing the three important individuals involved in the complex process of treating and overcoming this disease process: the physicians and medical providers, the chemical dependency professionals (future reference will be CDPs as they are certified in Washington state, however in other states addiction counselors may be known by other designations), and the patient who is opioid dependent and most affected by this disease. Together they make up the "three legged stool" of recovery from this debilitating illness. The importance of these three groups working together for positive outcomes cannot be overstated. Problems arise when medical providers, CDPs, and clients have divergent attitudes toward the appropriate use of various medications used in medication assisted treatment for opioid dependence. This study has collected and analyzed the attitudes, beliefs, and experience of these individuals as they relate to opioid dependence and the treatment and recovery process for the purpose of identifying convergences and divergences among the groups that have the potential to impact both positively and negatively upon treatment outcomes.

Chapter I: Introduction

There is both a national and worldwide opioid epidemic occurring today. The record number of prescriptions being written for painkillers, and the influx of less expensive heroin has proven to be a deadly combination. Drug overdose deaths have more than tripled in the United States since 1990, and studies by the Centers for Disease Control and Prevention attribute more than half of those deaths to prescription painkillers (Paulozzi, Budnitz, & Xi, 2006). Many of these people are our nation's most precious resource. Our future leaders in the 15 to 24 age group remain the highest risk group for death due to overdose. Treatment admission for opioid dependence has risen in some areas of the country to account for over 50% of all admissions (Volkow, Frieden, Hyde, & Cha, 2014a).

The problem often begins with easy access to pharmaceutical prescription medications, mainly opioid based pain relievers. These are easily attained through raiding their parent's cabinets, their grandparent's cabinets or getting it off the street. Opioid dependence, however, does not just start with unlawful acquisition of prescription painkillers. One of my current clients reported to me, "I never would have thought that in five years I would be injecting heroin in the bathroom somewhere, in a bathroom stall, or finding dirty needles off the group and using them because I couldn't find any cheaper needles" (personal communication, October 2015.) Many people with opioid addiction journeys begin with simple back injuries, a trip to the dentist office, or some physical injury that results in an opioid prescription for their pain. Opioids relieve pain and fill a medical need during and after surgeries, injuries, or throughout the rehabilitative process of many medical conditions. However these same opioids that are prescribed for good intention and aimed at positive outcomes quickly become a trap of addiction from which people cannot easily escape. Physical and psychological dependence and an increase in tolerance follow

and soon people become dependent on the opioids just to feel normal because the physical withdrawal from opioids is one of the worst of all drugs. “I thought for sure I was going to die, I was puking, had nausea & diarrhea, was experiencing hot and cold flashes, my entire body ached, and I felt like I had just contracted the worse flu In the world,” Alicia told me last week when I visited her in detox.

People with opioid dependence speak with certain nostalgia much like a child speaks of their first puppy, when referring to their use of opioids. They say that opioid dependence is the hardest habit they’ve had to shake, and it works its way into your soul and has a grip on you in a way that is difficult to put into words. “Opioid addiction is like no other and it has the ability to grab a hold of you, not let go, and take control over your life,” Bob, a recovering heroin addict told me.

Opioid dependence is a major public health concern and remains primarily an untreated or undertreated medical condition in the United States. It is estimated that in 2012 there were over 560,000 individuals who used heroin, but an even more alarming 11.4 million Americans that had non-medical use of prescription opioids (Scheibe & Week, 2016). The economic cost is estimated to top $21 billion a year and the far reaching human implications are even more staggering. Opioid dependency is associated with several well-known health risks including Hepatitis B, & C, along with an increased spread of HIV infection. This appears to be only the tip of the iceberg from the standpoint of opioid abuse and dependence as this modern epidemic continues to be on the rise in 2015–2016. Worldwide the scope of the current problem is even more alarming. The United Nations Office on Drugs and Crime notes that opioids, especially heroin, are the main problem drugs globally (United Nations Office on Drugs and Crime, 2010). They estimate that there are 15.6 million opioid abusers worldwide. The World Health

Organization (WHO) estimates that there are 12.6 million injection drug users worldwide. Injection drug users represent the single highest risk for HIV infection. According to the Joint United Nations program on HIV/AIDS, injection drug use accounts for up to 80% of HIV infections in Europe and Central Asia (Mann & Tarantola, 1996).

The medical cost and implications of opioid dependence are outweighed by the devastating social consequences that accompany this chronic disease process. Broken families, divorce, parentless children, incarceration, overdose deaths, child abuse/neglect, and socioeconomic ruin make up but a short starter list of what the opioid dependent individual experiences with their impulsive and compulsive pursuits. Opioids impact the brain, leading to temporary feelings of intense pleasure. Dependence to opioids can develop very quickly, even with minimal use. This opioid dependence can be physical, in that a habitual user's body craves the drug. It can also be mental, in that a user consciously desires the drug's effects. A person who is dependent on opioids may do whatever it takes to get more of the drug, regardless of the risks or consequences. The consequences of the opioid dependence are severe to both the individual who suffers from the disorder and to society. For individuals these include increased morbidity and overdose deaths, hepatitis C, HIV, liver failure, and infections and more. Psychosocially the impact is even great as people with opioid addiction lose their jobs, their families, their homes, and become involved in the justice system because of their involvement in illegal behaviors in order to support their dependence to opioids. The stories, as told through the eyes of those who are dependent, tell the true physical, emotional, and mental toll that their opioid dependence have caused. James told me, "I have no life now, where once I had a family, a home, a job, and some peace of mind. Now I am just a tortured soul that has

lost everything. My only hope is that I will get caught ripping off people and put in jail. It may save my life."

The relapse rate and treatment outcomes for opioid dependence are very grim. Some studies suggest a 95% recidivism rate for people with opioid dependence that complete traditional treatment programs (Center for Substance Abuse Treatment, 2005). Medical experts and those working in the addictions field recognize the definition for opioid dependence from the National Institute on Drug Abuse (NIDA)—a *chronic*, *relapsing* brain disease characterized by *compulsive* drug-seeking and use despite harmful consequences and by long-lasting structural and functional changes in the brain. Since the problem is so large, the recovery rates so low, and the lifelong consequences so dire for both the individuals and society as a whole, the importance of continued research in this area to improve outcomes is paramount. The purpose of this study was to add to the body of knowledge related to this fast growing societal problem, and work to identify how the three most important players in this epidemic can work together to improve outcomes.

Medication assisted treatment for opioid dependence has been around for over half a century since 1962 when Dole and Nyswander carried out early research with morphine as a replacement therapy for opioid dependence (Dole & Nyswander, 1980). Researchers quickly realized that morphine was not a good choice as a medication for opioid maintenance treatment because of the short half-life, and the decrease in social functioning and the sedating effects to patients. Methadone was shown to be effective in early trials and by the early 1970s became the treatment of choice for opioid dependence. Methadone maintenance treatment became a major public health initiative to treat opioid addiction. Dr. Jerome Jaffe headed the Special Action Office for Drug Abuse Prevention in the Executive Office of the White House in the early 1970s.

Dr. Jaffe's office oversaw the creation of a nationwide, publicly funded system of treatment programs for opioid dependence. Buprenorphine and naltrexone then joined the FDA's approved list of medications for treating opioid dependence and along with methadone these now represent the current "big three" medications used throughout the United States and the world in medication assisted treatment (Fiellin & O'Connor, 2002).

Even though medication assisted treatment has been around for the past several decades, the rise in the opioid epidemic problem coupled with the approval of new medications has combined to substantially increase the number of people being currently treated by private physicians with buprenorphine/naltrexone and in opioid treatment program clinics that primarily use methadone throughout the United States. Buprenorphine/naltrexone is known to the general public as Suboxone®. However, Suboxone® is a brand name. To avoid using a brand name and for ease of reference and understanding the generic shortened term, bup/nal, will be used throughout this paper to refer to this medication. By some estimates the number of clients in methadone maintenance has remained stable over the last 10 years at around 200,000 clients in the United States whereas buprenorphine, which has only been clinically approved since 2002, now boasts over 650,000 clients engaging in this form of treatment nationwide. Medication assisted treatment, despite its popularity and efficacy, continues to be challenged by old attitudes and traditional paradigms of "abstinence based addiction treatment" models. In 2015 we can use all the technology, see the clinical trials of the efficacy of medication assisted treatment, and addiction counselors, CDPs, social workers, and other health care providers still want to know when these clients will get off their medications and become truly "drug free." The treatment and recovery issues that continue to surface reflect deep-seated attitudes that clients are not "successful" because they require continuous medications to remain opioid free.

During data collection at the opioid treatment program that administers bup/nal in October 2015 one client reported, "I think I want to get off suboxone because even though it has changed my life. I keep being asked by my family and my counselor when I am going to be drug free. Just when I am feeling stable and having the most time clean I have had ever, it feels like it is not good enough. I am tired of this and just want to not take it anymore *[sic]*." Clients have reported that they still feel stigmatized by being on this accepted form of medications, and that they get referred to as "weak-willed" or "unmotivated" because they are receiving medication assisted treatment. CDPs have also made statements that reflect their resistance in supporting their clients who attend the clinic and are on medications. At a recent workshop with over 200 Washington State CDPs on the pros and cons of medication assisted treatment, the sentiments were captured in the following questions: Why not teach people how to use drugs safely and not use pharmaceuticals? What is the long term goal of medication assisted treatment and when should clients be weaned off the medications? How can medication ultimately end the addiction process? Do clients really have to stay on these medications and why can't they be taken off of them after they are stable? Isn't the goal to be totally drug-free and don't you think some of these clients are just using the medication as a crutch because they are not motivated to be clean? *[Sic]* (2014 Washington State Warm Beach Counselor Retreat).

This is only a short list of the treatment issues involved, explaining why more research is needed in order to bring to light the underlying issues, biases, and attitudes of providers that are a key link in clients' successful recovery. The three legs of this important stool are the (a) medical provider or prescribing physician and mid-level medical providers, (b) CDPs, and (c) opioid dependent clients who suffer and are looking to overcome the disease and get into recovery. The clients who suffer are the most important people in this triangle. They are the

ones that have been impaired and are facing severe life consequences, and they deserve individualized and professional support to overcome this affliction. If these three parties do not work closely together and share the same goals then positive treatment outcomes are not attained. The wide variety of training, professional backgrounds, personal experiences, and underlying biases represent one of the largest challenges facing these medical providers, CDPs and their clients.

Positionality

I have been a certified CDP in the state of Washington for the past 28 years. I have also worked as an addiction specialist and CDP for the Lummi Nation, a Native American sovereign nation located in the NW corner of the United States. I am currently the program director of the Lummi nation's "Healing Spirit Clinic" opioid treatment program. We are a state and federally certified program that has been open since January 2013. The Healing Spirit Clinic is licensed to serve up to 500 clients, with a current client load of 356 active participants. All participants are required to meet criteria for "opioid dependence" based on DSM V criteria and must be enrolled as a Native American in a federally recognized tribe. We treat patients with buprenorphine/naloxone (Suboxone®) or naloxone only. We do not treat with methadone. We are one of the only programs operating this way in the United States. Most opioid treatment programs operate as methadone maintenance programs and offer only methadone as their primary medication. There are over 1,200 of these clinics nationwide, yet only three that we know of offer the modality that the Healing Spirit Clinic does. I am involved as a member of the Washington State Association for the Treatment of Opioid Dependence. This unique role that our clinic plays in the opioid treatment field has been recognized by our colleagues. As a result we have many Native American tribes and other providers consulting and visiting us,

interested in how we are dealing with the opioid problem on the Lummi Reservation. We have quarterly meetings with our association and all other state opioid treatment programs to discuss issues relating to best practice, quality improvement, diversion, overdose, DEA compliance, current trends, clinical issues, and all other concerns related to our practice as opioid replacement providers.

Because of this position I am also offered a unique and integral perspective of treatment and recovery issues as they relate to opioid dependence. My current job offers me a front seat view of life in the trenches of opioid dependence and treatment, and due to my experience and background I interact daily with prescribing physicians, dosing nurses, clients, and addiction professionals (CDPs) that provide the psychosocial support in order to attain the goal of recovery and abstinence. The issues related to both treatment and recovery are complicated. In surveying the experiences and attitudes of what I call the big three (medical providers, CDPs, and clients) and emphasizing the importance of their forming a good working team, I am drilling down into the deeper core issues that are, in many cases, the barriers to better outcomes and compassionate care for affected individuals.

I come from a training and experiential background that was philosophically built on a total abstinence mindset. The foundational beliefs and ways of practicing addiction treatment for the first 24 years of my Chemical Dependency Professional certification were seriously challenged. A major paradigm shift was necessary, along with an open mind and continued study in order to adjust to the challenges and changes that lie ahead. I needed to address current best practice and adjust to the state of opioid addiction treatment practices. I saw the difficulty some of my colleagues and fellow addiction treatment specialists were having adapting to the

new way of thinking. Using an opioid substitute to treat the substance abuse felt like cheating on a test and challenged the ethical and moral foundation of what I felt "recovery" was.

Medication assisted treatment and traditional methadone treatment carried with it a stereotype of failed attempts to be clean and sober, and a settled philosophy of harm reduction. I was challenged to continue to change with the times or face being left behind and stalled with old ways of thinking. Doing this critical review of literature and research in the opioid treatment field aided positively to my ever-changing mindset. I learned that the various treatments were not meant to be in opposition to each other, and that I did not need to find out which treatment was more effective than the next, but rather how to individualize the treatment approaches to better serve those affected.

One size does not fit all. I had many personal biases as I set about reading for this dissertation work and I soon discovered how misdirected my thinking was. I had failed to realize and understand a basic foundational principle that I now will call "recovery potential." Much like the concept of human potential, recovery potential encompasses all that is possible for individuals in their personal and private journeys on the road to wellness. Dogmatic approaches that only saw complete and total abstinence from all substances in order to be successful in recovery were missing the mark. As a result of this research process I am a better Chemical Dependency Professional, more open-minded and understanding of each individuals struggle. It has helped me to better serve those who reach out, to have a more emphatic and compassionate approach, and to celebrate success with individuals who seek to change. I am a better and more rounded clinician now and have a better grasp on both the questions and answers when it comes to opioid addiction and treatment.

Research Questions

There were five research questions for this inquiry:

1. What attitudes, beliefs, and practices do medical providers, chemical dependency professionals, and clients have related to medication assisted treatment of opioid dependence?
2. To what degree are the views and practices of each of the three groups different from those of the other groups?
3. In what ways are the views and practices of medical providers, chemical dependency professionals, and clients similar or different?
4. What underlying beliefs and philosophies explain the similar or different views of the three groups?
5. What implications do these differences and similarities have for the opioid dependence treatment field?

Based on my professional experience my hypothesis is that physicians and their opioid dependent clients are more accepting of medication assisted treatment than are CDPs. I have conducted a mixed method research design that utilized surveys that included both quantitative data and qualitative data collection and analysis. Medical providers and Washington State CDPs completed voluntary and anonymous surveys on line after being properly identified and invited to participate. Methadone and bup/nal opioid treatment programs clients were administered paper and pencil surveys at two participating clinics.

Justification for Study

The most important part of opioid addiction and recovery is providing supportive and effective treatments to opioid dependent clients so they can free themselves from the

overwhelmingly strong grip of opioid dependence. The negative impacts of opioid dependence on one's life, family, and the community one resides in are well documented. From reduced life spans, the spreading of communicable diseases, lifelong legal problems, destruction of the family unit, physical, medical, and moral degradation, just to name a few, opioid dependence shatters and diminishes lives.

Positive outcomes for opioid dependence continue to be the focus of opioid treatment centers throughout the United States and the world. Any factors that can aid in the understanding of this complex addictive dynamic will further positive outcomes. The interplay that takes place between the medical providers (doctor, physician assistant, and nurse practitioner), the active opioid dependent client, and the CDPs who provide psychosocial support is worthy of further study. Most reviews in the opioid treatment field concern themselves with the "effectiveness" of the medication involved in treating active opioid dependent individuals and the counseling approaches applied. Studies tend to look at positive outcomes regarding those patients who remain engaged in treatment services and who cut down their negative behaviors that are associated with using heroin or other opioids. This study aims to go a step further to focus on the underlying attitudes, beliefs, and mindsets of the three groups involved in the recovery process for opioid dependence. It is important that these three groups of people, who are working toward the common goal of recovery for the suffering individual, be on the same page on important and key issues regarding opioid recovery. As a 28-year addiction professional and the program director of an opioid treatment program, I often hear the disparity in approaches and attitudes between these three groups. For instance, CDPs often express the belief that clients should be taken off medications when they are doing well in their recovery. The medical providers on the other hand consult with their clients about their

medications and do not normally urge clients to discontinue medications. The suffering individuals are often caught in the middle of these divergent views and ultimately have to negotiate their way through this labyrinth of varying viewpoints.

The field of addiction counseling has its roots and foundation in a paradigm that demands complete and total abstinence from all substances in order to be considered "in recovery" from active addiction. This mindset is especially prevalent when it comes to medication assisted treatment and opioid dependence. My research focuses on the similarities and differences in perspective about medication assisted treatment. In my role as opioid treatment program sponsor and addiction specialist, I hear patients relate the mixed message that they encounter when trying to do what works best for them. Recovering addicts expose the negative beliefs, attitudes, and opinions that they encounter from a wide variety of people including their families, AA/NA members, non-medication assisted treatment physicians, and medical providers. Those who have substance use disorders have lots of experience with others who discriminate against them, put them down, judge them, and add to their already existing sense of personal shame for "being an addict." They are sensitive to how others perceive or treat them, and so when they encounter any similar treatment from their counselors or doctors, it just becomes one more roadblock to successful recovery.

The current study was designed to uncover and study the underlying attitudes and beliefs that are held by medical providers, CDPs, and most importantly recovering opioid dependent individuals. While much has been studied about the drugs and treatment processes, the research gap lies in the lack of exploration into how the interaction between medical providers, CDPs, and those with opioid dependence, and their potentially divergent views, affect recovering individuals. The quantitative data were used to explore the commonalities and

differences across groups. The narrative responses to the open-ended survey questions were analyzed to address both addicts and those who work in concert for their recovery.

Ethical Issues

Strict measures were employed to assure confidentially and compliance with federal HIPPA laws for all survey participants. This survey was designed with specific focus to do no harm and to not engage participants with inquiries that might be upsetting or traumatic for them. The research design was focused on positive outcomes, treatment approaches that have worked well, areas of feedback for improvement of services, and exploring the underlying attitudes and beliefs that these three groups have about the dynamics of medication assisted treatment. I have followed all Antioch University policy and procedures on research design and implementation including strict review and approval by Antioch's IRB.

Limitations of the Study

This study is conducted with a small segment of opioid treatment providers and their clients in the NW section of the United States; demographic and geographic markers of clients and their providers may not be similar to other populations or other cultural settings. The expected sample size was relatively small in comparison to the population affected and therefore could limit the generalization of results. The field of opioid replacement therapy continues to grow and the issues involved in the treatment of this disorder become increasingly complex. Thus, longitudinal and in depth quantitative and qualitative studies could potentially yield important findings, but these approaches to research are outside the scope of this study.

Value of This Research

As stated previously, the epidemic of opioid dependence continues to spread in the United States and worldwide. The devastating personal and societal consequences caused by

rising tide of heroin and prescription pain killer dependence is well documented. According to a recent article published by the Yale school of medicine SBIRT (Screening Brief Intervention & Referral to Treatment), "Opioid dependence is a major public health concern and remains primarily an untreated medical condition in the United States" (Schwarz, Zelenev, Bruce, & Altice, 2012, p. 2). The economic cost is estimated to top $21 billion a year and the far reaching human implications are even more staggering. Worldwide the scope of the current problem is even more alarming. The United Nations Office on Drugs and Crime notes that opioids, especially heroin, are the main problem drugs globally (United Nations Office on Drugs and Crime, 2010). Any additional or continued research in this important area of public health can be beneficial to all concerned. Understanding how differing attitudes and beliefs about medication assisted treatment effects patients recovery from opioid use disorder is crucial to helping improve client outcomes. The primary parties that I refer to as the "big three"—medical providers, CDPs, and clients—working together to address and overcome opioid dependence, require additional information and collaboration in order to be successful and increase successful treatment outcomes. This research focuses on those areas of cooperation, collaboration, communication, and attitudes and beliefs between the providers and those they serve. Information and educational implications of this study are important contributing facts to the body of knowledge in the opioid treatment field.

Definition of Key Terms

*Medication assisted treatme*nt: Utilizing opioid replacement medications along with psychosocial counseling to gain abstinence and obtain recovery from opioid addiction.

Addiction specialist: A profession who has been trained to counsel and case manage clients engaged in Opioid addiction treatment services. In Washington State where this study took

place, addiction specialists are called Chemical Dependency Professionals, or CDPs.

Naltrexone: A drug that is an endorphin and narcotic antagonist. It is available in both oral tablet form and subcutaneous injections for the treatment of alcohol and drug addiction. The brand name of the injectable form is vivitrol and will be used as synonymous for naltrexone.

Methadone: A potent synthetic narcotic drug, that is less addictive than morphine or heroin and is used as a substitute for these opioid drugs in addiction treatment programs. It is also used for chronic pain management.

Buprenorphine/naloxone (Bup/nal): A prescription medication containing a combination of buprenorphine which is a mixed opioid agonist/antagonist, and naloxone a pure opioid antagonist, used in the treatment of opioid and heroin addiction treatment. Brand names include Suboxone® , Zubsolv®, and Bunavail®. Generic forms are also available.

Buprenorphine: A partial agonist, partial antagonist, with a "ceiling effect" making it harder to overdose or abuse than other opioids. Buprenorphine is a prescription opioid used for pain control and for people addicted to heroin or other opioids that acts by relieving the symptoms of opioid withdrawal and reducing cravings. Buprenorphine is less addictive and has a lower risk of overdose than methadone.

Vivitrol: Pharmaceutical company brand name for naltrexone. As previously defined, is an opioid antagonist used as the hydrochloride salt in the treatment of opioid or alcohol addiction.

Recovery: The return to a normal or health condition. Recovery describes the act and process of getting off addictive substances. Used in the alcohol and drug addiction treatment field to describe the process of being "clean and sober" or drug free and functioning well.

Sobriety: The state or condition of being sober. Also a term used to describe the state of being clean and off all alcohol and drugs.

Harm Reduction: A range of public health policies designed to reduce the harmful consequences associated with various human behaviors. In this context the term is used to describe the philosophy behind methadone treatment and opioid treatment programs.

Journey to Wellness: A philosophy of recovery from addiction as defined by the Lummi tribal council in 2010. A philosophic approach to treatment that sought better outcomes and higher functioning that harm reduction philosophies.

Abstinence: The process of abstaining from alcohol and other illicit drugs.

Medical provider: Authorized and trained medical professionals that hold licensure to prescribe and oversee clients in treatment. Example includes Physician, Physician assistant, and Nurse Practitioner.

Mid-level provider: Authorized and trained medical professionals that hold licensure to prescribe and oversee clients in treatment but such as physician's assistants and nurse practitioners and who are no physicians.

*Client/patient***:** Identified person who is engaged in treatment services.

Chapter II: Literature Review

This critical review of literature in the opioid dependency and treatment field covers the range of research that has been conducted in the field. The literature discussed relates to the various forms of treatment for opioid dependence as well as well as the attitudes and beliefs about these treatments affect outcomes.

Treatments

One focus of this literature review looks at the various methods of treatment for opioid dependence, as well as their effectiveness and implications for the future. These treatments fall into three broad based categories: (a) no treatment, aging out, or spontaneous recovery; (b) psychosocial counseling; and (c) medication assisted treatment. This last method is by far the most cited and researched to date and includes the most up to date and comprehensive view and philosophy of modern opioid dependence treatment literature. The treatment of choice for opioid dependence as it stands today usually includes a combination of counseling with medication assisted treatment in the form of (a) methadone, (b) buprenorphine, and (c) naltrexone, although there is not a consensus in the medical community on what constitutes the most effective treatment modalities (Amato et al., 2008).

Natural Recovery or Recovery From Opioid Addiction Without Treatment

Recovery from opioid addiction without any formal intervention or treatment is not a very popular concept in the opioid dependency field for several reasons. The first reason is the dire and life threatening consequences of continuing what has been a well-documented downhill course of the disorder. Some question the ethics of advocating following this course of action. Given the severity and relapsing tendencies of opioid abuse and dependency, to stand by and wait for people to “age out” (Biernacki, 1990) can lead to permanent damage and premature

death. Alternatively, some researchers suggest that opioid addicts simply cannot maintain the lifestyle and that the constant stress and energy it takes to continue this behavior will eventually lead to negative effects and untreated remission.

Biernacki's (1986) work summarizing recovery from opioid addiction is possibly outdated. Much has been discovered over the past 27 years, particularly in the field of neurobiology, including brain scans and the science behind how opioids change the brain pathways. Biernacki (1986) cites even older work by Winick (1962) that suggests that young adults become addicted as a way to deal with life problems encountered during the turbulent time of adjustment to young adulthood and that their maladaptive response in the form of using opioids was merely a phase that most were able to stop on their own. Robins (1973) in her widely cited research on Vietnam War veterans, lent support to this line of reasoning as well. Robins was able to demonstrate that most Vietnam veterans that met criteria for opioid dependence (20%) were able to return to pre-war rates of societal opioid dependence of less than 1% without formal intervention and treatment. Robins made a case for the environmental and stress factors that led to the disorder, and showed how once veterans return to their home communities where opium was not accessible, where they had the support of family and friends, that their opioid dependence disorder went into spontaneous remission. Biernacki's (1990) work was retrospective in nature, included no quantitative information and only three citations, possibly limiting its value. The researcher himself noted the limitations of his "relatively small sample size" (which was never quantitatively identified) and that the people located for discussion on these points came from the "snowballing method." In other words the researchers sought names of potential study participants from other self-identified opioid addicts who had quit using. There were also no methods in place to verify self-reports.

Another prominently cited researcher in this field is Waldorf. In the 1980s he published several articles where he spoke to the social and psychological process of untreated addiction and recovery and coined the term "natural recovery." He also cited Robins' (1973) research with returning Vietnam era opioid dependent soldiers. Waldorf (1983) cites social surveys with larger random samples (e.g., Odonelle et al., 1976; Brunswick, 1979) along with evaluations of chemical dependency treatment programs (e.g., Burt Associates, 1977; Macro Systems, 1975). Waldorf interviewed and surveyed 201 ex-addicts and addressed both the sample selection process and the inability to claim that his data were definitive in nature. His sample was not randomly selected and therefore caused him to reflect on what population, if any, his findings might represent. He spoke of three types of addicts: (a) ghetto or barrio street addict, (b) middle class addict, and (c) situational addict. Waldorf did not expand on these definitions nor did he classify the types of interview participants that he was citing in his research. Thus, the "maturing out" idea postulated by Winick (1962) was not systematically tested and there were only three studies (i.e., Ball & Snarr, 1969; Snow, 1973; Vallant, 1966) that offered any type of empirical support to this idea and even these studies found the concept inconclusive.

Maddux and Desmond (1979) followed up Winick's (1962) work and made the argument that the maturing out thesis was based solely on records from the Federal Bureau of Narcotics and was "certainly unrealistically optimistic" (Vaillant, 1973). The general approach to research was exploratory and was not set out to test well-defined hypotheses with random samples of ex addicts. Data from Waldorf's (1983) work was garnered from a combination of quantitative and qualitative methods. Half (i.e., 100) of the participants were treated addicts while the other half (i.e., 101) of them were untreated addicts. The sampling method was snowballing and

participants were paid $20 to participate. Results showed six patterns of why people quit their opioid use that was contrary to the aging out theories that were being hypothesized.

Opioid Dependence Recovery With Psychosocial Counseling

"Drug rehabilitation" is the term commonly associated with the process of recovery from dependence on psychoactive substances. The term was coined in the 1960s with the formation of residential treatment programs, the origins of which date back to the 1930s with the publishing of the original self-help twelve step recovery approach used in Alcoholics Anonymous (AA). This original mutual aid support network helped lay the foundation for many of the concepts utilized in the drug/alcohol rehabilitation centers. These early approaches to addiction treatments did not address the medical nature of addictions and were fairly dogmatic in their philosophies of a total abstinence model of recovery. This AA phenomenon has spread worldwide and is credited by many, including well-respected researchers, to be the most effective therapy known for alcoholism and drug dependence (Seiberling, 1985).

However, when it came to harder drugs, and substances that had a stronger physiological dependence like heroin and other opioid narcotic drugs, the positive outcomes of traditional approaches such as abstinence-only and non-medical counseling were not as well supported by research. The phenomenon of opioid dependence has been widely studied. In a search of Psycho INFO, over 18,000 articles were related to the topic (Mayet, Farrell, Ferri, Amato, & Davoli, 2004). The need to address the more complex dynamics and severity of addiction as it relates specifically to opioid dependence has brought about the entire field of medication assisted treatment. Psychosocial approaches of counseling and support toward a totally abstinence-based lifestyle have not shown good outcomes for opioid dependence (Flynn, Joe, Broome, Simpson, & Brown, 2003). Recidivism rates for opioid addiction have

been sometimes reported as high as 95%; however, some abstinence-based approaches that include psychosocial interventions have shown evidence of support for their effectiveness (Amato et al., 2008).

Electronic searches of the Cochrane Library, MEDLINE (1966–2003), LILACS (1982–2003), EMBASE (1980–2003), and Psycho INFO (1872–2003) databases found over a thousand articles with these subject lines. The articles were identified and screened to meet criteria that conform to modern day treatments for opioid dependence. It was a difficult task to separate pure counseling approaches since many of these studies included both a mixture of medication assisted approaches along with counseling and support. Adding to the difficulties in trying to make proper comparisons was the heterogenic nature of the population studied (inpatient, outpatient, jail settings, etc.). The most comprehensive and up-to-date meta-analysis of psychosocial approaches to opioid dependence was undertaken by "The Cochrane Collaboration" in 2010. Their review, found through an exhaustive search of past and current literature on this subject matter, produced over 1,024 articles and references; however, using the criteria they selected for low bias and adequate allocation concealment, they ultimately settled on 16 articles. Their conclusion was that it was unclear if psychosocial treatments alone were an effective intervention or better than other approaches that offered both counseling and support along with pharmacological interventions. In addition, the diversity of psychosocial interventions available in the field of drug and alcohol dependence makes it very challenging to draw specific conclusions on the absolute effectiveness of these approaches. Psychosocial components of treatment and therapy have long been thought to be a major component of the holistic treatment approaches provided in both inpatient and outpatient drug treatment centers. However these therapies vary in nature and scope and are applied in a variety of differential

settings, making the challenge of isolating effectiveness of the psychological therapy approach very difficult to evaluate. The current trend of opioid dependence treatments to involve pharmacological approaches is an impediment to evaluating treatments using only traditional psychosocial approaches.

Treatment of opioid dependence is very complex and the range of treatment interventions is extensive. Research reviews addressing a combination of pharmacological approaches along with psychosocial therapies are far and away the most plentiful (Dawe et al., 1993; Goldstein, Deren, Kang, Des Jarlais, & Magura, 2002; Gruber, 2000; Katz, Chutuape, Jones, & Stitzer, 2002; Zanis, 1996). The results of these studies cannot be pooled or summarized as they were very heterogeneous in nature.

Since the onset of medication assisted treatments it is no longer ethically viable to conduct research on counseling-only approaches. With the outcomes so poor, there are serious ethical considerations in conducting research where only psychosocial interventions are explored. Therefore the following studies of psychosocial approaches were conducted with re-engaging or outreaching to dropouts from a methadone maintenance treatment program.

