2019

Understanding Therapists' Perceptions of Co-Occurring Substance Use Disorders Using the Model of Human Occupation Screening Tool

Jaimie K. Estreet
Eastern Kentucky University, Jaimie_estreet@mymail.eku.edu

UNDERSTANDING THERAPISTS' PERCEPTIONS OF CO-OCCURRING SUBSTANCE USE DISORDERS USING THE MODEL OF HUMAN OCCUPATION SCREENING TOOL

Presented in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Occupational Therapy

Eastern Kentucky University
College of Health Sciences
Department of Occupational Science and Occupational Therapy

Jaimie Kathryn Estreet
2019

EASTERN KENTUCKY UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY

Certification

We hereby certify that this Capstone project, submitted by Jaimie Estreet conforms to acceptable standards and is fully adequate in scope and quality to fulfill the project requirement for the Doctor of Occupational Therapy degree.

Approved:

Shirley O'Brien 12-6-19

Shirley P. O'Brien, Ph.D., OTR/L, FAOTA — Date
Program Coordinator, Doctor of Occupational Therapy

Dana Howell 12-12-19

Dana Howell, PhD, OTD, OTR/L, FAOTA — Date
Chair, Department of Occupational Science and Occupational Therapy

EASTERN KENTUCKY UNIVERSITY
COLLEGE OF HEALTH SCIENCES
DEPARTMENT OF OCCUPATIONAL SCIENCE AND OCCUPATIONAL THERAPY

This project, written by Jaimie Kathryn Estreet under direction of Dr. Christine Privott, Faculty Mentor, and approved by members of the project committee, has been presented and accepted in partial fulfillment of requirements for the degree of

DOCTOR OF OCCUPATIONAL THERAPY

CAPSTONE COMMITTEE

Christine L Privott ______ 12-16-19
Date

Faculty Mentor

Shirley O'Brien ______ 12-16-19
Date

Committee Member

Executive Summary

Background: Exploring occupational therapy (OT) practitioners' competence when working with clients with co-occurring substance use disorders (SUD). Current literature demonstrates a gap regarding OT practice and SUD as a co-occurring diagnosis.

Purpose: The purpose of this qualitative instrumental case study design is to illustrate and more fully understand the issue of OT evaluation and intervention for clients co-diagnosed with SUD, specifically using the Model of Human Occupation Screening Tool (MOHOST) (assessment) in multiple settings.

Theoretical Framework: The Occupational Therapy Practice Framework (OTPF) and the Model of Human Occupation (MOHO) is the framework and theoretical lens used to guide this project.

Methods: The design of this qualitative study involved semi-structured interviews to evaluate participants' knowledge of SUD and the Model of Human Occupation (MOHOST). The MOHOST was disseminated to all participants with instructions during the initial interview. Follow-up interviews completed at 5 weeks post initial interview. Interviews were electronically recorded for data collection and analyzed and coded to identify emerging themes.

Results: A total of four OT practitioners participated in this study. Primary themes included: The city of Baltimore, MOHO/MOHOST, SUD, and on the job training. OT practitioners identified several systemic limitations within Baltimore, directly impacting clients' ability to abstain from substances. Furthermore, the MOHOST was informally utilized during evaluation and treatment. Limited formal training opportunities currently exist for OTs to use the MOHOST. Secondly sub-themes were alcohol abuse, pain medication abuse, withdrawal, and the importance of client background.

Conclusions: The study objectives were met. The introduction of the MOHOST allowed therapists to become more comfortable and begin to integrate SUD within evaluation and treatment approaches with clients of co-occurring SUD. This capstone recognizes OT practitioners and the importance of clinical competence for clients with co-occurring SUDs, specifically within the urban area called Baltimore. It also demonstrates the importance of evidence-based practices in this emerging area of substance abuse.

