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Occupational Therapy and Substance Use Disorders: Exploring Potential Roles Within Current Settings

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**Occupational Therapy and Substance Use Disorders:
Exploring Potential Roles Within Current Settings**

**A Master's Thesis Presented to the Faculty of the
Graduate Program in Occupational Therapy Ithaca College**

In partial fulfillment of requirements for the degree of Master of Science

By

Jenelle Bleiler December 2021

Ithaca College

School of Health Sciences and Human Performance Ithaca, New York

CERTIFICATE OF APPROVAL

This is to certify that the thesis of

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submitted in partial fulfillment of the requirements of the degree of Master of Science in
the Department of Occupational Therapy, School of Health Sciences and Human
Performance, at Ithaca College has been approved.

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Abstract

Illicit drug use within the United States has more than doubled within the previous decade with 53.2 million individuals using illicit drugs in 2018, and 20.3 million individuals with substance use disorder (SUD) diagnoses. Due to the nature of SUDs, the rehabilitation process can be complex, utilizing a mix of pharmaceutical and psychological therapies. Due to the diagnostic criteria for substance use disorders; including impairments within social, recreational, and vocational performance, treatment of SUDs falls within the scope of occupational therapy practice, however research regarding the use of occupational therapy services for the treatment of SUDs is limited. Less than 3% of occupational therapy practitioners report working with this population. This exploratory research used a quantitative survey design to collect descriptive data regarding the staffing and interventions provided in treatment for substance use disorders, and the practice settings providing these services. Results show that while SUD treatment teams rarely utilize occupational therapists, the interventions provided, including areas of self-care, community mobility, social participation, employment, and health literacy, fall within the occupational therapy scope of practice and important in the treatment of SUDs. This research shows that there is a gap between how important various occupation-based interventions were perceived to be for the treatment of SUDs, and how often they were provided. Based on these findings, having occupational therapists in SUD treatment teams may bolster the impact of treatment for relapse prevention and behavioral modification in individuals with SUDs.

Acknowledgements and Dedication

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Chapter 1: Introduction

Substance Use in the United States

According to the 2010 National Survey on Drug Use and Health, 22.1 million individuals, 8.7% of the population, in the United States over the age of 12 were classified with substance dependence, with approximately three million of those individuals using an illegal substance for the first time that year (Substance Abuse and Mental Health Services Association [SAMHSA], 2017). Additionally, approximately 21.5 million individuals in the United States above the age of 12 were diagnosed with a SUD in 2014 (Hedden et al., 2015). These numbers increased alarmingly, leading to 53.2 million, or 19.4% of the population, 12 and older in the US using illicit drugs in 2018. The numbers are more than double the illicit drug use in the previous decade. This correlates with an increase in new illegal drug use initiates in 2018 reaching ten million, and 21.1 million individuals receiving substance abuse treatment (SAMSHA, 2019). Approximately 19% of the US population (20.3 million people) displayed substance use disorders in 2018, with 14.8 million people having an alcohol use disorder, and 8.1 million people having an illicit drug use disorder (SAMSHA, 2019). In the past decade, cannabis has been the most highly consumed illicit drug, whose legalization will likely lead to a drastic decrease in the numbers reported above, and nonmedical pain reliever use, or the misuse of opioids, as the second most common category of SUDs (Hedden et al., 2015).

Substance use disorders are characterized by the chronic, relapsing, and compulsive use of one or more habit forming substances resulting in negative effects to the individual's health, environment, social life, and occupations (American Psychiatric Association [APA], 2013). Due to the nature of this disorder, the rehabilitation process for substance abuse can be complex, using a mix of pharmaceutical and psychological therapies, and even after intensive treatment,

the probability of relapse is a lifelong struggle for many individuals, leading to alternating periods of abstinence and relapse. This relapse, however, is not due to a lack of self-control or willpower but to the chronic, relapsing-remitting nature of addiction stemming from the neurochemical processes that addictive substances cause within the brain.

The use of drugs acts as a reward in the brain system, leading to the increased likelihood of using the drug again as it becomes associated with pleasure, causing a condition called priming to occur (Gutman, 2006). Priming refers to an individual associating specific people and environments with the sense of pleasure produced by substance use, increasing the likelihood of returning to similar people and environments associated with drug use. This association via priming then perpetuates the cycle, contributing to addiction (Gutman, 2006).

Substance use disorders affect individuals of all ages, races, genders, and socioeconomic statuses (SAMHSA, 2017), impacting occupational history, environment, roles, and performance of activities of daily living (ADLs) and instrumental activities of daily living (IADLs) (Correia et al., 2005; Lima & da Mata, 2013). Prolonged and inappropriate use of alcohol, cocaine, opioids, street drugs, and various pharmaceuticals can lead to the diagnosis of a substance use disorder (APA, 2013). The Diagnostic and Statistical Manual, Fifth Edition (DSM-5) breaks down the eleven criteria for substance use disorders into four categories: impaired control, social and occupational impairment, risky use, and pharmacological indicators such as withdrawal or intolerance (APA, 2013).

Substance Use Treatment

Approximately one in 13 people, or 21.2 million individuals, in the United States received a substance related diagnosis in 2018 (SAMHSA, 2019). Of this number, only 3.7 million received treatment for substance misuse or substance use disorders (SAMHSA, 2019).

This leaves 18.9 million individuals who needed treatment but did not receive it. SUDs are often treated through the lens of the brain disease model of addiction. This model considers the drug-seeking behavior commonly seen in SUDs as compulsive behavior, with treatment of the disease often falling under the medical model (Kincaid & Sullivan, 2010), with focus primarily centering on the neurological effects of prolonged drug use and viewing these changes as long-term and difficult to reverse (Lewis, 2017). Due to this thinking, the primary focus of treatment for SUDs under this model is developing pharmaceuticals that assist in reducing cravings and withdrawal symptoms, as well as blocking the effects of drug use. While this theory is widely accepted by the medical community and is largely undisputed, there are many reasons to question the validity and inclusivity of the lived experiences of individuals with SUDs within this model (Lewis, 2017). While medication is a useful tool in substance abuse for providing symptom relief, it is not a fix-all. The disease model of addiction fails to address the various environmental factors such as socioeconomic status, geographical location, coping skills, mental health, and social experiences of the individual that may contribute to drug use (Lewis, 2017). The use of a variety of psychosocial therapies for recovery combined with medication is often the most effective approach for SUD treatment (SAMHSA, 2016). Regardless of treatment type, approximately 40-60% of individuals with SUD will relapse, or re-initiate substance use after a period of sobriety (SAMHSA, 2018)

Due to the diagnostic criteria for substance use disorders; including impairments within social, recreational, and vocational performance, treatment of SUDs may increase in effectiveness and efficacy when approached through the lens of occupational science. Occupational science is a field of study that focuses on human engagement in social, leisure, and productive occupations, emphasizing the ability of humans to engage in various occupations, a

word that for the purpose of this research refers to everyday activities that individuals engage in that are central and/or necessary to their everyday lives (American Occupational Therapy Association [AOTA], 2020) throughout their lifespan (Clark et al., 1991). Taking a multidimensional approach, occupational science considers the meaning, function, and cultural contexts of occupations to the individual performing them (Clark et al., 1991). The field of occupational science is the academic discipline that guides occupational therapy practice and is a field devoted to the study of occupations and how individuals engage in and derive meaning from their occupations. Occupational therapy research and treatment typically focuses on the unique challenges of specific populations to engage in meaningful activities, or occupations. As per the philosophical base of occupational therapy, “occupational therapy is based on the belief that occupations may be used for health promotion and wellness, remediation or restoration, health maintenance, disease and injury prevention, and compensation/adaptation” (AOTA, 2011, p. S65). Diagnostic criteria for substance use disorders include impairments within social, recreational, and vocational performances, falling in line with the principles of occupational science, and therefore treatment by occupational therapy.

Relevance to Occupational Therapy

Approximately 19% of the US population has displayed substance use disorders, more than doubling illicit drug use in the previous decade (SAMSHA, 2019). While these numbers continue to rise, according to the AOTA workforce trends, only 2.5% of occupational therapy practitioners are working in mental health facilities, of which substance use disorders make up an even smaller percentage (Beers, 2010). Due to the increasing number of SUDs, it is likely that most occupational therapy practitioners will work with individuals experiencing a substance use disorder regardless of their workplace setting.

Various studies have indicated that the most effective treatment for SUD includes collaboration of pharmaceutical intervention and therapeutic intervention (Gutman, 2006; Bart, 2012). While pharmaceutical intervention focuses on reducing the effects of various substances and symptoms of cravings and withdrawal, the addition of various therapeutic interventions allows treatment to address the social and environmental aspects of addiction. Behavioral health treatments have shown effectiveness in reducing substance use and relapse due to a focus on changing “behaviors, thoughts, emotions, and how people see and understand situations,” (SAMHSA, 2016, p. 1).

One model that may be used by occupational therapy practitioners in the treatment of SUDs is the Person-Environment-Occupation model (PEO). This model is a client-directed, occupation-based model of treatment, focusing on the interaction of each component (person, environment, and occupation) of the model and allowing the therapist and the individual to work together to determine aspects of the individual, the environment they live in, and their daily roles and activities and where there are barriers and supports in each component (Brown, Stoffel, & Munoz, 2017). All these aspects of PEO are components of SAMHSA’s working definition of recovery. For example, while an individual may be managing their health by following up with therapists, attending support groups, and taking their prescribed medications, an abusive home environment or a lack of meaningful occupations in their daily life may still create barriers to maintaining sobriety. The PEO model is effective particularly with individuals with mental health disorders as it promotes the client’s full participation, immersion, and critical dissection of the transactive and dynamic relationships that occur in their own life (Brown, Stoffel, & Munoz, 2017).