As previously noted, heroin dependence is a chronic, relapsing illness where approximately 70% of all methadone maintenance treatment program clients relapse within one year following discharge (Alterman, 1996). Many clients who have been discharged and constitute out of treatment patients resume high risk for various health issues like Hepatitis C, HIV infection, as well as criminal behaviors and a host of other dangerous behaviors. It is prudent that psychosocial approaches to re-enroll these high-risk users be employed. The methods employed in the Alterman article were to identify and reach out to 110 discharged clients one year after discharge from methadone maintenance treatment. The study included

identifying 110 former patients from a VA Medical Center's methadone program that were categorized in four discharge types: (a) completed treatment, (b) transferred to other treatment programs, (c) voluntarily dropped out of treatment, and (d) involuntarily discharged. Subjects who were not re-enrolled in methadone maintenance treatment program services and were deemed eligible for the program (41) were randomly assigned to two treatment groups of either enhanced outreach counseling, or standard intervention conditions. The study found that after one year 10% were deceased, 39% were already re-enrolled in treatment, and 7% did now require intervention or treatment. Results were favorable for the enhanced outreach-counseling program where 67% were re-enrolled in the program within 2 weeks of the intervention, whereas only 7% of those in the standard referral condition were re-enrolled in treatment services. Based on a chi-square analysis, and adjusted for Yates correction for continuity, the results showed a statistically significant difference between the two groups. The limitations of this study affected the ability to generalize the findings because of small sample size (110 screened for the study and only 40 assigned to the two treatment groups). Most in the sample were male veterans who generally have greater access to health insurance and treatment services. There also was no evidence to demonstrate the effectiveness this enhanced outreach program approach had at follow-up points. The enhanced outreach group was supported as a more effective form of getting clients engaged back into methadone medication treatment programs than the standard intervention conditions. However the "success" involved patients in forms of medication assisted treatment as well as psychosocial forms of opioid dependency treatment. Thus, again there were few, if any, applicable research studies that solely identified and evaluated psychosocial approaches to treating opioid dependency.

The Katz et al. (2002) study described opioid dependence in the state of Maryland. Their study reported that a third of the admissions to substance abuse treatment programs were for opioid use. Also noted in this important and often cited psychosocial treatment literature was the acknowledgement of the difficult and often-fruitless efforts of treating opioid addiction in a drug free modality because of poor retention and frequent relapse. A nationwide Drug Abuse Treatment Outcome Study (DATOS) reviewed retention data from 14 outpatient drug free programs and showed that clinics only retained 50% of clients for the first 90 days, and an even lower 20% over 180 days (Simpson et al., 1997). In an effort to address these poor retention rates, the researchers enacted a monetary supported voucher system that would offer financial incentives for participating clients. Voucher systems had been used extensively for treatment of cocaine abusers (Higgins et al., 1994) and in methadone maintenance programs (Silverman et al., 1996). Since these voucher incentive programs were effective in previous trials, it was hypothesized that this approach could also be effective when used with psychosocial treatment modalities to increase both retention and successful outcomes for opioid dependent individuals. The financial incentives were significant in that individuals in the voucher treatment group could earn upwards of $1,807 over three months for submitting urine negative for both opioids and cocaine. The results were somewhat disappointing as the researchers found no significant differences between the voucher group and non-voucher group on mean days retained in treatment, mean number of opioid and cocaine negative urine submitted, duration of continuous abstinence, or for percentage of participants abstinent for four weeks. Several rationales were theorized to explain the lack of successful outcomes, including that this study targeted users of both cocaine and opioids, whereas in previous studies using vouchers incentives had been focused

on single drug use stoppage. In addition, the lapse and relapse dynamics that affect heroin addicts are different from those that affect cocaine abusers. Heroin users find it more difficult to abstain because of post-acute withdrawal effects and prolonged physiological cravings for the drug. Discussion continued in reference to drug positive urine samples at intake and how they were associated with program failure, suggesting that the voucher incentive program may be better suited for reinforcing motivation to stay clean, and not for becoming drug free.

Dawe et al. (1993) also evaluated approaches of psychosocial counseling to opioid dependence and looked at a controlled randomized study that followed 186 subjects that employed a cue exposure technique. Their research was conducted in a residential treatment setting where controls were more tightly administered and controlled. Subjects were randomly assigned to one of two treatment settings, one with a drug dependence unit with a special 10-week program and the other to a 4-week general behavioral treatment unit (control group), without cue exposure. Cue exposure is the introduction to stimuli associated with drug activity that is designed to elicit reactions that potentially lead to relapse. In each setting subjects either had cue exposure for six sessions over the last three weeks or a control condition. Even though both groups did show significant decrement in cue-elicited cravings, withdrawal responses, and negative mood, the results did not support the cue exposure treatment modality and the authors expressed major reservations that this form of psychosocial treatment was an effective and/or practical form of intervention for opioid dependent individuals.

Mattick, Breen, Kimber, and Davoli (2009) conducted research that attempts to validate psychosocial treatments and interventions without adjunctions to medication assisted forms of therapy. Retention in methadone maintenance treatment programs is predictive of abstaining from opioids and having other positive benefits as well (Mattick

et al., 2009). The study attempted to re-engage methadone maintenance treatment program patients in treatment using psychosocial approaches employed three approaches: (a) street outreach, (b) cognitive behavioral groups, and (c) individual counseling over a 3-month period. This study analyzed the impact these three alternative programs had on treatment re-entry (Goldstein et al., 2002). The most important study findings suggest that those individuals who attended two or more groups of the three interventions (street outreach, cognitive behavioral groups, and individual counseling) were more likely to return to methadone maintenance treatment programs during the six month follow up, and that it was possible to engage 87% of the dropout sample in some portion of the psychosocial intervention. The limitations however were that these re-engagement approaches were designed to get subjects back into medication assisted treatments using the opioid agonist methadone. Even though the designs were psychosocial in nature, the incentive and goal was to get subjects back onto a powerful opioid substitution medication, hence not a solely psychosocial form of treatment.

As the comprehensive Cochrane collaboration (Mayet et al., 2004) review of psychosocial treatment effectiveness for opioid dependence points out, there is a lack of evidence suggesting that this type of approach is effective for a disorder that has been described in the medical literature as a "brain disorder"(Koob & Le Moal, 2008). In the plain language summary Mayet et al. (2004) stated

> Despite its wide use in clinical practice, no systematic review of effectiveness has ever been carried out. My review demonstrates that there is inadequate evidence available to prove the effectiveness of psychosocial interventions alone for the treatment of opioid dependence or that they are superior to any other type of treatment. (p. 2)

It appears that psychosocial interventions are an important strategy and a critical component of opioid dependence treatments, but only when combined with medications (Chambless et al., 1998). In critical analysis of the multitude of opioid treatment literature, counseling approaches, along with medication, continue to be considered best practice.

Medication Assisted Treatments for Opioid Dependence

It is well established that opioid dependence has (Louria, Hensle, & Rose, 1967) many destructive consequences that include not only medical complications, but also huge disruptions to a normal life course. Physiological, psychological, emotional, mental, family, and social consequences of this brain disorder (Leshner, 1997) are well documented and well researched. The bleak outcomes of traditional counseling approaches have demonstrated the unacceptable outcomes that traditional psychosocial counseling alone has provided to those afflicted. As a result researchers, doctors, and other healthcare professionals sought more effective treatment modalities. The long-term treatment goals began to shift away from the total abstinence paradigm toward a more practical, pragmatic, and effective way of treating opioid dependence. Outcomes started to become more focused on the importance in reducing negative health and social consequences and to improving the well-being and social functioning of those affected (Riley et al., 1999).

Medication assisted forms of treatment were introduced (Batki, Kauffman, Marion, Parrino, & Woody, 2008), originally in a very crude format as compared with the advanced therapies of today, back in the early 1900s when physicians used morphine and even heroin to alleviate cravings and withdrawal in a doctor supervised setting. The difficulties with these early forms of medication assisted treatments were the short half-lives of both heroin and

morphine. Afflicted patients needed to get a dose of medication every 8 hours. These forms of medication assisted treatments did reduce both drug cravings and physiological withdrawal symptoms for clients, but faced practical limitations since clinics and their staff could not be available 24 hours a day, 7 days a week. Searches for longer acting medications resulted in the use of methadone for that purpose. Methadone was developed in Germany back in 1937 in WWII because of the need to maintain a reliable source of opioid analgesic (Gerlach, 2004). Methadone was introduced into the United States ten years later in 1947 by drug manufacturers Eli Lilly and Company. Methadone is a synthetic opioid and acts on the same mu opioid receptor sites as heroin and other opioids and mimics the same effects. Methadone was found to be useful in the managing of severe and chronic pain because of its long duration of action, powerful effects, and very low cost. These three factors led to methadone becoming the widely used medication to assist in what is known today as medication assisted treatment.

Additional and significant literature in the field of opioid dependence is focused on the chemistry of the brain and lays the foundation for scientists and medical specialists to call opioid use disorder a "chronic brain disease" (Koob, 2009). The field of neurobiology continues to produce studies that demonstrate support for this theoretical orientation that seeks to uncover the mechanisms in the brain that are most effected by the use of opioids. Koob's work in the field of neurobiology of emotions works to define what he refers to as the "dark side" of compulsivity in addiction. He has written and published numerous articles that help explain and understand the opioid dependent individual's compulsion, obsession, and loss of control over their use of opioids. Koob describes the body's homoeostatic process, where the neurological system always attempts and defaults to a place of normalcy. Examples of this include the body's blood pressure, body temperature, as well as the brain's neurobiology that

has been disrupted by the addiction process. His theories include how the use of medications used to assist the opioid dependent person feel within this homoeostatic range. Koob's theories are considered at the leading edge of today's current views of opioid dependence and advocate the use of medications to assist in the recovery process to satiated and repair these damages neuro pathways (Koob & Le Moal, 2005; Koob & Volkow, 2010). Another recognized leader in the field of opioid dependence treatment and a researcher that lends support for the use of medication to assist in the treatment and recovery process is Volkow whose body of work includes strategies for identifying and treating opioid use disorder (Compton & Volkow, 2006b). Volkow discusses the nature of addiction and points to recent advances in neurosciences that offer insight into the biological nature of the disease model (Baler & Volkow, 2006) and lends evidence to refute that addiction is simply a moral dilemma. The belief that people with opioid use disorder can simply "quit" using if they have determination and self-will to recover represents the moralistic view that many people hold as true. McLellan's work also focuses on mood states, and the underlying triggers for cravings and relapse with opioid dependence (CHILDRESS, McLellan, & O'BRIEN, 1986). Effective medical treatment for opioid use disorder must contain a component that includes current best practice the utilization of medications to assist in the recovery process.

Today the evolution of additional medications beyond methadone has advanced to a more sophisticated and very well researched body of knowledge. Relapse rates of those who suffer from opioid dependence are cited at almost 95% with traditional psychosocial treatments. Those treated with opioid replacement therapy have shown rates of 40–65% for maintaining complete abstinence from opioids. There are four medications used in today's treatments that supplement all of the counseling and psychosocial support efforts

that all modern day opioid treatment programs around the globe adhere to. These opioid treatment program medications include: (a) methadone, (b) LAMM (Levo-alpha acetyl methadol), (c) naltrexone, and (d) buprenorphine/naloxone (bup/nal).

Methadone. Methadone is a pure opioid agonist. It is classified as a synthetic opioid and as such is easily produced in a laboratory setting. Of the four medications listed as FDA approved for the treatment of opioid dependence methadone is the one that has been studied the most. The history of this medication is intriguing as it was synthesized in WWI and came into vogue as the preferred method of treatment for the burgeoning heroin addiction epidemic from the mid-1960s into the early 70s and spanned several administrations including the Kennedy and Nixon presidencies. As stated earlier, the early treatments for this affliction were to dose patients on heroin or morphine, but because of the short half-life of the drug, the demonstration of increased tolerance to patients, and the perceived public perception of the threat to the abstinence based treatments of the time; these trials and clinics were shut down by the U.S. Treasury Department through legal pressure, and inspections (Center for Substance Abuse Treatment, 2005). The early rationale for research into methadone was born out of the societal concerns in the areas of public health and safety, as well as the social ramifications of continuing to ignore the negative impact of the growing opioid dependency problems. Dr. Vincent P. Dole received a grant to establish the early research and investigate the feasibility of opioid maintenance treatment approaches. In preparing for this research, Dole read "The Drug Addict as a Patient" (Nyswander, 1956). Nyswander was one of the first of her medical colleagues that asserted these patients could be treated under a medical treatment modality typically used for patients with chronic diseases. She also forwarded the notion that this was not an acute condition in which patients could be treated and put into a

remission state in a short period of time, but rather that they would be more successful if maintained on opioid replacement therapy for extended periods. This was born out of her experience and work with opioid users who chronically relapsed and failed to make gains toward recovery without medication. Other chronic diseases responded to a continued reliance on medication, so why not extend that to the treatment of opioid dependence? Nyswander joined Dole's research staff in 1964 and, along with clinical investigator Kreek, found that morphine was not a good medication of choice to treat patients because of the negative impact on social functioning due to the side effect of sedation, the short half-life of the drug that required several injections per day, and the onset of tolerance, thus increasing the dosage with no stable platform (Dole & Nyswander, 1980). This early research paved the way for methadone since the shorter acting options were eliminated and the focus became a longer acting substitute. Methadone also has the benefit of being effectively administered orally. The very first study was conducted on two patients who were previously maintained on morphine. Once baseline tolerance was established, patients demonstrated the ability to function normally without the anxiety of drug cravings, and the absence of self-reported withdrawal. The most important findings from the early methadone trials (Dole & Nyswander, 1980) were:

- Patients did not experience euphoric, tranquilizing, or analgesic effects. Thus, they were able to more effectively socialize and work normally without incapacitation.
- At the appropriate dosage methadone reduced or blocked euphoric and tranquilizing effects of opioid drugs (morphine, heroin, meperidine, and opium) even if patients tried to smoke or inject the drugs.
- Unlike morphine, no tolerance was noted in long-term administration of

methadone. Therefore, a therapeutic dose could be held constant for extended periods of time.

- Methadone was effectively administered orally, eliminating the need for needles and demonstrating that patients could administer it one time a day.
- Methadone took away opioid cravings, which were thought to be a major component of most relapses, and eliminated the physiological symptoms of opioid withdrawal, which most addicts would go to great lengths to avoid.
- Methadone caused minimal side effects and researchers indicated that it was medically safe and non-toxic.

The importance of this early and pioneering research cannot be overstated. By 1965 the initial research on methadone safety and efficacy was transferred to the Manhattan General Hospital in New York. Dole realized that his research would need to be independently evaluated and tested. Gearing (1970) was able to verify some of the early finding on methadone medication treatment by also demonstrating that once patients were stabilized on a dose of 80 to 120 mg/day their social functioning improved, and they demonstrated improved employment, school attendance, homemaking, and decreased recidivism of legal difficulties. The positive effects to the community and larger society by having opioid addicts participate in the newly supported forms of medication assistance did not go unnoticed.

Methadone maintenance treatment was the first widely used opioid replacement therapy to treat heroin dependence and remains the best-researched treatment for this purpose (Mattick et al., 2009). Even though it is the most widespread treatment in many countries, it remains a controversial treatment whose effectiveness has been disputed. The controversy swirls mainly around the attitudes associated with viewing heroin addiction as a brain disease like most

medical providers do, or as a form of weak self-willed moral deficiency as many still prefer to view it. The Cochrane Collaboration conducted the most comprehensive critical review of the methadone treatment research literature in 2009. They concluded that the use of methadone for treatment of opioid dependence was effective and represented best practice in the primary treatment process for opioid use disorder.

LAAM. Longer acting alternatives to methadone were also explored and subject to critical review. LAAM (Levo-alpha acetyl methadol) was much like methadone in that it was classified as an opioid agonist and also classified as a DEA schedule II controlled substance. Thus it was under the same intense scrutiny and regulation for the handling, prescribing, and distribution as other schedule II narcotic drugs. LAAM was first developed in 1948 by German chemists as an analgesic (Finn & Wilcock, 1997). LAAM mimicked much of the positive effects that had been demonstrated by methadone in that it blocked the euphoric effects of opioids, suppressed the withdrawal effects, eliminated hunger/cravings for the drug, but also had the additional benefit of a longer effective schedule. LAAM can achieve the same effects as methadone but maintain that for 48 to 72 hours longer. This longer acting effect captured the excitement and imagination of those researching LAAM since its practical application had an obvious upside. LAAM demonstrated a longer biological half-life. Medications with a longer half-life remain in a patient's system longer and allow clients to dose less often. This dynamic appeared to benefit clients and practitioners. Patients could reduce their daily visits to clinics, as required on the primary treatment regime of methadone medication treatment, replace that with LAAM, and only be required to come in for dosing three days a week. This had benefits for both providers and patients alike; it reduced the dependence around the clinical model and helped increase compliance with treatment while at the same time reducing risk in the

community by eliminating “take home” dosing as is popular in most methadone clinics. By the late 1960s research interest in LAAM rose as clinicians saw it as a new alternative to methadone maintenance treatment. Between 1969 and 1981, more than 27 studies with over 6,000 participants established LAAM’s safety and efficacy (Finn & Wilcock, 1997). These studies demonstrated LAAM as an effective alternative to methadone maintenance treatment and led to FDA approval for treatment in opioid replacement therapy in 1993 (Ducharme & Abraham, 2008).

The entire body of evidence in LAAM research showed that this medication is as effective as, or even more effective than, methadone in maintaining abstinence amongst opioid addicts (Blaine et al., 1981). LAAM then became the first FDA approved medication that gave clinicians and patients a choice between methadone and LAAM as a form of treatment for those who were opioid addicted. Since LAAM differed from methadone, clinicians felt this new form of opioid treatment program medication could help those that could not be helped by methadone. Even though it was not thought of as the treatment of choice for affected patients, clinicians could now increase their success rates by identifying people who would benefit most from LAAM’s advantages. LAAM and methadone are metabolized differently. The most noticeable difference is the delay before the effects of LAAM can be detected and that LAAM remains in the body for much longer than methadone does (Fraser & Isbell, 1952). Since this became the first new research and discovery in the field of methadone maintenance treatment up until 1993 for opioid dependency, it is important to note the advantages and disadvantages of LAAM as compared to methadone.

Advantages of LAAM to methadone. There are several advantages to LAAM, including:

- LAAM reduces the number of clinic trips. This is an advantage to those

experiencing commuting problems to the clinic, and frees patients from daily dependence on the clinic.

- LAAM gives a more stable dose across time, thus promoting a more normal feeling state than both heroin and methadone. LAAM does not produce the effects of euphoria from opioids, while at the same time blocking effects of both cravings and withdrawal which are thought to be one of the main precursors to relapse.
- Federal regulations prohibit take-home privileges for LAAM, and thus it eliminates the negotiations between clinician and clients over that privilege.
- LAAM reduces diversion opportunities. The clinic has tighter controls over the medication, which reduces potential harm to the community via abuse or overdose.

Disadvantages of LAAM to methadone. There are several disadvantages to LAAM including:

- LAAM can be difficult to adjust to as it can take up to two weeks for patients to reach a steady state. This discomfort can lead to treatment non-compliance and relapse.
- Since it is a long acting opioid agonist, it should never be given more than every other day. If LAAM is taken more often than this, the drug will accumulate in the body and lethal overdose can occur.
- Lack of daily contact can be seen as an advantage to some clients, but some clients need and benefit from daily contact and structure and for them less than daily contact becomes a disadvantage in their treatment outcomes.

- Since LAAM was a new and unfamiliar medication, anxiety at first is increased and some clients will need additional support and counseling in order to deal with this dynamic.
- LAAM cannot be given to pregnant women as can methadone and also is forbidden for clients under the age of 18.

Despite its advantages over the shorter acting and preferred treatment of choice, methadone, widespread usage was short-lived for LAAM. Even though it still remains an FDA approved therapeutic agent for opioid dependence, LAAM was discontinued in Europe in 2001 due to concerns over life threatening cardiac dysrhythmias (arrhythmia or irregular heartbeat) (Jaffe, 2007). The manufacturer Roxane Laboratories discontinued LAAM, branded as Orlaam, in the United States in 2003. It was of interest that even though it passed many clinical trials in the years 1969–1980, LAAM was ultimately a very short lived alternative, and initial trials missed the longer term effects that became evident later. LAAM is no longer being used in opioid treatment programs.

Naltrexone. The two most popular and widely researched medications for treating opioid dependence remain methadone and buprenorphine. However, naltrexone, a lesser-known medication, is also a form of medication assisted treatment. Researchers picked up an interest in naltrexone in the early 1970s and began clinical trials for efficacy and safety (Resnick et al., 1991). Naltrexone is an opioid receptor antagonist, meaning that this mediation occupies the opioid receptor sites in the brain without activating them. This effectively blocks all euphoric effects from the ingestion of opioids, making it meaningless to ingest heroin, morphine, demerol, and other narcotics. Naltrexone is the only pure opioid antagonist of those discussed here and was approved for use as an opioid treatment by the FDA in 1984 (Washton,

Pottash, & Gold, 1984). The primary use of naltrexone never caught on as a mainstream treatment due to several notable limitations. Some opioid treatment providers have found that naltrexone is useful for highly motivated patients who are detoxified, or no longer under the effects of opioids, and in need of additional support. This medication offers some relief from drug cravings, but is not helpful for withdrawal, and simply blocks the effects of opioids. Treatment compliance has been poor with long-term naltrexone therapy because it offers no relief of active symptoms of cravings and withdrawal (Mark, Kranzler, & Song, 2003). Naltrexone was also subsequently approved by the FDA in 1995 as a preventative treatment for relapse in alcohol dependent individuals (Malerich, 1999), and its use for alcoholics could actually be more beneficial than for opioid addiction (Haile, Kosten, & Kosten, 2008). A review of more recent research suggests that more studies are needed in order to show naltrexone's effectiveness in treating opioid dependence and to compare it to the more popular and widely accepted opioid treatment program medications of methadone and buprenorphine (Minozzi et al., 2011). One of the drawbacks and limitation of naltrexone is that with oral administration it requires daily dosing. Clients that experience opioid cravings can simply skip a day's dosage before they resume abusing their drug of choice. Clients best suited for this medication must be screened and followed carefully. Clinicians found that those who have the best chances of success with naltrexone are clients who have a very stable social/living situation and are highly motivated to quit the lifestyle and pursue recovery (Tucker & Ritter, 2000). A critical review of the research on naltrexone was completed in 2000, and published as "Naltrexone in the Treatment of Heroin Dependence: A Literature Review" (Tucker & Ritter, 2000). The review found 649 articles published in English, however 326 were animal studies and 67 were articles related to uses of naltrexone other than alcohol and opioids. Of the total

number of articles located, 91 were review papers while 29 reported on opioid withdrawal (12 of them research trials). Thirty-seven naltrexone outcome studies, 12 of them controlled and 25 open trials were found and reviewed. Noted by the authors were the absence of articles that dealt with actual patients and data. In addition, concerns were also noted regarding how this small amount of research generated so many "review" papers. Review of this literature found several noteworthy issues and concluded that naltrexone is not widely accepted as a form of medication assisted treatment for opioid treatment programs and is underused for this purpose (O'Brien, Greenstein, & Woody, 1978) and as an opioid antagonist treatment it may only appeal to 5-10% of the opioid-dependent population (O'Brien, 1996). Explanations for poor patient acceptance rates include fear of withdrawal or the inability to withdraw from opioids, the need for an opioid free period prior to dosing of naltrexone, fear of the new drug and possible aversive effects, inability to cope with depression during the opioid-free period required before active dosing, lack of euphoria-producing properties, and lack of any sincere motivation to pursue a drug free lifestyle (Schecter, 1980; Schuckit, Schuckit, & Schuckit, 1984). Retention rates in drug dependence programs are historically low with the exception of methadone maintenance treatment and are described in terms of initial reactions (first 2 weeks). Early attrition rates with naltrexone were found to be quite high (Fram, Marmo, & Holden, 1989). Between 39% and 74% of participants left treatment by the end of the second week. Finally, abstinence rates were calculated and varied widely across studies depending on treatment regime and were measured by opioid positive urine tests (Hollister, Schwin, & Kasper, 1977; Judson, Carney, & Goldstein, 1981). Results and comparisons to other forms of methadone maintenance treatment were varied and difficult to ascertain given that the majority of the studies conducted did not randomly assign clients to treatment. The trend, however, does

lean toward positive outcomes as compared with the other three medications reviewed and supports more randomized clinical trials for further research. New methods of administration and a longer acting form of naltrexone, given to clients with a monthly injection, showed promise with the branded "vivitrol" (Krupitsky & Blokhina, 2010), new to treatment specialists since 2005. Research is limited and leans toward preferable treatment for alcohol dependent clients (Garbutt et al., 2005); however, some methadone maintenance treatment and opioid treatment programs are now examining the efficacy of using this long acting form of naltrexone in their treatment programs (Comer et al., 2006). Opioid substitution treatment will continue to employ naltrexone as a treatment option both now and in the future. Continued clinical trials are indicated and direction should be toward comparison studies with both methadone and buprenorphine employing randomized control groupings.

Buprenorphine. Buprenorphine is a semi-synthetic opioid that was first indicated for use to control moderate pain in non-opioid tolerant individuals. Chemists in Britain in 1958 began working to develop an over-the-counter analgesic through the simulation and formulation of a variety of opioid compounds. After years of work by chemists and animal trials a compound known as RX6029 began human trials in 1971, and by 1978 buprenorphine was released as an injection for pain in the UK with a sublingual pill to follow in 1982 (Martin, 1979). Widely utilized in Europe as an opioid substitution treatment model in the 1990s (Fatseas & Auriacombe, 2007), the newest of the four medications reviewed for opioid substitution therapies gained huge and unprecedented support and growth initially in Europe. One of the proving grounds for the use of buprenorphine in opioid agonist pharmacotherapy was in France. Because of the combination of their open health care system and attitudes toward designating opioid addiction as a "chronic" illness and the universal medical insurance

which covered 100% of the cost of treatment, France become very fertile ground to demonstrate the safety and efficacy of buprenorphine. The spike in overdose deaths prompted a national response to the offering of buprenorphine treatment by general practitioners. Studies in the United States were also noting a significant decline in overdose deaths due to heroin (Olsen & Sharfstein, 2014; Schwartz et al., 2013). Since opioid addiction has become such a widespread phenomenon worldwide and many of those afflicted are not receiving or engaged in treatment services, ranging by some estimates from 70–85%, (Domingo-Salvany, Hartnoll, Maguire, Suelves, & Anto, 1998; Tang, Zhao, Zhao, & Cubells, 2006) any new discoveries in medication assisted treatment methods represent progress. By contrast methadone maintenance treatments have been in place for over 45 years and the number of patients being treated in specialized clinics has remained stagnant while the problem of opioid dependence has burgeoned (Inciardi & Harrison, 1999). With the onset of this newest medication the number of opioid addicts receiving formalized help has grown by some estimates to 65% of those affected (Bickel & Amass, 1995).

Clinical trials for buprenorphine began in the European bloc countries as an opioid substitution therapy over 30 years ago in the 1980s. Since the introduction of buprenorphine the increased access to a less restricted form of medication fueled further interest and clinical trials in France, and other European communities (Resnick et al., 1991). Researchers recognized the potential to those afflicted by this chronic disease, and the advantages that buprenorphine has over methadone maintenance treatment, naltrexone, and LAAM (Reed, Glasper, Cornelis, Bearn, & Gossop, 2007). The initial and very positive trials on buprenorphine and the experiences of many office-based doctors in Europe pushed buprenorphine to the forefront in the battle by clinicians to overcome this worldwide health problem. By 1995 all registered

medical doctors in France were being allowed to prescribe buprenorphine for opioid agonist treatment without any specialized training. This trend began to challenge the long held and preferred method of pharmacological medication using methadone. Buprenorphine offered the advantage of being less dangerous for overdose deaths. Since buprenorphine was not a full opioid agonist and contained a partial mu antagonist it had a built-in ceiling effect that prevented overdose. Since it was also a less controlled medication and was widely and readily available, access for opioid addicts to this new form of medication-assisted treatment resulted in the number of clients being treated increasing from 15–30% to nearly 65% (San, Tremoleda, Olle, & de la Torre, 1989). A medication that was less dangerous to prescribe, more accessible to the masses affected by opioid dependence, coupled with favorable outcome studies (Giacomuzzi, Kemmler, Ertl, & Riemer, 2006) helped build a body of evidence to support buprenorphine as the medication of choice for many doctors, clinicians, and researchers (Auriacombe, Fatséas, Dubernet, Daulouède, & Tignol, 2004).

Advancement and acceptance of buprenorphine in the United States for the treatment of opioid addiction was 7–10 years behind the progress of its international colleagues. American researchers however were taking note and began clinical trials of their own (Fiellin & O'Connor, 2002) that led to the FDA's approval of buprenorphine for the treatment as an opioid substitution treatment in 2002. Another important decision and legislation in the United States that cleared the way for the method by which most buprenorphine is prescribed today was the Drug Addiction Treatment Act of 2000 (DATA 2000), that allowed the Secretary of Health and Human Services to grant waivers to physicians with specific training to prescribe and administer Schedule III, IV, or V narcotic drugs for treatment of addiction or detoxification (Fiellin & O'Connor, 2002). Buprenorphine was designated as a Schedule III

drug, whereas the more tightly regulated methadone is a Schedule II narcotic. The designation asa Schedule III medication is very significant; it entails less stringent guidelines, controls, and prescribing ability, as well as increased access to use buprenorphine in both an office based and specialized clinic treatment setting. By some estimates the number of clients in methadone maintenance has remained stable over the last 10 years at around 200,000 clients in the United States whereas buprenorphine, which has only been clinically approved since 2002, now boast over 650,000 clients engaging in this form of treatment nationwide (Center for Substance Abuse Treatment, 2005).

A critical review of the research demonstrates that buprenorphine is as effective if not more so than methadone, LAAM, or naltrexone (Amato et al., 2008; Batki et al., 2008; Bickel & Amass, 1995). It represents the newest advancement in the field of medication assisted treatment for opioid dependent clients. Buprenorphine has undergone multiple clinical trials, double blind studies, and randomized trials beginning in 1986 and continuing today. The body of evidence continues to be demonstrated by researchers and clinicians and drug treatment policy has reflected this trend. It remains under some debate and scrutiny whether methadone or buprenorphine holds the most advantages and is most effective. Research continues to bear out the advantages and disadvantages of each approach and when each medication is best indicated for individual clients.

Literature Summary

Table 2.1 shows the major categories of treatment modalities for opioid dependence as outlined (no treatment, psychosocial counseling, and medication assisted treatments—naltrexone, LAAM, methadone, and buprenorphine), the research authors, publication date, article title, research method and theme of article.