Acknowledgements

I could not have completed this program without the support and guidance of many individuals. First and foremost, from the bottom of my heart, I would like to thank my husband, Anthony, for providing your unfaltering support, love, and guidance throughout this doctoral journey. You laid the groundwork and set the bar high; I am fortunate to have you as my role model.

I would also like to thank my mother, Kathy Menasco-Smith, who has always supported my dreams and been my personal editor. She has always encouraged me to aim high and always says, "*If you think you can, you can."* Additionally, to my littlest loves, Elijah and Gabrielle, thank you both for keeping me on my toes and reminding me how important it was to drop everything and dance. You both are the laughter and my rays of sunshine that push me to do the unimaginable.

I would also like to thank all my friends and coworkers for their continued support throughout this program. I would not have been successful without you all. I am further grateful to my faculty mentor, Dr. Christine Privott, for all her assistance in guiding me through this project. I appreciate your endless motivation and excitement throughout the process. I would also like to thank my committee chair member, Dr. Shirley O'Brien, for her ideas, feedback, and assistance in editing my paper.

Lastly, I would like to recognize my father, James "Smitty" Smith, for exemplifying dedication, perseverance, sacrifice, and love. I dedicate this capstone in your memory.

Table of Contents

Section 1: Nature of Project and Problem Identification 1
Introduction 1
Problem Statement 3
Purpose of the Project 4
Project Objectives 4
Theoretical Framework 4
Significance of the Study 5
Introduction 6
Opioid Addiction and Recovery 6
Substance Use Disorders, Including Occupational Roles 7
Screening, Brief Intervention, and Referral to Treatment (SBIRT) 9
Model of Human Occupation 12
The Model of Human Occupation Screening Tool 13
Section 3: Methods 18
Research Design 18
Research Questions 18
Setting and Participants 18
Inclusion Criteria 19
Exclusion Criteria 19
Participant Recruitment 20
Data Collection Methods 21
Data Collection Tool 23
Data Analysis 24
Validity and Reliability 24
Ethical Considerations 25
Section Four: Results and Discussion 26
Results 26
Primary Themes. 27
Secondary Themes. 32
Summary of Results 35
Discussion 36
Connection to theoretical framework: Model of Human Occupation. 38
Strengths and Limitations 39

Implications for Future Practice 40
Future Research 41
Summary 41
References 43
Appendix A: MOHOST 52
Appendix B: Research Flier 57
Appendix C: Informed Consent 58
Appendix E: Capstone Timeline 63
Appendix F: Definition of Terms 64

List of Tables

Table 1. 1 21

Section 1: Nature of Project and Problem Identification

Introduction

The opioid epidemic originated in the 1990s when physicians began to write opioid prescriptions more frequently based on limited knowledge of misuse and addictions; and as a result in 2017, 1.7 million people aged 12 years and older were identified as having an opioid use disorder in the past year (Florence, Zhou, Luo, & Xu, 2016; Substance Abuse and Mental Health Services Administration (SAMHSA), 2018). Moreover, since that time the following trends have emerged and contributed to the opioid crisis: an increase in prescription opioid overdose deaths, the rise in heroin overdoses, and death rates tripling for synthetic opioids such as fentanyl (U.S. Department of Health and Human Services, 2018). As the numbers increased in opioid related overdoses, life expectancy decreased by 1.2 months (Kochanek, Murphy, Xu, & Arias, 2017; Rudd, Seth, David & Scholl, 2016). In 2017, over 11.4 million people misused opioid substances, and the estimated economic effect on the United States is $78.5 billion a year, including healthcare costs, treatment, and judicial involvement (Centers for Disease Control and Prevention (CDC), 2018; Florence, Zhou, Luo, & Xu, 2016). The rise of substance use disorders (SUD), which includes opioid use, continues to affect more than 8.4% of adults in the United States, and co-occurring physical and psychosocial diagnoses led to higher complexity of patients (Hser, Mooney, Saxon, Miotto, Bell & Huang, 2017; SAMHSA, 2017; U.S. Department of Health and Human Services, 2018). To date, a lack of awareness in screening and treating SUD among primary care physicians exists (U.S. Department of Health and Human Services, 2018); moreover, challenges identified in the prevention and the treatment of SUDs include a lack of coordinated services, appropriate education, and evidenced-based programs (U.S. Department of Health and Human Services, 2018).