There is limited research available regarding the efficacy of occupational therapy as a treatment for SUDs, however, various researchers have suggested that addiction itself becomes an occupation for individuals with SUDs (Kiepek & Magalhães, 2011; Wasmuth et al., 2014). According to the American Psychiatric Association (2013) individuals in recovery from SUDs often report a lack of meaningful occupations due to the habituation of the pattern of obtaining a substance, using a substance, and recovering from the substance having taken precedence over participation in other occupations. This state of occupational deficit has been linked to higher relapse rates, and conversely, participation in new occupations improved abstinence-related outcomes (Correia et al., 2005; Lima & da Mata, 2013). As occupational therapy practitioners utilize occupations to “promote individual, community, and population health” (AOTA, 2011, p. S65) through “occupational therapy practice, education, research, and advocacy” (AOTA, 2011, p. S65), these practitioners may offer a distinct value to SUD treatment through the unique lens of occupational science.

Purpose Statement

While these results lay a foundation for the argument for occupational therapist practitioners on SUD treatment teams, occupational therapists are rarely reported as part of SUD treatment service teams (Beers, 2010). Therefore, the purpose of this research study is:

1. To survey facilities providing services to individuals with SUDs to determine the treatments and resources they are providing;
2. Determine if occupational therapy practitioners are employed in these settings;
3. Determine if the treatment of SUDs falls within the scope of practice of occupational therapists; and
4. Explore potential roles for occupational therapists within these settings.

Research Questions

As this is exploratory research, no hypothesis was devised, however, to guide my research, the following questions were formulated:

1. What services are provided by facilities to individuals recovering from substance use disorders?
2. Are occupational therapists employed in these settings?
3. What interventions are being implemented with this population that fall in the scope of occupational therapy practice?
4. How did the survey participants rate the perceived level of importance of interventions?

Definition of Terms

1. *Addiction*, for the purposes of this study, refers to the chronic, relapsing characteristic of substance use disorders in which an individual uses a substance for an extended period of time with the inability to stop or reduce their use of said substance despite intrinsic and extrinsic motivators to stop use (Gutman, 2006; APA, 2013).
2. *Substance Related Disorders* are a category of diagnoses in the Diagnostic and Statistical Manual for Mental Disorders V (DSM V) that includes experiences of “intoxication, withdrawal, and other substance-induced/medication-induced mental disorders” related to 10 classes of drugs that include but are not limited to alcohol, opioids, cocaine, sedatives, and inhalants (APA, 2013, p. 485).
3. *Substance Use Disorders* are a subcategory of substance related disorders and refers to persisted use of a substance leading to the presence of cognitive, behavioral, and

psychological symptoms related to substance use, and/or brain alterations due to persistent use (APA, 2013).

4. *Drug Use*, for the purposes of this study, refers to the use of legal substances with addictive properties, such as taking prescribed opioids for pain.
5. *Illicit Drug Use*, for the purposes of this study, refers to the use of illicit drugs such as heroin or cocaine.
6. *Drug Misuse*, for the purposes of this study, encompasses all illicit drug use as well as inappropriate drug use, such as use of opioids without a prescription.
7. *Occupations*, for the purposes of this study, refers to any activities that fill an individual's time and hold meaning or importance to the individual.
8. *Occupation-Based Interventions*, for the purposes of this study, refers to any therapeutic activities and/or interventions that support an individual's engagement in and performance of their occupations.

Delimitations

Some delimitations of this study included limiting participants to English speaking individuals employed within the United States. The researcher's choice to provide the option of "other" on the survey in response to question 4 was also a delimitation of this study. The result of adding "other" lessens the clarity of settings individuals were employed in.

Limitations

As noted by Rowley (2014), common limitations of survey questionnaires are the researcher's inability to ensure the participant's understanding of the questions, and the accuracy of the responses. This in turn created potential for unreliable or inaccurate data. Other limitations included participants not answering all the questions in the survey, and any potential biases that

participants may have had as some questions on the survey are opinion based. Another limitation of this study was the relatively small sample size ($N = 96$).

Assumptions

During the development of this research, the primary guiding assumptions of the researchers were that occupational therapists are not often employed as part of SUD treatment teams, and that services listed in the Occupational Therapy Practice Framework, Fourth Edition (OTPF-4) are being provided by other professionals due to the lack of occupational therapists providing interventions in these settings. While the interventions provided may fall within the scope of practice of other professionals providing services to individuals with SUDs, the guiding theoretical approaches and scope of practice of occupational therapy may provide a unique approach and distinct value in addressing the needs of those with SUD.

Chapter 2: Literature Review

Due to the nature of SUDs, the rehabilitation process can be complex, using a mix of pharmaceutical and psychological therapies, and even after intensive treatment, the chance of relapse is a lifelong struggle for many individuals, leading to alternating periods of abstinence and relapse (Gutman, 2006; Bart, 2012). This relapse, however, is not due to a lack of self-control or will power but to the chronic, relapsing-remitting nature of addiction stemming from the neurochemical processes that addictive substances cause within the brain (Gutman, 2006). This literature review will discuss the diagnosis, presentation, and symptoms of SUDs, the treatment approaches, professionals, and settings where services are typically provided for individuals with SUDs, and finally the role of occupational therapy with SUDs.

Diagnosing Substance Use Disorders

Substance use disorders are characterized by the chronic, relapsing, and compulsive use of one or more habit forming substances resulting in negative effects to the individual's health, environment, social life, and occupations (APA, 2013). SUDs affect individuals of all ages, races, genders, and socioeconomic statuses (SAMHSA, 2017), impacting occupational history, environment, roles, and performance of activities of daily living (ADLs) and instrumental activities of daily living (IADLs) (Correia et al., 2005; Lima & da Mata, 2013). Prolonged and inappropriate use of alcohol, cocaine, opioids, street drugs, and various pharmaceuticals can lead to the diagnosis of a substance use disorder (APA, 2013).

The DSM-5 provides a list of 11 symptoms to diagnose SUDs on a continuum ranging from mild to severe. Mild SUDs require a minimum of two symptoms to be present, moderate having four to five present, and six or more symptoms indicating a severe SUD (APA, 2013). The criteria for diagnosis is as follows;

1. Hazardous use,
2. Social or interpersonal problems related to use,
3. Neglect of major roles due to use,
4. Withdrawal,
5. Tolerance,
6. Increase in amount of substance used,
7. Repeated, unsuccessful attempts to quit or control use,
8. Increase in frequency of use,
9. Physical and psychological problems related to use,
10. Giving up other activities due to use, and
11. Craving the substance (APA, 2013, p. 485).

Causes of Substance Use Disorders

One theory regarding the initiation of substance use is the Gate Theory. This theory suggests that the use of tobacco and/or alcohol can increase the likelihood of using cannabis, which in turn can lead to the use of other illicit drugs (Attaiaa et al., 2016). In a 2016 study, Attaiaa et al. hypothesize that this particular order of drug initiation may be due to alcohol, tobacco, caffeine, and cannabis being more easily available and accessible in today's society than other drugs. The results of this study found that the age of initiation of substance use has more impact on the number of drugs initiated than the order of drug initiation, with younger ages of initiation being associated with a higher risk of polydrug use later in life, as well as substance abuse. Attaiaa et al. (2016) also note that SUDs occur more frequently in men, individuals with lower socioeconomic statuses, and individuals with lower education levels. Other factors associated with substance use include familial addictions, childhood behavioral problems, and

common psychiatric disorders with high risk for comorbidity including depression and schizophrenia (Bates et al., 2002).

Many theories of addiction center on the release of dopamine, a hormone in the brain associated with pleasure, upon use of a substance. Gutman (2006) discusses the process of tolerance, a factor in the development of dependency and cravings, its relationship to dopamine production, and the role tolerance plays in developing an addiction. Tolerance occurs fairly early in the stages of addiction and is caused by repeated exposure to a substance and requiring more of the substance in order to achieve the level of dopamine production that previously required a smaller dose of the substance (Gutman, 2006). This then leads to an individual continuously increasing their intake of a substance to achieve the same results, increasing the risk of addiction.

Neuroscience of Substance Use Disorders

Prolonged substance abuse is associated with changes in brain volume, decreased blood flow to the frontal lobes, and can result in cerebral changes similar to those inflicted by a traumatic brain injury (TBI) (Bates et al., 2002). Synaptic changes have been noted in the amygdala, hippocampus, and prefrontal cortex (Lewis, 2017). These changes in the brain are associated with changes in how the brain anticipates and perceives rewards, and changes in systems responsible for perception, memory, and higher-order executive systems (Lewis, 2017).

The neuroscience of addiction is a complex interaction of diverse brain structures that can lead to a variety of motivational, emotional, cognitive, and behavioral deficits and dysfunctions. The use of illicit drugs acts as a reward in the brain system, leading to the increased likeliness of using the drug again as the drug becomes associated with pleasure, as well as causing a condition called priming to occur (Gutman, 2006). Priming refers to an individual associating specific

people and environments with the sense of pleasure produced by substance use, increasing the likelihood of returning to similar people and environments associated with drug use. This then perpetuates a cycle of drug use, contributing to addiction (Gutman, 2006).

Cognitive Effects of Substance Use Disorders

Estimates regarding the prevalence of cognitive impairments in individuals with SUDs vary widely across the literature, with results ranging from 20-80% of individuals with SUDs receiving treatment for additional impairments (Bates et al., 2002). The neurological impairments associated with SUDs may affect the quality of life and occupational functioning of the individual, and have potential to negatively affect patient participation, therapy participation, and treatment adherence (Bates et al., 2006; Blume & Marlatt, 2009; Prendergast et al., 2015).

Various studies have correlated SUDs with the impairment of executive function tasks. In a study by Rojo-Mota et al. (2014), a quarter of the sample ($n = 25$) showed severe impairments in processing skills at the beginning of SUD treatment. Further studies indicated reduced self-insight and sensitivity to future consequences (Schoenbaum & Shaham, 2008) impaired decision-making in real life scenarios (Schoenbaum & Shaham, 2008), reduced ability to suppress responses (Cardinal et al., 2004), increased preference for instant gratification over delayed rewards (Cardinal et al., 2004), social dysfunction, and a lack of emotional control (Bechara, 2005). In many cases, these deficits continued to present even after six months of abstinence in many individuals with SUDs (Fernandez-Serrano et al., 2011).