Table 2.1

Research Studies Addressing the Four Opioid Addiction Treatment Modalities

Type of Treatment	Author	Title	Methods/Findings
No Treatment "Ageing out"	Waldorf, D. 1983	Natural Recovery from Opioid Addiction: Some social-psychological processes of untreated recovery	Exploratory "in depth" study. Combination of Qualitative and Quantitative approaches with 201 ex-addicts. Selected via the snowball approach, exploratory research. Not representative of any population, restrictive generalization with no specific theories or hypothesis. Findings are "maturing out" concept is not sufficient to explain variations of opioid addiction and subsequent results
Psychosocial Counseling	Katz EC, Chutuape MA, Jones HE, Stitzer ML	Voucher reinforcement for heroin and cocaine abstinence in an outpatient drug free program	Quantitative and Qualitative study involving 52 participants who were Opioid Dependent. Randomly assigned to voucher or no voucher groups and enrolled in an outpatient drug free program. Participants were stratified on three variables. All participants recently completed Inpatient Detox. Findings did not improve retention or abstinence outcomes.
Naltrexone (Vivitrol) oral or injection Opioid blocker	Cornish, J. Metzger, D. Woody, G. Wilson, D. McLellan, T Vandergrift, B. O'Brien, C.	Naltrexone Pharmacotherapy for Opioid Dependent Federal Probationers	Quantitative study with 51 volunteers randomly assigned to 2 groups. Limited sample size and sampling group. Good design, methods, & internal validity. Limitation for generalization due to sampling population being respondents on federal probation. Results indicate that naltrexone (oral) and counseling are effective in cutting down positive Urine drugs screens, and re-arrest.
LAAM (Levomethadyl Acetate or Long acting	Johnson, Rolley E; Chutuape, Mary Ann;	A comparison of levomethadyl acetate,	Quantitative study with N = 220 respondents

Methadone)	Strain, Eric C; Walsh, Sharon L; Stitzer, Maxine L; Bigelow, George E	Buprenorphine, and methadone for opioid dependence	participating in a single site randomized controlled study with four treatment groups. LAAM as compared to Methadone (low and high dose) and Buprenorphine. Stratified according to gender, age, marital status, & personality. Reviewed and cleared by IRB committee. Results LAAM along with Buprenorphine, and high dose Methadone substantially reduced use of illicit Opioids.
MMT (Methadone Maintenance Treatment)	Gunne, Lars-M; Grönbladh, Leif	The Swedish methadone maintenance program: a controlled study	Quantitative and Qualitative research study of Chronic IV Heroin addicts. Small sample size N = 34. Randomly assigned, however not a blind study. Ages of respondents only 20-24 years old, limited ability to generalize results. Controls were loose. Results demonstrate support for Methadone for efficacy in treating Opioid addiction.
Buprenorphine (Bup/nal)	Mattick RP, Ali R, White JM, O'Brien S, Wolk S, Danz C	Buprenorphine versus methadone maintenance therapy: A randomized double-blind trial with 405 opioid-dependent patients	Quantitative and Qualitative study, mixed design. N = 405 respondents in a 13 week randomized controlled double blind double dummy trial. Study took place outside US in Australia a different cultural/geographic context. Findings support Buprenorphine in its ability to suppress Heroin use and did not differ in the more popular medication Methadone, however retained 10% fewer respondents in the Buprenorphine group.

Conclusion

The literature that covers treatment for opioid dependence dates back over 60 years and covers three main themes: (a) No treatment, aging out, or spontaneous recovery;

(b) Psychosocial counseling approaches (cognitive behavioral treatments with no medications);

and (c) Medication assisted treatment. The field has been evolving since its inception in the 1940s to the present state it is today. The early forms of intervention, treatment, and research included the argument that opioid dependent people would recover on their own with no formal intervention. Noted in the research literature of aging out or spontaneous recovery (Biernacki, 1990) cited earlier work by Winick (1962) that suggested that opioid use was simply a maladaptive response and only represented a phase where most people were able to stop on their own. In today's landscape doing nothing and waiting for people who have this brain disorder to simply deteriorate represents an unethical practice now that modern literature has noted the use of medications to assist in the treatment and recovery process as best practice.

The second and most popular mode of treatment for opioid dependent individuals was the traditional counseling and cognitive behavior treatments (CBT). These treatments become popular in the 1960s and did not address the medical nature of opioid dependence. Psychosocial approaches of counseling and support via 12-step support groups originally held great promise as had previously happened in the alcoholism recovery movement, however these treatment that were based on a totally abstinence-based lifestyle did not produce good outcomes (Flynn et al., 2003).

The most well studied of all treatment approaches for opioid dependence included the use of medications to assist in the treatment and recovery process. LAAM (long acting methadone) is a medication that is no longer being used, is discontinued and not being manufactured due to severe and life threating side effects, The first and most studied medication was methadone which has been studied in many clinical trials since its' first use in 1947. Methadone became the primary medication utilized in the field of medications assisted treatment until a more recent medication (buprenorphine/naloxone), often known under a brand name of

Suboxone® (bup/nal), underwent clinical trials and was approved for use in 2004 in the United States. Together methadone and buprenorphine/naloxone, or the term used in this study, bup/nal, represents the current accepted practice within the opioid treatment field. Medication assisted treatment as it has become known is no longer just a treatment option, but a widely accepted and utilized adjunct to most of today's treatment of opioid dependence. The literature clearly shows an evolvement from earlier paradigm's that did not demonstrate good client outcomes, to the current state of medication assisted treatment that utilizes methadone, buprenorphine/naloxone, and naltrexone.

Chapter III: Methodology

This research project was a comparative mixed methods study with data collection focused on attitudes, beliefs, and practices of three groups of participants. These participants make up what is referred to as the "three legged stool" in the field of opioid addiction and the field of medication assisted treatment (MAT)—the prescribing medical providers, chemical dependency professionals (CDPs), and opioid addicted clients in treatment at methadone and bup/nal attitudes, beliefs, and practices in the opioid dependence treatment field. Analysis includes descriptive and comparative ANOVA statistics with post hoc analysis. Quantitative and qualitative data were collected via a survey, and covered a range of research questions that the study has formally addressed. The method of research and how data were collected, as well as a deeper look into the participants, the survey itself, and how survey responses were analyzed are explored below.

Study Design

A mixed method design was utilized for this review as both quantitative and qualitative data were collected and analyzed. Mixed methods research designs offer several important advantages, particularly that combining both qualitative and quantitative paradigms strengthen the research and creates a stronger theoretical framework by providing two pathways of thought and a more robust design. This design also ensures that questions are answered in ways that a pure qualitative or qualitative approach would not allow for. The mixed method design is a more practical approach and fit for this study because it allows for information on both the frequency of beliefs and practices as well as the stories underlying them.

Research Questions

There are five research questions for this inquiry:

1. What attitudes, beliefs, and practices do medical providers, chemical dependency professionals, and clients have related to medication assisted treatment of opioid addiction?
2. To what degree are the attitudes, beliefs, and practices for the three groups different from those of the other groups?
3. What is the variability on views related to treatment options within each group?
4. What underlying beliefs and philosophies explain the similar or different views of the three groups?
5. What implications do these differences have for each group of participants in the opioid addiction treatment field?

Participants and Sample Size

The population that is the focus of this study included medical providers, CDPs, and clients in both a methadone and bup/nal opioid treatment program in Washington State. The first category of respondents was medical providers, including prescribing physicians and physician's assistants who are working in the field of opioid dependency treatment and medication assisted treatment settings throughout Washington State. Traditional training of medical providers leans toward a natural tendency to support medication assisted treatment. The scope of medical providers' practice includes prescribing and adjusting medications, and advising clients about them. Providers have expressed concern that patients being treated under the current model are being negatively influenced by attitudes and perceptions of clients, their peers, and their CDPs. Some of these attitudes include beliefs that clients don't need medication and they are

marginalized because they are not seen as being in recovery when they are on medications. Or, that they are inherently weak because these have to rely on medications to assist them in the recovery process. The medical providers for this study were those who worked in Washington's certified opioid treatment programs, and outpatient office based practices that were credentialed under the Federal DATA 2000 program to provide office-based medication assisted treatment. These providers are identified through several available databases that include membership in Washington state association of opioid treatment professionals, state board certified ASAM (American Society of Addiction Medicine) physicians, bup/nal and buprenorphine locater websites, and staff that work in methadone and buprenorphine clinics. There are over 400 medical providers statewide, with an expectation of between 50 and 75 responses to the survey.

The second category of respondents were the CDPs, also known as certified addiction counselors, that professionally counsel and oversee each opioid dependent client as well as clients with other addictions. Many CDPs were trained in an abstinence-only paradigm and this study was designed to measure and analyze their current attitudes, beliefs, and practices related to medication assisted treatment. The CDPs in the study were certified in the state of Washington and credentialed through the Washington State Department of Health. They are the only certified professionals that are recognized and licensed to deliver addiction counseling and recovery services to any and all clients enrolled in chemical dependency treatment programs throughout the state. A CDP must be working under the auspices of a state certified chemical dependency program as per Washington State Department of Behavioral Health and Recovery (DBHR) requirements. There are currently over 1000 credentialed CDPs in Washington State. Washington Department of Health (DOH) provided a list of all CDPs licensed in the State of Washington through the state's public disclosure law. The list sent to me included the name,

status, and email contact information of all Washington State licensed CDPs. This list was used to contact CDPs and invite them to take part in the voluntary and anonymous survey sent to their email addresses and filled out on line utilizing Survey Monkey. The goal for this study was to have at least 100 CDPs respond and I received over 200 survey responses from this group.

The third category of respondents was those clients who had been diagnosed as opioid dependent and who were participating in one of two opioid treatment programs in Washington State. The first was a methadone clinic where I spent two days collecting over 200 paper and pencil surveys. The second was a bup/nal clinic where I also spent two days collecting over 130 paper and pencil surveys. Clinic participants were an important element of this study. Other studies have focused on treatment staff and addiction providers, while those that they serve have been left out of the study design. Few studies have sought to collect and analyze data from opioid dependent clients about their medication assisted treatment attitudes and beliefs. At the time of the study, there were 4,500 clients who were participating in opioid treatment programs statewide.

Instrument of Measurement Population Survey

The data collection instrument used for this research projects was a 21- (client) and 29- (medical provider/CDP) question survey that covered the topics of: perception/attitudes toward current medications, perceived effectiveness of medications, short and long terms goals of medication assisted treatment, length of treatment, views on weaning off medication, potential drawbacks of the three primary medications (methadone, bup/nal, vivitrol) utilized in opioid treatment, preferred practices, and challenges facing providers and recovering opioid dependent individuals.

Statements related to attitudes, beliefs, and practices about medication assisted treatment had 6-point Likert-type response scales, including "strongly disagree" to "*strongly agree*," "*not at all effective*" to "*very effective*," and "*not at all helpful*" to "*extremely helpful*." Specifically, the issues covered were : respondents' attitudes toward medication assisted treatment, how strongly they believe in the efficacy of current opioid treatments, which medication is more effective, how long treatment should last, the drawbacks of each therapy, long and short term treatment goals, which approaches respondents find most helpful, and whether those receiving treatments experience shame, judgment or continued marginalization. There were also several open-ended questions designed to encourage respondents to share their stories related to their attitudes, beliefs, and practices about medication assisted treatment for opioid dependence. Although the same core questions were asked of survey respondents from all three respondent groups, additional questions were also asked of each individual group. The survey also collected some demographic information, including age, gender, lengthy of time working in the opioid addiction field, type of treatment modality, and length of time in recovery. This survey instrument was not limited to the most studied medication, methadone, but also included questions related to the most popular medications used currently—methadone, buprenorphine, and naltrexone (vivitrol).

Data Collection Procedures and Participants

Collection of survey data was completed in one of two ways, either a paper and pencil or online version. Methadone and bup/nal clinic participants were surveyed at their opioid treatment clinic locations with paper surveys that were then entered into the statistical database.

Electronic online surveys were used for both the medical providers and CDPs. Medical provider and CDP survey participants were asked to identify themselves as belonging to one of

the two groups. The survey instrument utilized an automated "skip logic" function to differentially move survey respondents into either medical provider or CDP specific questions depending on how they responded to this survey item. In order to utilize electronic collection methods survey participants were sent an email with an embedded link giving them the context of the survey and inviting them to participate.

Survey Monkey was used as the electronic collection method for medical providers and CDPs. The medical providers and their emails are listed on a Suboxone® (bup/nal) physician locater websites http://www.buprenorphine-doctors.com/suboxone-doctors/Washington-WA.cfm and http://www.opiateaddictionresource.com/treatment/suboxone_treatment_directory/wa_suboxone. In addition, email contacts for medical directors of all Washington State certified opioid treatment programs were provided by the Washington State Opioid Treatment Providers Association. The names and email addresses were downloaded unduplicated into an Excel spreadsheet and online surveys were sent to all available utilizing Survey Monkey.

The CDPs were located by contacting the Washington State Department of Health utilizing the public disclosure laws. The health systems quality assurance public disclosure unit of the Washington State Department of Health provided a full database of all CDPs that were currently licensed and registered within the State of Washington. The Department of Health provided me the list under their public disclosure policy and gave me permission to use the names and email to contact interested participants to fill out the survey. These CDPs were contacted in the same way as medical providers, through an email that includes an embedded link that directed them to the electronic survey in survey monkey.

Buprenorphine physicians were located through a public list as noted on the Substance Abuse and Mental Health Services Administration (SAMHSA) website locater list. Medical providers at state methadone clinics were also listed publicly through a common website and were located and contacted through an email survey introduction. I also followed up with direct phone calls to each Washington State certified opioid treatment program clinic and their medical providers to further inform them of this research project and invite them to participate in the online survey.

The third group of participants was active clients in two identified state-certified chemical dependency programs. The two opioid treatment programs supported the collection of paper surveys at their clinic sites—one was a methadone treatment center and the other one was a bup/nal treatment clinic. Agency directors were contacted in order to obtain permission for the survey to be distributed and collected at each site. Strict confidentiality of all data was ensured as no client identifying information were collected or used in this research. Confidentiality and anonymity statements were also posted on the survey collection tables and embedded in each survey. All agency IRB policies were followed throughout the collection process. Collection of paper surveys from the clinic clients occurred in each clinic's waiting room area where clients were waiting to be called in to take their medication. A work station with information about the research study and informed consents was set up in each clinic starting at 8 a.m. on the data collection days. I spent two full days at each clinic collecting surveys, as my target collection was a minimum of 100 responses from each clinic. Clinic clients were asked to volunteer to complete the survey [as they were passing through the waiting room area both before and after they received their daily medication.] Procedures were established and followed that allowed for confidential completion of the surveys and return of the survey directly to the researcher

without routing it through a third party. The researcher provided chairs, clipboards, and pencils so that volunteers were allowed the time and ease to complete their surveys. Surveys collected by the researcher were stored in a locked storage cabinet. Paper and pencil survey data was manually entered into a Survey Monkey data file and then downloaded to Statistical package for the Social Sciences (SPSS) for analysis.

This survey was tested by consulting with the Antioch Survey Research Group for clarity and general level of reading and understanding. A pilot study was also conducted with three participants in each research group. An email was sent to three identified medical professionals, and three CDPs. Paper client surveys were piloted by three staff members who are recovering from opioid dependence and were fully informed as to the purpose of the pilot study and signed an informed consent.

Data Analysis

Data analysis of all collected responses was undertaken utilizing a concurrent triangulation design (Creswell, 2014). The quantitative and qualitative data collection occurred concurrently through the survey and analysis began during the data collection phase. Field notes were also recorded during the four days of data collection at the two opioid treatment program sites. Clinic participants were very vocal and outspoken in the waiting room areas as they awaited their daily medications while filling out surveys. The data were collected in the same instrument, but the quantitative analysis was conducted before the qualitative analysis. The qualitative data were used to help interpret the quantitative findings. Descriptive data were presented and analyzed for all closed-end survey questions. The descriptive statistics included frequency and percentage distributions, as well as mean scores and standard deviations. In addition to the descriptive quantitative data, across group comparisons using ANOVA with post

hoc analysis and t-tests were made for: treatment settings, type of medication utilized in treatment, beliefs/attitudes toward medication assisted treatment, long/short term goals of treatment, length of time on medications, attitude on recovery status of clients, what forms of treatment are considered most effective, and measures of judgment/criticism and marginalization of clients receiving medication to assist in opioid dependence treatment and recovery.

There were three groups in the study—medical providers, CDPs, and clients. Clients were either methadone or bup/nal medication assisted treatment. Responses from methadone clients frequently differed significantly from bup/nal clients. For this reason, their responses are reported separately on the tables. A one way ANOVA with Tukey post hoc analysis was used to compare means scores for the medical providers, CDPs, methadone clients, and bup/nal clients. For some variables only two groups were compared; in this case a *t* test was used to test for significant differences across means. The tools used to collect and subsequently analyze data were Survey Monkey and SPSS.

Table 3.1

Analysis Plan

Topic	Group(s)	Survey Question (#)	Descriptive Statistics	ANOVA with Post Hoc	t-tests
Overall	Medical providers & CDPs	[#2] Current state of affairs in treating opioid dependency.	X		X
	Medical providers & CDPs	[#3] Variety medications available to treat opioid dependency.	X		X
	All Groups	[#15] How each of the groups is responding to the need of people with opioid dependency.	X	X	
	All Groups	#12 (item #3) Long term goal of medication assisted treatment	X	X	X
	All Groups	[#8] Narrative analyses -- Thoughts on medication assisted treatment			
	Medical providers & CDPs	[#16] Opinions on medication assisted treatment	X		
Medication	Medical providers & CDPs	[#3] How effective is each medication?	X		X
	All Groups	[#4] How long stay on each medication?	X		
	All Groups	[#6a] Narrative analysis - Downsides and benefits of methadone			
	All Groups	[#6b] Downsides and benefits of bup/nal			
		[#6c] Downsides and benefits of naltrexone (vivitrol)			

Decision Making	All Groups	[#9] Who should make decisions about weaning off medication?	X	X	
Decision Making	All Groups	[#10] Treatment components	X	X	
Opioid Dependent Experience	All Groups	[#18] Narrative Analysis -- Thoughts on medication assistance			
	All Groups	[#13] Narrative Analysis – Challenges in medication assisted treatment			
Recovery	All Groups	[#14] Narrative Analysis -- What recovery means			
	Client groups	[#2] Response to treatments by three groups in survey	X		
Demo-graphics	All Groups	[#17] Age category	X		
	All Groups	[18] Gender	X		
	CDP counselor	[#26] Type of treatment setting	X		
		[#27] length of time as CDP/ experience in the field of study	X		
	Opioid treatment client	[#3] type of medication currently taking	X		
		[#4] Length of time on medication	X		
Pressure	Opioid treatment client	[#20] pressure to get off medication	X		X
		[#21] Narrative analyses - Additional client thoughts			

Qualitative data were used to help describe and explain the nuances of the similarities and/or differences across groups. Narrative responses to the open-ended questions were coded to reflect the major themes. I coded in six phases in order to create established and meaningful patterns. These phases include (a) familiarizing myself with the data, (b) generating codes, (c) searching and identifying categories represented by the codes, (d) reviewing the categories for themes, (e) naming and defining the themes, and (f) produce the final report of findings. The Survey Monkey text analysis tool was used to assist in the narrative analysis.

Key narrative data that add meaning and depth to the quantitative findings are shown in tables for each of the open-ended questions. Data were collected in October and November 2015.

Chapter IV: Findings of the Study

This study investigated the attitudes, beliefs, and opinions of the three primary groups involved in the opioid dependence treatment process. Those answering surveys were medical providers in both office based practice and state certified (opioid treatment programs, chemical dependency professionals (CDP), and clients who were participating in an outpatient methadone or bup/nal opioid treatment program. Specifically, this study sought to understand the difference in attitudes and beliefs that these three groups held in regards to several key variables in the opioid addiction treatment and recovery process.

The three groups surveyed were (a) medical professionals (N = 43), including physicians and mid-level providers (physicians assistants and nurse practitioner); (b) CDPs licensed in Washington State (N = 199); and (c) active clients in either an outpatient methadone clinic (N = 199) or an outpatient bup/nal clinic (N = 137).

Data Preparation

Client surveys collected at the methadone and bup/nal clinic sites were sorted and reviewed for completeness. Twenty-three (23) methadone client surveys and 14 bup/nal client surveys were only partially filled out and were therefore eliminated from the analysis. The online surveys submitted by CDPs included 56 that were only partially completed; these CDP surveys were also eliminated. All online surveys collected from medical providers were complete.

One variable required some recoding. CDPs were asked to best describe the treatment program where they currently worked. Six surveys were recoded from "other" to the category of outpatient treatment with no medication assisted treatment. These six surveys were re-categorized based on their narrative responses that indicated they worked in some form of outpatient treatment programs that did not utilize medications as a part of their treatment regimes.

The client surveys were keyed into a digital database from the paper and pencil format. Thus, there were two databases—a medical provider and CDP database and a client database that included both methadone and bup/nal clients. ANOVA analyses required having responses to similar questions from the different databases in one file. Thus, data were moved into one master file for analysis.

Demographics

The demographic data collected from all three respondent groups included their age category and gender. Other demographic data collected varied by group. Medical providers were asked how long they had been providers in the opioid treatment field, their work settings, and the types of medications they utilized in their medication assisted treatment practice. CDPs were asked how long they had been practicing in the addiction field as well as their work settings. Clients were asked the length of time they had been on methadone or bup/nal and in recovery.

Age and gender for all three respondent groups. Medical providers were older than any of the other groups with over half (54%) reporting their age as 51 years of age or older. Medical providers also had a high percentage (28%) in the 60 or older category as compared with CDP's (16%), methadone clients (5%) and bup/nal clients (4%). None of the medical providers were under the age of 30 and 46% were between the ages of 31–50 (see Table 4.1). The CDPs were somewhat younger than the medical providers, with 61% under age 51, 13% between the ages of 21 and 30, 24% between 31 and 40, and 24% between 41 and 50. About 39% were age 51 or older, with 16% age 61 or older (see Table 4.1).

The methadone clinic clients were fairly evenly spread across the 21 and 60 years old age groups, with 21% between 21 and 30, 30% between 31 and 40, 20% between 41 and 50, and 24% between 51 and 60. A few (5%) methadone clinic clients were 61 or older (see Table 4.1).

The bup/nal clinic clients were largely younger with 2% under age 21 and 87% between the ages of 21-50. Only 11% were over age 51 (see Table 4.1).

Table 4.1

Age Group Percentage Distributions for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Age Group	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone % N = 199	Bup/nal % N = 137
18-20 years old				1.5
21-30 years old		13.4	20.7	36.5
31-40 years old	30.2	23.7	30.1	32.1
41-50 years old	16.3	23.7	20.2	19.0
51-60 years old	25.6	23.2	23.8	7.3
61 or older	27.9	16.0	5.2	3.6

The respondent groups also varied by gender distribution. The medical providers were predominately male (74%), with the other 26% female. The CDPs were more predominately female, with 66% females and 34% males. Both the methadone and bup/nal outpatient client groups had more female participants (58% and 56% respectively) than males (42% and 44% respectively). Based on clinic statistics, this is a percentage distribution that closely reflected the gender spread at the methadone (50% females and 50% males) and bup/nal (54% female and 46% male) clinics (see Table 4.2).

Table 4.2

Gender Percentage Distributions for Medical Providers, CDPs, Methadone and Bup/nal Clients

Gender	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone % N = 199	Bup/nal % N = 137
Female	25.6	66.5	58.0	55.9
Male	74.4	33.5	42.0	44.1

Medical provider and CDP professional demographics. Medical providers were asked how long they had been in the opioid treatment field, while CDPs were asked how long they had been practicing in the addiction counseling field. CDPs reported a higher number of professionals practicing for less than one year (12%), however, in all other categories of experience the percentages were very similar between the two groups (see Table 4.3).

Table 4.3

Percentage Distributions for Length of Time as a Medical Professional in Opioid Treatment Field or as a CDP

Time as OTP or medical provider	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone	Bup/nal
Less than 1 year	7.0	12.4		
1 to 5 years	30.2	34.0		
6 to 10 years	16.3	19.1		
11 to 20 years	25.6	18.6		
21 years or more	16.3	16.0		

Medical professionals were asked what type of opioid treatment setting they were currently working in. They worked in a cross section of opioid treatment settings, with some providers working in more than one setting. Medical professionals often work in more than one setting; thus, they were encouraged to "check all that apply." The diversity of settings included

outpatient methadone clinic (14%), outpatient bup/nal clinic (62%), detox unit (24%), and other settings (23%), such as hospital addiction programs, family practice, residential treatment, pain management, and hospital emergency room (see Table 4.4).

Table 4.4

Percentages for Medical Provider Respondent Places of Work

Medical providers Work setting	Medical Providers % N = 43	CDPs	Clients	
			Methadone	Bup/nal
Methadone Clinic OTP (Opioid treatment program)	14.3			
Office based practice Bup/nal/Buprenorphine	61.9			
Bup/nal program with Physician in an outpatient chemical dependency program	23.8			
Bup/nal Clinic OTP (Opioid treatment program)	26.2			
Detox unit	23.8			
Other	23.8			

Note. Medical Providers often had more than one place of work.

Medical providers were also asked to list all the medications used in their current practice. A large majority utilized bup/nal (92%), subutex (81%), and naltrexone/vivitrol (69%), while the minority (21%) used methadone in their medication assisted treatment. Only a few medical providers (9%) identified other medications they used in their medication assisted treatment practice, such as Zubsolv®, Bunavil®, Butrans®, and Campral® for alcohol abuse. (See Table 4.5.)

Table 4.5

Percentages for Medications That Medical Providers Use in Their Medication Assisted Treatment Practice

Medications used in Medication Assisted Treatment	Medical Providers % N = 43	CDPs	Clients	
			Methadone	Bup/nal
Bup/nal (buprenorphine/naloxone)	95.2			
Buprenorphine (subutex)	81.0			
Naltrexone (oral or injection), vivitrol	69.0			
Methadone	21.4			
Other	9.5			

CDP respondents worked in a variety of settings and were not limited to traditional methadone/bup/nal opioid treatment programs. The majority (89%) of CDPs were not currently employed in a methadone/bup/nal clinic. They either worked in an outpatient treatment program with no medication assisted treatment (29%), in an outpatient center that had a medical provider that prescribes bup/nal (30%), or in another chemical dependency treatment setting (31%), such as long and short term inpatient chemical dependency treatment programs, detox centers, outpatient agencies with co-occurring caseloads, drug courts, private practice, outpatient mental health centers, juvenile justice centers, and even school settings (see Table 4.6).

Table 4.6

Percentage Distributions for CDP Respondent Place of Work

Treatment Program Description. *	Medical Providers	CDPs % N = 199	Clients Methadone	Clients Bup/nal
Methadone Clinic		9.6		
Bup/nal Clinic		2.0		
Outpatient Treatment with NO Medication Assisted Treatment		28.8		
Outpatient Treatment with medical provider that prescribes bup/nal		29.8		
Other		30.8		

* *Note*. A few CDPs had more than one place of work.

Client demographics. Clients that were actively attending and participating in the medication assisted treatment for opioid dependency were asked about the length of time they had been receiving help from their particular clinics. Methadone clients were more than twice as likely to have been participating in treatment less than 1 year (56%) as compared with bup/nal clients (27%). The highest percentage (42%) of bup/nal clients had been receiving treatment at their clinic for 2–3 years. About one-third of both methadone and bup/nal clients had been receiving treatment at their clinics for more than three years, 32% and 31% respectively (see Table 4.7).

Table 4.7

Percentage Distributions for Length of Time as an Active Client in Methadone and Bup/nal Treatment Programs

Time in clinic	Medical Providers	CDPs	Clients	
			Methadone N = 199 %	Bup/nal N = 137 %
Less than 1 year			56.3	27.0
A few years (2-3)			12.1	42.3
More than 3 years			31.7	30.7

Methadone clients (30%) were much more likely than bup/nal clients (7%) to be taking the medication for 6 or more years. Methadone maintenance treatment has also been used to treat opioid dependence for over 45 years. Bup/nal was approved by the FDA in 2004 for use in opioid treatment. However, bup/nal clients (35%) were more likely than the methadone clients (20%) to be on their medication for 3-5 years (see Table 4.8).

Table 4.8

Percentage Distributions for Length of Time Methadone and Bup/nal Clients Have Been Taking Medication for Opioid Dependence

Length of time on medication	Medical Providers	CDPs	Clients	
			Methadone %	Bup/nal %
0–5 months			16.8	21.5
6 months to 2 year			32.2	37.0
3 year to 5 years			20.2	34.8
6 years or more			30.3	6.7

The majority of clients in both the methadone (88%) and bup/nal (98%) clinics identify themselves as being in recovery. The methadone clients were more likely to be only somewhat sure (25%) about being in recovery. Methadone clients were also more likely than their bup/nal counterparts to report they are not in recovery, 9.7% compared 1.5%. Methadone clients

appeared less clear and certain about their recovery status than did bup/nal clients (see Table 4.9).

Table 4.9

Percentage Distributions for Clients Belief They Are in Recovery From Opioid Dependency for Methadone and Bup/nal Clients

In recovery	Medical Providers	CDPs	Clients	
			Methadone % N = 199	Bup/nal % N = 137
Yes, definitely			61.9	85.2
Yes, somewhat			26.5	13.3
No			11.6	1.5

Methadone clinic and bup/nal clinic clients were asked about the length of time they had been in recovery from opioid dependence. Bup/nal clients reported being in recovery for longer periods of time, with 64% in recovery for one year or more compared to 52% of methadone clients. All bup/nal clients reported themselves to be in some time linked stage of recovery, whereas over 5% of methadone clients did not view themselves as in recovery at all (see Table 4.10).

Table 4.10

Percentage Distributions for Length of Time Methadone and Bup/nal Clients Believe They Have Been in Recovery From Opioid Dependence

Length time in recovery	Medical Providers	CDPs	Clients	
			Methadone Clients % N = 199	Bup/nal Clients % N = 137
0–5 months			21.8	18.9
6 months to 1 year			20.8	17.4
1 to 2 years			17.8	29.5
3 years or more			34.5	34.1
Not in recovery			5.08	0.00

A large majority (79% and 92% respectively) of methadone and bup/nal clinic clients saw the treatment services they were receiving as having helped a lot. No bup/nal participants rated the treatment as not helpful and only a small percentage (1.4%) of the methadone clients saw the treatment as not helpful at all. Overwhelmingly all clients surveyed viewed their medication assisted treatment services as helpful (see Table 4.11).

Table 4.11

Percentage Distributions for Methadone and Bup/nal Client Perception of How Helpful Treatment Services

Has treatment helped	Medical Providers	CDPs	Clients	
			Methadone % N = 199	Bup/nal % N = 137
Helped a lot			79.5	92.7
Somewhat helped			14.1	7.3
Helped a little			4.8	0.0
Not helped at all			1.4	0.0

As expected, almost all (99% and 98% respectively) clients in the methadone and bup/nal clinics surveyed self-reported being exclusively on the medication that their particular clinic endorsed.

Attitudes Toward Medication Assisted Treatment

All three respondent groups were surveyed on a variety of opioid treatment issues in order to understand the similarities and differences in their attitudes toward medication assisted treatment. The attitudes explored included important treatment issues related to progress in the OTP field, effectiveness of medications, length of time clients should be on medications, helpful components of treatment, and a variety of other issues as listed in the tables below.

The quantitative responses to the survey addressed three research questions about attitudes toward medication assisted treatment for opioid addiction. These were:

1. What attitudes, beliefs, and practices do medical providers, CDPs and opioid dependent, addiction counselors, and clients have related to medication assisted treatment of opioid dependence?
2. To what degree are the attitudes, beliefs, and practices for the three groups different from those of the other group?
3. What is the variability on views related to treatment options within each group?

There were significant differences across respondent groups for most variables. Within the client group, the methadone and bup/nal clients also frequently had significantly different responses. Thus, client group responses were broken out in the analyses by methadone and bup/nal client group.

Overall progress. Medical providers and CPDs were asked about their views on the progress being made in addressing the opioid addiction problem within the treatment field.

Medical providers (*M* = 6.33) on a response scale of *1 (no progress at all) to 10 (great deal of progress)* had a statistically significant more positive view of the progress being made in addressing opioid addiction than the CDPs (*M* = 5.32), *t*(1,235) = 3.15, *p = .002.* Medical providers and CDPs were also asked about the effectiveness of the medications currently being utilized in the opioid addiction treatment field. Again, on a scale of 1 *(not at all effective) to 10 (very effective),* medical providers (*M* = 7.55) rated the effectiveness significantly higher than the CDPs (*M* = 6.08*), t(1,235) = 5.8, p = .000* (see Table 4.12). Methadone and bup/nal clients were not asked these two overall rating questions. Results were statistically significant that CDPs rated both progress in the field and effectiveness of medications lower than the medical providers.