The American Occupational Therapy Association(AOTA), centennial vision, states that *"*occupational therapy maximizes health, well-being, and quality of life for all people, populations, and communities through effective solutions that facilitate participation in everyday living" (2017, p. 1). SAMHSA recognizes occupational therapists (OTs) and their vital role with addiction and recovery by bridging both physical and behavioral health services (Stoffel, 2013). The integration of the components as mentioned earlier is imperative in establishing the vital role of occupational therapy and maximizing recovery within a person's current environment (Stoffel, 2013). The collaboration between "clinical and community care" allows clinicians to address the difficulties between recovery and daily living (Stoffel, 2013), and to address challenges prevalent among those with mental health diagnoses and addictions. Previous research supports concepts of treatment and recovery for clients with SUD; however, it is not clear what the role of occupational therapy (OT) is in providing services for clients with co-occurring SUDs (Thompson, 2007). OTs are generally not informed about evaluation and intervention processes with clients with co-occurring SUDs and are challenged when providing more holistic treatment (Thompson, 2007).

A commonly accepted role for OTs who work with clients diagnosed with SUD includes providing culturally responsive services, producing effective outcomes, and demonstrating responsibility for evidence-based and client-centered services (Mattila & Provident, 2017); however, limited research exists on the role of OT practitioners specific to co-occurring SUD diagnoses (McCombie & Stirling, 2018). OTs working with co-occurring SUDs are challenged to evaluate and treat inclusively, and to consider methodological approaches to aid in treating clients with these complex diagnoses (Mattila & Provident, 2017; McCombie & Stirling, 2018). Additionally, medical providers demonstrated limited awareness of the potential role of OTs in

recovery and improving occupational performance in individuals within their communities (Mattila & Provident, 2017). Previous research focused on evidence-based interventions for health-promoting activities and occupational engagement impacting current practices in mental health is limited (Leppard, Ramsay, Duncan, Malachowski, & Davis, 2018). There needs to be an increase in research that is focused on examining the perceptions of OTs and their specific role in working with clients impacted by co-occurring SUD. Moreover, this research could help to identify and promote successful interventions within current practices as well as inform future practices.

Problem Statement

SAMSHA (2018) reports spending on mental health and substance use treatment will reach $281 billion by 2020, and behavioral health diagnoses are predicted to surpass all physical conditions as a major cause of disability worldwide (SAMSHA, 2018). Ikiugu (2010) found that between 70% and 90% of individuals with mental health disorders demonstrated significant improvements in quality of life and management of psychiatric symptoms when receiving supportive services. Ikiugu (2010) also identified the specific need for OTs to increase their presence within mental health practice areas to address and improve occupational performance deficits among mental health populations. The labeling of individuals with associated mental illness and SUDs has contributed to limited healthcare options and public stigma, which in turn discourages clients from pursuing treatment. (Corrigan, Druss, & Perlick, 2014).

While Ikiugu (2010) studied OT in mental health practice, limited studies are available regarding healthcare approaches for addressing co-occurring conditions (mental health, physical diagnoses, and SUD (Hser, Mooney, Saxon, Miotto, Bell & Huang, 2017). Thompson (2007), found that OTs who work in mental health were more likely to assess clients with SUD,

however, non-mental health OT practitioners addressed the diagnose of SUD only five percent of the time. This is consistent with previous research findings that indicate limited OTs addressing co-occurring SUD (Lipskaya-Velikovsky, Avrech Bar, & Bart, 2014).