These cognitive deficits attribute to decreased self-insight which may cause denial of substance use or dependency (Rinn et al., 2002), correlating with low treatment adherence and willingness to change, (Bates et al., 2006; Blume & Marlatt, 2009), and poor attendance at

outpatient therapy (Prendergast et al., 2015), all of which can contribute to overall decreased maintenance of abstinence after treatment.

Physiological Effects of Substance Use Disorders

SUDs and prolonged drug use can lead to increased occurrences of cirrhosis of the liver, cardiomyopathy, erosion of the nasal septum (due to ingesting a substance through the nose), various cancers, stroke, lung disease, infectious disorders such as human immunodeficiency virus (HIV), hepatitis, and tetanus, and neurologic complications such as dementia and tremors (Gutman, 2006, APA, 2013). Malnutrition and poor personal hygiene may also become apparent in individuals with SUDs (Gutman, 2006).

Additionally, Rojo-Mota et al., (2014), showed decreased motor performance and coordination in individuals with prolonged substance abuse. The Assessment of Motor and Process Skills (AMPS) (Fisher, 1997) was used with 101 individuals with SUDs with results showing a negative correlation between motor and cognitive performance, and the duration and severity of SUD diagnoses with significant deterioration being present in 25% of the sample.

Comorbidities of Substance Use Disorders

In 2014, approximately 11.4% of the youth population, and 18.1% of the United States' adult population had a mental illness diagnosis, with 7.9 million adults in the United States diagnosed with a co-occurring mental illness with SUD (Hedden, 2015). According to the SAMHSA Behavioral Health Trends (Hedden, 2015), individuals with mental health illnesses are more likely to use illicit drugs, especially in individuals that have experienced a Major Depressive Episode (MDE) in the past year. Gutman (2006) further expands on the connection between various mental health diagnoses and the development of SUDs, indicating high risk of comorbidities in individuals with schizophrenia, bipolar disorder, personality disorders, conduct

disorders, and attention deficit hyperactivity disorder. Obsessive compulsive tendencies are also more prevalent in individuals with SUDs than in the general population (Schoenbaum & Shaham, 2008). These comorbidities further complicate the course of treatment for both the SUD and the mental health diagnosis.

While gambling disorders are a separate diagnosis in the DSM-5, studies have found that the clinical expression, brain origin, common comorbidities, physiology, and treatments are very similar to the presentation of SUDs (APA, 2013).

Treatment of Substance Use Disorder

Joe et al. (2014) found that increased capacity for retention, motivation for participation in treatment, development of therapeutic relationships, and increased psychological functioning all correlate with more positive outcomes post-SUD treatment and decreased relapse rates. However, while these factors have been found to increase success in treatment, at present only a small percentage of individuals with SUDs receive treatment for their condition. Approximately one in 13 people, or 21.2 million individuals, in the United States received a substance related diagnosis in 2018. Of this number, only 3.7 million received treatment for substance misuse or substance use disorders (SAMHSA, 2019). This leaves 18.9 million individuals who needed treatment but did not receive it. According to the SAMHSA 2018 national survey on drug use and health, only 964,000 of these individuals perceived having a need for substance use treatment, an indication of decreased self-awareness. Individuals that felt they needed treatment, but did not receive it, indicated the following reasons: not ready to stop using (38.4%), not being able to afford the cost of treatment (32.5%), did not know where to go to receive treatment (21.2%), felt getting treatment would have a negative impact on their job (16%), and felt

receiving treatment would cause neighbors or community members to have a negative opinion about them (14.9%) (SAMHSA, 2018, p. 55).

Recovery Model

Compared to the brain disease model of addiction, The Recovery Model is a more holistic approach to treatment (Jacob, 2015). Rather than focusing on eliminating the symptoms of SUD the way that the disease model of addiction does, the recovery model focuses on self-growth and behavioral change over time through using goal setting (Jacob, 2015). Goal setting in the Recovery Model is used to identify deficits, discover hope, and ultimately find new meaning. This process prioritizes allowing the individual to lead the therapy process, finding their own intrinsic and extrinsic motivators for sobriety (Jacob, 2015).

Cognitive Behavioral Therapy and Psychotherapy

Various studies have indicated that the most effective treatment for SUD includes collaboration of pharmaceutical intervention and therapeutic intervention (Gutman, 2006; Bart, 2012). While pharmaceutical intervention focuses on reducing the effects of various substances and symptoms of cravings and withdrawal, the addition of various therapeutic interventions allows treatment to address the social and environmental aspects of addiction. Behavioral health treatments such as psychotherapy and cognitive behavioral therapies (CBT) have shown effectiveness in reducing substance use and relapse due to a focus on changing “behaviors, thoughts, emotions, and how people see and understand situations,” (SAMHSA, 2016, p. 1).

Psychotherapy and CBT approaches are the most well-documented and researched non-pharmacological interventions for SUD disorders (Vujanovic et al., 2017). A main focus of these approaches is to change the thought patterns of an individual regarding the use of substances and how they view their daily lives. Due to the high comorbidity rates of SUD with depression,

schizophrenia, anxiety, and other mental health disorders, psychotherapy, and CBT work to address the disordered thought patterns associated with SUD, but also with various other mental health conditions that the individual may be experiencing (Vujanovic et al., 2017). Use of psychotherapy and CBT with SUDs has been found to improve common symptoms of SUD and co-occurring mental health disorders such as anhedonia, rumination, experiential avoidance, poor emotional regulation, and decreased distress tolerance (Vujanovic et al., 2017).

Family Therapy

Additionally, family therapy has been shown to significantly improve treatment retention with lower prevalence of substance use post-treatment, as well as significantly fewer consumption days during treatment (Rigter et al., 2013). Slesnick et al. (2013) found that utilizing a community reinforcement approach, motivational interviewing, and family therapy elicited longer durations of abstinence following intervention. Further, integration of treatment into the workplace through reinforcement contingencies in an employment program by requiring the provision of drug-negative urine and proof of adherence to medication treatment to access work and maintain maximum pay proved effective in motivating participants to initiate and maintain abstinence (Silverman et al., 2012).

Abstinence Programs

Perhaps one of the most well-known treatment programs for SUDs is the 12-step program, an abstinence-based recovery program. According to SAMHSA (2018), 72% of facilities providing SUD treatment provide the 12-step program as a treatment option. These programs, such as Narcotics Anonymous and Alcoholics Anonymous, are spiritual, non-professional, peer-support based approaches to relapse prevention and abstinence promotion (Monico et al., 2014). These programs are run based on the idea that individuals that have

maintained abstinence for an extended period of time are able to use their personal stories and experience to assist other individuals struggling with addiction to mediate their own journey with abstinence (Alcoholics Anonymous, n.d.). One downfall of such programs is that individuals receiving pharmaceutical treatment for SUDs that are being provided with opioid agonists such as buprenorphine and methadone (these drugs are further discussed in the next section), are not recognized as being sober or “clean” (Monico et al., 2015). This can lead to individuals receiving pharmaceutical treatments to reduce participation and attendance within their 12-step program, and early reduction of pharmacotherapy against medical advice which can lead to sudden onset of withdrawal, which, without adequate support, can lead to relapse (Greenfield et al., 2014).

Pharmacological Intervention

Gutman (2006) indicates two primary uses of medication in treating addiction, medications that block a substance from reaching its neurologic receptor, and medications that reduce the effects of a substance. Both pharmaceutical treatments for SUDs are primarily focused on addressing physical dependence and withdrawal (Bart, 2012).

The most common medications used to assist with withdrawal, cravings, and abstinence are methadone, an opioid agonist used by medical professionals in order to reduce withdrawal symptoms and promote abstinence from recreational drug use, and buprenorphine, also an opioid agonist that stimulates opioid receptors in the brain, and naltrexone, an opioid antagonist that blocks opioid receptors to decrease the pleasurable effect caused by drug use (Bart, 2012; Srivastava et al., 2017). The distribution of methadone is highly regulated and may only be dispensed by treatment programs that have been trained and approved by SAMHSA, buprenorphine and naltrexone on the other hand may be prescribed by any licensed health care provider (Mojtabai et al., 2019). Overall, methadone is found to have higher treatment retention

rates than buprenorphine and naltrexone, due to methadone being an opioid, buprenorphine and naltrexone have a lower risk of overdose (Srivastava, Kahan, & Nader, 2017). In 2016, a study of 4,218 SUD treatment facilities in the US found that 70.4% of the facilities offered buprenorphine, 57.6% offered naltrexone, and 28.7% offered methadone as treatment options (Mojtabai et al, 2019). Overall, medication assisted treatment is considered to be more effective than abstinence-based treatment alone, however further improved outcomes are noted when treatment is paired with additional evidence-based services, particularly psychosocial interventions (Bart, 2012). SAMHSA (2016) reiterated that while medication is a useful tool in substance abuse for providing symptom relief, it is not a fix-all and the use of a variety of psychosocial therapies for recovery combined with medication is often the most effective approach for SUD treatment.

Factors Impacting Client Motivation in Treatment

Client intrinsic motivation in SUD treatment is a complex concept that draws from the recognition of the presence of a problem, a desire for help, and willingness to accept assistance (Joe et al., 2014). This motivation is further impacted by extrinsic and environmental factors including societal and peer pressure which may have an increasing or decreasing effect on drug use. Once receiving treatment for SUDs, another social, extrinsic influence on client motivation is the therapist-client relationship, which has been shown to have a significant impact on client motivation in regard to reducing substance use (Joe et al., 2014). Better post-treatment outcomes were found in cases where a constructive and supportive relationship was developed (Joe et al., 2014).

While both intrinsic and extrinsic factors play a role in client motivation, a study published in 2007 (Breda & Heflinger) found that intrinsic motivators had a larger impact on

initial and sustained change than external pressure from legal and social systems. However, due to decreased insight causing denial of substance use or dependency (Rinn et al., 2002), it may be more difficult to identify intrinsic motivators in the early stages of treatment. Strathdee et al. (2006) found that half of individuals offered out-of-treatment assistance do not choose to engage in it, further, many who enroll continue to abuse drugs during treatment. While continued drug use during treatment may not be ideal, Thurgood et al. (2016) found that approaches that require immediate cessation from all drugs can result in early treatment dropout, causing individuals with SUDs to potentially refuse treatment altogether, whereas treatments that combine progressive decline in drug use, along with pharmaceuticals and cognitive behavioral therapy interventions show improved long-term abstinence. These results correlate with Bates et al.'s (2006) findings of low levels of motivation for treatment adherence in individuals with SUDs.