Table 4.12

Mean, Standard Deviation, and t-Test Results for Overall Progress and Medication Effectiveness in Addressing Opioid Dependence Problems for Medical Providers and CDPs

Overall…	Medical Providers (N = 43) *M(SD)*	CDPs (N = 199) *M(SD)*	Clients		T-test
			Methadone	Bup/nal	
…Progress in addressing opioid addiction problem within opioid addiction treatment field	6.33 (1.90)	5.32 (1.86)			*.002*
…Effectiveness of currently available medications utilized in the opioid addiction treatment field.	7.55 (1.61)	6.08 (2.07)			.000

Supporting group response to opioid dependence issues. Medical providers, CDPs, and methadone and bup/nal clients were asked to assess how well various supporting groups were doing in responding to the needs of opioid dependent individuals. Response options were

1(not at all well), 2(somewhat okay), 3(okay), 4(well), and 5(extremely well). ANOVA results showed there were statistically significant differences across respondent groups for each supporting group, F*(3,557) = 33.2, p = .000.* Post hoc analysis identified the specific respondent group differences at the $p < .05$ level. With respect to how the physicians were doing in responding to needs of clients, bup/nal clients ($M = 3.89$) were most likely to see this group as doing well as compared to methadone clients, CDPs, and physicians.

Respondent groups were also asked how the counselors were doing at responding to the needs of opioid dependent individuals. ANOVA results showed there were statistically significant differences across groups F*(3,545) = 18.3, p = .000.* Post hoc analysis showed that when it came to rating the counselors on the same response scale at the $p = .000$ level of significance the bup/nal clients ($M = 4.03$) were again more likely to view them as doing well compared to the methadone clients responses ($M = 3.31$) and the medical providers responses ($M = 3.21$). At the same time, medical providers ($M = 3.21$) were significantly less likely than CDPs ($M = 3.83$) and bup/nal clients ($M = 4.03$) to see counselors as doing well. Medical providers did not rate the counseling as effective as did other groups, this has implications toward integrated care.

Respondent groups were also asked how they felt their local communities were doing in responding to the needs of opioid dependent individuals. The mean scores for support from local communities for all groups were lower than for any other supporting group. ANOVA results showed there was also a statistically significant difference across respondent groups F*(3,550) = 13.0, p = .000.* Post hoc analysis showed that at the $p < .05$ level both methadone ($M = 2.24$) and bup/nal ($M = 2.29$) client groups responded more positively than either CDPs ($M = 1.78$) and medical providers ($M = 1.83$) in regards to how their local communities were

responding to their needs. Medical providers and CDPs did not have a good regard for how their local communities were doing in responding to the needs of affected individuals, suggesting a need for improvement in shared responsibility.

Respondent groups were also asked how the clients themselves were doing at responding to the needs of opioid dependent individuals. ANOVA results showed there was statistically significant across groups F*(3,544) = 32.7, p = .000*. Post hoc analysis again showed at that the $p = .000$ level of significance methadone ($M = 3.06$) and bup/nal ($M = 3.42$) clients were more likely to see clients responding better to the problem of opioid dependence as compared to the hired professionals.

Respondent groups were also asked how family and friends were doing at responding to the needs of opioid dependent individuals ANOVA results showed there was a statistically significant difference across respondent groups F*(3,551) = 50.5, p = .000*. Post hoc analysis showed that at the $p = .000$ level of significance bup/nal ($M = 3.46$) clients reported higher mean scores on the family and friends response to the needs of opioid dependent individuals, than medical providers ($M = 2.39$), CDPs ($M = 2.07$), and methadone ($M = 2.81$) clients were less positive about the support of family and friends. Methadone clients were also significantly more positive about the support of family and friends than medical providers and CDPs. The medical providers and CDPs did not differ on this item. It appears that both sets of paid professionals underrated the helpfulness of the client's family members and friends (see Table 4.13).

Table 4.13

Mean, Standard Deviation, and ANOVA Results for Overall Progress in Addressing Opioid Dependence Problems for Medical Providers, CDPs, and Methadone and Bup/nal Clients

How Supporting Group Meeting Needs of Opioid Dependent Clients	Medical Providers (N = 43)	CDPs (N = 199) *M(SD)*	Clients		ANOVA Results
			Methadone N = 199	Bup/nal N = 137	
Physicians/physician assistants/nurse practitioner	2.49 (1.20)	2.56 (1.29)	2.95 (1.32)	3.89 (1.05)	.000
Counselors	3.21 (1.44)	3.83 (1.42)	3.31 (1.06)	4.03 (.97)	.000
Local communities	1.83 (.82)	1.78 (1.01)	2.24 (1.20)	2.99 (1.12)	.000
Addicts themselves	2.50 (1.25)	2.52 (1.23)	3.06 (1.11)	3.42 (1.07)	.000
Families and friends of addicts	2.39 (1.09)	2.07 (.89)	2.81 (1.12)	3.46 (.99)	.000

Length of time clients should use methadone or bup/nal. Respondents were also asked about the length of time clients should use methadone or bup/nal to assist in the recovery process. Medical providers, CDPs, and methadone clients were asked this question with respect to methadone. Response options ranged from *detox (less than 1 week)* to *as long as needed*. Methadone clinic participants that were actively taking methadone as part of their treatment for opioid dependence, overwhelmingly (84%) responded that they should be allowed to take methadone for as long as needed. Only (3%) of methadone respondents answered that it was appropriate to take the medication *less than 6 months*. Medical providers also largely (70%) supported that clients should be allowed to take methadone as a part of their treatment regime for as long as it was needed. A much lower percentage (26%) of CDPs felt that methadone should be used for as long as it was needed. Unlike the medical providers and the methadone clients,

the majority of CDPs (63%) thought methadone should be used for a shorter period of time, such as *detox*, or *less than 1 week* (13%), or *stabilization*, *1 week to less than 6 months* (26%). CDPs consistently favored the use of medications for stabilization purposes only, whereas both the clients and their medication provider's felts medications should be used for as long as needed (see Table 4.14).

Table 4.14

Percentage Distributions for Length of Time Clients Should Be on Methadone to Assist in Opioid Treatment for Medical Providers, CDPs, and Methadone Clients

Length Time on methadone	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone % N = 199	Bup/nal
Detox (1 week or less)	7.0	13.4	1.0	
Stabilization < 6 months	2.3	25.8	2.0	
6 months to 2 years	7.0	24.2	9.2	
3 to 5 years	4.7	5.7	4.1	
For as long as needed	69.8	25.8	83.7	
No Experience	9.3	5.2	0	

Medical providers, CDPs, and bup/nal clients were asked the same length of time question with respect to bup/nal treatment of opioid dependence. Again the response categories ranged from *detox (1 week or less*) to "for *as long as needed*." Both medical providers (81%), and bup/nal clinic participants (83%) felt that it would be appropriate to utilize bup/nal to assist in opioid dependence treatment for as long as needed. A much lower percentage (27%) of CDPs felt that bup/nal should be used for as long as needed. CDPs were more likely to suggest bup/nal should be used for *6 months to 2 years* (31%), *stabilization—less than 6 months* (25%), or *detox—one week or less* (10%). When the *detox, stabilization < 6 months, and 6 months to 2 years* were combined, this accounted for 16% of medical professionals' responses, 16% of

bup/nal clinic participants'responses, and 57% of CDP responses. CDP responses again favored stabilization only, whereas medical providers and clients felt medication use should be for as long as needed (see Table 4.15).

Table 4.15

Percentage Distributions for Length of Time Clients Should Be on Bup/nal to Assist in Opioid Treatment for Medical Providers, CDPs, and Bup/nal Clients

Length Time on Bup/nal	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone	Bup/nal % N = 137
Detox (1 week or less)	2.3	10.3		0
Stabilization (less than 6 months)	0	25.4		4.5
6 months to 2 years	14.0	31.4		10.7
3 to 5 years	2.3	1.5		1.5
For as long as needed	81.4	26.8		83.3
No Experience	0	4.6		0

Medical providers and CDPs were also asked about vivitrol, an opioid blocker, a third, but less frequently used medication in the treatment of opioid dependence treatment. Medical providers and CDPs were asked about the length of time vivitrol should be used. Methadone and bup/nal clinic participants were not expected to have a working knowledge of vivitrol. The same five categories were given as possible survey responses, ranging from *detox—1 week* or less to *for as long as needed*. About 12% of the medical providers and 21% of the CDPs indicated that they had no experience with vivitrol. Of those with experience with vivitrol, medical providers were most likely to support its use for longer periods of time, with 31% responding that *6 months to 2 years* was appropriate, and 52% indicating they indicating that it could be used or as long as needed. A much smaller percentage of CDPs thought the longer time periods of *6 months to 2 years* (17%), and *for as long as needed* (26%) were appropriate. Therefore, not surprisingly,

CDPs were more likely than medical professionals to respond that vivitrol should be used for less than 6 months, (34%) compared to (5%). Even for naltrexone (vivitrol) that is a non-opioid medication that blocks the effects of opioids, CDPs did not favor its use for other than stabilization purposed. Medical providers and clients again felt that this medication like all others should be used for as long as needed in the treatment and recovery process (see Table 4.16).

Table 4.16

Percentage Distributions for Length of Time Clients Should Be on Vivitrol to Assist in Opioid Treatment for Medical Providers and CDPs

Length on Vivitrol	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone	Bup/nal
Detox (1 week or less)	0	6.2		
Stabilization (less than 6 months)	4.8	27.8		
6 months to 2 years	31.0	17.0		
3 to 5 years	0	1.5		
For as long as needed	52.4	26.8		
No Experience	11.9	20.6		

The fourth medication that both medical professionals and chemical dependency professionals were asked to rate was buprenorphine (subutex). Subutex is basically the same medication as bup/nal without the mu partial agonist "naloxone" added. Not surprisingly, since buprenorphine and bup/nal are very similar compounds, the results for this medication mirrored the responses groups gave about bup/nal. CDPs were more likely to agree to shorter use for detox (9%), for stabilization (29%) and for 6 months to 2 years (23%), compared to 5%, 12%, and 19% respectively of medical providers. At the same time, medical providers were more likely to indicate that clients should be allowed to stay on the medication for long as needed

(65%) whereas only 23% of CDPs thought that for as long as needed was appropriate. All medical providers had experience with buprenorphine (subutex), while 14% of CDPs indicated they had no experience with this medication. Again identical results as compared to the other three medications surveyed, CDPs favored stabilization only. These consistent results have major implication in the treatment field (see Table 4.17).

Table 4.17

Percentage Distributions for Length of Time Clients Should Be on Buprenorphine (Subutex) to Assist in Opioid Treatment for Medical Providers and CDPs

Length time on buprenorphine (subutex)	Medical Providers % N = 43	CDPs % N = 199	Clients	
			Methadone	Bup/nal
Detox (1 week or less)	4.7	9.3		
Stabilization (less than 6 months)	11.6	28.9		
6 months to 2 years	18.6	22.7		
3 to 5 years	2.3	2.1		
For as long as needed	62.8	22.7		
No Experience	0	14.4		

Effectiveness of medications. Medical providers and CDPs were also asked to rate the effectiveness of the four medications that are currently being utilized in medication assisted treatment for opioid dependence. The response scale was: *1(not at all effective), 2(not to effective), 3(somewhat effective), 4(effective), 5(very effective)*. Medical providers were more likely than CDPs to view the two most frequently utilized medications, methadone ($M = 3.98$) and bup/nal ($M = 4.44$), higher in effectiveness. Medical providers ($M = 3.98$) were significantly more likely than CDPs ($M = 2.99$) to view methadone as effective, $t(1,235) = 2.8$, $p = .000$. Medical providers ($M = 4.44$) were also more likely than CDPs ($M = 3.67$) to view bup/nal as effective, $t(1,234) = 13.6$, $p = .000$. CDPs viewed the effectiveness of all opioid based

medications lower than did the medical providers. The only medication that CDPs were more likely than medical providers (*M* = 3.86) to view as effective was also the only opioid antagonist (blocker) and non-opioid medication, vivitrol, but the differences were not statistically significant. CDPs did not rate the currently available and widely used medications as effective compared with all other groups (see Table 4.18).

Table 4.18

Mean, Standard Deviation, and t-Test Results for Drug Effectiveness for Medical Providers and CDPs

Medication effectiveness	Medical Providers (N = 43) *M(SD)*	Chemical Dependency Professionals (N = 199) *M(SD)*	Clients		T test
			Methadone	Bup/nal	
How effective is: Naltrexone (Vivitrol)	3.86 (1.21)	4.15 (1.38)			.171
How effective is: Methadone	3.98 (1.28)	2.99 (1.31)			.000
How effective is: Bup/nal	4.44 (0.82)	3.67 (1.20)			.000
How effective is: Buprenorphine (subutex)	4.21 (0.80)	3.86 (1.42)			.126

Who should be involved in decision to get off medications? Survey respondents were asked how much they agreed that physicians, counselors, clients, or families should be involved in decisions related to getting off medications. The response scale was: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree) and 6(strongly agree).* There were statistically significant differences of opinion about whether each of these supporting groups—physicians, counselors, clients, and family—should be involved in decisions about stopping a client's medications. ANOVA results showed statistically significant differences

across responding groups about whether physicians should be involved in the decision, F*(3,551) = 21.1, p = .000.* Post hoc analysis showed that at the $p < .01$ level of significance methadone clients ($M = 3.35$) had the statistically lower level of agreement about whether physicians should be involved in the decision to stop medications when compared to the other respondent groups—medical providers ($M = 4.95$), CDPs (M = 4.42), and bup/nal clients ($M = 4.11$). Methadone clients felt that they should be the ones to determine when they discontinue the use of methadone (see Table 4.19).

With regard to counselors' input into the decision to get a client off medications, there were again statistically significant differences across groups, F*(3,535) = 12.3, p = .000*. Post hoc analysis showed that at the $p = .000$ level of significance the methadone clients ($M = 3.42$) were less likely than bup/nal clients ($M = 4.20$), medical providers ($M = 3.85$) and CDPs ($M = 4.28$) to agree that counselors should be involved in the decision to stop medication. Again methadone clients were most likely to favor their own input in deciding when to discontinue the use of methadone (see Table 4.19).

Medical providers ($M = 5.02$), CDPs ($M = 4.57$), methadone ($M = 5.20$), and bup/nal ($M = 5.07$) clients groups all had their highest level of agreement that clients should be involved in the decision to stop medications. Although they all agreed that clients should be involved in the decision, ANOVA results again showed statistically significant differences across groups, F*(3,546) = 6.5, p = .000*. Post hoc analysis showed that at the $p < .01$ level of significance CDPs ($M = 4.57$) were less likely than the methadone ($M = 5.20$) and the bup/nal ($M = 5.08$) clients to agree that clients should be involved in the decision to stop medications. CDPs agreed that clients should be involved in the decision to discontinue medication but as statistically significantly lower level than all other group (see Table 4.19).

Medical providers (*M* = 2.60), CDPs (*M* = 2.34), methadone (*M* = 2.35) and bup/nal (*M* = 3.20) clients all tended to disagree that family members should be involved in the decision to stop medication. Again, however, ANOVA results showed statistically significant differences across groups, F*(3,506) = 9.6, p = .000* . Post hoc analysis showed that at the *p* = .000 level of significance bup/nal clients (*M* = 3.20) were more likely than the other groups to agree that family should be involved in the decision. Bup/nal clients demonstrated a higher level of trust involving their families in decision about their medications (see Table 4.19).

Table 4.19

Mean, Standard Deviation, and ANOVA Results for Who Should Be Involved in Decision to Get Client Off Medications for Medical Providers, CDPs, Methadone and Bup/nal Clients

Decision to taper off	Medical Providers (N = 43) *M(SD)*	CDPs (N = 199) *M(SD)*	Clients		ANOVA Results
			Methadone (N = 199) *M(SD)*	Bup/nal (N = 137) *M(SD)*	SIG
Physician	4.95 (1.13)	4.42 (1.39)	3.35 (1.74)	4.11 (1.59)	.000
Counselors	3.85 (1.45)	4.28 (1.33)	3.42 (1.63)	4.20 (1.31)	.000
Clients in treatment	5.02 (1.30)	4.57 (1.42)	5.20 (1.56)	5.07 (1.36)	.000
Family members	2.60 (1.36)	2.34 (1.25)	2.35 (1.59)	3.20 (1.58)	.000

Helpfulness of treatment options. Attitudes of all survey respondent groups about their perceptions of various components of the treatment process and their helpfulness was collected and summarized. The scale included the response options of: *1(not at all helpful), 2(not helpful), 3(somewhat helpful), 4(helpful), 5(very helpful), and 6(extremely helpful)*. ANOVA results showed there were statistically significant differences in opinions across respondent groups about how they viewed the helpfulness of various components of the opioid treatment process, F*(3,555) = 25.4, p = .000*. Post hoc analysis identified which groups had significantly different views on the helpfulness of the treatment components.

Medical providers rated medications ($M = 5.11$) and a combination of medications, urine analysis, and counseling as very or extremely helpful ($M = 5.53$). Medical providers also viewed involvement with 12 step support ($M = 4.34$) and counseling ($M = 4.40$) as helpful components. CDPs viewed counseling ($M = 5.05$) and the combination of counseling, medications, and urine analysis ($M = 5.50$) as very or extremely helpful. CDPs rated medications alone ($M = 4.44$) a bit lower, but still helpful. Methadone ($M = 5.29$) and bup/nal ($M = 5.35$) clients rated the use of medications as the single most helpful component of their treatment programs, followed by counseling, $M = 4.13$ and $M = 4.97$ respectively, and combinations of medications and counseling, $M = 4.64$ and $M = 4.98$ respectively. Methadone clients rated the 12 step ($M = 2.83$) support as the least helpful.

Looking at each of the treatment options, with respect to counseling, overall ANOVA results showed there was a statistically significant difference across groups, $F(3,563) = 22.9$, $p = .000$. Post hoc analyses showed there were several significant between group differences at the $p < .01$ level of significance. Methadone ($M = 4.13$) clients rated counseling as less helpful than the CDPs ($M = 5.05$) and bup/nal ($M = 4.97$) clients. Medical providers ($M = 4.40$) viewed counseling as less helpful than the CDPs ($M = 5.05$). Bup/nal ($M = 4.97$) clients rated counseling as more helpful than the medical providers ($M = 4.40$). Bup/nal clients and CDPs did not differ significantly with respect to the helpfulness of counselling. Medical providers and methadone clients saw the counseling components of treatment as less helpful than the counselors themselves.

Medication. Overall, ANOVA results showed a statistically significant difference across groups on the helpfulness of medication, $F(3,555) = 25.4$, $p = .000$. Post hoc analysis demonstrated that at the $p < .01$ level of significance medical providers ($M = 5.11$), bup/nal

(M = 5.35), and methadone (M = 5.2) clients groups all rated the use of medications in the treatment process as more helpful than did the CDP (M = 4.44) group at the $p < .01$ level of significance. There were no significant differences between the medical providers and their clients with respect to the helpfulness of medications. CDPs again saw the use of medications as less helpful than the medical providers and the clients who used them to assist in treatment and recovery. Results are consistent with CDP attitudes and beliefs against the use of medications (see Table 4.20).

Twelve step support and urine analysis drug screens. Overall, ANOVA results showed a statistically significant difference across groups on the helpfulness of 12-step supports, $F(3,530) = 45.1, p = .000$. Post hoc analysis showed that at the p = .000 level of significance methadone clients (M = 2.83) viewed 12 step supports as a less helpful treatment component than medical providers (M = 4.34), CDPs (M = 4.45), and bup/nal clients (M = 4.13). Post hoc analysis ratings on helpfulness of the urine drug screens were identical to the results noted for the 12 step support. Methadone (M = 3.51) clients rated the drug screens statistically significantly lower in the helpfulness than did the medical providers (M = 4.79), CDPs (M = 4.75), and bup/nal clients (M = 4.71). Methadone clients did not see accountability via urine drug screens or attendance at 12 step support group meetings as helpful components of treatment (see Table 4.20).

Combination of counseling and medication. Overall, ANOVA results showed a statistically significant difference across groups on the helpfulness of the combination of counseling and medication $F(3,545) = 8.1, p = .000$. Post hoc analysis showed that at the $p < .05$ level of significance methadone clients (M = 4.04) had a less favorable view of the combination of

counseling and medication than medical providers (*M* = 5.09), CDPs (*M* = 5.20), and bup/nal clients (*M* = 4.98) (see Table 4.20).

Combination of counseling, medication, and urine drug screen. Overall, ANOVA results showed a statistically significant difference across groups on the helpfulness of the combination of counseling, medication, and urine drug screens, F(3,542) = 50.1, *p* = .000. Post hoc analysis showed that at the *p* < .05 level of significance both medical providers (*M* = 5.53), and CDPs (*M* = 5.50) viewed the combination of medication, counseling and accountability as more helpful than did both the methadone clients (*M* = 4.04), and bup/nal clients (*M* = 4.94). The paid professionals see the combination of all forms of the treatment process as more helpful than did the clients who were the receivers of these services (see Table 4.20).

Table 4.20

Mean, Standard Deviation, and ANOVA Results for Components of Treatment That Are Helpful to Clients in Opioid Treatment for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Treatment components	Medical Providers (N = 43) *M(SD)*	CDPs (N = 199) *M(SD)*	Clients		ANOVA Results
			Methadone (N = 199) *M(SD)*	Bup/nal (N = 137) *M(SD)*	
Counseling	4.40 (1.03)	5.05 (.99)	4.13 (1.53)	4.97 (1.02)	.000
Medication	5.11 (.73)	4.44 (1.25)	*5.29 (1.09)*	*5.35 (.87)*	.000
Accountability UA	4.79 (.91)	4.75 (1.14)	*3.51 (1.52)*	*4.71 (1.27)*	.000
12 Step support	4.34 (1.15)	4.45 (1.27)	*2.83 (1.67)*	*4.13 (1.30)*	.000
Combination of counseling & medication	5.09 (.72)	5.20 (1.50)	*4.64 (1.33)*	*4.98 (1.02)*	.000
Combination of counseling, medication, & UAs	5.53 (.70)	5.50 (.936)	*4.04 (1.57)*	*4.94 (1.13)*	.000

Other client issues. All survey respondents were asked about clients who are involved in the treatment process being negatively judged or not, being seen as not motivated. The rating scale was as follows: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).*

Negatively judged. The respondent groups demonstrated a high level of agreement that people on medication for opioid dependence are negatively judged by others. While there was concurrence that clients were negatively judged, there was also a statistically significant difference across respondent groups, $F(3,565) = 15.2, p = .000$. Post hoc analysis showed that at the $p < .05$ level of significance methadone clients ($M = 5.16$) were more likely than medical providers ($M = 4.65$), CDPs ($M = 4.61$), and bup/nal clients ($M = 4.30$) to strongly agree that they were negatively judged. Methadone client's felts more negatively judged than all other groups, and this is consistent with narrative responses as well.

Opioid dependence a chronic disease. ANOVA analysis showed a statistically significant difference across respondent groups on the issue of whether opioid dependence is a chronic disease, $F(3,565) = 5.4\ p = .001$. Post hoc analysis showed that at the $p < .01$ level of significance medical providers ($M = 5.83$) were statistically significantly more likely than the CDPs ($M = 5.32$), methadone clients ($M = 5.31$), and bup/nal clients ($M = 5.11$) to strongly agree that opioid dependence is a chronic disease. All groups had strong agreement with this item, however medical providers strongly agreed at a higher rate.

Client motivation to get clean. All groups disagreed that people on medication for opioid dependency are not motivated to get clean. ANOVA results showed statistically significant differences across respondent groups on the issue of motivation to get clean, $F(3,561) = 3.1, p < .05$. Post hoc analysis showed that at the $p < .05$ level of significance

medical providers (*M* = 1.74) more strongly disagreed that people on medications are not motivated than CDPs (*M* = 2.43). CDPs appear to question clients motivation to get clean more so than the medical professionals and clients themselves (see Table 4.21).

Table 4.21

Mean, Standard Deviation, and ANOVA Results Feeling Judged for Being on Medications for Medical Providers, CDPs, Methadone and Bup/nal Clients

Attitudes judgment, motivation, chronic/acute	Medical Providers (N = 43) *M(SD)*	CDPs (N= 199) *M(SD)*	Clients		ANOVA Results
			Methadone (N = 199) *M(SD)*	Bup/nal (N = 137) *M(SD)*	
People on medication are negative judged	4.65 (1.04)	4.61 (1.12)	5.16 (1.20)	4.30 (1.33)	.000
Opioid addiction is a chronic disease	5.83 (.43)	5.32 (.98)	5.31 (1.12)	5.11 (1.04)	.001
People of medication are not motivated	1.74 (1.07)	2.43 (1.30)	2.21 (1.54)	2.36 (1.44)	.026

Issues related to medication assisted treatment. There were also a variety of issues addressed related to the process of medication assisted treatment and recovery from opioid dependence. The response scale for this set of statements was: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).*

***Whether clients receiving medication assisted treatment are clean*.** ANOVA results showed statistically significant differences across respondent groups on the issue of whether clients on medication assisted treatment are clean, $F(3,557) = 9.7$, $p = .000$. Post hoc analysis demonstrates that at the $p < .05$ level of significance CDPs (*M* = 3.91) were less likely to agree that clients who are on medication assisted treatment are clean when compared to the medical providers (*M* = 4.67), methadone clients (*M* = 4.46), and bup/nal clients (*M* = 4.62). CDPs did not see clients in medications assisted treatment as "clean" as compared to all other groups, and

reflects a consistent belief about the role of medications in the process of opioid treatment and recovery.

Whether medication assisted treatment should be time limited. All groups were asked to rate their level of disagreement or agreement on the view that medication assisted treatment should be time limited. The rating scale was as follows: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether medication assisted treatment should be time limited, F*(3,554) = 68.9, p = .000*. Post hoc analysis showed that at the $p<.05$. level of significance medical providers ($M = 2.11$), methadone clients ($M = 2.12$), and bup/nal clients ($M = 2.90$) were more likely to disagree and the CDPs ($M = 4.27$) were more likely to agree with the notion that medication assisted treatment should be time limited. CDPs as in other survey responses to items related to length of time on medications, again validated their belief that medications should be time limited and used for stabilization purposes only.

Whether the long-term goal of medication assisted treatment should be to be off all drugs and medications. The next statement asks for level of disagreement or agreement that the long term goal of medication assisted treatment should be to be off both illicit drugs and all medications. The rating scale was as follows: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of the long term goal of medication assisted treatment, F*(3,548) = 22.4, p = .000*. Post hoc analysis shows that at the $p < .01$ level of significance medical providers ($M = 2.48$) were more likely to disagree with this assertion when compared to CDPs ($M = 4.53$), methadone clients ($M = 3.70$), and bup/nal clients

(*M* = 3.93). There was also a statistically significant difference at the $p<.01$ level between methadone clients (*M* = 3.70) and bup/nal clients (*M* = 3.93) as compared to CDPs (*M* = 4.53). Similarly, CDPs were also much more likely to agree with the assertion that the long term goal of medication assisted treatment is to be off both all illicit opioids and the medications used to assist in the treatment process. Methadone and bup/nal clients were are more likely to agree that the long term goal should be to be off medications as well, however at a significantly lower rate than the CDPs. Medical providers (*M* = 2.48) stand alone in their disagreement that the long term goal should be to be off all medications.

Whether it is okay to stay on medication assisted treatment for life. All groups were ask their agreement/disagreement on the statement that it is ok for clients to stay on medications for life if need be. The rating scale was as follows: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether it is okay to stay on medication assisted treatment for life, $F(3,560) = 30.0, p = .000$. Post hoc analysis showed that at the $p<.01$ level of significance medical providers (*M* = 5.20) that oversee and prescribe the use of medications for the treatment of opioid dependency agree that clients should be able to stay on medications for life if they need it as compared to CDPs (*M* = 3.64). Methadone clients (*M* = 4.92), and bup/nal clients (*M* = 4.37) also differed statistically significantly from CDPs (*M* = 3.64) on whether clients should be able to stay on medications for life if need be. Medical providers lead the way when it comes to beliefs about the use of medications and utilizing them for as long as needed and even for the rest of the client's lives if necessary, whereas CDPs demonstrated consistent and contrary attitudes about this notion.

Whether they support medication assisted treatment. All groups were asked their disagreement/agreement about the assertion that they support medication assisted treatment. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether they support medication assisted treatment, F*(3,557) = 22.1, p = .000* . Post hoc analysis showed that at the $p<.01$ level of significance medical providers ($M = 5.74$), methadone clients ($M = 5.66$), and bup/nal clients ($M = 5.32$) agreed on their support of medication assisted treatment as compared to the somewhat lower level of agreement from the CDP group ($M = 4.88$). CDPs demonstrated less overall support for medication assisted treatment. These results continue to point to major differences in beliefs and philosophies between the CDPs and all other groups.

***Whether clients should be considered clean if they are off all medications*.** Another survey item was rating the attitudes of all respondents on their opinions of clients in medication assisted treatment programs and whether those clients should be considered clean only if they are off ALL medications. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether clients should be considered clean if they are off all medications, F*(3,555) = 3.1, p < .05*. Post hoc analysis showed that at the $p < .01$ level of significance the bup/nal client group ($M = 3.12$), as compared to medical providers ($M = 2.21$), CDPs ($M = 2.89$), and methadone clients ($M = 2.90$).

Whether clients should be given a chance to get clean without medication. The last measure that groups were asked to share views on was if clients who seek treatment for opioid

dependence should be given the chance to get clean with the use of medications. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether clients should be given the chance to get clean with the use of medications, F*(3,547) = 26.2, p = .000*. Post hoc test results indicate that at the $p < .05$ level of significance CDPs ($M = 4.83$) had a higher level of agreement that clients should be given the chance to get clean without medication than medical providers ($M = 4.18$), methadone clients ($M = 3.68$), and bup/nal clients ($M = 3.67$). CDPs again appear to favor treatment approaches that do not include the use of known and effective medications (see Table 4.22).

Table 4.22

Mean, Standard Deviation, and ANOVA Results Attitudes on Issues Related to Clients in Opioid Treatment for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Attitudes/opinions	Medical Providers (N = 43) *M(SD)*	CDPs (N = 199) *M(SD)*	Clients		ANOVA Results
			Methadone (N = 199) *M(SD)*	Bup/nal (N = 137) *M(SD)*	
Clients in MAT are clean	4.67 (1.20)	3.91 (1.54)	4.46 (1.38)	4.62 (1.08)	*.000*
MAT should be time limited	2.11 (1.36)	4.27 (1.75)	*2.12 (1.42)*	*2.90 (1.46)*	*.000*
Long term goal is to be off illicit opioids AND all medications	2.48 (1.46)	4.53 (1.65)	*3.70 (1.68)*	*3.93 (1.34)*	*.000*
Okay for clients to stay on medications for life	5.20 (.88)	3.64 (1.66)	*4.92 (1.39)*	*4.37 (1.36*	*.000*
I support medication assisted treatment	5.74 (.53)	4.88 (1.26)	*5.66 (.78)*	*5.32 (.95)*	*.000*
Clients should only be considered clean if off ALL medications	2.21 ((1.56)	2.89 (1.72)	*2.90 (1.82)*	*3.12 (1.58)*	*.026*
Clients who seek treatment for opioid dependence should be given chance to get clean without meds	4.18 (1.38)	4.83 (1.26)	*3.68 (1.64)*	*3.67 (1.43)*	*.000*

Challenges faced by clients. Respondents were also asked about their perceptions of the challenges faced by those who are involved in the treatment and recovery process for opioid treatment. There were six possible responses: *1(not at all a challenge), 2(not too much of a challenge), 3(somewhat of a challenge), 4(a challenge), 5(a big challenge), 6(a huge challenge).*

Dependence on medication. ANOVA results showed statistically significant differences across respondent groups on the issue of being dependent on medication, F*(3,562) = 18.1,*

p = .000. Post hoc test indicate that at the $p<.05$ level of significance CDP's ($M = 4.71$) saw being dependent on the medications as more challenging that both clients groups, methadone ($M = 4.22$) and bup/nal ($M = 3.62$), and medical providers ($M = 4.16$).

Feeling shame. Feeling shame by clients is an important factor in the opioid treatment and recovery process, so all groups were asked how much of a challenge shame is for clients on medication assisted treatment. The rating scale was as follows: *1(strongly disagree), 2(disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of whether clients feel shame, F*(3,555) = 40.9, p = .000*. Post hoc analysis showed that at the $p < .01$ level of significance methadone clients ($M = 3.52$) and bup/nal clients ($M = 2.97$) saw shame as less challenging than both the medical providers ($M = 4.32$) and the CDPs ($M = 4.58$).