Purpose of the Project

The purpose of this qualitative instrumental case study design (Baskarada, 2014; Stake, 1995) is to illustrate and more fully understand the issue of OT evaluation and intervention for clients co-occurring with SUD, specifically using the Model of Human Occupation Screening Tool (MOHOST) (assessment) (Appendix A) in multiple settings (cases).

Project Objectives

The Project objectives are to:

1. More fully understand OTs perceptions of competence in evaluating and treating clients with co-occurring SUD diagnoses.
2. Understand the meaning and use of the MOHOST in contributing to therapists' improved perceptions of competence when evaluating and treating clients' co-occurring SUD diagnoses.

Theoretical Framework

The Occupational Therapy Practice Framework (OTPF) (The American Occupational Therapy Association, 2017) and the Model of Human Occupation (MOHO) (Maciver, Morley, Forsyth, et al., 2016) is the framework and theoretical lens, respectively, to guide this project. The OTPF addresses "occupational therapy's distinct perspective and contribution of persons, groups, and populations through engagement in occupation" (The American Occupational Therapy Association, 2017, p. S2), and its principles help organize performance skills relevant to clients diagnosed with mental health, and potentially substance use disorders (SUD) and

recovery. The client-centered practice emphasized in the OTPF includes increasing clients' and therapists' awareness of both physical and mental health needs. The intervention domain(s) of the OTPF describes the importance of "health and wellness, role competence, quality of life, and social justice" (Kannenberg & Mahaffey, 2014, p. 8) for all clients: Elements which are particularly relevant for clients diagnosed with SUD.

In comparison, the MOHO also promotes meaningful interventions and programs through a theory of how individuals engage in tasks, the associated environmental components, and individuals' motivations (Lee & Kielhofner, 2010; Lee et al., 2012). Lee et al., (2012) discovered that practitioners who use MOHO demonstrate a positive correlation when tracking the effectiveness of occupational therapy services when integrating MOHO in current practices. The MOHOST is a tool derived from MOHO and serves as an intervention tool for practitioners (Maciver, Morley, Forsyth, et al., 2015). Subsequently, the MOHOST is used to observe clients, objectify barriers of occupational engagement, and support client-centered treatment by utilizing principles of MOHO (Maciver, Morley, Forsyth, et al., 2015). It is through the MOHOST that one can explore the barriers to occupational engagement for clients with co-occurring SUD diagnoses.

Significance of the Study

Individuals with co-occurring SUD diagnoses align within several treatment domains of the OTPF: The significance of this study is that as the number of clients who have co-occurring SUD increases (McCombie & Stirling, 2018), OTs will need to provide evidence-based services for this population. It is important for OTs to re-establish their role in working with individuals diagnosed with co-occurring SUD and how this impacts individuals' activities of daily living (Estreet, 2018).

Section Two: Detailed Review of the Literature

Introduction

A literature review was conducted in the order of 1) opioid addiction and recovery, 2) substance use disorders, including occupational roles, 3) screening, brief intervention, and referral to treatment (SBIRT), 4) the MOHO theoretical lens, and 5) MOHOST as an intervention tool to view clients' with co-occurring SUD. It is hoped that this review contributes to a greater understanding, recognition, and inclusion of the role of OT practitioners in both physical and mental health settings and, more specifically, with individuals who have co-occurring SUDs.

Opioid Addiction and Recovery

The Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V) categorizes substance related disorders resulting from the use of ten classifications of drugs (American Psychiatric Association, 2013): It is inclusive of both substance abuse and dependence characteristics (Malone & Hoffmann, 2016). Furthermore, the DSM-V recognizes the uniqueness and individuality of those diagnosed with substance use disorders (Thompson, 2007).

The opioid crisis, as understood in the DSM-V substance related disorders, began with a shift in opioid prescription usage. Historically, opioids were prescribed for acute pain and end-of-life conditions. The transition of use with chronic pain conditions required higher quantities of opioids prescriptions: Individuals with chronic medical conditions typically require twice as much in dosages versus acute conditions. Overall, these changes in prescription practices increase and contribute to opioid misuse, dependence and even overdose (Guy, et al., 2017).