In order to determine the prevalence of various intrinsic and extrinsic motivators for drug cessation, a study by Hoxmark et al. (2012) used a questionnaire survey to determine the past, present, and desired activities of individuals with SUDs. Participants reported a lower sense of well-being compared to the general population, as well as a significant decrease in activities including physical, household, and social interaction. Indifference and lack of initiative for activities not directly related to substance abuse were stated as reasons for this decrease. Participants also expressed the desire to increase their engagement in these activities after treatment, indicating return to normal daily activities and routines may be a motivator for maintenance of abstinence (Hoxmark et al., 2012).

Professionals and Settings

Settings for SUD treatment can range from private facilities, to state hospitals, to outpatient clinics, to supported living facilities. A study by Blevins, Rawat, and Stein (2018)

determined that individuals with SUDs were most commonly referred to outpatient therapy or counseling services, partial hospitalization programs, intensive outpatient programs, and inpatient or residential services. Each facility type offers different approaches to treatment, and therefore different professionals providing the treatment. Referrals are determined based on the services provided by the unique location, the level of care the person needs, and what services are likely to be the most effective given the unique circumstances of the individual and their SUD (Blevins et al., 2018). The professional providing the referral may also impact what services an individual receives; physicians and doctors are more likely to refer to inpatient treatment programs with medication assisted treatment, while social workers and case managers are more likely to refer to outpatient or counseling-based services (Blevins et al., 2018). This may be due to the training background of the referrer, such as a medical background versus a human services background. For example, in a hospital setting, one may be more likely to treat a SUD from the medical model, focusing on pharmaceutical intervention with a treatment team consisting of doctors, nurses, and psychiatrists for disease management (Jacob, 2015; Lewis, 2017). These settings focus more on treating withdrawal symptoms during detoxification through pharmacological intervention, and fast cessation approaches, which have been found to reduce effectiveness and motivation of the individuals (Thurgood et al., 2016) and less focus on psychological interventions such as psychotherapy and/or CBT, whereas a counseling service provider would be more likely to offer these services as the primary form of treatment (Ducharme et al., 2016). If an individual is interested in further recovery rehabilitation, a social worker or caseworker within the hospital often works with the individual to find an inpatient or outpatient treatment center to work with what best fits the individual's needs (Trowbridge et al., 2017). Outpatient treatment services for SUD in which the individual is given the responsibility

of scheduling and attending their services and treatments often results in less structured treatment with increased freedom associated with lower retention rates than those associated with inpatient treatment, however outpatient treatment shows better results than hospitalization treatment (Trowbridge et al., 2017; Worley et al., 2010). While inpatient treatment shows decreased rates of relapse and readmission as compared to outpatient treatment, inpatient treatment is often more expensive and less accessible to the majority of individuals with SUD (Worley et al., 2010).

Within the various settings associated with SUD treatment, the members of an individual's treatment team may vary, changing the focus and implementation of the interventions provided. Physicians, doctors, and nurses often focus on treating associated medical conditions such as HIV and endocarditis, and medication assisted treatments for pain and withdrawal (Ray et al., 2020). Substance abuse counselors, psychiatrists, and addiction specialists may focus on mental health comorbidities such as depression, bipolar disorder, and schizophrenia, as well as psychoeducation, goal setting, identifying potential triggers for relapse, and developing abstinence plans with the individual (Ray et al., 2020). Social workers and case managers often work to address psychosocial factors such as housing and transportation availability and access, insurance, and employment opportunities (Ray et al., 2020).

Relapse Rates

Recovering from a SUD is a lengthy, non-linear process that requires the initiation and maintenance of behavioral changes and self-improvement (Joe et al., 2014). When referring to maintaining sobriety post-SUD, individuals are not referred to as being "cured" of their SUD, rather, an individual maintains their sobriety through abstaining from drug use. Regardless of the length of sobriety, approximately 40-60% of individuals with SUD will relapse, or re-initiate substance use after a period of sobriety (SAMHSA, 2018). Various intrinsic and extrinsic factors

are at play in an individual's potential for relapse. Having peers and family members that use illicit drugs recreationally increases relapse rates in individuals with SUD (Broome, Simpson, & Joe, 2002), as well as continued engagement in environments and occupations that may be primed for substance use (Gutman, 2006).

Occupational Therapy and Substance Use Disorders

Due to the neurologic mechanisms involved with addiction, this multifaceted disorder requires treatment at the emotional and social levels (Jacob, 2015). SAMHSA's working definition of recovery involves four key components for supporting recovery:

1. Health, or an individual's ability to overcome and manage their disease,
2. Home, or access to a stable and safe environment,
3. Purpose through daily activities and roles, and
4. Community, relationships, and networks for support (Brown, Stoffel, & Munez, 2019, p. 4).

Due to this, various therapies are often utilized in addition to pharmaceutical intervention in order to address all areas of recovery. This portion of the literature review will use the lens of occupational science to focus on the use of occupational therapy as a therapeutic approach to treating SUD.

Occupational Science

“Addictive disorders disrupt individual's occupational lives, suggesting that occupational therapists can play a crucial role in addiction rehabilitation (Wasmuth et al., 2015, p. 1).

Occupational science is the study of humans as multi-faceted, occupational beings throughout the lifespan and the effects of sociocultural, historical, and environmental contexts on occupational participation and performance (Clark et al., 1991). Within the field of occupational

science, occupations are defined as activities and roles that humans engage in to occupy themselves within various contexts of their daily life (Wasmuth et al., 2015). These activities may be goal-directed, self-directed, and/or self-initiated, and are shaped by the environment and contexts that they occur within. The occupations then organize an individual's behaviors which develop and change over time as the person's thought patterns and environments change. This is especially important in SUDs as the process of priming associated with drug misuse can change how an individual perceives and interacts with various environments, persons, and occupations. Gutman (2006) further discusses the relationship between priming and potential negative effects of SUDs on an individual's health, relationships, employment, and financial security, as well as the increased risks of criminal activity and homelessness. These patterns indicate a pervasiveness of substance use into the daily occupations, therefore promoting the treatment of SUDs through the lens of occupational science.

Due to the pervasiveness of SUD into all occupational areas of an individual's life, the following sections will review SUDs through the lens of occupational science.

Occupational Therapy with Substance Use Disorders

While there is limited research available regarding the efficacy of occupational therapy as a treatment for SUDs, various researchers have suggested that addiction itself becomes an occupation for individuals with SUDs (Kiepek & Magalhães, 2011; Wasmuth, Crabtree, & Scott, 2014). According to the American Psychiatric Association (2013) individuals in recovery from SUDs often report a lack of meaningful occupations due to the habituation of the pattern of obtaining a substance, using a substance, and recovering from the substance having taken precedence over participation in other occupations. This state of occupational deficit has been linked to higher relapse rates, and conversely, participation in new occupations improved

abstinence-related outcomes (Correia et al., 2005; Lima & da Mata, 2013). Wasmuth et al. (2014) further supported this concept, finding that the use of motivating and obligatory occupations as intervention provided many individuals with a source of structure, meaning, and identity formation that participants felt assisted them in transitioning back into daily life post-SUD treatment.

In a review of 66 research articles focusing on the use of occupation-based interventions (performed by various professions including music therapists, recreational therapists, psychotherapists, family counselors, and occupational therapists) with SUDs as compared to didactic interventions, Wasmuth et al., (2016) found leisure interventions are the most commonly used occupation-based intervention, with social participation interventions as the second most frequent. Work-based interventions were also utilized in treatment, but not frequently. No other areas of occupation were represented among the occupation-based interventions used for addictive disorders in this review. Social participation interventions demonstrated significant results for effectiveness as a treatment method for SUDs. Wasmuth et al. reports these results as indicative of the effectiveness of occupation-based interventions for facilitating new ways of thinking and responding to challenges within the person-environment-occupation relationship through the use of “skill training and problem-solving in real-time enactment of occupations” (2016, p. 56). It is interesting to compare the results of this study with the results from Davies and Cameron’s (2010) research. While Wasmuth et al. (2016) looked at interventions being provided to individuals with SUDs, Davies and Cameron (2010) surveyed individuals with SUDs using semi-structured interviews and the Occupational Self Assessment (OSA) in order to determine the greatest occupational limitations, most important occupations, and the areas of occupations that the participants most wanted to change in their lives. The results of the research

found that the participants identified managing their finances, making decisions, their daily routines, and difficulty working towards goals were their greatest limiting factors for occupation performance. Taking care of others, social involvement, and working towards goals were considered to be the most important occupations, and managing finances, working towards goals, and caring for themselves and others were considered to be the areas where participants most wanted to see change in their occupations (Davies & Cameron, 2010). These two studies show an interesting disconnect between the services being provided to individuals with SUDs as compared to the areas of concern and priority to the individuals living with SUDs. Per Wasmuth et al. (2016), the primary areas of occupation-based intervention being used by SUD treatment providers are focused on leisure and social engagement, whereas individuals with SUDs indicated setting and achieving their own goals, managing finances, making decisions, and social engagement as their primary areas of focus for recovery (Wasmuth et al., 2016; Davies & Cameron, 2010).

Davies and Cameron (2010) show that individuals with SUDs consider goal setting and goal attainment to be an area of limitation in their lives, and an area where they wish to see change and self-improvement. The following studies show the efficacy of occupational therapy in addressing goal setting within the context of SUDs.