Not being trusted. Respondent groups were also asked about how much of a challenge not being trusted was for clients on medications assisted treatment. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of clients feeling of being trusted, F*(3,555) = 25.4, p = .000*. Post hoc analysis, again showed that at the $p<.01$ level of significance both groups of clients, methadone ($M = 3.60$) and bup/nal ($M = 3.07$), rated not being trusted as less challenging than did their medical providers ($M = 4.16$) and CDPs ($M = 4.45$). Further analysis revealed that bup/nal clients ($M = 3.07$) saw not being trusted as less of a challenge than methadone clients ($M = 3.60$), medical providers ($M = 4.16$), and CDPs ($M = 4.45$), $p < 000$.

Not being understood. Respondent groups were also asked about how much of a challenge not being understood was for clients on medications assisted treatment. The rating scale was as

follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of clients not being understood, F*(3,556) = 23.2, p = .000*. Post hoc analysis showed that at the *p = .000* level of significance methadone clients (*M* = 4.11) and bup/nal clients (*M* = 3.32) were less likely than medical providers (*M* = 4.33) and CDPs (*M* = 4.64) to agree with this statement. Bup/nal clients (*M* = 3.32) also differed at significant than did medical providers (*M* = 4.37), CDPs (*M* = 4.64) and methadone clients (*M* = 4.11) (see Table 4.23).

Being criticized. The last statement that respondent groups were asked about was how much being criticized was a challenge for clients on medications assisted treatment. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).* ANOVA results showed statistically significant differences across respondent groups on the issue of clients being criticized, F*(3,553) = 16.2, p = .000*. Post hoc analysis again showed that at the *p < .05* level of significance bup/nal clients (*M* = 3.63) were less likely to agree that being criticized was as much of a challenge when compared to the methadone group (*M* = 4.09) and the CDPs (*M* = 4.73). Both clients groups, methadone *M* = 4.09, and bup/nal (*M* = 4.09) were less likely than CDPs (*M* = 4.73) to agree about the challenge of being criticized.

Table 4.23

Means and Standard Deviations for Challenges That Participating Clients in Opioid Dependence Recovery Face for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medication Assisted Treatment Clients Challenges .	Medical Providers (N = 43) *M(SD)*	CDPs (N = 199) *M(SD)*	Clients		ANOVA Results
			Methadone (N = 199) *M(SD)*	Bup/nal (N = 137) *M(SD)*	Sig
Being dependent on medication	4.16 (1.15)	4.71 (1.10)	4.26 (1.41)	3.62 (1.18)	*.000*
Feeling shame	4.32 (1.01)	4.58 (1.08)	*3.52(1.60)*	*2.97(1.50)*	*.000*
Not being trusted	4.16 (1.21)	4.45 (1.21)	*3.60 (1.67)*	*3.07(1.50)*	*.000*
Not being understood	4.37 (1.15)	4.64 (1.15)	*4.11 (1.60)*	*3.32 (1.48)*	*.000*
Being criticized	4.28 (1.11)	4.73 (1.09)	*4.09 (1.66)*	*3.63 (1.56)*	*.000*

Views on medication assisted treatment. Medical provider and n CDP respondents were also asked about their views on medication assisted treatment. A few (5%) CDPs stated they were against it. The starkest difference however is that the CDPs have a much higher percentage of reservations (36% versus 13%) than the medical providers and medical providers have a much higher rate of complete support (80%) compared to the CDPs (43%). Medical providers support medication assisted treatment at a much higher rate than CDPs (see Table 4.24).

Table 4.24

Percentage Distributions for Level of Support for Medication Assisted Treatment for Medical Providers and CDPs

Statements on MAT	Medical Providers % *N = 43*	Chemical Dependency Professionals % N = 199	Clients	
			Methadone	Bup/nal
I am against using medications to assist in treatment	0.00	5.53		
I used to be against MAT but now mildly support it	0.00	3.02		
I used to be against MAT but now strongly support it	6.67	6.53		
I am still unsure if I support the use of methadone/bup/nal for opioid dependence treatment	0	5.03		
I support MAT but still have reservations	13.33	36.18		
I totally support MAT for treatment of opioid dependence	80.00	43.72		

Consistent with this view, CDPs also encourage their clients who are engaged in opioid dependence treatment to get off medications at higher rates than the medical providers that administer and/or prescribe these medications. More than one-third of the CDPs (38%) almost always or usually encourage clients to get off all opioid replacement medications. Conversely, almost two-thirds (65.91%) of the medical providers only occasionally or almost never encourage their patients to stop their medications. CDPs encourage clients to consider discontinuing medications at much higher rates that those who are responsible for the medication decisions-the medical providers. Medication decision is outside the scope of the CDPs practice (see Table 4.25).

Table 4.25

Percentage Distributions for Encouraging Clients to Get Off Medication for Medical Providers and CDPs

Encourage clients to taper off medications	Medical Providers % *N = 43*	CDPs % N = 199	Clients	
			Methadone	Bup/nal
Yes, I almost always do this	11.36	16.58		
Yes, I usually do this	4.55	21.11		
Yes, I sometimes do this	18.18	13.07		
Yes, I occasionally do this	18.18	16.58		
No, I almost never do this	47.73	32.66		

Pressure to get off medication. Getting off of medications is a very central issue in the treatment process for bup/nal clients. Clients were asked if they experienced pressure to get off their medications. The rating scale was as follows: *1(strongly disagree), (disagree), 3(somewhat disagree), 4(somewhat agree), 5(agree), and 6(strongly agree).*

Pressure Bup/nal clients felt pressure to get off medication. Bup/nal clients agreed on some level that they experienced pressure to get off their medications from family members (54%), followed by their medical providers (43%), friends (43%), and counselors (37%), They reported less pressure to get off medications by their CPS workers (36%) and probation officers (34%) when applicable. Bup/nal clients faced significant pressure to get off their medications by all groups (see Table 4.26).

Table 4.26

Mean, Standard Deviations, and Percentage Distributions for Bup/nal Clients Experiencing Pressure to Get Off Their Medications

Pressured by…	*M(SD)*	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
My Medical Provider N = 126	3.20 (1.40)	12.7	23.8	19.8	24.6	11.9	7.1
My Counselor N = 127	3.28 (1.50)	18.4	35.6	9.2	16.1	13.8	6.9
Family Member N = 128	3.40 (1.50)	13.3	18.8	14.1	31.3	14.1	8.6
Probation Officer N = 87	2.80 (1.50)	25.3	23.0	17.2	18.4	12.6	3.4
CPS Worker N = 89	2.82 (1.50)	25.8	23.6	14.6	21.3	7.9	6.7
Friends N = 111	3.14 (1.60)	18.0	23.4	15.3	21.6	12.6	9.0

Pressure methadone clients felt to get off of medications. Methadone clinic participants were asked if they had experienced pressure to get off their medication that was aiding them in the recovery process. Methadone clients agreed on some level that they felt pressure to get off their medications from family members (66%), followed by their friends (52%). To a lesser degree methadone clients also felt some pressure from medical providers (46%) and their counselors (37%) as well. About half of the methadone clients had a probation officer (52%) or CPS worker (47%) and of those who did have these service workers about half (49% and 46% respectively) agreed on some level that they felt pressure from them to get off their medication. Experiencing pressure to discontinue the medication (methadone) that is helping them gain and

maintain abstinence from opioids is noted by the majority of methadone clinic participants. It is of interest that the two groups that have no input into the client's treatment, family (66%) and friends (52%) are rated as the most likely to pressure methadone clinic participants to get off their medication. Methadone clients faced significant pressure to get off their medications by all groups (see Table 4.27).

Table 4.27

Mean, Standard Deviation, and Percentage Distributions for Methadone Clients Experiencing Pressure to Get Off Their Medications

Pressure by…	*M(SD)*	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
My Medical Provider N = 174	3.19 (1.60)	15.1	29.7	6.9	21.7	12.6	12.0
My Counselor N = 174	2.92 (1.50)	18.4	35.6	9.2	16.1	13.8	6.9
Family Member N = 166	3.97 (1.70)	9.6	19.3	4.8	19.3	24.1	22.9
Probation Officer N = 90	3.29 (1.70)	20.0	20.0	11.1	20.0	17.8	11.1
CPS Worker N = 82	3.17 (1.70)	22.0	26.8	4.9	12.2	26.8	7.3
Friends N = 162	3.47 (1.60)	11.1	24.7	12.3	21.0	19.8	11.1

Pressure medical providers felt to get their clients off medication. Medical providers are the central figure that coordinate care and provides for methadone and bup/nal to be administered to clients who are in treatment for opioid dependence. They appear as the most qualified to consult with their patients about the taking of the medications, however they agree

they experience a significant pressure from clients (69%) as well as family members (81%), counselors (42%), CPS workers (39%), and insurance providers (78%) to get patients off methadone and bup/nal. Of interest is that medical providers feel the most pressure from family members and insurance providers to get their clients off medications. Medical provides faced significant pressure to get their clients off medications that were helping them in the treatment and recovery process by all outside non clients groups (see Table 4.28).

Table 4.28

Mean, Standard Deviation, and Percentage Distributions for Medical Providers Experiencing Pressure to Get Their Patients Off Medications That Assist in the Treatment of Opioid Dependence (Methadone, Bup/nal, Vivitrol)

Groups That Pressure	*M(SD)*	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Clients	3.71 (.94)	2.4	9.5	19.0	52.4	16.7	0.0
Counselor	3.24 (1.30)	9.8	22.0	26.8	22.0	14.6	4.9
Family Member	4.27 (.95)	0.0	4.9	14.6	34.1	41.5	4.9
CPS Worker	3.25 (1.30)	5.1	28.2	28.2	20.5	10.3	7.7
Financial Insurance Providers	4.28 (1.40)	4.8	14.3	2.4	19.0	45.2	14.3

Philosophies and Beliefs on Medication Assisted Treatments

Methadone has been a longstanding medication for treating opioid dependence and dates back to approval for use in the United States in 1947. There remain both downsides and benefits of the use of this well-known and well researched medication for its use in the opioid treatment field. This section addresses research questions four and five,

4. What underlying beliefs and philosophies explain the similar or different views of the four groups?
5. What implications do these differences have for each group of participants in the opioid dependence treatment field?

Downside of medication assisted treatment. Narrative responses shed light on the respondent group views on each medication. There is some overall consensus on the harmful side effects, including the dependency caused by daily dosing and safety issues like overdose.

Methadone. With respect to the downsides of methadone, medical professionals' focus is related to safety issues, side effects and difficulty in withdrawing the medication. One medical doctor summed it up by stating, "Most methadone patients are dosed daily at clinics with clientele who are frequently involved in drug abuse and crime, and they display drowsy and drugged behavior and it is very hard to taper them off." CDPs express more concern for its long term use, lack of plans to taper clients off, impairment, functioning level, and lack of what they believe is true "recovery." CDPs overall reported more negative attitudes toward methadone. A CDP reported, "I have not seen clients achieve much of anything except staying high. Methadone is a joke and I have not seen one client at these clinics that wasn't using." Methadone clients focus mostly on the detrimental physical/medical effects, and on how it impacts them personally as they have the most firsthand knowledge of methadone's side effects. They also felt the dependence on both the medication and the clinics made them feel like they were in a "Liquid handcuffs, I don't feel like I am in recovery and it is more addictive than heroin." Bup/nal clients have minimal respect for methadone and rate it as ineffective when they did express their opinions on methadone it was presented in a negative way. For example, one bup/nal client stated, "It is the same as using

heroin except I know what is in it, and the withdrawal is worse than heroin. I don't think it works and to me it is just a free high" (see Table 4.29).

The themes identified below are a result of content analysis, grouping responses and that included word repetitions and searching for key-words-in-context (KWIC). The resulting grouping of responses were then categorized and recorded in the table below.

Table 4.29

Narrative—Downsides of Methadone for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	CDPs	Clients	
		Methadone	Bup/nal
Rigidity/daily dosing Withdrawal effects Diversion Abuse Overdose potential Social stigma Safety factors Medical complications	Dependent on clinic & medication Cognitive impairment Loss of teeth Weight gain Intoxicating effects Cross addiction Clients should taper off Not treatment or recovery Harm reduction vs wellness	Weight gain Lethargy Constipation Sweating Makes sleepy Cognitive impairments Decreased libido Loss of teeth Memory loss Difficulty getting off — withdrawal Feeling judged Stigma. Not in recovery Ball and chain dependency	Makes you sleepy Very difficult to get off methadone Withdrawal Overdose risk Not recovery Not as effective.

On the positive and beneficial side of the methadone spectrum, medical providers cite wealth of research data, best practice and the benefits of methadone in keeping patients alive, and engaged in treatment services. They appeared more scientific in the explanation of methadone's benefits by reporting "Methadone maintenance is well established and has shown clear evidence of its effectiveness. It helps people stay clean and avoid relapse. It gives them their lives back." CDPs see some similar benefits in that it cuts down the death rate, keeps clients engaged in treatment and cuts the spread of communicable diseases while being under medically managed care. They do understand and list the benefits of methadone maintenance treatment and recognize its place in their field of practice. A CDP displayed the reality that "Methadone maintenance is well established and has shown clear evidence of its effectiveness. It helps people stay clean and avoid relapse. It gives them their lives back." Methadone clients report gratitude for how medication has positively impacted them, as some see it as a lifesaving service. It came as little surprise that the methadone clients surveyed were overall the most positive about the medication as they were participating in something that many felt not only improved their situations, but actually saved their lives. There were many positive sentiments expressed by methadone clients including, "I don't use anymore, it has helped me out a lot and I would be dead without it," and "It saved my life, I don't use heroin or inject myself. I don't have to wake up sick or be in the rat race that is heroin addiction." Bup/nal clients do not report many positives in regards to methadone nor did they see the value of methadone. As one bup/nal client stated "To me there are NO positives to methadone" (see Table 4.30).

Table 4.30

Narrative—Benefits of Methadone for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	CDPs	Clients	
		Methadone	Bup/nal
Structure Reduces relapse Effective Best practice Well researched Manages craving Inexpensive Decreases infectious disease. Decreases crime.	Inexpensive Access Accountability Stabilizes Medically managed Cuts heroin use Stops spread of Hep C and HIV Decreases ER visits Reduces crime Reduces relapse Evidenced based Lowers death rate Keeps clients engaged in treatment Saves lives	Gets me off streets Reduces criminal activity Saves money No overdose Gives hope Normal functioning Provides structure Saves lives	Stabilization Stop overdose May help some

Bup/nal. Bup/nal has only been used for opioid dependence in the United States since it received FDA approval in 2004. Since that time this newer medication has been widely utilized in the field of opioid dependence and is now a more widely used medication than methadone. Medical providers, CDPs, methadone clients, and bup/nal clients gave narratives on their views of both the downsides and benefits of bup/nal as used to combat opioid dependence.

Medical providers were mostly concerned with the diversion, cost, and access to bup/nal, while promoting positive views on its effectiveness, safety, and the growing body of evidence that demonstrates how it is a very helpful tool in helping afflicted patients transform from a

destructive lifestyle to recovery. A bup/nal doctor said "It's not perfect, but it is far and away the best we've got, it is too bad there are not more doctors willing to get on board with this needed treatment." While another pointed out "there is just a growing body of evidence for bup/nal effectiveness and I am really amazed at the transformative effects it has on my clients."

CDPs report more negative views than the other three groups, and are quick to point out the issues of lack of recovery, the inability of clients to taper off medications, poor collaboration between themselves and medical providers, and what they feel is just switching one drug for another or cross addiction. "Some people think it is a panacea and addiction is deeper and more complex than just taking a pill to make you feel okay. People get hooked on bup/nal too, and so it just becomes another substance that my patients get addicted to." CDPs do see the benefits of bup/nal treatment and rate it higher than methadone maintenance therapy in the areas of functioning level, safety, and ability to fit nicely with CDP treatment services. "Bup/nal fits nicely with treatment" stated one CDP and he went on to say, "I have seen the greatest benefit with bup/nal. People are able to engage in employment, counseling, parenting, etc. without being as sedated as with methadone."

Methadone clients mostly did not respond to the open ended question about bup/nal, but did note some drawbacks related to bup/nal use, including cost, taste, and ineffectiveness, while also reporting that bup/nal did help by blocking the opioid effects and being a safe and manageable medication. One respondent stated, "I don't trust Suboxone® [bup/nal] . . . it makes me sick, terrible side effects, it's like poison." On the positive side, however, current methadone clients like the notion of getting more flexible take home privileges, and how bup/nal helps with cravings and withdrawals. A methadone medication treatment client reported "[With Suboxone®] I didn't have to come to the clinic every day and it took away my withdrawal and cravings."

Bup/nal clients noted some minimal negative side effects, including daily dependence on the medication and that it blocks the opioid effects, but they also touted the benefits, for example saying, “It’s great I can’t even get high if I wanted to, but with Suboxone® I don’t even think about using. I really don’t believe there are any downsides, what took them so long to discover this drug.” Most bup/nal clients touted the benefits that they have experienced in being on the medication. These benefits included a more normalized life, where they were able to get back to a functioning life that included important things like family, jobs, and freedom from the stress of “chasing the dragon” (see Table 4.31).

Table 4.31

Narrative—Downsides and Benefits of Bup/nal for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	CDPs	Clients	
		Methadone	Bup/nal
Downsides			
Diversion Misuse Black marker No behavior change Minimal counseling Withdrawal Dependence Cost & access Not enough providers	Cost & access Street value Diversion Lack of counseling Short term fix Band aid Lacks Accountability Lacks acceptance in CDP field Stigma CDPs won't work with clients on bup/nal Poor collaboration with medical providers Clients not motivated Harm reduction is not treatment Withdrawal--trading one addiction for another cross addiction Treats symptoms not cause	Lack of education Expensive Bad taste Crutch Habit forming Withdrawal Nausea Don't like the way it makes me feel No relief from cravings and compulsions	NO drawbacks to bup/nal Being dependent on clinic & meds Having to take daily Effects on teeth Bad taste Stool blocker (constipation) Withdrawals Nausea.
Benefits			
Helps with cravings	Helps with detoxing Cravings	Helps with cravings and withdrawal	Normal functioning Better recovery

Reduce high Safe—ceiling effect Reduces relapses Less stigma than methadone Blocks opioid effects Easier withdrawal Low side effects Flexibility Take homes carries privilege Growing evidence of effectiveness	Prevents overdose Works well with treatment Flexibility/freedom no daily visits Feel normal Higher functioning level Stabilizes Better treatment and success Medically managed Ease of dosing Cuts down criminal behavior Good for pregnant women and mothers Effective Transformational	Can get from doctor without clinic Don't have to come to clinic daily Freedom Can't get high Blocker Easier to kick	Keeps me off hard drugs Stabilizes Safety- can't overdose Relieves obsession & compulsion to use Not sick Clean mind Employable Saved my life Reduces relapse Overall health improved Gratitude/thankfulness comments (lots of those)

Naltrexone Injectable (Vivitrol). Although naltrexone is not an opioid like its methadone and bup/nal counterparts, it is used in both oral and injectable forms to occupy the opioid receptor sites and block the effects of opioid ingestion. As such vivitrol is also used as a medication to assist in opioid dependence treatment. Vivitrol is starting to gain some traction in the opioid treatment field, but as noted in the narrative responses lags in the shadows of the more popular methadone and bup/nal medications. All three respondent groups were asked about the downsides and benefits of vivitrol.

Medical providers cited painful shots, possible tissue injury, as well as the lack of research literature on efficacy as their main concerns about vivitrol. They reported that "Most of my patients just don't like this option, it costs a lot and I just have not experienced the success

using it as I have when I use suboxone." Providers did embrace the positive sides of this once a month opioid blocking injection, pointing out that "It's great and there is little risk of abuse or diversion, and its opioid free so I don't have to concern myself with withdrawals or overdosing." Medical providers also liked the benefits of once a month injections, the non-addictive nature, and the absence of any withdrawal effects.

All groups cited the lack of information, knowledge and experience with vivitrol as a current hindrance to full acceptance and use in the opioid treatment field. CDPs saw difficulties with patients being off opioids long enough as a barrier, along with lack of follow through, and the absence of counseling/treatment services to coincide with the monthly shots. "There just is not enough evidence to justify the cost and I have just not experienced that much success with those that got the shot." CDPs did embrace the lack of diversion potential, blocking of opioid effects, and the removal of opioid cravings as positives. Vivitrol is viewed more positively by CDPs as compared to both the medical providers and active clients on methadone and bup/nal. Some CDPs felt "it is the best treatment out there, and it really helps with cravings as well as taking away the option to use opioids." This mindset by CDPs that vivitrol is preferred medication to its opioid counterparts most likely reflects the consistent and persistent mindsets that CDPs adhere to in abstinence-based paradigms that reflects their education and training. Methadone and bup/nal clients were mostly unknowledgeable or inexperienced with vivitrol as a medication assisted treatment. There were only a few narrative responses focused on this drug. Overall there appears to be a lack of both education and experience related to vivitrol by current client participants in the opioid treatment programs that provide methadone and bup/nal (see Table 4.32).

Table 4.32

Narrative—Downsides and Benefits of Vivitrol (naltrexone) for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	CDPs	Clients	
		Methadone	Bup/nal
Downsides			
Painful shots Tissue injury at injection site Risk of OD once off Difficulty in starting due to window off opioids needed Patients don't like Not effective Lacking evidence to support Cost Patients not as committed to recovery process Poor follow up on shots	Side effects Cost Lack of research Poor follow through/no second shot Switch to non-blocked drugs (meth, cocaine) Increased chance of over dose when discontinued Not popular with clients Doesn't address addiction issues Not effective or popular Can't get clean long enough to take	Lack of knowledge or experience with this medication	Few responses Nothing to report Lack of knowledge or experience with this medication
Benefits			
Non addictive No diversion potential No high Infrequent dosing-once a month Prevents relapse Minimal side effects Patients more committed and motivated	Good after detox Removes cravings Blocks opioids Once a month dosing Cannot be manipulated No street value Low diversion potential Reduces OD Stabilizes Best option/best treatment out there	Blocks opioid high No withdrawal Safe	Stabilizing Once a month dosing Good as a backup plan No side effects

Medication assisted treatment. Medical providers, CDPs, and methadone and bup/nal clients also addressed questions about their beliefs, philosophies, and feelings about the use of medications to assist in the treatment of opioid dependent people. There was some agreement that more needs to be done to help those affected. The bup/nal client group reported a more positive experience and outlook than did their methadone counterparts who felt more judged, criticized and looked down upon. The methadone clients reported more marginalization of their lives and circumstances by all involved. Medical providers appeared to embrace medication assisted treatment as an effective and viable evidence based practice, while the CDP were more critical of medications, and their use in the treatment process. CDPs were very outspoken in both their cynicism and criticism of the opioid treatment process that utilizes methadone and bup/nal (see Table 4.33).

Table 4.33

Narratives—Other Thoughts About the Use of Medications to Assist in the Treatment of Opioid Dependence for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	**CDPs**	**Clients**	
		Methadone	**Bup/nal**
Wish I had magic bullet Need public education Access and ease to treatment Counseling not effective MAT effective so treat as a CHRONIC disease Medications good, access and delivery lag	Medications are short term solutions Need counseling for best outcomes Substituting, not getting to cause Must Taper off Against methadone, no success Medications should be time limited Outpatient treatment program legalized drug dealing, Pharmaceutical companies are getting rich Medications not the answer, must be abstinent.	Use heroin legally Feel judged, losers, homeless junkies, uneducated, stigma Cure is worse than addiction Can still get high Dependence on medication Internal motivation important. Side effects bad long term effects unknown Gratitude, saved my life, would be dead without it	Need to expand access Saves lives, brings families together Has helped with alcohol and other drugs Works, stops cravings, blocks opioids Need a timeline to get off medication Safe alternative Educate public more

Recovery. All survey participants were asked to define what "recovery" meant to them as it relates to opioid dependence. There were a lot of similarities and differences across groups. Medical professionals and CDPs tended to have lengthier definition that included better overall functioning level and reaching unrealized human potential. They did not oversimplify the

complexities of the recovery process and they included a variety of holistic and individualized set of circumstances that included wellness, and functionality. The methadone and bup/nal clients who were involved in the process of recovery, saw things on a more personal and intimate scale. Their answers were much shorter and succinct and included many of the very basic tenants of recovery of being clean and rebuilding their broken spirits and self-worth. Several methadone clients noted that some use of opioid was acceptable (see Table 4.34).

Table 4.34

Narrative—What Does "Recovery" as It Relates to Opioid Dependence Mean for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	**CDPs**	**Client**	
		Methadone	**Bup/nal**
Having a happy, productive life Free from illicit drugs, working steps, recovery Job, education, family higher functioning Control cravings, stabilizes life medically Acceptance of medications Need more than medications Behavioral adaptation, spiritual journey with love, forgiveness, and discovery.	Living life without illicit drugs Functioning to best of ability, reach individual potential Process of change in all areas Self-improvement Having an individualized recovery program Returning to healthy, stable life, without obsession & compulsion No one right answer	Off heroin Of streets, no illegal Harm reduction, so irregular use is recovery Path of progress and change, not 100% clean, just moving forward Freedom, not dependent Happy, less successful, Get life back on track, family, job Balanced and functional life Staying alive	Honesty Being a normal civilized human, not using any opioids Getting my life back, able to function Family, job, no legal problems. Self-worth and growth in all life areas. New lifestyle, values, morals, attitude Free and less stress Change in all areas of life Being clean, body, mind, and spirit.

Any additional thoughts. A final open ended question asked for any additional thoughts about medication assisted treatment. Medical providers had very thoughtful comments about their reflection on where the field is at, the limitations, and the areas of needed expansion. They acknowledge that they are a long way from effectively treating all of those in need or negatively impacted. CDPs also clearly saw the limitation of medication assisted treatment, some embraced the help it produces, while other remained skeptical about using an opioid to address the problem. CDPs see this as an epidemic and report the need for more resources and tools to help their clients overcome this chronic disorder. Methadone clients add in a mix of complaints about the negative effects of the medications and the methadone medication treatment process, while also seeing how methadone absolutely saved their lives and helped them on their road to recovery. Bup/nal clients appeared much more positive about the help they were receiving and the progress they had made in recovery from opioid dependence that all the other groups. They expressed much less concern and reported fewer negative opinions they did their methadone counterparts (see Table 4.35).

Table 4.35

Narrative—Additional Thoughts About Medication Assisted Treatment for Medical Providers, CDPs, and Methadone and Bup/nal Clients

Medical Providers	CDPs	Clients	
		Methadone	Bup/nal
Good success for some not a silver bullet Trying to find the best option for everyone, but it is a huge challenge Educate, stop moralizing Access and capacity is huge challenge Fulfilling work, patients grateful Only a start, more advances needed Cost and insurance is a limitation. Expand research on vivitrol, and newer medications. Office based MAT good option with other treatment components	U.S. behind advances in other countries. MAT needs to be between the provider and client & individualized New paradigms that include MAT Counselors under resourced and pay Need FULL MAT acceptance, still new Epidemic, treat earlier and as chronic MAT works well if done correctly, but pros and cons Need public education and acceptance Get tougher on clients, Medications do not work	Policies need to work toward treating illness not punish No time limits on treatments/meds Hope and success Methadone is a bad drug. Opioid addiction is complex MAT works, and its evolving, keep innovating. Internal motivation to change is key	Positive experience Support and understanding great. Never felt Judged More help, people in family still dying Never let MAT stop. MAT has helped many in community Internal motivation important Need medications, support and counseling all together for best outcomes. New clean and sober life, bup/nal saved my life.

Table 4.36 presents a quick overview of the detailed findings discussed above. The table below is a crosswalk of the survey questions and the findings. These represent the typical

medical provider, CDP, methadone and bup/nal client respondent. That is, where over half of the responses were in the stated category. A discussion of findings follows in Chapter V.

Table 4.36

Summary—Typical Responses for Medical Providers, CDPs, Methadone and Bup/nal Clients

Summary	**Medical Providers**	**CDPs**	**Methadone Clients**	**Bup/nal Clients**
Age	Majority older, no under 30,	Younger group, most 31-50 age	Evenly spread middle age	Youngest group, under 50
Gender	Majority male	Majority female	Majority female	Majority female
Work setting	Majority outpatient bup/nal		N/A	N/A
Time in field	Majority over 10 years	Majority under 10 years	N/A	N/A
Length of time in treatment	N/A	N/A	Majority less than 1 year	Majority 2-3 years or more
Medications used	Majority bup/nal			
How long on medications	N/A	N/A	Majority 3 years or more	Majority 2 years or less
In Recovery?	N/A	N/A	Yes, but some unsure	Almost everyone
Length of time in recovery	N/A	N/A	Majority 1-3 years	Majority 2 years or less
Perception of treatment helpfulness	N/A	N/A	Most helpful	Most helpful
Overall progress	Good progress	Some progress	N/A	N/A

Effectiveness of medications	Effective	Somewhat effective	N/A	N/A
Progress by Medical providers	Okay	Okay	Okay	Well
Progress by Counselors	Well	Well	Well	Very Well
Progress by Communities	Not very well	Not very well	Not very well	OK
Progress by Clients	OK	OK	Well	Well
Progress by Family and friends	OK	OK	Well	Very Well
Length time on methadone	Long as needed	Stabilize only	Long as needed	N/A
Length time on bup/nal	Long as needed	Stabilize only	N/A	Long as needed
Length time on vivitrol	Long as needed	Stabilize only	N/A	N/A
Length time on buprenorphine	Long as needed	Stabilize only	N/A	N/A
Medication effectiveness Methadone	Effective	Not effective	N/A	N/A
Medication effectiveness Bup/nal	Very Effective	Somewhat effective	N/A	N/A
Medication effectiveness Buprenorphine	Very effective	Somewhat effective	N/A	N/A

Medication effectiveness Vivitrol	Somewhat effective	Effective	N/A	N/A
Involved in decision to get off meds Physician	Agree	Agree	Somewhat Agree	Agree
Involved in decision to get off meds Counselor	Somewhat agree	Agree	Somewhat agree	Agree
Involved in decision to get off meds Clients	Agree	Somewhat agree	Agree	Agree
Involved in decision to get off meds Family	Disagree	Disagree	Disagree	Agree
Helpfulness of counseling	Helpful	Very helpful	Somewhat helpful	Very helpful
Helpfulness of medications	Very Helpful	Somewhat helpful	Very Helpful	Very Helpful
Helpfulness of 12 step support	Helpful	Helpful	Not to helpful	Helpful
Helpfulness of UA's	Helpful	Helpful	Not to helpful	Helpful
Helpfulness of combination counseling and medications	Helpful	Helpful	Somewhat helpful	Helpful
Helpfulness of combination of counseling and medications, UA's and 12 step support	Helpful	Helpful	Not to helpful	Helpful

Suffer judgment	Agree	Agree	Strongly agree	Agree
Seen as chronic disease	Strongly agree	Agree	Agree	Agree
Clients not motivated	Strongly disagree	Disagree	Disagree	Disagree
Issues about treatment Consider clean	Agree	Somewhat agree	Agree	Agree
Issues about treatment Time limited	Disagree	Agree	Disagree	Disagree
Issues about treatment Long term goal off meds	Disagree	Agree	Somewhat agree	Somewhat agree
Issues about treatment Ok for life on medications	Strongly agree	Somewhat disagree	Strongly agree	Agree
Issues about treatment Do you support medication assisted treatment	Strongly agree	Somewhat agree	Strongly agree	Agree
Issues about treatment Clean only if off medication	Disagree	Somewhat disagree	Somewhat disagree	Somewhat disagree
Issues about treatment Chance to get clean without medications	Somewhat agree	Agree	Somewhat disagree	Somewhat disagree
Challenges clients face Dependent on medications	Challenge	A big challenge	Challenge	Somewhat challenge

Challenges clients face Shame	A challenge	A big challenge	Somewhat of a challenge	Not much of a challenge
Challenges clients face Not being trusted	A challenge	A challenge	Somewhat of a challenge	Somewhat of a Challenge
Challenges clients face Not being understood	A challenge	A challenge	A challenge	Somewhat of a Challenge
Challenges clients face Being criticized	A challenge	A big challenge	A challenge	Less of a Somewhat of a Challenge
Current views on medication assisted treatment	Total support	Halfway support	N/A	N/A
Current views encouraging clients to get off medications	Don't encourage to get off meds	Somewhat encourage to get off meds	N/A	N/A
Pressure to get off medications	Feels pressure	N/A	Lots of pressure	Lots of pressure

Chapter V: Discussion of Findings

The field of medication assisted treatment has been around for over 60 years; however, the practice was primarily limited to methadone clinics in the United States until 2004 when buprenorphine/naltrexone, under the brand name Suboxone, was approved by the FDA for use in the treatment of opioid dependence. In the subsequent years the adoption and use of medications to assist in treatment services has jumped dramatically to an unprecedented level. The number of clients being treated for opioid dependence has burgeoned from only 250,000 nationwide to over 700,000 today (United Nations Office on Drugs and Crime, 2010). Medical providers and treatment programs have struggled to keep up with advancements in the field. This steep rise in both the breadth and scope of the problem has left a gap in how clients are addressing their opioid dependence and highlights the emergence of how both medical providers and CDPs address the issues associated with medications. Medication assisted treatment outside of the traditional methadone clinics was virtually unknown before this decade. Therefore counselor, or CDP, knowledge and scope of practice with these clients was limited. There was also a shortage of medical providers working outside of methadone clinics that fully understood the implications and effectiveness of medication assisted treatment. Thus, this research study was designed to collect, understand, summarize, and analyze the present attitudes, beliefs and practices within the field from the perspective of the medical providers, CDPs, and opioid dependent clients.