The CDC's Guideline for Prescribing Opioids for Chronic Pain is an evidenced-based guide designed to assist practitioners in safely using and prescribing opioids for effective chronic pain treatment (2018). The main foci of the Guideline include: using caution when prescribing, assessing risk and harm, and monitoring continued use (CDC, 2018). Providers are encouraged to be cognizant of dosing recommendations, as even lower dosages are highly addictive with risk of overdose. In addition, all clients are at risk of developing opioid use disorder. Therefore, clients should be monitored frequently. If the risks outweigh the benefits, then opioids should not be prescribed to individuals (CDC, 2013).

Opioid addiction affects all ages: The Department of Health and Human Services (HHS) reports that 33% of Medicare beneficiaries in 2016 had received an opioid prescription, and over half a million received dangerous amounts of opioids and were identified as high risk for developing substance dependence (HCPro, 2017). Additionally, and as of 2013, nearly 24.6 million Americans were reported to engage in illegal drug use (Amorelli, 2016), and 21.6 million were categorized as having substance dependence or abuse according to the *DSM-V* (SAMHSA, 2013). Clients' with both physical and mental medical diagnoses, and particularly SUD, are a higher prevalence in clinical practice.

Substance Use Disorders, Including Occupational Roles

A significant population for OT intervention is persons with co-occurring SUDs (Amorelli, 2016). In support of this, individuals with a history of addiction demonstrated difficulties in multiple OTPF performance areas (Stoffel & Moyers, 2004). Stoffel and Moyers (2004) found that the effects of substance abuse on a person's occupational performance and employing meaningful use of occupations can influence prevention and recovery.

Individuals' with SUD often display characteristics of sensory seeking or sensory - avoiding behaviors in multiple systems. This sensory frequency occurs with individuals who have difficulty managing emotions effectively, thus resulting in higher anger management (Stols, van Heerden, van Jaarsveld, & Nel, 2013). The role of OT intervention is to address lifestyle components between client behaviors and internal and external stressors. The evidence supporting intervention with clients with SUD identified low levels of self-awareness and actualization and decreased coping techniques; in turn, backsliding into substance dependency habits. The importance of OTs examining sensory processing with those who are diagnosed with SUD results in an awareness that sensory processing leads to difficulties "organizing daily tasks, maintaining relationships and being satisfied with their work or life roles" (Stols, van Heerden, van Jaarsveld, & Nel, 2013, p. 33). OT evaluations typically incorporate sensory strategies to support individual sensory processing, and there is a strong correlation between sensory processing patterns and improvement of life skills among adults with SUDs (Stols, van Heerden, van Jaarsveld, & Nel, 2013).

Self-development groups are another example of a best practice model. These groups are designed to be interactive and collaborative, to allow clients to interact and offer feedback (Peloquin & Ciro, 2013). The use of meaningful occupation as treatment has been successfully beneficial in promoting independence among those with SUDs (Peloquin & Ciro, 2013). A retrospective analysis with women undergoing substance use treatment revealed that participants in self-development thematic groups perceived this treatment as a satisfactory part of their recovery. In addition, a positive correlation with increased independence in life skills improved occupational role performance and self-worth (Peloquin & Ciro, 2013). Of importance is that

addressing client satisfaction and engagement in meaningful occupations are evidenced based approaches for those with substance use disorders (Peloquin & Ciro, 2013).

Around the same time, as Peloquin and Ciro (2013), Sharp et al. (2011) demonstrated that healthy leisure activities were linked to lower reoccurrence rates of alcohol and marijuana use. Moreover, with healthy leisure increasing over time, the likelihood of using alcohol, tobacco, and marijuana decreased (Sharp et al., 2011). Research continues to show that people with mental illness become quite socially isolated, given the disruption in social roles and the loss in everyday occupations (Horghagen, Fostvedt & Alsaker, 2014). In support of leisure intervention, the use of crafts in group settings has been shown to have several positive factors such as increasing personal self-worth, increasing recovery potential, and facilitating stability and daily routines (Horghagen, Fostvedt, & Alsaker, 2014). Craft groups allow participants to share with other members' occupations that are important and meaningful personally. These forms of self-expression signify a shift towards feelings of accomplishment. Overall, craft groups can be utilized within various environments as an effective treatment strategy for those with mental health illnesses (Horghagen, Fostvedt, & Alsaker, 2014).