Peloquin (2010), an occupational therapist, designed a program that engaged women at an intensive residential program in self-development groups targeting self-discovery, expression, and time management through the use of discussions, crafts/expressive media, and relaxation and stress-management interventions, as well as a living skills development group focusing on activities of daily living. The living skills group focused on areas identified by the clients and staff members at the facility as being necessary for sustained recovery such as resume writing,

job interview skills, time management, household management, leisure exploration, budgeting, goal setting, childcare, and problem solving. After participating in the pilot program, participants indicated significant self-reported benefits in the areas of living skills addressed within the program (Peloquin, 2010), including areas of goal setting. Another study run by an occupational therapist (Darko-Mensah, 2011) identified the efficacy of occupational therapy in assisting individuals with SUDs to identify and meet client-determined goals. To address the needs of individuals recovering from SUDs in finding jobs to support themselves financially after discharge from recovery centers, Darko-Mensah (2011) developed a pilot program, *Career Exploration 101*. This program consisted of eight life skill groups, four group sessions and four individual sessions, and focused on career exploration, income sources, and financial stability. Participants within the program were provided opportunities to speak with professionals who were currently working in their interest area, job shadowing opportunities, and assistance with preparing funding forms and connecting with relevant community resources. Participants ($N = 20$) of this pilot program noted increased participation and engagement in client-identified goals, with the majority of participants having obtained temporary, part-, or full-time work in the identified area of interest by the end of the group (Darko-Mensah, 2011).

While these results lay a foundation for the argument for occupational therapists' presence on SUD treatment teams, occupational therapists are rarely reported as part of addiction treatment service teams. According to poll results reported by Thompson in 2007, many occupational therapy practitioners report that they do not screen for addictive disorders and report feeling unprepared to work with this population. Occupational therapists working in mental health settings reported increased likelihood to assess clients for substance use disorders

than those working in other settings, with occupational therapists outside of mental health settings reported to do so less than five percent of the time (Thompson, 2007).

Chapter 3: Methods

Research Design

This exploratory research was conducted using a quantitative survey to collect descriptive data regarding the staffing and interventions employed in treatment for substance use disorders. A descriptive, quantitative design was chosen to obtain a wide variety of responses and data in an area where little research exists. As research questionnaires are typically used to count the “frequency of various occurrences, experiences, attitudes, and opinions, and lend themselves well to mass distribution with a large number of participants” (Rowley, 2014, p. 2), it was determined that an online survey was the most efficient way to collect the necessary data.

The initial research design was determined by a research team including one student researcher, a faculty advisor, and a faculty committee member. The research was reviewed and approved by the Institutional Review Board (IRB). After receiving IRB approval (#188) (Appendix A), the survey was piloted by several professors in the occupational therapy department to determine the efficiency and applicability of the survey to the intended purpose statement and research questions (Rowley, 2014). As this was an anonymous survey, no identifying information regarding the facility or the participants were collected, and all emails were sent out using blind carbon copies in order to maintain the anonymity of potential participants.

Survey

The survey was researcher designed and was developed and distributed using the Qualtrics program. As descriptive survey questionnaires are used to generate a profile of the sample’s characteristics (Rowley, 2014) the survey assessed (a) the staff employed within the facility that work directly with substance use disorder clientele, (b) the interventions used within

the facility, and (c) the perceived importance of those interventions for recovery and prevention of relapse. The survey took approximately 12 minutes to complete. Refer to Appendix B for the full survey.

The initial questions of the survey collected descriptive data of the facilities and participants including the participant's title within their facility, length of employment, region of the United States where their facility is located, and the type of facility they are responding for. Each participant was then asked to indicate the staff employed in their facility from a checklist, as well as to write in any other staff not included in the checklist. The final section of the survey included two, four-point, Likert-type scales. These scales, most often rating information on a range of agreeing to disagreeing, can be used to gain information regarding what options best align with an individual's viewpoint on specific topics (Croasmun & Ostrum, 2011). Participants were then presented with 19 interventions listed within the occupational therapy scope of practice and asked to rate on Likert-type scales how frequently each intervention was used within the facility, and how important each intervention was perceived to be by the respondent for SUD treatment. For frequency, patients were asked to rate as follows; 1=never, 2=sometimes, 3=often, and 4=frequently. They were further asked their perceptions regarding the level of importance for each intervention with the indicated population. For importance the scale included: 1=not important, 2=somewhat important, 3=important, 4=very important. Likert-type scales are often used in social science studies to gauge the intended audience's attitude regarding a specific topic (Croasmun & Ostrum, 2011), making them an efficient and efficacious option for obtaining the above information.

Within the field of occupational therapy, the Occupational Therapy Practice Framework, Fourth Edition (OTPF-4) outlines the scope of practice for occupational therapy practitioners.

The OTPF-4 was developed in order to communicate the unique perspective of occupational therapy in treatment, as well as the ways that occupational therapy practitioners view and promote health in various persons, groups, and populations (AOTA, 2020). As the study was designed to determine potential roles for occupational therapists in the intervention and rehabilitation of substance use disorders, the list of interventions on the survey was taken directly from the OTPF-4 identified occupations (AOTA, 2020). Using the OTPF-4 language allowed the collected data regarding interventions and perceived importance of interventions to be directly applied to occupational therapist's scope of practice.

Recruitment

The survey was distributed through email to 621 facilities throughout the US. Systematic sampling was used by acquiring facility names, locations, and contact information through the SAMHSA 2018 National Directory of Drug and Alcohol Abuse Treatment Facilities and through the OASAS Provider and Program Directory. The initial recruitment email consisted of an overview of the information collected in the survey, a consent form, and a non-traceable link to the survey, which was accessible through the online platform, Qualtrics.

Individuals were originally contacted with a recruitment letter, letter of consent, and link to complete the survey online. A follow up email was sent two weeks later to facilitate an increased response rate. Recruitment materials can be found in Appendix C.

Subjects

As this research was exploratory, inclusion criteria for the study remained broad in order to obtain as many participants as possible. To qualify for participation, the facility needed to provide either medical or therapeutic interventions to individuals with substance use disorders. The survey was designed to be filled out by individuals with knowledge of their facilities staffing

and clinical interventions (i.e., clinical manager/director/supervisor, clinical site manager, program director). The individual filling out the survey was required to be above 18 years of age. To ensure diversity of surveyed facilities, a minimum of 10 facilities per state were contacted, and only one participant per facility could participate in the survey. There were no other exclusion criteria.

Data Analysis

Qualtrics software conducted the data collection and management. JASP 3.0 was used for data analysis. Descriptive analysis was conducted to summarize results regarding facility type, staffing, and interventions and primarily consisted of determining the average of the given responses. While all data was analyzed by JASP 3.0, the researcher selected various data sets at random to calculate by hand to assure the accuracy of the software data output. Frequencies and percentages were calculated and presented for discrete variables. Mean, standard deviation, median, and range were calculated to summarize demographics.

Summary

The survey was used to collect quantitative data regarding the professionals hired to work with substance use disorder populations, and the services provided by the facilities. These interventions and services provided may then be compared to terminology in the OTPF-4 to determine areas which fall within the occupational therapy scope of practice. Data was collected through the use of checklists and 4-point, Likert-Type scales.

As this was an overview of occupational therapy and SUDs, survey information was exploratory, and data was analyzed into descriptive, quantitative data. Inclusion criteria remained broad to obtain as many participants as possible, with the participant being in a position with knowledge of staffing and interventions used within their facility. Qualtrics was used as the

platform for this survey as well as for the storage of data, and JASP 3.0 was used for data analysis. All participant's identifying information was kept anonymous and contact information was found using SAMHSA and Office of Addiction Services and Supports (OASAS) directories.

Chapter 4: Results

Overall, a total of 102 survey responses were initially received, however several responses were removed due to incompleteness of the survey (<50%), with a remaining $N = 96$.

Demographics

The first four questions of the survey collected information regarding the demographics of participants. Demographic questions included the participants' position in the facility, duration of employment in the facility, type of facility, and location of the facility.

Participant Characteristics

A wide variety of participant job titles were reported as shown in Table 1 with clinic director ($n = 21$) being the most frequently reported. The "others" noted in the table included assistant director, chief operating officer, chief clinical officer, deputy director, regional director, unit administrator, vice president of recovery services, vice president of clinical operations, clinic administrator, and clinic coordinator.

Table 1

Participants

Position	<i>n</i>
Clinic Director	21
Program Director	14
Program Manager	10
Executive Director	10
Clinic Supervisor	4
Division Director	3
Program Coordinator	3

Clinic Manager	2
Director of Operations	2
CEO	2
Other	12

Note. N = 96.

Duration of Employment

The most frequently reported duration of employment was one to five years ($n = 35$) (Table 2).

Table 2

Employment Duration at Current Facility

Duration	<i>n</i>
<Year	17
1-5 Years	35
5-10 Years	18
15-20 Years	4
20<Years	12

Note. N = 96.

Facilities

Over half of the participating facilities (56.84%) reported they provided exclusively outpatient services ($n = 54$). The researcher provided an “other” option and the opportunity to write in the facility type in this section with responses ranging to “low intensity treatment,” to “medication assisted treatment,” and “outdoor wilderness behavioral health,” it is difficult to determine categories for many of the facility types listed; an apparent delimitation of this study.

Table 3*Facilities*

Facility Type	<i>n</i>
Outpatient Program	54
Private Rehabilitation Facility	11
Inpatient Residential Facility	7
Halfway House	5
Community Based	4
Crisis Services	2
Other	12

Note. N = 95. “Other” consists of the following write-in responses: comprehensive levels of care, country run day rehab program, low intensity treatment, medication assisted treatment, non-profit, outdoor wilderness behavioral program, peer support program, detox program, certified community behavioral health clinic, and supported housing.

Location

The region of the US most heavily represented in the survey was the Northeast ($N = 32$), potentially due to the location of the college associated with this research. All regions of the US were represented in this study as shown in Table 4.

Table 4*Location of Facility*

Region of US	<i>n</i>
Northeast	32

Mid-West	15
Southeast	15
Southwest	10
West	9
Northwest	6
Mid-Atlantic	5
Noncontiguous	2

Note. N = 96.