Opioid dependence and addiction remains a threat to public health in the United States as well as around the world. This public health crisis has been labeled as an “epidemic” by many of our national leaders, including the President of the United States. The use of prescribed pharmaceutical medications as well as illicit opioid related drugs (heroin, morphine, etc.) continues to marginalize many in our society. These powerful drugs and medications that were originally formulated to alleviate pain and suffering are now inflicting monumental amounts of

pain and suffering for those affected, their communities, their families, and our modern day society.

Much of the previous research in this field focused on the efficacy of available medications utilized in medication assisted treatment for opioid dependence (Volkow, Frieden, Hyde, & Cha, 2014a). Methadone is one of the most well-known and studied medications. Bup/nal has undergone many research trials and double blind studies in order to more recently gain FDA approval (Kosten, Schottenfeld, Ziedonis, & Falcioni, 1993). Naltrexone (Vivitrol) has also been studied and all of these mediations continue to be evaluated by treatment professionals, pharmaceutical companies, and researchers (Fram et al., 1989). This study was designed to uncover issues that are not well studied and to add to the body of knowledge in the opioid dependency treatment field by taking a deeper look into the complex dynamics that take place with the three primary player groups in the treatment and recovery process. Medical providers, CDPs, and the clients they serve make up the crux of the recovery platform and more research focus on the beliefs and attitudes toward the treatment process for these parties could benefit those who suffer. It is imperative that the process of change involved in the treatment and recovery from opioid dependence be better understood and evaluated. It starts with identifying the attitudes and beliefs that these three groups hold. In addition, the research design and data are meant to add to the body of knowledge within the opioid dependence, recovery, and treatment field especially as it relates to the new and widening best practice of medication assisted treatment. Opioid replacement medications and the field of addiction medicine continue to undergo important changes as medical science works to understand the physiology and pharmacology of what the medical field calls a chronic brain disorder. The traditional paradigms of both treatment and recovery continue to be challenged by the changing landscape of opioid

dependence and recovery. This study examines professional and client views of length of time on medications, decision on weaning off, effectiveness of the currently utilized medications, benefits and drawbacks of each medication, helpful components of the treatment process, defining recovery, as well as a variety of other important treatment issues.

The research questions were addressed and findings related to research questions 1, 2, and 3 about the existence and nature of differences in opinions about medication assisted treatment issues across provider and client groups were explored. Statistically significant differences in attitudes were found on most issues, including length of time on medications, effectiveness of medications, helpful components of the treatment process, decisions about discontinuing medications, long term goals of medication assisted treatment, and the overall progress of the field of medication assisted treatment showed different attitudes and beliefs among the groups. Research question 4 about what underlying beliefs and philosophies and research question 5 about the implications of these differences were also explored and discussed below.

Methods and Procedures

This research utilized a comparative mixed methods study with survey data collection focused on attitudes, beliefs, and practices of the three participant groups—the "three legged stool" in the field of medication assisted treatment for opioid dependence and recovery. Analysis included descriptive and comparative t-test and ANOVA statistics with post hoc analysis. Quantitative and qualitative data were collected via a survey.

This study was designed to identify differences and similarities across the three legs of the stool in the field of medication assisted treatment—medical providers, CDPs, and clients. It is well accepted practice in the opioid treatment field that any form of medication assisted

treatment (Volkow et al., 2014b) is preferable to not receiving these services. It is important to point out that "one size does not fit all" when it comes to treating this complex brain disease.

Participants and Sample Size

The study population included 45 medical providers, 199 CDPs, 199 methadone clients, and 137 bup/nal clients. Medical providers included prescribing physicians, and physician's assistants that worked in opioid dependency and medication assisted treatment settings throughout Washington State. CDPs, also known as addiction counselors, counsel and oversee each opioid dependent client. Client respondents had been diagnosed as opioid dependent and were participating in one of two opioid treatment programs in Washington State—one methadone and one bup/nal clinic.

Demographics

Medical providers were on average older than both the CDP and client respondent groups. The methadone and bup/nal client groups were younger than both of the professional provider groups. The bup/nal group was the youngest of all participant groups, with the majority of client participants between the ages of 21 and 40. Over half (55%) of the clients respondents and about two-thirds of the CDPs were female, which was similar to the CDP gender distribution statewide. The opposite was true for the medical provider group which was largely male. This was somewhat higher than statewide, where 52% of practicing physicians are male (Washington State Health Services Research Project Research Brief #66). The sample of medical providers was a good cross representation of those working in the outpatient treatment practice field. There are 22, primarily methadone, outpatient treatment practices in Washington State, whereas there are several hundred doctors who engaged in office based bup/nal practices. The survey sample reflects the current opioid treatment practices in Washington State.

The CDPs are much like many other helping professions in that this work draws more interested female professionals (i.e., nursing, social work, counselors). Interestingly, even though statistics show that (Unger, Jung, Winklbaur, & Fischer, 2010) more males are diagnosed with opioid dependence in the general population, the majority of those seeking help and enrolled in opioid treatment programs are female participants. It can be theorized that females go for professional help at higher levels than their male counterparts. This certainly holds true for gender access to other medical services (Bertakis, Azari, Helms, Callahan, & Robbins, 2000) as well. The medical provider group continues to be a male. Although this trend is changing (Allen, 2005) it appears to hold for the older group of medical providers surveyed in this research. The length of time in the opioid treatment field for medical providers and CDPs appeared evenly spread from one year to 21 years of service or more; however, the CDP group did have more professionals with fewer years of experience.

The work setting of medical providers and CDPs was important to this research in order to understand the context of experiential knowledge in the opioid dependence treatment field. Medical providers were predominantly from bup/nal programs with inpatient, detox, and mostly outpatient office based practice providers. Only a small group of the medical provider respondents worked in methadone clinics. Medical providers in this study for the most part perceived bup/nal as their medication of choice and only about one-fourth of providers treated clients with methadone. Methadone is a tightly regulated schedule 2 narcotic and controlled substance, so its use in the medication assisted treatment field is limited to federally and state licensed opioid treatment programs. The majority of CDP respondents worked in outpatient settings, with about half of each of those either having services that provide medications to assist in the recovery process and half that did not offer medications. CDPs also had a range of other

work settings that included detox, methadone clinics, and inpatient treatment programs. Overall the CDP respondent group was a good representation of treatment settings across Washington State. The CDP survey respondents were a very good cross sample of professionals currently working in the field of substance abuse counseling. Their work settings, and time in the field demonstrated a variety of settings where they practiced. These were not just professionals working in primarily methadone outpatient treatment practices, or but represented a range of CDP positions in Washington State. The clients were selected from two licensed and state certified opioid treatment programs—a methadone clinic in the inner city of Seattle, Washington, and a rural area bup/nal clinic located on a Native American reservation in the Northwest Washington area. There were some distinctive cultural differences that could account for some of the client research findings. The methadone group was from a large ethnically diverse urban, primarily Caucasian and African American, in the Seattle, Washington area. The bup/nal clients were representative of a smaller, more rural and tightknit Native American community. Ethnic background was not collected in the survey; however, ethnic differences were clear given the locations of the clinics and observation during the survey collection process. My research field experience during clinic survey data collection in the methadone and bup/nal clinics represented contrasting treatment delivery models. The methadone clinic had a more harried and sterile feel toward the delivery of medicaitons, and the bup/nal clinic was smaller in nature and provided a more nurturing environment.

The majority of methadone client participants had been participating in clinic services for less than a year, and the majority of bup/nal clients had been participating in clinic services for

two to three years. Bup/nal is a fairly new medication in the field of study as compared to methadone. The bup/nal clinic participants have only had access to medication assisted treatment since 2006 and their particular clinic setting has only been in operation since 2013.

Methadone clinic participants primarily self-reported themselves as being in recovery from opioid dependence; however, some were ambivalent about their recovery status as nearly one-fourth of them chose the *yes, somewhat* versus *yes, definitely* in recovery option. Bup/nal clinic participants overwhelmingly had the self-perception that they were in recovery, with almost all of them responding that they were *definitely* in recovery. Bup/nal clients also self-reported being in recovery for longer periods of time than their methadone counterparts. Both groups of client participants self-reported that the clinic services they were receiving were helpful. This sample was a good cross representation of Washington State OTP clinic participants that number 4,500 (SAMHSA—Substance Abuse and Mental Health Services Administration brief 2015).

Survey Instrument

The data collection instrument used for this research project was a 21–29 question survey that covered the topics related to medication assisted treatment.

Statements related to attitudes, beliefs, and practices about medication assisted treatment had 6-point Likert-type response scales, including *strongly disagree to strongly agree*, *not at all effective to very effective*, and *not at all helpful to extremely helpful*. Specifically, the issues covered were: respondents' attitudes toward medication assisted treatment; how strongly they believe in the efficacy of current opioid treatments; effectiveness of medications; how long treatment should last; the drawbacks of each therapy; long and short term treatment goals; helpfulness of treatment approaches; and whether those receiving treatments experience shame,

judgment, or continued marginalization. There were also several open-ended questions designed to encourage respondents to share their stories related to their attitudes, beliefs, and practices about medication assisted treatment for opioid dependence. Although the same core questions were asked of survey respondents from all three respondent groups, additional questions were also asked of each individual group. The survey also collected some demographic information, including age, gender, length of time working in the opioid addiction field, type of treatment modality, and length of time in recovery.

Major Findings

Three categories of major findings are discussed below. These include (a) differences between provider groups (medical providers and CDPs, (b) differences between methadone and bup/nal (buprenorphine/naloxone) clients, and (c) cross differences across all respondents groups. There were statistically significant differences for almost all of the issues addressed by the survey questions.

Overall progress and effectiveness of medication. The use of medications in the treatment process for opioid dependence is a key advancement in the field and thus why, in today's opioid treatment field, best practice is noted as medication assisted treatment (Center for Substance Abuse Treatment, 2005). With relapse rates noted as high as 95% with traditional psychosocial treatments that involve cognitive behavioral approaches, the implementation of adding medications to assist in the treatment and recovery for opioid dependent individuals has been key. Medical providers and CDPs were asked about the overall progress in the field of medication assisted treatment and the effectiveness of medications. They had significantly different points of view. These results are consistent with findings patterned throughout this study; the CDPs view the use of medications in a more skeptical and less supportive manner than

the medical providers. These findings contradict current research that clearly demonstrates the effectiveness of medications that are currently being used and accepted as best practice by the medical professionals and leading researchers (Compton & Volkow, 2006a; Koob, 2009; Koob & Le Moal, 2005; Koob & Volkow, 2010).

With the ever changing landscape, national focus, and advancements in medications, this study first looked at how medical providers and CDPs perceived overall progress in the field. Medical providers noted more progress being made in addressing the problem of opioid dependence than did their CDP counterparts. What factors possibly account for these differences? When one looks at the education and training differences between groups, it must be noted that medical providers undergo extensive and rigorous training in order to get licensed as a physician. They are traditionally trained to prescribe medication to assist them in the daily job duties as a helping professional and are accustomed to utilizing medications for many different forms of recovery from injuries and illnesses. CDPs have a much lower threshold of both educational and internship/training requirements in order to obtain licensing. Chemical dependency training programs are mostly conducted by two-year community college programs where the curriculums require no classes in medication assisted treatment. Thus, these two groups have different backgrounds, professional experiences, and educational requirements in order to become licensed and considered experts in their fields. CDPs and medical providers not seeing the same level of progress in the opioid treatment practice field has huge implications for those who are undergoing treatments and working to get into recovery. CDPs have much more face time and one-on-one contact with those in treatment, and by implication, greater influence on their clients, and possibly a more in-depth view of how clients, their families, and communities are affected and progressing.

Medical providers and CDPs also had different views on the effectiveness of current medications. Medical providers have the responsibility to understand the current research about the effectiveness of each of the three primary medications studied. Methadone, buprenorphine/naloxone (Suboxone®), and naltrexone (Vivitrol) are all medications that have undergone double blind clinical trials in order to be shown as effective in the treatment of opioid dependence. Medical providers must have firsthand working knowledge of these studies and what is considered best practice in their fields. They undergo additional training in these medications in order to certify themselves as opioid treatment providers. Workshops, trainings, and continuing education all keep medical providers informed on the latest information about this complex field and the challenges they face with clients who suffer from opioid dependence. Utilizing medications to assist in the treatment and recovery process is part of the medical providers' scope of practice. It is for these reasons that medical providers are on the cutting edge of how these medications are working or not working with the clients they are responsible to serve. Do no harm is the Hippocratic Oath undertaken in medical school and played out in daily practice. Many have studied and been exposed to the harm reduction model of addiction treatment services and use this way of thinking and being as they navigate opioid treatment services.

CDPs take a curriculum of courses that make up their chemical dependency educational requirements, and participate in a 1500–2500 hour internship at a Washington State certified treatment agency as trainees before they become fully licensed. Some CDPs have come into the field because of personal firsthand experience as a recovering alcoholic/addict. Because of their experience and training, the focus and goal of recovery has primarily been to be completely abstinent from all mind and mood altering chemicals. This abstinence based mindset has

influenced their attitudes toward medications. This mindset is in direct contrast to the medical providers in the field. The burgeoning field of medically treating opioid dependence and the rapid advancement that accompanied it left a gap for the CDPs to fill. They are professionals that counsel and guide clients into the recovery process and typically have more one-on-one face time and have developed a deeper level of trust, rapport, and discourse with affected clients. The licensing process for CDPs has not changed in decades and remains in this state much the same as it did when I was certified 28 years ago—all pre-medication assisted treatment. There are no formal classes or educational requirements that are mandated as a part of CDP licensing for medication assisted treatment. Many CDPs have had to learn this new paradigm of treatment by workshops or firsthand experience and on the job training. CDPs approach their chosen profession with a lot of heart and passion for what they do. They adhere to a guiding principle to help others. They have their clients' best interests in mind as they guide, teach, and counsel them to rebuild their shattered lives. CDPs are very important and primary participants in the treatment and recovery process since they spend the most time face to face with recovering clients in opioid treatment programs and therefore have a lot of emotional equity and influence with opioid treatment participants. CDPs are also asking the more difficult and far reaching questions that many times are overlooked by the medical professionals as they take a wider and more holistic approach to their work, helping clients navigate in the larger, not just physical, world.

Methadone and bup/nal client group differences. Originally this study was focused on medical providers, CDPs, and clients who were active participants in opioid treatment programs in Washington State. However, because of the design of the two clinics where I collected surveys, I had two distinct opioid treatment respondent groups—199 surveys from methadone clinic clients and137 surveys from bup/nal clinic clients. Several interesting between client

group results emerged. These included views on the treatment components, their own feelings, who should be involved in making the decision to get off medications, the long term goal of medication assisted treatment, and the downsides and benefits.

Treatment components. When looking at components of treatment that were helpful, methadone clients were less likely than bup/nal clients to view counseling as helpful. Methadone clients also viewed the 12 step support self-help meetings as less helpful than did their bup/nal counterparts. This pattern of differences continued when respondents were asked about accountability via observed urine drug screens—methadone clients again saw this component of the treatment process as less helpful than the bup/nal clients. In terms of the combination of counseling and medications, once again methadone clients found these significantly less helpful than did the bup/nal clients. Much of the previous literature does not break out the various components of treatment as was addressed in this inquiry.

Client feelings. When it came to feelings of being marginalized (judged, criticized, seen as not clean, feeling shame, being misunderstood, etc.) the methadone clients were significantly more likely to agree that they felt negatively judged by others while they were on the medications that were helping them gain and maintain recovery. Methadone clients viewed feelings of shame more of a challenge than did bup/nal clients. There were similar findings for feelings of being dependent on the medications, not being trusted, being criticized, and being misunderstood.

Who should be involved in making decision about getting off medications. Bup/nal clients were more likely than methadone clients to agree that family members could be involved in the determination of their getting off medication. Methadone clients mostly disagreed with this notion. This raises some interesting questions about why these two client groups have different

perspectives. This was beyond the scope of this inquiry; however, the why could have important implications for successful treatment.

Long term goal of medication assisted treatment. Methadone clients also were more likely to disagree that the long term goal of medication assisted treatment was to get off all the medications used for opioid treatment. Again, methadone clients were more likely than bup/nal clients to agree that it is okay if they stay on medication assisted treatment for life if need be.

Downsides and benefits. On narrative responses that inquired about the positives and downsides of both bup/nal and methadone, the methadone clients had a longer list of the medical and physical issues related to methadone, including constipation, weight gain, and decaying teeth. Overall they reported more complaints about the medication and did not report the level of gratitude and positive effects of the medications and treatments as did their bup/nal counterparts. Both methadone and bup/nal groups did report the treatment they were receiving as being helpful.

Across providers (medical and CDP) and client (methadone and bup/nal) group differences. There were several issues related to medication assisted treatment on which opinion varied across both provider (medical and counseling) and client (methadone and bup/nal) groups.

Support. All respondent groups were asked how various supporting groups (physician and medical providers, counselors, local communities, clients themselves, family and friends) were doing in meeting the needs of people who suffer from opioid dependence. Bup/nal clients were more likely than methadone clients and CDPs to respond that their physicians and medical providers were *doing well* at addressing their needs.

Both the CDPs and the bup/nal clients perceived the counselors in a better light than the medical providers and methadone clients. It stands to reason that CDPs would rate their part of

the treatment process higher and bup/nal clients tended to agree. Bup/nal clients rated their family and friends more positively than did all other groups, although methadone clients also rated their family and friends as doing better than did the medical providers or CDPs did.

Both methadone and bup/nal clients were united with a higher assessment of how clients themselves were responding than the paid professionals (medical providers and CDPs). Each group rated themselves the highest in responding to the needs of those affected. Counselors felt counselors responded better, medical providers thought medical providers responded better, and clients felt they did better. A natural bias is demonstrated.

Helpfulness of treatment component. Opioid treatment programs have other components besides just medication dosing and medication management, so respondents were also surveyed about various components of the treatment process and asked how helpful they were. Those components identified and surveyed included medication, counseling, accountability via monitored urine drugs screens, 12-step support, and combinations of the four components listed. All respondent groups were asked about the helpfulness of the various components of the treatment process.

*Counseling***.** Counseling was viewed as helpful by all respondent groups. However, methadone clients and medical providers saw counseling as significantly less helpful than both the bup/nal clients and CDPs.

*Medications***.** All groups rated medications as helpful or very helpful. However, the CDPs mean scores for helpfulness of medications were significantly lower than those of the medical providers and both the methadone and bup/nal clients.

*The 12-step support and accountability urine analysis***.** The 12-step support and accountability urine analysis components were generally viewed as less helpful. Methadone

clients viewed these two treatment components as less helpful than medical providers, CDPs, and bup/nal clients. Methadone clients did rate accountability with urine drug screening as somewhat helpful, but this was significantly lower than the medical providers, CDPs, and bup/nal clients. These differences may be related to how methadone clients more frequently felt judged, criticized or stigmatized at self-help support groups.

Urine drug screens and 12-step support both had methadone clients as lower in helpfulness than the other three groups. Methadone clients felt urine drug screens and 12-step support groups were less helpful than the bup/nal clients and the two professional groups. Methadone clients in particular reflected a view that 12-step support groups were not helpful. The traditional 12-step support groups of Alcoholics Anonymous, Narcotics Anonymous, represent the primary self-help support that many clients in substance abuse treatment programs attend as a part of their treatment program. Probation officers and the legal systems that clients are involved with often mandate attendance at these AA/NA meetings. Even though clinicians and providers see them as helpful components of recovery, methadone clients have reported feeling negatively judged, criticized, and generally marginalized at these self-help meetings.

Component combinations. When the 12-step support and urine analysis accountability were combine**d** to include counseling and medications, all groups rated the pairing of these components as helpful; however, the methadone group again differed from the other three groups with a lower helpfulness rating. The last treatment option combined counseling, medication, and accountability via urine drug screens, and these results indicated that both methadone and bup/nal groups viewed this combination as less helpful than the CDP and medical provider groups.

Communities. The lowest ratings for all groups related to how respondents felt their local communities were doing at responding to their needs. The two professional groups, medical providers and CDPs, saw the local community response to this epidemic as not doing very well. The methadone and bup/nal groups' perception of community response was only slightly higher, leaving a lot of room for improvement in their community's response.

My experience has been that those outside the field of study continue to judge and marginalize those who are afflicted, especially for clients in methadone. This is evidenced by the lack of understanding of the disease process, and conservative approaches that tend to moralize opioid dependence as a "choice." Communities are resistant to allowing opioid treatment programs to get licensed, and public hearings in this process bring out the opposition to an expansion of services that are meant to help. Professionals in the field understand and experience this lack of community support

***Considered clean on medications*.** One statement asked if clients should be considered "clean" or drug free if they were on opioid replacement medications like bup/nal and methadone. While medical providers, methadone clients, and bup/nal clients agreed to this notion at mean scores that were consistent with each other, the CDP group was less likely to agree that people on these medications were clean. Although clients use these terms in responding to themselves, narrative responses made the point that the clean and dirty terms were words that only marginalized clients seeking treatment and recovery and that some thought these terms should be abolished from use in the field of medication assisted treatment. Results were also consistent with the thinking that medication assisted treatment participants were somehow not fully seen as successful because of the use of medication to aid in this process. CDPs were, however, less likely to agree with that statement as compared to medical providers, methadone, and bup/nal

clients. People who are not in the substance abuse treatment field might agree with this statement; however, for trained addiction treatment specialists to hold these beliefs and attitudes toward clients on medication is troubling. Is this how clients are looked at while following their approved treatment regimens? The results suggest that the substance abuse counselor continues to agree to language that marginalizes and judges clients as they are trying to help in the recovery from opioid dependence. If the CDPs do not believe in the efficacy of the medication and continue to see their clients as not being in recovery when they are on medication, then one has to wonder what impact this has on clients who are using their counselors as guides in the recovery process.

Length of time and time limits. Medical providers and CDPs were asked whether opioid dependent clients should be allowed to stay on medications as long as needed and this was followed by a question about whether medication assisted treatment should be time limited. Medical providers, methadone clients, and bup/nal clients disagreed with the statement that medication use in opioid treatment should be time limited, whereas CDPs agreed with this statement. These groups consistently appear to be on opposite ends of the spectrum—clients in treatment and their medical providers voice strong sentiment that clients should be on medications for as long as the need, while CDPs' attitudes are the polar opposite and demonstrate support for medications being strictly time limited.

Each medication was also addressed separately. The first was methadone. Bup/nal clients were not asked their opinions on methadone, and methadone clients were not asked for input on bup/nal as it was thought best for clients to respond only to the medications they were currently utilizing in their treatment programs. Both methadone clients and their prescribers overwhelmingly felt that clients should be on their approved medication for "as long as needed."

The opposite trend was noted by the CDPs; their responses generally indicated that methadone was good for detox, stabilization, and periods of time up to two years. Only a minority of CDPs saw the need to allow clients to be on methadone for as long as they needed.

The identical pattern of response was noted for bup/nal. Clients and medical providers overwhelmingly responded "for as long as needed," whereas CDPs were looking for the use of bup/nal in a time limited fashion, for detox or shorter term stabilization. Buprenorphine, a third medication which is a variant of bup/nal, recorded the same patterns of response. A fourth and less frequently used medication, naltrexone (Vivitrol), was also put to the length of time inquiry. A word of note here is that a naltrexone injection, which lasts for 30 days but can also be taken as a daily oral medication, is a pure opioid blocker and possesses no opioid properties. Methadone and bup/nal clients had little working knowledge of this medication and therefore were not polled. Again a majority of medical providers supported naltrexone's use for as long as needed in the recovery process while CDPs continued their consistent response rates that included stabilization. A good portion of CDPs had no working experience with naltrexone and a small percentage even responded that it could be used for detox purposes, a use that naltrexone is contra indicated for.

Responses to time limits highlight the biggest threat to successful client outcomes. Narrative responses also were consistent as many CDPs continued expressing concern over medications and their beliefs that clients over the long run needed to be off all medications in order to properly and fully recover. I do understand the CDPs' thinking process on this measure as they want complete and full "recovery" from this disease. However they differ in their views from clients and medical providers on how to accomplish this.

This length of time issue represents the most controversial and often discussed question from not only medical professionals, CDPs, and clients but other professionals, the general public, and family members. Many times I have heard challenges and negative comments on how long clients should be able to stay on the medications that many times are helping them gain and maintain their recovery from opioid dependence. It seems everyone has a strong opinion on this issue and are willing to express and give free and often times unsolicited advice. Many analogies have been offered, but when was the last time anyone asked you how long you had to be on insulin for your diabetes, or blood pressure medication? The issues about the length of time clients should take their medication is complex and not easily solved. Clients in medication assisted treatment are individuals that have different pathways into addiction as well as different pathways into recovery. Medications and medication management fall under the licensure and scope of practice of medical professionals, but that does not stop friends, family members, spouses, and clients' counselors from sharing their opinions and expertise.

This finding supports the need for CDPs to get additional training on available medications that are currently being utilized in the field of opioid dependence treatment services.

Long term goal of medication assisted treatment. The statement that the long term goal of medication assisted treatment should be that clients are free from illicit opioids and all medications used in the treatment process had the least support from medical providers. Both methadone and bup/nal clients as well as CDPs were significantly more likely to agree that the long term goal should be for clients to be off all medications. The CDP group agreed with this way of thinking at levels significantly above all other groups.

Support for medication assisted treatment. There was across the board support for medication assisted treatment. However, the medical providers and their clients agreed with the

concept of medication assisted treatment at significantly higher levels than the CDP group. CDPs also had higher levels of agreement that clients should be given the chance to get clean without the use of medication. These results are consistent with the lower level of CDP support for medication assisted treatment.

Who should be involved in making decisions about getting off medication. Another primary issue is related to the views about who should be involved in the decision for clients in opioid treatment programs to get off their medications. One might initially think that this decision should be solely between the medical provider and the clients who are taking the medications; however, other views were clearly possible. When asked for their level of agreement about who should be involved in the decision to discontinue mediations from the standpoint of physicians, counselors, clients in treatment, and family members the results were curious. Methadone clients were less likely than medical providers, CDPs, and bup/nal clients that physicians should be involved in the decision. CDPs were significantly less likely to agree that counselors should have a say in discontinuing their medication. Methadone clients consistently answered lower on several scales related to time on medications, and decisions to get off medications. It appears that methadone clients sought more control and less outside interference (even with their prescribing physicians) when it came to these central issues related to time on medications. Further inquiry into this dynamic is worth noting and is a recommendation for further research.

The highest level of agreement between all respondent groups was noted when asked about clients having a say about when they should get off their medications. The CDP group had less agreement than the clients that clients should be involved in the decision. Why would CDPs, even though they agreed with the notion of client input, have less agreement than their

clients about their input into discontinuing medication? This appears to reflect the attitudes and beliefs held by CDPs that clients should only utilize mediations for shorter time periods, such as for detox and stabilization.

Medical providers, CDPs, and clients in opioid treatment programs did not support family member input into the decision of when to get off medications, although curiously bup/nal clinic participants were more agreeable to family input.

Client feelings. As expected, clients, medical providers, and CDPs indicated they thought that clients who participated in medication assisted treatment for opioid dependence are negatively judged until they discontinue the use of medications. All groups had high levels of agreement, however methadone clients had higher levels of agreement that they felt negatively judged and marginalized for being on methadone. There remains a lot of work to be done by providers and professionals in the field to advocate and educate others to combat these pervasive and divisive attitudes that remain a daily constant to clients who are attempting recovery from opioid dependence. If opioid dependence is truly an epidemic in this country and other places in the world, then solutions will certainly include a wide acceptance of what researchers and providers consider best practice. All surveyed groups, especially medical providers, view opioid dependence as a chronic disease. Chronic disease by definition lasts for long periods of time, if not for the lifetime. However a very pervasive attitude and many analogies and metaphors indicate beliefs that opioid dependence is an acute condition.

Motivation to change. Another popular belief held by many hinges on the change dynamic and motivation to change. Respondent groups were posed a statement that people on medications are not motivated to get clean. All groups demonstrated some level of disagreement

to that statement with the medical providers indicating stronger disagreement. Interestingly however the CDP group disagreed less heartily.

Long term goal. Medical providers highly disagreed while CDPs highly agreed that the long term goal of mediation assisted treatment was to be free from both illicit drugs and all medications that assisted them in the process. It is clear that the attitudes and beliefs of the professionals involved do not align and have implications for the clients they serve are concerning. Imagine yourself a client in this scenario where your prescribing physician encourages and supports you to continue your course of treatment and consults with you about how the medications are working, with no mention of stopping or titrating off, but then as you go into your counseling session your CDP asks about your long term goals, and asks how long you think you need to stay on the medication, or worse yet, encourages you to discontinue taking it. Clients may find themselves confused and uncertain about their recovery status. This small scenario highlights the dilemma of having two professionals with very different attitudes about one's treatment and recovery program.

All groups shared agreement that they supported medication assisted treatment. CDPs demonstrated lower levels of agreement. When asked whether clients should be allowed to get clean without the use of medications, there were moderate levels of agreement by all groups, but again the CDP group was more likely to agree with this statement. The implications are enormous since it is the CDPs who must first assess for opioid dependence and then discuss treatment options with clients before they are referred to the medical providers. In order to be eligible for medication assisted treatment clients must have an official diagnosis by their CDP; however, if the CDP holds the belief that the client should first have the chance to go to a non-medication assisted treatment program then it stands to reason that some clients will not

receive the proper treatment. This in turn could have negative consequences and in some cases cause more harm than good. Determining which client is a good candidate for medication is a difficult task. I would not want to be the CDP responsible for this decision and would prefer to consult with a medical provider who has more training in medications. Scope of practice continues to be an important part of this critical dialogue, and "staying in your lane" is an important teaching when dealing with decisions that can affect a person's health and wellbeing.

Conclusion

Opioid abuse and dependence is a public health threat and epidemic here in the United States and requires a dedicated focus and leadership among health care providers. One aspect of this battle deals with the solution driven practices that attempt to help those affected to overcome their dependence on opioids. Medication assisted treatment services are well researched and documented and this body of knowledge in the field of opioid dependence has been adopted as best practice by the leading practitioners and agencies that are experts in the field (Volkow et al., 2014b). The American Medical Association, Substance Abuse and Mental Health Services Administration, and The American Society of Addiction Medicine have all adopted medication assisted treatment as cutting edge accepted treatment practices in today's landscape.