Screening, Brief Intervention, and Referral to Treatment (SBIRT)

SAMSHA initiated its screening, brief intervention, and referral to treatment (SBIRT) grant program in 2003 to investigate under-utilized substance use treatment programs (Bray, Del Boca, McRee, Hayashi, & Babor, 2017). The SBIRT program was created to meet current national mental health objectives to: provide services in both medical and community settings, provide appropriate substance treatment for those with and without substance use disorders diagnoses, create communication between community providers and substance abuse agencies

and identify potential changes to improve treatment accessibility (Bray, Del Boca, McRee, Hayashi, & Babor, 2017).

One published study in 2017 focusing on SBIRT and patient outcomes (Aldridge, Linford & Bray, 2017). An analysis of this study found that the integration of SBIRT reflected lower substance use outcomes 6-months post SBIRT screening process (Aldridge, Linford & Bray, 2017). Moreover, SBIRT evidence determined that emergency and inpatient hospital areas benefited from substance use screening tools. These areas were identified as novice areas; however, it demonstrated the need for continued SBIRT studies and initiatives aimed at expanding access for those with substance use disorders (Choo & Wen, 2018). In one geographic example twelve acute-care hospitals located within Baltimore, Maryland used SBIRT (Choo & Wen, 2018). In Maryland, prior to 2015, there were no evidence-based protocols established or implemented which addressed substance misuse (Choo & Wen, 2018). By 2018, eight SBIRT programs within Baltimore City, Maryland were implemented, with the purpose aimed at providing early intervention services for those with a history of substance dependence (Choo & Wen, 2018). In just over six months, over 134,000 clients were screened for alcohol, and drug use and 2,990 clients were referred for substance use treatment (Choo & Wen, 2018). Given the increase in the utilization of SBIRT, in this case, increased healthcare provider trainer is imperative to provide and refer to appropriate SUD services.

One other example is among nurses providing care to patient**s** with substance-related diagnoses (Rosenthal, 2018). More specifically, the Clinical Institute Withdrawal Assessment for Alcohol (CIWA-Ar), and the Clinical Opiate Withdrawal Scale (COWS) were identified as assessment tools for the screening process within SBIRT (Rosenthal, 2018). A dyadic SBIRT learning curriculum was explicitly created for nurses, and following completion, live SBIRT

training was provided to staff (Rosenthal, 2018). Results indicated an increase in nursing confidence levels and knowledge regarding the implementation of SBIRT into acute nursing care settings (Rosenthal, 2018).

SBIRT training programs have been identified most importantly for students in healthcare professions, in preparation for integration into clinical settings. SBIRIT training signifies the importance of opportunities for feedback and supervision to increase comfortability and proficiency *(*Knopf-Amelung & Kuofie, 2017*).* Current barriers identified for successful integration of SBIRT within students' clinical experiences included lack of clinical staff knowledge and application of SBIRT, perceptions of inappropriateness for patient populations, and fearfulness of patient responses *(*Knopf-Amelung & Kuofie, 2017*).* The application of SBIRT during clinical experiences and patient rounding led to student satisfaction and increased recognition of substance use within the scope of practice. The importance of identifying knowledgeable and trained SBIRT advisors for students is essential to maximize students' learning experiences with mental health clients.

OTs have a limited understanding of the SBIRT approach (Mattila & Provident, 2017). Clinicians often identify an area of unfamiliarity when treating clients with co-occurring substance abuse diagnoses or history. Research shows that therapists' current role regarding substance use disorders is limited and requires the further need for the SUD programs to exist (McCombie & Stirling, 2018).