Professionals

Participants were then asked to mark on a checklist what professionals in their facility worked directly with individuals with SUDs, as well as the option to write in further answers. Table 5 includes all responses, with professionals being ranked from most to least frequent. Professionals with the highest representation included mental health professionals such as substance abuse counselors ($f = 82$), addiction counselors ($f = 73$), and mental health counselors ($f = 58$). Professionals with the least representation included expressive therapies such as art and music therapy ($f = 1$), rehabilitative therapies such as occupational therapy ($f = 1$) and speech therapy ($f = 1$), as well as acupuncturists, crisis outreach, and trauma specialists, all represented with $f = 1$.

Table 5

Service Providers at Facilities

Position	<i>f</i>
Substance Abuse Counselor	82
Addiction Counselor	73

Mental Health Counselor	58
Case Management	55
Social Worker	55
Medical Doctor	41
Behavioral Health Counselor	35
Psychiatrist	35
Psychiatric Nurse	29
Sober Companions	28
Nurse	15
Behavioral Health Technician	14
Psychologist	13
Vocational Counselor	10
Detox Support Specialist	6
Licensed Clinical Marriage and Family Therapist	5
Physician Assistant	5
Recreational Therapist	4
Religious Affiliate	4
Recovery Coach	4
Physical Therapist	2
Art Therapist	2
Dance Therapist	1
Music Therapist	1
Occupational Therapist	1
Trauma Specialist	1
Crisis Outreach	1
Speech Therapist	1
Acupuncturist	1

Note. N = 96, however respondents were asked to list all staff involved in SUD treatment teams within their facility

Interventions

Participants were then asked to rate the following 19 interventions on Likert-type scales for frequency of use within their respective facility, as well as the perceived level of importance of said interventions within their facility. The interventions and their ratings are reported in Table 6 in ranked order from most frequently used to least frequently used. For frequency, patients were asked to rate as follows; 1=never, 2=sometimes, 3=often, and 4=frequently. For importance the scale included: 1=not important, 2=somewhat important, 3=important, 4=very important.

Of the interventions listed, all results were indicated within the range of 2.86-3.84 in terms of importance of use within SUD treatment, falling between somewhat important (rating of 2) and very important (rating of 4). Additionally, all interventions listed were within the range of 2.56-3.83 in terms of frequency utilized during SUD treatment falling between sometimes (rating of 2) and frequently (rating of 4).

The interventions reported to be utilized most frequently in the treatment of SUDs are exploration and establishment of life roles (3.83), social and emotional health promotion and maintenance (3.75), and symptom condition and management (3.61). The interventions indicated as frequently used all reflect the importance of increasing the individual's self-insight, health, wellness, and development of a sense of self outside of the use of substances. The least frequently reported interventions include volunteer work participation (2.63) and care of others (2.56), or interventions with external foci that lie outside the individual's control.

Of the interventions listed, the interventions reported to be perceived as most important in the treatment of SUDs are social and emotional health and performance (3.84), symptom and condition management (3.77), and individual health management (3.77). The interventions considered to be least important were volunteer and work participation (2.91), and care of others (2.86). Similar to what is shown in the frequency of interventions, these results indicate that interventions that focus on internal stimuli such as personal insight and selfcare are considered highly important, whereas interventions that focus on external stimuli such as work or the needs of others are not considered highly important by healthcare providers on SUD treatment teams.

Table 6*Interventions Provided at Facilities*

Interventions	Frequency of Use	Importance	dif.
	<i>M</i>	<i>M</i>	
Exploration and establishment of life roles	3.83	3.56	-.27
Social and emotional health promotion and maintenance	3.75	3.84	+.09
Symptom and condition management	3.61	3.77	+.16
Social participation	3.57	3.71	+.14
Establishment of daily routines, habits, and rituals	3.48	3.71	+.23
Communication with the health care system	3.47	3.68	+.21
Nutrition and medication management	3.31	3.70	+.39
Individual health management	3.30	3.77	+.47
Safety and emergency management	3.26	3.60	+.34
Family participation	3.24	3.72	+.48
Exploring employment interests and pursuits	3.21	3.56	+.35
Community participation and mobility	3.18	3.53	+.35

Leisure exploration and participation	3.16	3.48	+.32
Home establishment and management	3.03	3.49	+.46
Employment seeking and acquisition	3.00	3.44	+.44
Financial management	2.91	3.28	+.37
Job performance and maintenance	2.64	3.19	+.55
Volunteer work participation	2.63	2.91	+.28
Care of others	2.56	2.86	+.30

Note. dif. = difference. The difference column in Table 6 indicates the difference between frequency of use of the intervention within the facility, and perceived importance of the treatment for SUD disorder. A positive number indicates that the intervention is perceived as more important than its frequency of use. All interventions resulted in a positive difference except for exploration and establishment of life roles, coinciding with the highest frequency of use in SUD treatment.

Additional Interventions

Participants were asked to further indicate any interventions utilized in their facility that were not listed in the OTPF-4. The most common responses include cognitive behavioral therapy ($f = 5$), motivational interviewing ($f = 3$), and medication assisted treatment ($f = 3$).

Summary

Of the facilities surveyed in this study ($N = 96$), only one facility had an occupational therapist on staff, with mental health professionals such as substance abuse counselors and mental health counselors being the most frequently represented professions. All interventions listed from the OTPF-4 were within the range of 2.56-3.83 in terms of frequency utilized during SUD treatment. Respondents reported all the interventions listed from the OTPF-4 at a higher

level of perceived importance than reported frequency of use except “exploration and establishment of life roles.”

Based on the responses to this survey, interventions defined within the OTPF-4 are being utilized in the treatment of SUD and are considered an important part of treatment, however these interventions are not being provided by occupational therapists. Additionally, there is a gap between the perceived level of importance of these interventions, and the frequency with which these interventions are being provided.

Chapter 5: Discussion

Based on the results of the survey, the most frequently employed healthcare providers on a SUD treatment team includes mental health providers such as substance abuse and addiction counselors, social service providers such as case managers and social workers, and medical providers including doctors, and psychiatrists. Other rehab and expressive therapies such as music therapy, dance therapy, and occupational therapy are all marginally represented on SUD treatment teams. The low number of occupational therapists aligns with AOTA workforce trends, only 2.5% of occupational therapy practitioners are working in mental health facilities, of which substance use disorders make up an even smaller percentage (Beers, 2010).

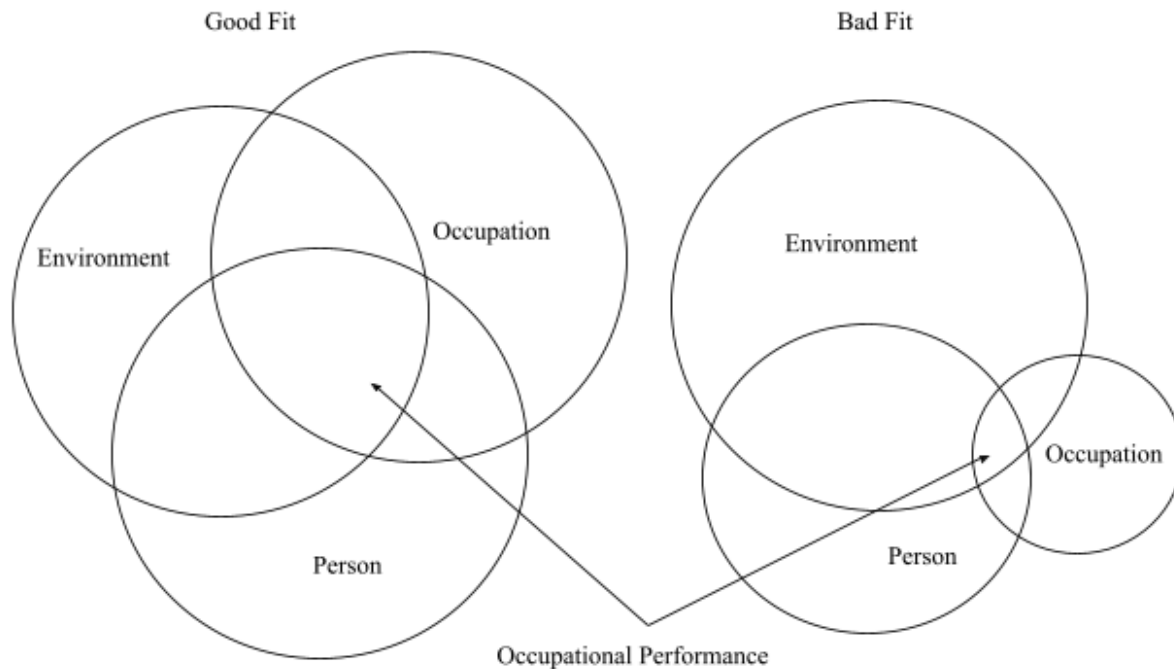
Some potential reasons for these results include the treatment of SUDs through a medical lens rather than a humanistic or occupational lens with a high prevalence of medication assisted treatment for SUDs. As reported in Chapter 1, the brain disease model of addiction, a medically based model, is widely accepted by the medical community and is largely undisputed (Lewis, 2017). Treatments provided under this model are often pharmaceutically based and focus on reducing cravings and withdrawal symptoms, as well as blocking the effects of drug use (Lewis, 2017; Gutman, 2006). While useful for providing symptom relief, pharmacotherapy is not a fix-all as the disease model of addiction fails to address the various environmental factors such as socioeconomic status, geographical location, coping skills, mental health, and social experiences of the individual that may contribute to drug use (Lewis 2017; SAMHSA, 2016).

Medical model approaches to SUD have been much more thoroughly researched and documented, whereas occupational and humanistic approaches have a much smaller, and more recent body of research to support them. While limited supportive evidence regarding rehabilitative and creative therapies as effective treatment interventions for SUD may impact the lack of occupational therapy presence, the use of a variety of psychosocial therapies for recovery

combined with medication is often the most effective approach for SUD treatment (SAMHSA, 2016; Gutman, 2006; Bart, 2012).