This study sought to shed light on the complexities of the treatment practices that take place between the three primary participants in this important work. Research designed to unpack the underlying beliefs and attitudes that guide best practice is important. The deep and complex treatment practices that help medical providers, CDPs, and opioid dependent clients require inquiry to help aid in this epidemic. Research findings that add to the body of knowledge in the field of medication assisted treatment can be beneficial to all involved and lead to changes in both policy and practice.

Findings of this study help open the dialogue and bring professional discourse into the continued conversations about opioid dependence and recovery. The challenge lies in making the study findings aid all participants in the opioid treatment and recovery process and to examine and reflect on their approaches in treating this chronic medical disease.

Medical providers represent leaders in the field in the fight to achieve recovery. Their experience and education continues to evolve as they advocate for the use of new and advancing medications in the struggle to overcome insidious dependence on opioid drugs and the personal and societal harm inflicted by misuse, abuse, and dependence of both prescribed pharmaceuticals and illicit opioids. Medications are only one tool that medical providers have at their disposal, and even though research validates medication effectiveness, it cannot be viewed as the panacea. Complicated issues never come with easy solutions, and medical providers must continue to remain open in their thinking to counseling, 12-step support, spiritual guidance, and other helpful components that clients and CDPs identify as helpful pathways into recovery. Medical providers as leaders in the field must continue to work with other professionals to communicate, collaborate, and cooperate in the opioid treatment and recovery process. As long as they continue the conversation in a professional and respectful manner they will lead by example and work to be part of the solution.

CDPs and addiction counseling specialists across the United States also play a critical role in the well documented struggle for viable opioid treatment services and recovery from the disease. CDPs have a leadership role that cannot be minimized or downplayed as they have been tasked as professionals in their chosen field of study to have a major impact with clients who suffer. CDPs often times have the most “face time” through one-on-one counseling relationships, building trust, rapport, and respect from clients who are engaged in opioid treatment services and

medication assisted treatments. Their vital and important impact on clients and the recovery process requires continued vigilance, study, and a way to keep updated to best practices and stay on top of the ever changing landscape of valid and credible treatment practices. This study's findings point to adopting some changes in beliefs, attitudes, and practice for CDPs as they are challenged to move forward with solution driven services. Understanding their own experiences and bias that they have internalized is crucial to their advocacy for recovery with their clients and how they communicate with other professionals in the field of medication assisted treatment. Full recovery cannot take place without CDPs recognizing their strengths and limitations. CDPs have been educated and trained philosophically toward abstinence based paradigms. These traditional paradigms are undergoing strain and stretching the understanding of CDPs who struggle to meet the challenges that the use of opioid based medications plays in the recovery process adds to the recovery dynamic. There remains much work to be done for CDPs to fully accept the new landscape of opioid dependence, medication treatment, and recovery. As with the medical providers, CDPs must continue to work with an open mindset and stay engaged in professional discourse in order to collaborate and cooperate with other addiction specialists and especially with the clients that are the core focus of their chosen profession.

Clients who suffer from this debilitating disease can teach us a lot about the pathways into and out of opioid dependence. It is their voices, beliefs, and attitudes that require intense focus and understanding because they have the most to gain and lose in the process of treatment and recovery. The importance of client driven data cannot be overstated. Clients make up a group of affected individuals whose struggles impact families, communities, and the greater society. They must continue to be seen and treated as individual human beings. As such they deserve the respect and care that any person deserves from a health care system. Many personal

experiences and voices from opioid dependent individuals point to the negative judgment, labeling, criticizing, blame, and debilitating marginalization by society. Clients are in need of effective and helpful treatment and recovery services, and have embraced medications as a part of the solution to their personal dilemmas. It is time for all providers to listen carefully to client experience and opinion as they seek solutions to rebuild the shattered spirits, personal dignity, and worth that many times opioid dependency has taken from them. Clients have a personal responsibility in this process and must be open to guidance by those that have both received education and training and also "been there done that." They must also continue to communicate, collaborate, and cooperate with the treatment professionals and take an active role in their personal recoveries. It is only through working together that all parties will experience the rich and rewarding experience of freedom and recovery.

Study Implications

The current study findings have far reaching and serious implications for all involved in the field of medication assisted treatment and opioid dependence recovery. Opioid use disorder constitutes a national health problem and continues to represent a current epidemic in the U.S and around the world. The implications for each of the study groups are discussed below.

Medical providers. Medical providers face many challenges as they treat this complex and progressive brain disorder. As a group they are at the forefront of the treatment process for opioid dependent individuals. This study demonstrated the challenges that they as medical providers face in their daily work. They often times are criticized for not getting clients off medications, feel pressure from addiction counselors to reduce dose amounts, or discontinue medication if clients are not in compliance with counselor or other components of the treatment process. They must take the lead in educating their clients and the addiction specialists they

work with in order to justify current best practice. Medical providers need to understand that it is up to them to educate others involved with the treatment process about the importance of properly assessing the valid use of medications throughout the treatment and recovery process. They need to recognize the amount of misinformation that others have about the use of medications in the treatment process and the amount of resistance and skepticism that their clients face when involved in medication-assisted treatment. The implications this study holds for medical professionals as well as the clients they serve and the counselors who guide the recovery process is a model of fully integrated care. All groups need to understand and be open to their own bias and be willing to challenge themselves to set these aside for the best interest of the clients who suffer. The importance of having these groups work collaboratively cannot be overstated. Medical providers need to ask far reaching questions about long term recovery and how that is defined with or without medications. Medications do have limitations and they are only one component of successful recovery; they are not a sliver bullet and the only pathway into recovery. Medical providers are in a leadership role in this important and often times life threatening illness, and as such have a responsibility to educate, advocate, and work with clients and all who are involved in the treatment and recovery process.

Chemical Dependency Professionals (CPDs). CPDs and other substance abuse counselors providing direct psychosocial counseling and support services to opioid dependent clients represent a huge piece of the puzzle for opioid dependent individuals who are seeking relief and recovery. CDPs have a significant influence on the clients they serve and as such must recognize their scope of practice, role, experience, and expertise in the recovery spectrum. This study demonstrated the divergence in attitudes that CDPs have with regards to the medications being utilized by the client's medical providers. CDPs need a better understanding of the

research indicating the neuroplasticity of this chronic brain disease to fully comprehend the complexities of opioid dependence and the proper and legitimate use of medications that help clients achieve recovery. Based on study findings, CDPs could benefit from additional training and education about both the effects, and effectiveness of available medications, as well as on the nature of the addicted brains and the damage created by opioid abuse. A focus toward the best interest of their clients, possibly in some cases, less reliance on their own personal experiences of recovery could help bridge the gap that is evident between CDPs and medical providers. CDPs have a substantial impact with clients and much to offer the field of medication assisted treatment. They must work toward a more integrated care model of treatment and recovery. Their role needs to be better understood and respected by the medical field as they help clients work toward long term goals, to cope with the negative responses they experience, and to a full and successful recovery. CDPs are helpers and as such want the best for their clients, they see recovery potential in each person they work with, and must recognize each individual's pathways into recovery vary. A possible fourth leg of the stool recognizes the importance of family being involved in the education, treatment and recovery process and future research could provide some focus and recommendations in this important arena. Full acceptance of medication to assist and treat opioid dependence appears a lofty challenge to all CDPs, however continued insistence on dogmatic approaches that include complete and total abstinence as the criteria for recovery in the light of medical research findings are dangerous and destructive for some clients. CDPs must challenge themselves to new ways of thinking and familiarize themselves with current research literature on opioid dependence, in order to break free from the limitations of their original training and experience that includes complete and total abstinence as the criteria for recovery.

Clients recovering from opioid dependence. Client voices and their recovery from opioid dependence remain the most important single factor in this dialogue. This study demonstrated the importance of giving clients their voice as it relates to their own individual recovery. They literally are in the middle of the divergent approaches to help from the professionals. At the same time they experience negative responses from their family members, friends, and others. Clients who suffer from opioid dependence are clearly helped by medications, with the aim of healing their damaged brains. They are the ones that need to be at the center of the discussion about what works best for each individual's success. Clients who have been and continued to be negatively judged and marginalized for having this substance use disorder sometimes have difficulty acting confidently or competently enough to act in their own best interest. However it is in the clients' best interests that they are factual and honest in their presentation to themselves, providers, and friends/family. It remains a tall order for recovering people to take personal responsibility in their recovery process, including their medications, counseling, and other forms of support in order to fully recover. Diversion of medications, continued relapse with pharmaceutical medications, and illicit drugs, are all issues that clients must face and overcome in order to demonstrate integrity in their personal recoveries and gain the trust of their providers.

Study Limitations

There are several limitation to this study. It was difficult to identify, contact and get medical providers to respond to the survey. Thus, the sample size of N = 43 fell short of the study goal. Medical providers' work settings were primarily outpatient bup/nal providers and more methadone clinic providers could have made results more robust, providing for the possibility of comparing bup/nal and methadone medical providers. The survey instrument had not been used in a previous study and data were self-reported and thus subject to bias. Results

reflect a particular demographic area of the United States and may not generalize to other areas, countries, or cultures.

The sample population was from the Pacific Northwest geographic region of the United States, specifically, Washington State, and thus might not be representative of other geographical areas. Since the survey was designed and first tested in this study, reliability and validity are yet to be established until the current study is replicated. There also remains the possibility of missing data as some participants carefully considered and answered all questions while others may have been hasty in their responses.

Future Research

Future research is indicated in several key areas of medication assisted treatment for opioid dependence. Clinical trials of medications continue to dominate the landscape of research in the field; however, what is lacking is deeper understanding of clients, CDP, and medical provider attitudes and bias as they relate to opioid treatment and recovery. What is indicated is further inquiry into how the clients and providers (both medical and psychosocial) view the process of treatment solutions and define what recovery means and what it looks like in today's landscape. An additional and important area of inquiry would be to study family members, friends, and community attitudes about medication assisted treatment. Families and communities can play an important role in supporting and contributing to clients' treatment and recovery. More qualitative inquiry could enhance deeper understandings of both the challenges and solutions by any of these three groups. Each supported finding is worthy of independent study. Issues related to length of time on medications, goals of opioid treatment and recovery, helpful components of the treatment process, and especially negative attitudes held about opioid based medications that assist the recovery process, are all directions for future researchers to conduct

studies in order to add to the ever growing body of knowledge in the mediation assisted treatment field.

Families and community members also have a role to play in addressing the opioid dependency epidemic. Survey research for these groups, similar to the study of medical providers, CDPs, and clients would also add to the conversation and help in the search for solutions.

Recommendations

The recommendations that come from the current study are not confined to a simple set of criteria; however, the complexities of both the process that leads to a very negative impulsive and compulsive use of opioids and the process leading to change and recovery are evident. It is important that each of these three important groups that is involved in solution based activities come together to practice integrated care. No groups have the one right answer, but collectively they possess the power, knowledge, and experience necessary to overcome this devastating conditions that effects millions. Easy solutions to complex problems rarely exist, and in the field of opioid dependence recovery utilizing medications to assist in the process constitutes the biggest advancement in the field over the past 60 years. With the addition of newer medications recently approved and adopted for practice, the recommendations for continued study, analysis, and shifting of paradigms for the "old" way of doing things in the addiction treatment field is paramount. We must keep focus on best practice and successful client outcomes to truly inform how providers, clients, and substance abuse counselors continue to move forward in the field of medications assisted treatment. This will only happen through treatment outcome data as providers and the programs they work for track client success and the components of care that were both helpful and not helpful.

Scientists and researchers also need to help in this challenge by continuing their dedicated work in the fields of pharmacology, neurobiology, and brain chemistry in order that they lead the way and inform the field of addiction medicine as to best practices.

Recommendations going forward from this research study include but are not limited to:

- Mandated education classes as part of any core curriculum for the certification of chemical dependency licensing on "medication assisted treatment";
- Required continuing education (CEUs) for medical providers, chemical dependency counselors, and other professional working in the social science fields on opioid dependence, recovery, and medication assisted treatment;
- More research focused on the deeper qualitative dynamics of the opioid treatment and recovery process;
- Continued advocacy and voice at the policy level for substance abuse prevention and treatment, especially as it relates to opioid abuse and dependence;
- Community education campaigns that help educated the general public about the field of medication assisted treatment, overcoming myths and misconceptions, and advocating for the expansion of opioid treatment programs and services for those that suffer from this chronic disease process;
- Work to mandate a true "integrated care" model of medication assisted treatment between medical provides, CDPs, and the clients they both serve; and
- Continue the medical and scientific work and research in order to understand the neuropathways involved in the addiction process, and how the brain is in effect hijacked by our use of pharmaceutical medications, and illicit drugs.

Epilogue

My role as a leader in the area of substance abuse treatment and counseling was evident to me from the very first year that I entered personal recovery from substance abuse over 29 years ago. My journey was to not only help myself overcome the demons and life shattering experiences that I encountered but also to leave the treatment and recovery field better than I found it. I felt that sharing my story, and personal experience, strength, and hope would demonstrate leadership by modeling. I knew through personal experience that leadership in those I admired, respected, and followed was a style that was more modeled by example than by words. Respect is a huge part of leadership and being able to gain that with family members, peers, and other leaders was how I carried myself. At the time I did not realize what I know today and that is the journey to both my personal healing and recovery and my leadership ability and focus represented a side-by-side process of change. During my life's darkest time, something others describe as an emotional, physical, and spiritual bottom, I was consoled by a future mentor and leader who reassured me that change was simple and that all I would have to do was change ONE thing, and I thought what a relief I can do that, but after a long pause he said "everything." A change in my thinking, my feeling, and my entire way of being was indicated if I was to undergo the transformation from a broken drug addict to a true leader. The leadership potential was a value system that was embedded in me from my early upbringing in a small rural Nebraska community. Those that came before me taught and inspired me to be an independent thinker, to never give up, and to be interested in others, to give back, and to be a lifelong learner.

My PhD in Leadership and Change began not as a professional goal and a stepping stone to enhance my professional career, but rather as a deep personal goal to validate my potential and resilience as a person. I entered into this program very familiar with the change process because

as stated above I had undergone a personal transformation over the previous 20 years and as a result experience the personal freedoms associated with the promises of recovery. A personal mantra that ensued was taken directly from one of my guiding references, the Big Book of Alcoholics Anonymous, which stated:

> If we are painstaking about this phase of our development, we will be amazed before we are halfway through. We are going to know a new freedom and a new happiness. We will not regret the past nor wish to shut the door on it. We will comprehend the word serenity and we will know peace. No matter how far down the scale we have gone, we will see how our experience can benefit others. That feeling of uselessness and self-pity will disappear. We will lose interest in selfish things and gain interest in our fellows. Self-seeking will slip away. Our whole attitude and outlook on life will change. Fear of people and economic insecurity will leave us. We will intuitively know how to handle situations which used to baffle us. We will suddenly realize that God is doing for us what we could not do for ourselves. (pp. 83–84)

And so the promises were personally manifested in my life, which led me to pursue my doctoral degree in this program at Antioch University in leadership and change.

While working in the substance abuse field I occupied many important leadership positions within a local Native American reservation as the Lummi people adopted me into their ways and practices. They allowed me to humbly direct youth leadership treatment and recovery programs, help build and enhance residential programs like the Lummi youth academy and the Se>eye>chen youth residential treatment program, as well as my current position as Director of the Lummi Healing Spirit Clinic. I have been allowed the honor of supervision and leading staff teams that included from 20–45 professionals. In my certification as a CDP I also aspired to leadership roles in my educational and scholarly pursuits. Most CDPs do not go beyond a two year associate degree in their training and certification process. I set my goals in leadership to gain a PhD as a CDP, which is something very few do. I felt that this would position me to be able to make the most impact in my field on inquiry and place me in a leadership role and continue my advocacy in the helping field. This PhD program in leadership and change has

afforded me all of those opportunities and more. My hopes and dreams as I graduate from this program is to humbly and respectfully carry the message to those who still suffer from not only substance abuse problems but life challenges as well. There is strength in change, and personal fulfillment in leadership. Many thanks for those individuals that inspired, motivated, supported, and guided me in my journey.

Appendix

Appendix A: HSC Permission

Client medication assisted treatment survey

Opiate Addiction Survey

As an Antioch University student enrolled in the PhD in Leadership and Change program I am seeking your input for my research titled: Medication Assisted Treatment and the Three Legged Stool.

I am studying the field of opiate addiction and the use of medications (methadone, buprenorphine, naltrexone, buprenorphine/naloxone-Suboxone) in the treatment process. Your responses will help inform the field on the interplay that takes place between 1) medical providers (physcians, physcian assistants, and nurses), 2) addiction specialists or chemical dependency counselors, and 3) opiate addicted clients. These create the three legged stool of treatment.

Through your participation you will have the opportunity to contribute your thoughts on the growing field of medication assisted treatment for opioid dependence. Your responses will help identify the successes and challenges that face those involved in overcoming opiate addiction. I estimate this survey will take about 10-15 minutes to complete and your participation is voluntary.

This survey has been approved by the Institutional Review Board at Antioch University. All responses will be kept confidential and there is no personal information on this survey that would identify specific individual participates. Strict confidentiality guidelines are being followed and you may stop the survey at anytime.

Opiate addiction has become a huge challenge for medical providers, addiction professionals, and especially for those who are afflicted with this powerful and chronic brain disorder. Please take this opportunity to share your experience and thoughts about opiate treatment and recovery.

If you have any questions about human subject research approval for this study you can contact the chair of Antioch's Institutional Review Board.

Thank you for taking the time to participate.

1. Coming here to the Healing Spirit Clinic has helped me.

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
Coming here to the Healing Spirit Clinic has helped me.	○	○	○	○	○	○

Client medication assisted treatment survey

2. I have been in recovery from opiate addiction for

- ◯ 0-6 months
- ◯ 6 months to 1 year
- ◯ 1 year to 2 years
- ◯ 3 years or more
- ◯ Other (please specify)

Client medication assisted treatment survey

Goals

***3. Thinking about my SHORT-term goals of my treatment program, how strongly do you disagree or agree with each of the following statements?**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
The short term goal of my treatment is to be off all opiates and stabilized on methadone, buprenorphine, or suboxone.	○	○	○	○	○	○
The short term goal of my treatment is to be totally off opiates and ALL medications (methadone, buprenorphine, or suboxone) for controlling opiate addiction.	○	○	○	○	○	○

Medications

4. How effective do you consider each of the following medications in treating opiate addiction?

	Not at all effective	Not too effective	Somewhat effective	Effective	Very effective
Naltrexone (vivitrol)	○	○	○	○	○
Methadone	○	○	○	○	○
Suboxone (buprenorphine/naloxone)	○	○	○	○	○
Buprenorphine	○	○	○	○	○
Other (Specify)	○	○	○	○	○

Other (please specify)

5. How long do you think an opiate addicted person should be on any of the following medications?

	Detox (1 week or less)	Stabilization (less than 6 months)	6 months to 2 years	Longer than 2 years	For as long as needed	Lifetime
Naltrexone (vivitrol)	○	○	○	○	○	○
Methadone	○	○	○	○	○	○
Suboxone (buprenorphine/naloxone)	○	○	○	○	○	○
Buprenorphine	○	○	○	○	○	○
Other	○	○	○	○	○	○

Other (please specify)

Client medication assisted treatment survey

***6. Overall, thinking about the variety of medications available to help address the opiate addiction problem, overall, on a scale of 0 to 10, how would you rate the effectiveness of the available medications?**

0 -- Not at All Effective	1	2	3	4	5	6	7	8	9	10 -- Extremely Effective
○	○	○	○	○	○	○	○	○	○	○

Medications Narrative

7. In your opinion, what, if any, are the downsides or drawbacks of the following medications used to assist in opiate addiction treatment?

Methadone

Suboxone

Naltrexone (vivitrol)

8. In your opinion, what, if any, are the downsides or drawbacks of the following medications used to assist in opiate addiction treatment?

Methadone

Suboxone

Naltrexone (vivitrol)

9. What, if any, other thoughts would you like to share about the use of medications to assist in the treatment of opiate addiction?

Decision Making

Client medication assisted treatment survey

10. Thinking about who should determine when a person should be weaned off of medication, how strongly do you disagree or agree with each of the following options?

	Strongly Disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree

Client medication assisted treatment survey

Physician only	○	○	○	○	○	○
Me only	○	○	○	○	○	○
My Counselor only	○	○	○	○	○	○
Physician and myself together	○	○	○	○	○	○
Physician and my counselor	○	○	○	○	○	○
Myself and my counselor	○	○	○	○	○	○
Physician, myself, and my counselor	○	○	○	○	○	○
Other (Specify)	○	○	○	○	○	○

Other (please specify)

11. How helpful do you consider each of the following components in your treatment program.

	Not at All Helpful	Not too Helpful	Somewhat Helpful	Helpful	Very Helpful	Extremely Helpful
Counseling	○	○	○	○	○	○
Medication	○	○	○	○	○	○
Urine drugs screens	○	○	○	○	○	○
12 step/community based support	○	○	○	○	○	○
Combination of counseling and medication	○	○	○	○	○	○
Combination of counseling, medication, and urine drug screens	○	○	○	○	○	○
Other (Specify)	○	○	○	○	○	○

Other (please specify)

Opiate Addiction Experiences

*** 12. Thinking about opiate addiction how strongly do you disagree or agree with each of the following statements.?**

	Strongly Disagree	Disagree	Somewhat disagree	Somewhat Agree	Agree	Strongly Agree
People on medications for opiate addiction are negatively judged by others until they get off all medications (methadone, suboxone, buprenorphine, naltrexone).	○	○	○	○	○	○
Opiate addiction is a chronic disease.	○	○	○	○	○	○
People on medication (methadone, suboxone, buprenorphine, naltrexone) are not motivated to get clean.	○	○	○	○	○	○
Opiate addiction is an acute disease.	○	○	○	○	○	○

Client medication assisted treatment survey

*** 13. Thinking about opiate addiction treatments and outcomes, how strongly do you disagree or agree with each of these?**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
A person on methadone, buprenorphine, or suboxone is clean.	○	○	○	○	○	○
Medication assisted treatment should be time limited.	○	○	○	○	○	○
A person who is on naltrexone (vivitrol) is fully recovered.	○	○	○	○	○	○
It is okay for people to stay medicated for life if they need it.	○	○	○	○	○	○
A person is fully recovered of opiate addiction when they are drug and medication free.	○	○	○	○	○	○
I support medication assisted treatment (methadone, suboxone, buprenorphine, naltrexone).	○	○	○	○	○	○
A person should only be considered to be clean if they are off all medications (methadone, suboxone, buprenorphine, naltrexone)	○	○	○	○	○	○
People who seek treatment for opiate addiction should be given the chance to get clean without medication.	○	○	○	○	○	○
I do not support medication assisted treatment for opiate addiction.	○	○	○	○	○	○

Long Term Goals, Challenges, and Recovery

*** 14. Thinking about my LONG-term goals of my treatment program, how strongly do you disagree or agree with each of the following statements?**

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
The long term goal of medication assisted treatment is to be off all opiates and stabilized on methadone, buprenorphine, or suboxone.	○	○	○	○	○	○
The long term goal of medication assisted treatment is to be totally off opiates and ALL medications (methadone, buprenorphine, or suboxone) for controlling opiate addiction.	○	○	○	○	○	○

Client medication assisted treatment survey

*** 13. Thinking about opiate addiction treatments and outcomes, how strongly do you disagree or agree with each of these?**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
A person on methadone, buprenorphine, or suboxone is clean.	○	○	○	○	○	○
Medication assisted treatment should be time limited.	○	○	○	○	○	○
A person who is on naltrexone (vivitrol) is fully recovered.	○	○	○	○	○	○
It is okay for people to stay medicated for life if they need it.	○	○	○	○	○	○
A person is fully recovered of opiate addiction when they are drug and medication free.	○	○	○	○	○	○
I support medication assisted treatment (methadone, suboxone, buprenorphine, naltrexone).	○	○	○	○	○	○
A person should only be considered to be clean if they are off all medications (methadone, suboxone, buprenorphine, naltrexone)	○	○	○	○	○	○
People who seek treatment for opiate addiction should be given the chance to get clean without medication.	○	○	○	○	○	○
I do not support medication assisted treatment for opiate addiction.	○	○	○	○	○	○

Long Term Goals, Challenges, and Recovery

*** 14. Thinking about my LONG-term goals of my treatment program, how strongly do you disagree or agree with each of the following statements?**

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
The long term goal of medication assisted treatment is to be off all opiates and stabilized on methadone, buprenorphine, or suboxone.	○	○	○	○	○	○
The long term goal of medication assisted treatment is to be totally off opiates and ALL medications (methadone, buprenorphine, or suboxone) for controlling opiate addiction.	○	○	○	○	○	○

Client medication assisted treatment survey

15. In your opinion, what challenges do people on methadone, suboxone, buprenorphine, or naltrexone face?

	Not at all a challenge	Not too much of a challenge	Somewhat of a challenge	A challenge	A big challenge	A huge challenge
Being dependent on medication	○	○	○	○	○	○
Feeling shame	○	○	○	○	○	○
Not being trusted	○	○	○	○	○	○
Not being understood	○	○	○	○	○	○
Being criticized	○	○	○	○	○	○
Other	○	○	○	○	○	○

Client medication assisted treatment survey

	Not at all a challenge	Not too much of a challenge	Somewhat of a challenge	A challenge	A big challenge	A huge challenge
Other (please specify)						

16. What does "recovery" as it relates to opiate addiction mean to you?

Overall for Groups

17. Overall, on a scale of 1 to 10, how well do you think each of the following groups is doing in responding to the needs of people with opiate addictions?

	0 - Not at All Well	1	2	3	4	5	6	7	8	9	10 - Extremely Well
Physicians	○	○	○	○	○	○	○	○	○	○	○
Medical assistants	○	○	○	○	○	○	○	○	○	○	○
Counselors	○	○	○	○	○	○	○	○	○	○	○
Local communities	○	○	○	○	○	○	○	○	○	○	○
Addicts themselves	○	○	○	○	○	○	○	○	○	○	○
Families and friends of addicts	○	○	○	○	○	○	○	○	○	○	○

Demographics

18. Which category below includes your age?

- ○ 18-20
- ○ 21-29
- ○ 30-39
- ○ 40-49
- ○ 50-59
- ○ 60 or older

Client medication assisted treatment survey

19. What is your gender?

- ◯ Female
- ◯ Male

20. Which Medication are you currently on to assist you in your recovery?

- ◯ Methadone
- ◯ Suboxone
- ◯ Buprenorphine (Subtext)
- ◯ Naltrexone (Vivitrol)
- ◯ None
- ◯ Other (please specify)

21. How many months have you been on medication (methadone, suboxone, buprenorphine) for opiate addiction?

- ◯ 0-6 months
- ◯ 6 months to 2 years
- ◯ 2 years to 5 years
- ◯ 5 years or more
- ◯ Other (please specify)

Client medication assisted treatment survey

22. As a person trying to recover from opiate addiction how strongly do you disagree or agree that you have experienced pressure to get off of medications (methadone, suboxone, buprenorphine)?

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly Agree	N/A not applicable
My Doctor or medical provider	○	○	○	○	○	○	○
My counselor	○	○	○	○	○	○	○
Family member	○	○	○	○	○	○	○
Probation officer	○	○	○	○	○	○	○
CPS worker	○	○	○	○	○	○	○
Friends	○	○	○	○	○	○	○

Other (please specify)

23. Is there anything that you would like to add about your experience as a recovering opiate addict?

Thank You

Thank you for participating in this survey.

This survey is an opportunity for medical professionals and chemical dependency professionals to share their views on medication assisted treatment.

Appendix B: Professionals Survey

Medical & CDP professionals medication assisted treatment survey

Opiate Addiction Survey

As an Antioch University student enrolled in the PhD in Leadership and Change program I am seeking your input for my research titled: Medication Assisted Treatment and the Three Legged Stool.

I am studying the field of opiate addiction and the use of medications (methadone, buprenorphine, naltrexone, buprenorphine/naloxone-Suboxone) in the treatment process. Your responses will help inform the field on the interplay that takes place between 1) medical providers (physcians, physcian assistants, and nurses), 2) addiction specialists or chemical dependency counselors, and 3) opiate addicted clients. These create the three legged stool of treatment.

Through your participation you will have the opportunity to contribute your thoughts on the growing field of medication assisted treatment for opioid dependence. Your responses will help identify the successes and challenges that face those involved in overcoming opiate addiction. I estimate this survey will take about 10-15 minutes to complete and your participation is voluntary.

This survey has been approved by the Institutional Review Board at Antioch University. All responses will be kept confidential and there is no personal information on this survey that would identify specific individual participates. Strict confidentiality guidelines are being followed and you may stop the survey at anytime.

Opiate addiction has become a huge challenge for medical providers, addiction professionals, and especially for those who are afflicted with this powerful and chronic brain disorder. Please take this opportunity to share your experience and thoughts about opiate treatment and recovery.

If you have any questions about human subject research approval for this study you can contact the chair of Antioch's Institutional Review Board.

Thank you for taking the time to participate.

Respondent Group

1. Which, if any, of the following two groups describes your role with opiate addiction?

- ◯ Physician/physician assistant/nurse practitioner (medical provider)
- ◯ Chemical Dependency Professional (CDP)
- ◯ Neither of the above

Overview

Medical & CDP professionals medication assisted treatment survey

***2. Overall, thinking about what is happening in the opiate addiction treatment field, on a scale of 0 to 10, how would you rate the progress that is being made in addressing the problem of opiate addiction?**

0 - No Progress at All	1	2	3	4	5	6	7	8	9	10 - Great Deal of Progress
○	○	○	○	○	○	○	○	○	○	○

Goals

***3. Thinking about the SHORT-term goals of medication assisted treatment, how strongly do you disagree or agree with each of the following statements?**

	Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
The short term goal of medication assisted treatment is to be off all opiates and stabilized on methadone, buprenorphine, or suboxone.	○	○	○	○	○	○
The short term goal of medication assisted treatment is to be totally off opiates and ALL medications (methadone, buprenorphine, or suboxone) for controlling opiate addiction.	○	○	○	○	○	○

Medications

4. How effective do you consider each of the following medications in treating opiate addiction?

	Not at all effective	Not too effective	Somewhat effective	Effective	Very effective
Naltrexone (vivitrol)	○	○	○	○	○
Methadone	○	○	○	○	○
Suboxone (buprenorphine/naloxone)	○	○	○	○	○
Buprenorphine	○	○	○	○	○
Other (Specify)	○	○	○	○	○

Other (please specify)

Medical & CDP professionals medication assisted treatment survey

5. How long do you think an opiate addicted person should be on any of the following medications?

	Detox (1 week or less)	Stabilization (less than 6 months)	6 months to 2 years	Longer than 2 years	For as long as needed	Lifetime
Naltrexone (vivitrol)	○	○	○	○	○	○
Methadone	○	○	○	○	○	○
Suboxone (buprenorphine/naloxone)	○	○	○	○	○	○
Buprenorphine	○	○	○	○	○	○
Other	○	○	○	○	○	○

Medical & CDP professionals medication assisted treatment survey

	Detox (1 week or less)	Stabilization (less than 6 months)	6 months to 2 years	Longer than 2 years	For as long as needed	Lifetime
Other (please specify)						

***6. Thinking about the variety of medications available to help address the opiate addiction problem, overall, on a scale of 0 to 10, how would you rate the effectiveness of the available medications?**

0 -- Not at All Effective	1	2	3	4	5	6	7	8	9	10 -- Extremely Effective
○	○	○	○	○	○	○	○	○	○	○

Medications Narrative

7. In your opinion, what, if any, are the downsides or drawbacks of the following medications used to assist in opiate addiction treatment?