Research indicates limited resources are allocated for SUDs training among health professional programs (Savage, Daniels, Johnson, Kesten, Finnell, & Seale, 2018). Screening allows health professionals to identify potential at-risk individuals. The screening results provide insight into a person's relationship with substances, level of risk, and the likelihood of

benefiting from a brief intervention. Treatment referral is recommended for those who demonstrate high screening scores (Addiction Technology Transfer Center Network, 2011).

Integrating the SBIRT model into treatment offers the ability to critically reason and apply to those with co-occurring substance use disorders. In addition, it can help increase awareness of implementing changes in current health practices and promotion (Mattila & Provident, 2017). SBIRT training helps healthcare professionals identify and refer to appropriate treatment options. Lastly, SBIRT principles, in conjunction with OT based training opportunities, can help OT practitioners identify those with co-occurring diagnoses of SUD.

Model of Human Occupation

The Model of Human Occupation (MOHO) theory seeks to explain mental health diagnoses by understanding meaningful occupational based activities that increase individual independence levels. MOHO is defined as a person's "work behavior as a function of volition, habituation, performance capacity, and environmental impact, and it is frequently used to guide work-related interventions and programs" (Lee & Kielhofner, 2010, p. 178). OTs must understand a person's experiences, skills, and limitations directly related to occupational performance (Fossey, 2016).

The first component of MOHO is volition. Violation explores a person's motivation for choosing activities and their drive to do what they do (Kielhofner, de las Heras, & Suarez-Balcazar, 2011). Incorporating volition in treatment can increase internal increase awareness, in turn increases clients' motivation to participate within their environment. Secondly, habituation is the routine of a person's occupational life; contributing factors are roles and habits (Kielhofner, de las Heras, & Suarez-Balcazar, 2011). An individual's roles and habits connect them to their social environment (Kielhofner, de las Heras, & Suarez-Balcazar, 2011).

Performance capacity is the ability to function given individuals' physical and mental components. Individuals with mental health diagnoses and of lower socioeconomic status often are not afforded the same resources as those without mental illness or higher socioeconomic status (Corrigan, Druss, & Perlick, 2014). In turn, this does not allow them to investigate or explore new opportunities within their environments.

Lee et al. (2012) found that 92% of all OTs utilized MOHO within mental health treatment because it was easy to explain to others and correlated with increased patient-centered care and higher feelings of satisfaction (Lee et al., 2012). MOHO captures a person's individuality and cultural background and is sensitive to their unique perspectives (Taylor, 2017). MOHO has been used effectively as an assessment tool to compare pre and post-treatment outcomes and is integrated within questionnaires aimed at targeting satisfaction in areas of social support, activities of daily living, self-efficacy and management of diagnosis symptoms which can determine the effectiveness of the ongoing program outcomes (Lee et. al., 2012). Standardized based tools can add to the effectiveness with OTs role within mental health and will promote a collaborative approach with related health care disciplines and community resources.

The Model of Human Occupation Screening Tool

The Model of Human Occupation Screening Tool (MOHOST), a standardized assessment, has been utilized in both psychiatric and physical dysfunction settings as an assessment tool to determine a person’s occupational participation (Fan, Morley, Garnham, Heasman, & Taylor, 2016). The MOHOST’s strengths include the integration of individualized participation and limitations of occupational performance (Parkinson, Forsyth, & Kielhofner, 2006).

The MOHOST is a standardized assessment that incorporates Gary Kielhofner's framework, the Model of Human Occupation (MOHO), by addressing how occupation can motivate, be habitual, and be performed across a person's life span (Forsyth et al., 2011). MOHO originated in the 1980s and has been used to develop over 20 MOHO based assessments (Forsyth et al., 2011). The MOHOST seeks to illustrate a client's current occupational performance level and plays a role in further assessment, potential treatment ideas, and discharge planning with individual clients (Forsyth et al., 2011). In addition, the MOHOST was designed specifically to OTs and their ability to utilize direct observations and interactions while a client is engaging in purposeful and meaningful tasks (Fan, et al., 2016).