As discussed in the literature review, PEO is an ecological model and a transactional model that emphasizes the mutually influencing transaction that occurs between a person and their environment when engaged in occupations (Brown, Stoffel, & Munoz, 2017). Person refers to an individual's unique traits such as personality, health, cognition, cultural background, and physical and sensory capabilities, and an individual's roles such as social positions that the individual holds. Occupations are tasks that a person engages in for self-maintenance, expression, and fulfillment. Lastly, the environment is the context within which occupational performance takes place, shaping the person's occupational experience and influencing the opportunities for occupation engagement. Given the synthesis of literature in this research, the author believes the environment encompasses not only the immediate physical location where an occupation is being performed, but includes local social situations, such as families and neighborhoods. It also includes broader, less tangible influences involving community and national and international organizations, such as health insurance, transportation systems, and industry or employment opportunities. From an occupational therapist's perspective, the physical environment encompasses more than a space filled with natural and human-built materials; rather, it is an environment to be experienced by a client's senses and interpreted by a client within the context of his or her life story and occupational needs. Within SUDs, priming, or the association of drug use with various environments and people, allows the environment to have a greater impact on occupational performance by influencing a person and their occupations. This concept is reflected by Hart and Twinley (2018) in their exploration of the concept of dark occupations. Occupations in this research are considered to be any activities that fill an

individual's time and hold meaning or importance to the individual; they are multi-faceted, unique, and change throughout the life span, however, not all occupations may be considered to be healthy, productive, or prosocial. SUDs may be considered as one such occupation. Hart and Twinley (2018) further discuss that an occupation, such as seeking and using illicit substances, can simultaneously be criminal, socially disruptive, addictive, as well as meaningful, engaging, relaxing, and providing a sense of well-being, thus rendering the term dark occupation. While a dark occupation is an occupation nonetheless, SUDs are an occupation that creates an imbalance in the relationship between the person, their environment, and their occupations, or the components of the PEO model. This can be visualized using a Venn diagram, as shown in Figure 1 to demonstrate a good fit and a bad fit within the PEO model. The good fit shows equal balance between person, environment, and occupation, indicating that each component supports and permits the others, allowing optimal occupational performance to occur. The bad fit diagram shows an imbalance occurring between person, environment, and occupation. Research has shown that individuals with SUD have decreased awareness of self and personal insight (Schoenbaum & Shaham, 2008; Cardinal et al., 2004; Rinn et al., 2002; Bates et al., 2006; Blume & Marlatt, 2009), as well as decreased participation in their occupations (Gutman, 2006; Kiepek & Magalhães, 2011; Wasmuth, Crabtree, & Scott, 2014). Environmental triggers and priming then allow for the environment to overwhelm and control person and occupation, minimizing the capacity for occupational performance, thus mimicking the bad fit shown in Figure 1.

Figure 1*PEO and SUD*

As previously discussed, a 2015 study by Wasmuth et al. showed that individuals with SUDs are able to learn new skills and approaches through targeted intervention but have difficulty implementing these newly learned skills in real-life practice. Occupational therapy practitioners make a unique addition to SUD treatment teams by focusing on areas of SUDs that are largely unaddressed by pharmaceutical interventions, and with a different approach than other healthcare professionals.

As shown in the results section, the difference column in Table 5 indicates the difference between frequency of use of the intervention within the facility, and perceived importance of the treatment for SUD disorder. A positive number indicates that the intervention is perceived as more important than its frequency of use. All interventions resulted in a positive difference except for exploration and establishment of life roles, coinciding with the highest frequency of

use in SUD treatment. The interventions with the largest differences are job performance and maintenance (.55), family participation (.48), and individual health management (.47), indicating that these interventions have the greatest difference in terms of how important they are considered versus how often they are provided by the treatment team. This indicates that these interventions are areas in which SUD treatment teams could benefit from employing an additional healthcare provider with the capabilities to provide these interventions, an occupational therapist being one of those providers.

While only one facility reported having an occupational therapist on staff for SUD treatment, all of the interventions in the OTPF-4 are listed as being provided, presumably by other healthcare providers on the treatment team. If these services are already being provided by other professions, why is an occupational therapist an important part of a SUD treatment team? It is important here to discuss the unique approach of an occupational therapist to treatment as compared to many other professions. The three most frequently indicated professions employed at the surveyed facilities were substance abuse counselors, addiction counselors, and mental health counselors. While many counseling professions utilize talk therapy as the primary means of intervention, occupational therapy practitioners use meaningful occupations, often within their natural environments as their primary mode of intervention (AOTA, 2020). As indicated in the DSM-5, (APA, 2013) signs of SUDs include social difficulties related to use, neglect of major life roles due to use, and giving up various activities due to use. This engagement in daily roles within the natural environment allows an individual to address and respond to various environmental and social triggers within a therapeutic context and may increase the efficiency and effectiveness of treatment in addressing roles and activities that have become dysfunctional in an individual's life due to their substance use. This is an area in which occupational therapies

distinct value for adapting environments and occupations to maximize occupational performance and participation may provide a unique and important approach within SUD treatment teams.

Another important function of occupational therapy services in treating substance use disorders is the exploration and establishment of life roles and activities. An addicted individual spends a substantial amount of time each day either using a substance or obtaining a substance (APA, 2013) indicating that substance use is pervasive in many of the individual's daily activities and occupations. In essence, substance use becomes a primary occupation for the individual (Kiepek & Magalhães, 2011; Wasmuth, Crabtree, & Scott, 2014). In order to maintain abstinence and decrease the potential for relapse, occupational therapy practitioners can work with the individual to exchange roles and activities that have become associated with substance abuse for new roles and activities that do not contain triggers for priming and relapse.

The implementation of occupation-based interventions may help to bolster success with maintaining and using problem-solving skills in real-time enactment of occupations by providing opportunities for participants to engage in experiences that require analyzing and responding to actual challenges within the environment. These interventions, such as identifying and processing drug-related sensory stimuli that act as triggers for priming and relapse, development of new roles and habits, and learning stress management require individuals to put their skills to use in the moment, they are faced with real-time challenges in which they have the opportunity to actively respond with newly learned skills. By doing so, occupation-based interventions may provide individuals with mastery experiences that can, in turn, improve their self-efficacy and self-awareness, thereby bringing the three components of PEO (person, environment, and occupation) more into balance, and closer to a good fit for occupational performance. In other words, by improving an individual's ability to interact with their environment safely and

effectively, their opportunities for engaging in alternative occupations expands, and allows for improved occupational performance. Thus, supplementing CBT and other didactic interventions with occupation-based approaches may facilitate better SUD recovery outcomes.

Implications for the practice

The body of research regarding the use of occupational therapy in the treatment of SUDs is limited and recent, suggesting a need for further advocacy, education, and research in this area. Additionally, mental health, and subsequently SUDs, is an emerging area of practice for the field of occupational therapy as occupational therapy practitioners have recently been determined to be qualified mental health care providers at the federal level in a variety of settings including Certified Community Behavioral Health Centers (CCHBCs) with SAMHSA recognizing the value of occupational therapy practitioners as treatment providers for SUDs by including occupational therapy practitioners within their list of staffing suggestions for CCHBCs (SAMHSA, 2015). The number of states that recognize occupational therapy practitioners as qualified mental health providers (QMHPs) is also growing, with nine states currently authorizing occupational therapy practitioners as QMHPs (Centers for Medicare and Medicaid Services, 2018). With growing legislative acknowledgement of occupational therapy practitioners as mental health providers, there is a need for continued research within this population to advocate for the role of occupational therapy in the prevention and intervention of mental health disorders (Burson et al., 2017).

This research study indicates that while the treatment of SUDs falls within the scope of practice of occupational therapy, very few facilities that treat SUDs have occupational therapists on staff or as part of their treatment team. Given the results of this research, the low representation of occupational therapists on SUD treatment teams may be due to providers

perceiving that they are already addressing these areas of intervention and treatment and therefore do not see the need for the addition of occupational therapists. This further indicates that education of current providers at SUD facilities is warranted regarding the distinct value of occupational therapy in the implementation of the interventions that fall within the scope of occupational therapy practice. These interventions, when viewed through an occupation-science based lens, makes room for individuals to engage in experiences that require analyzing and responding to actual challenges within the environment. This context-specific practice may help to increase personal insight and an individual's ability to respond to various sensory stimuli in their environment associated with drug use, having the potential to bolster the impact of treatment in relapse prevention. The addition of occupational therapists in SUD treatment teams may also assist facilities in closing the reported gaps between the perceived level of importance of the listed interventions, and the frequency of which they are able to provide said important interventions.

Chapter 6: Summary, Conclusion, and Recommendations

Summary

The use of illicit drugs has increased at an alarming rate within the past decade, along with the number of individuals that would benefit from SUD treatment (SAMHSA, 2019). While the diagnostic criteria of SUDs suggests that individuals may benefit from interventions from occupational and humanistic approaches (APA, 2013), according to the AOTA workforce trends, only 2.5% of occupational therapy practitioners are working in mental health facilities, of which substance use disorders make up an even smaller percentage (Beers, 2010). Additionally, SUDs are often treated through the lens of the brain disease model of addiction, focusing on the neurological effects of prolonged drug use with the primary focus of treatment for SUDs being pharmaceuticals that assist in reducing cravings and withdrawal symptoms, as well as blocking the effects of drug use (Lewis, 2017; Gutman, 2006). While this theory is widely accepted by the medical community and is largely undisputed, this approach fails to address the various environmental factors such as socioeconomic status, geographical location, coping skills, mental health, and social experiences of the individual that may contribute to their drug use.

Evidence supports that the most effective treatment for SUD includes collaboration of pharmaceutical intervention and therapeutic intervention (Gutman, 2006; Bart, 2012). Given the occupational nature of substance abuse, it is the primary researcher's belief that occupational therapists treating addiction as an occupation rather than as a disease can potentially increase the successfulness of SUD intervention.

The purpose of this exploratory study was to survey facilities providing services to individuals with SUDs to identify the interventions and resources provided, who is providing interventions in these settings, and if the interventions currently being provided to individuals with SUDs falls within the scope of occupational therapy practice. In doing so, the results of this

study reveal that there is a potential role for occupational therapy within these settings. Based on the responses to this survey, interventions defined within the occupational therapy practice framework are being utilized by other healthcare professionals in the treatment of SUD and are considered an important part of treatment, however there is a gap between the perceived level of importance of these interventions, and the frequency with which these interventions are being provided. This indicates that occupational therapy practitioners may have an important role as a member of the interdisciplinary team for a unique occupational-based approach, increasing the frequency with which these interventions are being provided.