Methadone	
Suboxone	
Naltrexone (vivitrol)	

8. In your opinion, what, if any, are the benefits and positives of the following medications used to assist in opiate addiction treatment?

Methadone	
Suboxone	
Naltrexone (vivitrol)	

9. What, if any, other thoughts would you like to share about the use of medications to assist in the treatment of opiate addiction?

Decision Making

Medical & CDP professionals medication assisted treatment survey

10. Thinking about who should determine when an addicted person should be weaned off of medication, how strongly do you disagree or agree with each of the following options?

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Physician only	○	○	○	○	○	○
Client only	○	○	○	○	○	○
Counselor only	○	○	○	○	○	○
Physician and client together	○	○	○	○	○	○
Physician and counselor	○	○	○	○	○	○
Client and counselor	○	○	○	○	○	○
Physician, client, and counselor	○	○	○	○	○	○
Other (Specify)	○	○	○	○	○	○

Other (please specify)

11. How helpful do you consider each of the following options in treating a person with opiate addiction?

	Not at All Helpful	Not too Helpful	Somewhat Helpful	Helpful	Very Helpful	Extremely Helpful
Counseling	○	○	○	○	○	○
Medication	○	○	○	○	○	○
Accountability (Urine Drugs Screens)	○	○	○	○	○	○
12 step/community based support	○	○	○	○	○	○
Combination of counseling and medication	○	○	○	○	○	○
Combination of counseling, medication, and accountability	○	○	○	○	○	○
Other (Specify)	○	○	○	○	○	○

Other (please specify)

Opiate Addiction Experiences

Medical & CDP professionals medication assisted treatment survey

*** 12. Thinking about opiate addiction how strongly do you disagree or agree with each of the following statements.?**

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
People on medication (methadone, suboxone, buprenorphine, naltrexone) are negatively judged by others until they get off of all medications for their addiction.	○	○	○	○	○	○
Opiate addiction is a chronic disease.	○	○	○	○	○	○
People on medication (methadone, suboxone, buprenorphine, naltrexone) are not motivated to get clean.	○	○	○	○	○	○
Opiate addiction is an acute disease.	○	○	○	○	○	○

Medical & CDP professionals medication assisted treatment survey

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

*** 13. Thinking about the following statements about addiction treatments and outcomes, how strongly do you disagree or agree with each of these?**

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
A person on methadone, buprenorphine, or suboxone is clean.	○	○	○	○	○	○
Medication assisted treatment should be time limited.	○	○	○	○	○	○
A person who is on naltrexone (vivitrol) is fully recovered.	○	○	○	○	○	○
It is okay for people to stay medicated for life if they need it.	○	○	○	○	○	○
A person is fully recovered of opiate addiction when they are drug and medication free.	○	○	○	○	○	○
I support medication assisted treatment (methadone, suboxone, buprenorphine, naltrexone).	○	○	○	○	○	○
A person should only be considered to be clean and cured if they are off all medications (methadone, suboxone, buprenorphine, naltrexone)	○	○	○	○	○	○
People who seek treatment for opiate addiction should be given the chance to get clean without medication.	○	○	○	○	○	○
I do not support medication assisted treatment for opiate addiction.	○	○	○	○	○	○

Long Term Goals, Challenges, and Recovery

*** 14. Thinking about the LONG-term goals of medication assisted treatment, how strongly do you disagree or agree with each of the following statements?**

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
The long term goal of medication assisted treatment is to be off all opiates and stabilized on methadone, buprenorphine, or suboxone.	○	○	○	○	○	○
The long term goal of medication assisted treatment is to be totally off opiates and ALL medications (methadone, buprenorphine, or suboxone) for controlling opiate addiction.	○	○	○	○	○	○

Medical & CDP professionals medication assisted treatment survey

15. In your opinion, what challenges do people on methadone, suboxone, buprenorphine, or naltrexone face?

	Not at all a challenge	Not too much of a challenge	Somewhat of a challenge	A challenge	A big challenge	A huge challenge
Being dependent on medication	○	○	○	○	○	○
Feeling shame	○	○	○	○	○	○
Not being trusted	○	○	○	○	○	○
Not being understood	○	○	○	○	○	○
Being criticized	○	○	○	○	○	○
Other	○	○	○	○	○	○

Medical & CDP professionals medication assisted treatment survey

	Not at all a challenge	Not too much of a challenge	Somewhat of a challenge	A challenge	A big challenge	A huge challenge
Other (please specify)						

16. What does "recovery" as it relates to opiate addiction mean to you?

Overall for Groups

17. Overall, on a scale of 1 to 10, how well do you think each of the following groups is doing in responding to the needs of people with opiate addictions?

	0 - Not at All Well	1	2	3	4	5	6	7	8	9	10 - Extremely Well
Physicians	○	○	○	○	○	○	○	○	○	○	○
Medical assistants	○	○	○	○	○	○	○	○	○	○	○
Counselors	○	○	○	○	○	○	○	○	○	○	○
Local communities	○	○	○	○	○	○	○	○	○	○	○
Addicts themselves	○	○	○	○	○	○	○	○	○	○	○
Families and friends of addicts	○	○	○	○	○	○	○	○	○	○	○

Medical & CDP professionals medication assisted treatment survey

*** 18. Thinking about opiate addiction, and treatment with the use of medications (methadone, suboxone, buprenorphine) to assist in the recovery process which of the following statements best reflects your views?**

- ◯ I am against using medications for assisting treatment for opiate addiction.
- ◯ I used to be against medication assisted treatment, but now I am a strong supporter.
- ◯ I used to be against medication assisted treatment, but now I mildly support it.
- ◯ I am still unsure if I support the use of methadone/suboxone for addiction treatment.
- ◯ I support medication assisted treatment but still have reservations.
- ◯ I totally support medication assisted treatment for opiate addiction.

Medical & CDP professionals medication assisted treatment survey

Demographics

19. Which category below includes your age?

- ◯ 18-20
- ◯ 21-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60 or older

20. What is your gender?

- ◯ Female
- ◯ Male

Medical Provider or Chemical Dependency Professional

***21. In the opiate addiction field my role is...**

- ◯ Physician
- ◯ Nurse Practitioner
- ◯ Physician Assistant
- ◯ Chemical Dependency Counselor

Physician/Medical Provider

22. I am currently working in a...(Check all that apply)

- ☐ Methadone Clinic OTP (Opiate Treatment Program)
- ☐ Office based practice Suboxone/Buprenorphine
- ☐ Suboxone program with Physician in an Outpatient Chemical Dependency Program
- ☐ Detoxification unit
- ☐ Other

Other (please specify)

Medical & CDP professionals medication assisted treatment survey

23. Please indicate all medications that you use in your medication assisted treatment practice

- [ ] Suboxone (buprenorphine/heloxone)
- [ ] Buprenorphine
- [ ] Naltrexone (oral or injection)
- [ ] Methadone
- [ ] Other

Other (please specify)

24. As a physician, medical practitioner, or chemical dependency professional (CDP) how strongly do you disagree or agree that you feel pressure from the following groups to get clients off of medications (methadone, suboxone) while treating them as opiate addicts?

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
Clients/patients	○	○	○	○	○	○
CPS workers	○	○	○	○	○	○
Counselors	○	○	○	○	○	○
Family members	○	○	○	○	○	○
Financial/insurance providers	○	○	○	○	○	○
Other	○	○	○	○	○	○

Other (specify)

***25. When treating your clients who are opiate addicts, do you encourage them to get off of all opiate replacement (methadone/suboxone/buprenorphine) medications?**

- ○ Yes, I almost always do this
- ○ Yes, I usually do this
- ○ Yes, I sometimes do this
- ○ No, I occasionally do this
- ○ No, I almost never do this

Chemical Dependency Professional

Medical & CDP professionals medication assisted treatment survey

26. What best describes the treatment program where I currently work

- ◯ Methadone Clinic
- ◯ Outpatient Treatment program with NO Medication Assisted Treatment (Suboxone/Buprenorphine)
- ◯ Outpatient Treatment with a Medical Provider that prescribes Suboxone/Buprenorphine
- ◯ Other (please specify)

Medical & CDP professionals medication assisted treatment survey

27. How long have you been a certified addiction counselor (CDP)

- ◯ Less than 1 year
- ◯ 1-5 years
- ◯ 6-10 years
- ◯ 10-20 years
- ◯ 20 years or more

***28. When counseling your clients who are opiate addicts, do you encourage them to get off of all opiate replacement (methadone/suboxone/buprenorphine) medications?**

- ◯ Yes, I almost always do this
- ◯ Yes, I usually do this
- ◯ Yes, I sometimes do this
- ◯ No, I occasionally do this
- ◯ No, I almost never do this

Thank You

Thank you for participating in this survey.

This survey is an opportunity for medical professionals and chemical dependency professionals to share their views on medication assisted treatment.

Appendix C: Letter of Support

Evergreen Treatment Services

Transforming the lives of individuals and their communities through innovative and effective addiction and social services

COLLABORATION COMPASSION DIVERSITY EMPOWERMENT HOLISTIC INNOVATION INTEGRITY

Antioch IRB

October 12, 2015

To Whom It May Concern:

I am writing in support of Matt McGraths's proposed project which will entail surveying of individuals with opioid use disorders to learn more about underlying attitudes and beliefs about treatment services and medication. We understand that Mr. McGrath is a graduate student at Antioch University, and that his project is a part of his doctoral program. We understand that he will be conducting the survey with our patients, in accordance with a Human Subjects approved protocol. We are submitting this letter to acknowledge that we have been asked to serve as a recruitment site for this study. It is our understanding that the request is for us to (1) permit Mr. McGrath to post an announcement describing the project; and (2) Mr. McGrath to use of one of our rooms to recruit and/or screen interested patients from our facility to participate in the study.

We are pleased to cooperate with the terms of the project. We confirm that none of our staff will be involved directly in any of the activities related to this project. Please do not hesitate to contact should there be any questions regarding our cooperation in this project.

Sincerely,

K. Michelle Peavy, PhD
Research & Training Manager

Evergreen Treatment Services ◇ 1700 Airport Way South ◇ Seattle, WA 98134-1618
Phone: (206) 223-3644 ◇ Fax: (206) 223-1482

Appendix D: HSC Permission

LUMMI COUNSELING SERVICES

Dr. Adam Kartman M.D. Medical Director

2616 Kwina Road, BELLINGHAM, WA 98226

(360) 380-7121 FAX: (360) 384-2350

Antioch IRB August 11, 2015

RE: Healing Spirit clinic OTP Survey

Dear Sir or Madam:

Opiate dependence is a local, state and national problem. The number of opiate related deaths has tripled over the past 3 years. In Washington State it represents the number one cause of death for the age group 21-39.

I have been working in the opiate treatment field for the past decade and have personally witnessed the devastation the affliction of opiate dependence causes individuals, their families and the community

Traditionally Opiate Treatment Program (OTP) clinics have utilized the medication methadone, however with the recent approval of other medications the field of opiate dependence treatment has been expanding. Buprenorphine/Naloxone (Suboxone) was approved by the FDA in 2004 for OTP clinics and office base practice as well. Lummi's OTP providing Buprenorphine/Naloxone and Naltrexone, but not methadone is unique.

Many past and current research designs have documented positive outcomes due to the use of medications in opiate treatment programs. It is now considered best practice to utilize medications to assist opiate addicts in their recovery process. The addition of medication to counseling therapy is referred to as Medication Assisted Treatment (MAT).

However in the field of opiate treatment there still remains controversy and concern among patients, their families and counselors about medication assisted treatment. There is work to be done to inform and educate people to the benefits of combining patient accountability through drug testing, counseling and medication assisted treatment.

I fully support conducting a survey of opiate dependent clients in our clinic in order to learn more about underlying attitudes and beliefs about treatment services and medication. This information can be a benefit in improving services. As long as the information collected is anonymous and confidential, there should be no risk of harm to anyone. **Clinic counselors will be available to talk with any survey participants as the need arises in case of any negative feelings or reactions.**

Thanks for your attention in this important matter. Please feel free to contact me if you have any further questions.

Dr. Adam Kartman M.D

Lummi Healing Spirit Medical Director

360-739-5168 (cell & voice mail)

References

Allen, I. (2005). Women doctors and their careers: What now? *BMJ* (Clinical Research Ed.)*, 331*(7516), 569–572. doi:331/7516/569 [pii]

Alterman, A. I. (1996). Efficacy of enhanced outreach counseling to reenroll high-risk drug users 1 year after discharge from treatment. *American Journal of Psychiatry, 153*, 1095–1096. doi:10.1176/ajp.153.8.1095

Amato, L., Minozzi, S., Davoli, M., Vecchi, S., Ferri, M., & Mayet, S. (2008, October 8). Psychosocial combined with agonist maintenance treatments versus agonist maintenance treatments alone for treatment of opioid dependence. *Cochrane Database of Systematic Reviews, 4*. doi:10.1002/14651858.CD004147.pub3

Auriacombe, M., Fatséas, M., Dubernet, J., Daulouede, J., & Tignol, J. (2004). French field experience with buprenorphine. *American Journal on Addictions, 13*(sup1), S17–S28. doi:10.1080/10550490490440780

Baler, R. D., & Volkow, N. D. (2006). Drug addiction: The neurobiology of disrupted self-control. *Trends in Molecular Medicine, 12*(12), 559–566.

Batki, S. L., Kauffman, J. F., Marion, I., Parrino, M., & Woody, G. (2008). *Medication-assisted treatment for opioid addiction in opioid treatment programs* (Vol. 43). Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Treatment.

Bertakis, K. D., Azari, R., Helms, L. J., Callahan, E. J., & Robbins, J. A. (2000). Gender differences in the utilization of health care services. *Journal of Family Practice, 49*(2), 147–147.

Bickel, W. K., & Amass, L. (1995). Buprenorphine treatment of opioid dependence: A review. *Experimental and Clinical Psychopharmacology, 3*(4), 477. doi:10.1037/1064-1297.3.4.477

Biernacki, P. (1986). *Pathways from heroin addiction: Recovering without treatment*. Philadelphia, PA: Temple University Press.

Biernacki, P. (1990). Recovery from opiate addiction without treatment: A summary. *The Collection and Interpretation of Data from Hidden Populations,* 113–119. doi:10.1037/e469612004-001

Blaine, J., Thomas, D., Barnett, G., Whysner, J., Renault, P., Lowinson, J., & Ruiz, P. (1981). Levoalpha acetylmethadol (LAAM): Clinical utility and pharmaceutical development. In J. H. Lowinson & P. Ruiz (Eds.), *Substance abuse clinical problems and perspectives* (pp. 360–388). Baltimore, MD: Williams & Wilkins.

Center for Substance Abuse Treatment. (2005). *Medication-Assisted Treatment for Opioid Addiction in Opioid Treatment Programs* (DHHS Publication No. (SMA) 12-4214). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Chambless, D. L., Baker, M. J., Baucom, D. H., Beutler, L. E., Calhoun, K. S., Crits-Christoph, P., . . . Haaga, D. A. (1998). Update on empirically validated therapies, II. *Clinical Psychologist, 51*(1), 3–16. doi:10.1037/e619622010-001

Childress, A. R., McLellan, A. T., & O'Brien, C. P. (1986). Abstinent opiate abusers exhibit conditioned craving, conditioned withdrawal and reductions in both through extinction. *British Journal of Addiction, 81*(5), 655–660. doi:10.1111/j.1360-0443.1986.tb00385.x

Comer, S. D., Sullivan, M. A., Yu, E., Rothenberg, J. L., Kleber, H. D., Kampman, K., . . . O'Brien, C. P. (2006). Injectable, sustained-release naltrexone for the treatment of opioid dependence: A randomized, placebo-controlled trial. *Archives of General Psychiatry, 63*(2), 210. doi:10.1001/archpsyc.63.2.210

Compton, W. M., & Volkow, N. D. (2006a). Abuse of prescription drugs and the risk of addiction. *Drug and Alcohol Dependence, 83*, S4–S7. doi:10.1016/j.drugalcdep.2005.10.020

Compton, W. M., & Volkow, N. D. (2006b). Major increases in opioid analgesic abuse in the United States: Concerns and strategies. *Drug and Alcohol Dependence, 81*(2), 103–107. doi:10.1016/j.drugalcdep.2005.05.009

Creswell, J. W. (2014). *A concise introduction to mixed methods research*. Thousand Oaks, CA: Sage.

Dawe, S., Powell, J., Richards, D., Gossop, M., Marks, I., Strang, J., & Gray, J. A. (1993). Does post-withdrawal cue exposure improve outcome in opiate addiction? A controlled trial. *Addiction, 88*(9), 1233–1245. doi:10.1111/j.1360-0443.1993.tb02146.x

Dole, V. P., & Nyswander, M. E. (1980). Methadone maintenance: A theoretical perspective. *NIDA Research Monograph, 30*, 256–261.

Domingo-Salvany, A., Hartnoll, R. L., Maguire, A., Suelves, J. M., & Anto, J. (1998). Use of capture-recapture to estimate the prevalence of opiate addiction in Barcelona, Spain, 1989. *American Journal of Epidemiology, 141*(6), 567–574. doi:10.1093/oxfordjournals.aje.a009694

Ducharme, L. J., & Abraham, A. J. (2008). State policy influence on the early diffusion of buprenorphine in community treatment programs. *Substance Abuse Treatment, Prevention, and Policy, 3*(1), 17. doi:10.1186/1747-597x-3-17

Fatseas, M., & Auriacombe, M. (2007). Why buprenorphine is so successful in treating opiate addiction in France. *Current Psychiatry Reports, 9*(5), 358–364. doi:10.1007/s11920-007-0046-2

Fiellin, D. A., & O'Connor, P. G. (2002). New federal initiatives to enhance the medical treatment of opioid dependence. *Annals of Internal Medicine, 137*(8), 688–692. doi:10.7326/0003-4819-137-8-200210150-00014

Finn, P., & Wilcock, K. (1997). Levo-alpha acetyl methadol (LAAM) its advantages and drawbacks. *Journal of Substance Abuse Treatment, 14*(6), 559–564. doi:10.1016/s0740-5472(97)00176-1

Flynn, P. M., Joe, G. W., Broome, K. M., Simpson, D. D., & Brown, B. S. (2003). Recovery from opioid addiction in DATOS. *Journal of Substance Abuse Treatment, 25*(3), 177–186. doi:10.1016/s0740-5472(03)00125-9

Fram, D. H., Marmo, J., & Holden, R. (1989). Naltrexone treatment—the problem of patient acceptance. *Journal of Substance Abuse Treatment, 6*(2), 119–122. doi:10.1016/0740-5472(89)90039-1

Fraser, H., & Isbell, H. (1952). Actions and addiction liabilities of alpha-acetylmethadols in man. *Journal of Pharmacology and Experimental Therapeutics, 105*(4), 458–465. doi:10.1002/cpt196123287

Garbutt, J. C., Kranzler, H. R., O'Malley, S. S., Gastfriend, D. R., Pettinati, H. M., Silverman, B. L., . . . Ehrich, E. W. (2005). Efficacy and tolerability of long-acting injectable naltrexone for alcohol dependence. *JAMA: The Journal of the American Medical Association, 293*(13), 1617–1625. doi:10.1001/jama.293.13.1617

Gearing, F. R. (1970). Evaluation of methadone maintenance treatment program. *International Journal of the Addictions*, *5*(3), 517–543. doi:10.3109/10826087009057017

Gerlach, R. (2004). *A brief overview on the discovery of methadone*. Retrieved from http://www.indro-online.de/discovery.pdf

Giacomuzzi, S., Kemmler, G., Ertl, M., & Riemer, Y. (2006). Opioid addicts at admission vs. slow-release oral morphine, methadone, and sublingual buprenorphine maintenance treatment participants. *Substance Use & Misuse, 41*(2), 223–244. doi:10.1080/10826080500391845

Goldstein, M. F., Deren, S., Kang, S., Des Jarlais, D. C., & Magura, S. (2002). Evaluation of an alternative program for MMTP drop-outs: Impact on treatment re-entry. *Drug and Alcohol Dependence, 66*(2), 181–187. doi:10.1016/s0376-8716(01)00199-5

Gruber, K., Chutuape, M. A., & Stitzer, M. L. (2000). Reinforcement-based intensive outpatient treatment for inner city opiate abusers: A short-term evaluation. *Drug and Alcohol Dependence, 57*(3), 211–223. doi:10.1016/s0376-8716(99)00054-x

Haile, C. N., Kosten, T. A., & Kosten, T. R. (2008). Pharmacogenetic treatments for drug addiction: Alcohol and opiates. *The American Journal of Drug and Alcohol Abuse, 34*(4), 355–381. doi:10.1080/00952990802122564

Higgins, S. T., Budney, A. J., Bickel, W. K., Foerg, F. E., Donham, R., & Badger, G. J. (1994). Incentives improve outcome in outpatient behavioral treatment of cocaine dependence. *Archives of General Psychiatry, 51*(7), 568. doi:10.1001/archpsyc.1994.03950070060011

Hollister, L. E., Schwin, R. L., & Kasper, P. (1977). Naltrexone treatment of opiate-dependent persons. *Drug and Alcohol Dependence, 2*(3), 203–209. doi:10.1016/0376-8716(77)90027-8

Inciardi, J. A., & Harrison, L. D. (1999). *Harm reduction: National and international perspectives*. Thousand Oaks, CA: Sage.

Jaffe, J. H. (2007). Can LAAM, like Lazarus, come back from the dead? *Addiction, 102*(9), 1342–1343. doi:10.1111/j.1360-0443.2007.01976.x

Judson, B. A., Carney, T. M., & Goldstein, A. (1981). Naltrexone treatment of heroin addiction: Efficacy and safety in a double-blind dosage comparison. *Drug and Alcohol Dependence, 7*(4), 325–346. doi:10.1016/0376-8716(81)90049-1

Katz, E. C., Chutuape, M. A., Jones, H. E., & Stitzer, M. L. (2002). Voucher reinforcement for heroin and cocaine abstinence in an outpatient drug-free program. *Experimental and Clinical Psychopharmacology, 10*(2), 136. doi:10.1037/1064-1297.10.2.136

Koob, G. F. (2009). Neurobiological substrates for the dark side of compulsivity in addiction. *Neuropharmacology, 56*, 18–31. doi:10.1016/j.neuropharm.2008.07.043

Koob, G. F., & Le Moal, M. (2005). Plasticity of reward neurocircuitry and the'dark side'of drug addiction. *Nature Neuroscience, 8*(11), 1442–1444. doi:10.1038/nn1105-1442

Koob, G. F., & Le Moal, M. (2008). Addiction and the brain antireward system. *Annual Review of Psychology, 59*(1), 29–53. doi:10.1146/annurev.psych.59.103006.093548

Koob, G. F., & Volkow, N. D. (2010). Neurocircuitry of addiction. *Neuropsychopharmacology, 35*(1), 217–238. doi:10.1038/npp.2009.110

Kosten, T. R., Schottenfeld, R., Ziedonis, D., & Falcioni, J. (1993). Buprenorphine versus methadone maintenance for opioid dependence. *The Journal of Nervous and Mental Disease, 181*(6), 358–364. doi:10.1097/00005053-199306000-00004

Krupitsky, E. M., & Blokhina, E. A. (2010). Long-acting depot formulations of naltrexone for heroin dependence: A review. *Current Opinion in Psychiatry, 23*(3), 210–214.

Leshner, A. I. (1997). Addiction is a brain disease, and it matters. *Science, 278*(5335), 45–47. doi:10.1126/science.278.5335.45

Louria, D. B., Hensle, T., & Rose, J. (1967). The major medical complications of heroin addiction. *Annals of Internal Medicine, 67*(1), 1–22. doi:10.7326/0003-4819-67-1-1

Malerich, Jr., J. A. (1999). Prevention of relapse in alcohol dependence. *American Family Physician, 59*(7), 1753–1754.

Mann, J., & Tarantola, D. J. (1996). *AIDS in the world II*. New York, NY: Oxford University Press.

Mark, T. L., Kranzler, H. R., & Song, X. (2003). Understanding U.S. addiction physicians' low rate of naltrexone prescription. *Drug and Alcohol Dependence, 71*(3), 219–228. doi:10.1016/s0376-8716(03)00134-0

Martin, W. (1979). History and development of mixed opioid agonists, partial agonists and antagonists. *British Journal of Clinical Pharmacology, 7*(S3), 273S–279S. doi:10.1111/j.1365-2125.1979.tb04700.x

Mattick, R. P., Breen, C., Kimber, J., & Davoli, M. (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database of Systematic Reviews, 3*. doi:10.1002/14651858.CD002209.pub2

Mayet, S., Farrell, M., Ferri, M., Amato, L., & Davoli, M. (2004). Psychosocial treatment for opiate abuse and dependence. *Cochrane Database of Systematic Reviews, 4* (Art. No. CD004330). doi:10.1002/14651858.CD004330.pub3

Minozzi, S., Amato, L., Vecchi, S., Davoli, M., Kirchmayer, U., & Verster, A. (2011). Oral naltrexone maintenance treatment for opioid dependence. *Cochrane Database of Systematic Reviews, 4.* doi:10.1002/14651858.cd001333.pub3

Murphy, S. M., Campbell, A. N., Ghitza, U. E., Kyle, T. L., Bailey, G. L., Nunes, E. V., & Polsky, D. (2016). Cost-effectiveness of an internet-delivered treatment for substance abuse: Data from a multisite randomized controlled trial. *Drug and alcohol dependence*, *161*, 119–126. doi:10.1016/j.drugalcdep.2016.01.021

O'Brien, C. P. (1996). Recent developments in the pharmacotherapy of substance abuse. *Journal of Consulting and Clinical Psychology, 64*(4), 677. doi:10.1037/0022-006x.64.4.677

O'Brien, C. P., Greenstein, R., & Woody, G. E. (1978). Update of naltrexone treatment. In *NIDA eRsearch Monograph,* 315–320.

Olsen, Y., & Sharfstein, J. M. (2014). Confronting the stigma of opioid use disorder—and its treatment. *JAMA, 311*(14), 1393–1394. doi:10.1001/jama.2014.2147

Paulozzi, L. J., Budnitz, D. S., & Xi, Y. (2006). Increasing deaths from opioid analgesics in the United States. *Pharmacoepidemiology and Drug Safety, 15*(9), 618–627. doi:10.1002/pds.1276

Reed, L. J., Glasper, A., Cornelis, J., Bearn, J., & Gossop, M. (2007). Comparison of buprenorphine and methadone in the treatment of opiate withdrawal: Possible advantages of buprenorphine for the treatment of opiate-benzodiazepine codependent patients? *Journal of Clinical Psychopharmacology, 27*(2), 188–192. doi:10.1097/jcp.0b013e318032ec2a

Resnick, R., Galanter, M., Pycha, C., Cohen, A., Grandison, P., & Flood, N. (1991). Buprenorphine: An alternative to methadone for heroin dependence treatment. *Psychopharmacology Bulletin, 28*(1), 109–113.

Riley, D., Sawka, E., Conley, P., Hewitt, D., Mitic, W., Poulin, C., . . . Topp, J. (1999). Harm reduction: Concepts and practice. A policy discussion paper. *Substance Use & Misuse, 34*(1), 9–24. doi:10.3109/10826089909035632

Robins, L. N. (1993). Vietnam veterans' rapid recovery from heroin addiction: A fluke or normal expectation? *Addiction*, *88*(8), 1041–1054. doi:10.1111/j.1360-0443.1993.tb02123.x

San, L., Tremoleda, J., Olle, J., & de la Torre, R. (1989). [Prevalence of buprenorphine use by heroin addicts undergoing treatment]. *Medicina Clinica, 93*(17), 645–648.

Schecter, A. (1980). The role of narcotic antagonists in the rehabilitation of opiate addicts: A review of naltrexone. *The American Journal of Drug and Alcohol Abuse, 7*(1), 1–18. doi:10.3109/00952998009028406

Scheibe, A., & Week, R. D. P. (2016). *Drug use, policy and HIV*. Retrieved from http://www.sadrugpolicyweek.com/uploads/6/6/2/3/66238155/andrew_scheibe.pdf

Schuckit, E. G., Schuckit, M. F., & Schuckit, G. E. (1984). The index of choice: Indications of methadone patients' selection of naltrexone treatment. *The American Journal of Drug and Alcohol Abuse, 10*(2), 209–221. doi:10.3109/00952998409002781

Schwartz, R. P., Gryczynski, J., O'Grady, K. E., Sharfstein, J. M., Warren, G., Olsen, Y., . . . Jaffe, J. H. (2013). Opioid agonist treatments and heroin overdose deaths in Baltimore, Maryland, 1995–2009. *American Journal of Public Health, 103*(5), 917–922. doi:10.2105/ajph.2012.301049

Schwarz, R., Zelenev, A., Bruce, R. D., & Altice, F. L. (2012). Retention on buprenorphine treatment reduces emergency department utilization, but not hospitalization, among treatment-seeking patients with opioid dependence. *Journal of Substance Abuse Treatment, 43*(4), 451–457. doi:10.1016/j.jsat.2012.03.008

Seiberling, J. F. (1985). Origins of alcoholics anonymous. *Employee Assistance Quarterly, 1*(1), 33–39. doi:10.1300/j022v01n01_04

Silverman, K., Higgins, S. T., Brooner, R. K., Montoya, I. D., Cone, E. J., Schuster, C. R., & Preston, K. L. (1996). Sustained cocaine abstinence in methadone maintenance patients through voucher-based reinforcement therapy. *Archives of General Psychiatry, 53*(5), 409. doi:10.1001/archpsyc.1996.01830050045007

Simpson, D. D., Joe, G. W., Broome, K. M., Hiller, M. L., Knight, K., & Rowan-Szal, G. A. (1997). Program diversity and treatment retention rates in the drug abuse treatment outcome study (DATOS). *Psychology of Addictive Behaviors, 11*(4), 279. doi:10.1037/0893-164x.11.4.279

Tang, Y., Zhao, D., Zhao, C., & Cubells, J. F. (2006). Opiate addiction in China: Current situation and treatments. *Addiction, 101*(5), 657–665. doi:10.1111/j.1360-0443.2006.01367.x

Tucker, T. K., & Ritter, A. J. (2000). Naltrexone in the treatment of heroin dependence: A literature review. *Drug and Alcohol Review, 19*(1), 73–82. doi:10.1080/09595230096174

Unger, A., Jung, E., Winklbaur, B., & Fischer, G. (2010). Gender issues in the pharmacotherapy of opioid-addicted women: Buprenorphine. *Journal of Addictive Diseases, 29*(2), 217–230. doi:10.1080/10550881003684814

United Nations Office on Drugs and Crime. (2004). *World drug report 2004: Analysis* [Vienna]. Retrieved from http://www.unodc.org/pdf/WDR_2004/volume_1.pdf

United Nations Office on Drugs and Crime. (2010). *World drug report 2010*. Retrieved from https://www.unodc.org/documents/wdr/WDR_2010/World_Drug_Report_2010_lo-res.pdf

Vaillant, G. E. (1973). A 20-year follow-up of New York narcotic addicts. *Archives of General Psychiatry, 29*(2), 237–241. doi:10.1001/archpsyc.1973.04200020065009

Volkow, N. D., Frieden, T. R., Hyde, P. S., & Cha, S. S. (2014a). Medication-assisted therapies—tackling the opioid-overdose epidemic. *New England Journal of Medicine, 370*(22), 2063–2066. doi:10.1056/nejmp1402780

Waldorf, D. (1983). Natural recovery from opiate addiction: Some social-psychological processes of untreated recovery. *Journal of Drug Issues*, *13*(2), 237–280. doi:10.1177/002204268301300205

Washton, A., Pottash, A. C., & Gold, M. (1984). Naltrexone in addicted business executives and physicians. *The Journal of Clinical Psychiatry, 45*(9 Pt 2), 39–41.

Zanis, D. A., & Woody, G. E. (1998). One-year mortality rates following methadone treatment discharge. *Drug and Alcohol Dependence, 52(3)*, 257–260. doi:10.1016/s0376-8716(98)00097-0