Looking through the lens of occupational therapy, a substance use disorder may be viewed as a dark occupation. Occupational therapy practitioners focus on restoring individuals to functional independence through the use of meaningful occupations, yet meaningful occupation for an individual with a SUD may come in the form of a socially disruptive, illegal, and/or possibly lethal form of activity. Occupational therapy practitioners are skilled professionals that assist individuals in identifying areas of occupational deprivation and dysfunction, and with SUDs, assisting individuals to identify, adapt, and/or replace their dark occupation with occupations that are healthy, productive, and prosocial, ultimately assisting individuals with SUDs in discovering meaning and purpose in a world free of dependence.

Conclusions of the Present Study

1. Of the facilities surveyed in this study (N = 96), 1.05% had an occupational therapist on staff.
2. With the exception of “exploration and establishment of life roles;” respondents reported all of the interventions listed from the OTPF-4 at a higher level of perceived importance than reported frequency of use for SUD treatment.

3. Interventions listed within the OTPF-4 that are within the scope of occupational therapy practice that are considered most important when treating SUDs are social and emotional health promotion and maintenance, symptom and condition management, and individual health management.
4. Interventions listed within the OTPF-4 that are within the scope of occupational therapy practice that are reported as being used most frequently in SUD treatment are exploration and establishment of life roles, social and emotional health promotion and maintenance, and symptom and condition management.
5. OTPF-4 interventions with the largest difference between perceived importance and frequency are job performance and maintenance, family participation, and individual health management.
6. All interventions listed from the OTPF-4 are represented in SUD treatment, however they are not being performed by occupational therapists in the vast majority of facilities.
7. All interventions listed from the OTPF-4 are represented in SUD treatment. These ratings indicate that the treatment being provided for SUDs falls within the scope of practice of occupational therapy.

Recommendations for Future Research

As a result of the findings of this study regarding the current availability of literature pertaining the role of occupational therapy in the treatment of SUDs, the current employment status of occupational therapists within SUD facilities and treatment teams, and the perceptions of individuals working with SUDs and providing treatments and services to this population, the following are recommendations for future occupational therapy studies:

1. Continued research regarding the current role of occupational therapy with SUD populations including a qualitative study surveying occupational therapists that have been employed in these settings. Research may focus on what services the occupational therapists are providing, what their position is in their facility and treatment teams, and what client factors and performance skills they most frequently address.
2. Exploring the lived experiences of individuals with SUDs through qualitative research regarding what treatments they have received and what they felt was most beneficial, as well as what services and treatment they believe would have been beneficial that they did not receive.
3. Exploring treatment results and personal opinions of individuals with SUDs that have received occupational therapy treatment.

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Appendix A: IRB Approval Letter*Ithaca College IRB**Protocol Exemption Notification*

To: **Jenelle Bleiler**

From: Ithaca College IRB

Subject: Protocol #188

Date: 11/09/2020

RE: 188 Exploring Potential Roles for Occupational Therapy with Addicted Populations

The Institutional Review Board for Human Subjects Research (IRB) has reviewed your proposal and has determined that by the IRB Guidelines, this project can be approved for an exemption from ongoing oversight.

Please add the IRB approval number (IRB 188) to ALL recruitment and consent materials.

In certifying that your research is exempt, the IRB indicates that there will be no continued oversight. Should the project be continued beyond the semester, you may do so without additional involvement with IRB provided that the same procedures as described in the application are followed. If there are changes in design, the application would have to be resubmitted to the IRB.

College policy requires you to maintain, as part of your records, all correspondence with the IRB (including the complete, approved Request for Review or Application for Exemption), all documentation of informed consent, and any lists used in assigning codes or other identifiers to participants for a period of three years. Researchers may keep, at their discretion, completed data collection instruments provided they continue to be protected in the manner specified in the Request for Review or Application for Exemption and as described to the subjects in the process of obtaining informed consent.

This approval is issued under the Ithaca College's OHRP Federal-wide Assurance #00004870. Please feel free to contact the IRB at irb@ithaca.edu with any questions or concerns.

Best wishes for a successful study.

Sincerely,



Warren Calderone
Director of Corporate, Foundation Relations, and Sponsored Research
Institutional Review Board for Human Subjects Research

Appendix B: Survey

1. What is the title of your position within your facility?
2. How long have you been employed in this position?
 - Less than a year
 - 1-5 years
 - 5-10 years
 - 15-20 years
 - 20+ years
3. In what region of the US is your facility located?
 - North West
 - West
 - South West
 - Mid-West
 - South East
 - Mid-Atlantic
 - North East
 - Noncontiguous
4. What type of facility is this?
 - Peer support program
 - Halfway House
 - Homeless Shelter
 - Private Rehabilitation Facility
 - State Hospital
 - Supported Housing
 - Outpatient Program
 - Crisis Services
 - Other, please state: _____
5. Which of the following professionals are employed at your facility? Check all that apply.
 - Addiction Counselor
 - Behavioral Health Technician
 - Behavioral Health Counselor
 - Case Management
 - Dance Therapist
 - Detox Support Specialist
 - Medical Doctor
 - Mental Health Counselor
 - Music Therapist
 - Occupational Therapist

- Physical Therapist
- Psychiatric Nurse
- Psychiatrist
- Psychologist
- Recreational Therapist
- Religious Affiliate
- Social Worker
- Sober Companions
- Substance Abuse Counselor
- Vocational Counselor

6. Please indicate any other professionals employed within your facility

7. Rate how often your facility uses the following interventions when providing substance abuse treatment services. 1 being never (0%), 2 being sometimes (1-25%), 3 being often (26-50%), and 4 being frequently (50-100%). Mark N/A if the topic does not apply to your facility.

	1	2	3	4	N/A
Care of others including (pets, children, parents, etc.)					
Communication with the health care system					
Community participation and mobility (access to private and public transportation)					
Employment seeking and acquisition					
Establishment of daily routines, habits, and rituals (religious practices, exercise routines, etc.)					
Exploration and establishment of life roles (parent, caretaker, employee, friend, etc.)					

Exploring employment interests and pursuits					
Family participation					
Financial management					
Home establishment and management					
Individual health management					
Job performance and maintenance					
Leisure exploration and participation					
Medication and nutrition management					
Safety and emergency maintenance					
Social participation					
Social and emotional health promotion and maintenance					
Symptom and condition management					
Volunteer participation					

8. Rate your perceived level of importance of the following for substance abuse treatment. 1 being not important, 2 being somewhat important, 3 being important and 4 being very important. Mark N/A if the topic does not apply to your facility.

	1	2	3	4	N/A
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Care of others including (pets, children, parents, etc.)					
Communication with the health care system					
Community participation and mobility (access to private and public transportation)					
Employment seeking and acquisition					
Establishment of daily routines, habits, and rituals (religious practices, exercise routines, etc.)					
Exploration and establishment of life roles (parent, caretaker, employee, friend, etc.)					
Exploring employment interests and pursuits					
Family participation					
Financial management					
Home establishment and management					
Individual health management					
Job performance and maintenance					
Leisure exploration and participation					
Medication and nutrition management					
Safety and emergency maintenance					

Social participation					
Social and emotional health promotion and maintenance					
Symptom and condition management					
Volunteer participation					

Appendix C: Recruitment Materials

Recruitment Letter

Hello! I am a graduate student at Ithaca College completing my Masters thesis. I am surveying facilities working with substance use related disorders. The purpose of this study is to determine the services provided and their perceived effectiveness, and the educational and professional backgrounds of the individuals providing these treatments.

This survey is designed to be filled out by Clinic Managers and Rehab Directors. If this is not your position within your facility, please forward this email to the appropriate person.

In the following survey you will be asked to select from a variety of interventions and indicate your perceived level of importance of these interventions in a checklist format.

You may skip questions or withdraw from the survey at any time. The survey consists of 9 questions and all survey responses are anonymous. The survey should take between *10-15 minutes* to complete. If you are interested, please click the link below.

By clicking this link and taking the survey, you are acknowledging that you are 18 years of age or older and you are consenting to participate in this survey.

https://ithaca.qualtrics.com/jfe/form/SV_3DVfp6Qkv6mcMSx

If you have any questions, please feel free to contact me at:

Jenelle Bleiler, Graduate Student
Department of Occupational Therapy
607-228-7687
jbleiler@ithaca.edu

Or my faculty advisor at:
Dr. Mindy Cozzolino, Associate Professor
Department of Occupational Therapy
mcozzoli@ithaca.edu

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Approved by Institutional Review Board of Ithaca College
IRB #188

Follow Up Letter

Hello! I am a graduate student at Ithaca College completing my Master's thesis. Thank you so much to everyone that has already completed this survey, I truly value your time and consideration. If you have not already done so - I am accepting responses until December 18th and I would appreciate your input!

I am surveying facilities working with substance use related disorders. The purpose of this study is to determine the services provided and their perceived effectiveness, and the educational and professional backgrounds of the individuals providing these treatments.

This survey is designed to be filled out by Clinic Managers and Rehab Directors. If this is not your position within your facility, please forward this email to the appropriate person.

In the following survey you will be asked to select from a variety of interventions and indicate your perceived level of importance of these interventions in a checklist format.

You may skip questions or withdraw from the survey at any time. The survey consists of 9 questions and all survey responses are anonymous. The survey should take between *10-15 minutes* to complete. If you are interested, please click the link below.

By clicking this link and taking the survey, you are acknowledging that you are 18 years of age or older and you are consenting to participate in this survey.

[Staff and Interventions Survey](#)

If you have any questions, please feel free to contact me at:

Jenelle Bleiler, Graduate Student
Department of Occupational Therapy
607-228-7687
jbleiler@ithaca.edu

Or my faculty advisor at:
Dr. Mindy Cozzolino, Associate Professor
Department of Occupational Therapy
mcozzoli@ithaca.edu

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Approved by Institutional Review Board of Ithaca College
IRB #188