The MOHOST addresses clients' motivation for occupation, pattern of occupation, communication, process and motor skills, and their environment. The main premise includes a person's occupational performance and participation within current environmental factors (Parkinson, Forsyth, & Kielhofner, 2006). Additionally, it can be used to track an individual's progress towards intervention goals as well as to screen for OT services. OT practitioners utilize the MOHOST to communicate with the multidisciplinary team regarding individual needs and treatment recommendations.

The MOHOST has been utilized mainly in psychiatric settings to examine clients' occupational performance levels (Fan, Morley, Garnham, Heasman, & Taylor, 2016). England, which utilizes a Payment by Results (PbR) for mental health care, assigns clients to one of twenty groups. Researchers in England incorporated the MOHOST to determine mental health needs within given populations based on their environmental factors, self-care, productivity, and leisure engagement levels (Lee et al., 2013). Furthermore, the MOHOST enabled OTs to

generate individualized evidenced-based occupational client profiles to increase knowledge of the occupational needs of clients (Lee et al., 2011).

The MOHOST serves three main purposes: when performing an initial evaluation, to document change, whether progress or decline and discharge planning. In addition, it views people as constant changing individuals that require the ability to adapt to their environment to maximize their independence (Parkinson et al., 2006).

In a retrospective analysis of OTs use of the MOHOST within forensic hospital settings to assess patient's occupational performance levels, Fan, Morley, Garnham, Heasman, and Taylor (2016) found that clients administered the MOHOST repeatedly from low-security forensic units had higher MOHOST subsection and total scores (except motor subsections) compared to those from medium-security units. The authors suggest that clients in low-security forensic units demonstrated higher levels of occupational participation; therefore, further research is recommended to examine whether other variables such as programs, frequency, and unit activities can be included (Fan, et al., 2016). Examining ADL's and substance abuse problems and the impact on occupational participation could be utilized with the MOHOST (Fan, et al., 2016).

Kielhofner (2011) identifies the MOHOST as a flexible assessment and can be administered and completed in several ways: 1) clinician directly with a client 2) in conjunction with caregiver or multidisciplinary team member 3) alone and discuss results with client at a later time 4) complete alone and integrate findings into future interactions 5) complete alone and share results with clients when suitable (Fan, et al., 2016). The timeframe to obtain adequate observations ranges depending on the practice setting (Fan, et al., 2016). Acute psychiatric observations are more frequent versus community outpatient settings (Fan, et al., 2016).

Administration time for the MOHOST ranged from 20 to 45 minutes, but studies reported a drastic decrease in time with increased practice from clinicians (Fan, et al., 2016).

The MOHOST has a total of twenty-four categories, twenty items related to the individual client examine how a clients' occupational performance is depicted. In contrast, four environmental items represent the support factors, hindrances, or environmental demands. A four-point rating scale is utilized, and OTs assign: facilitates (F), allows (A), inhibits (I), and restricts (R) occupational participation to each category (Appendix A). Each categorical rating scale is explained in detail in the MOHOST manual to assist with prior scoring. Specific examples and case studies are integrated with rationales to allow a step-by-step approach. OTs are encouraged to record both physical and verbal interactions within the assessment under each category, during observations and meetings with other team members to provide rich examples to assist with scoring (Fan, et al., 2016).

The MOHOST requires limited training from OTs prior to integration within clinical settings. The MOHOST uses clear and concise terminology which encourages interdisciplinary communication and ability to explain findings (Fan, Morley, Garnham, Heasman, & Taylor, 2016).

The MOHOST Single Observation Form (SOF) is shorter and less time consuming and includes equivalent subsections and questions as the full version MOHOST (Maciver et al., 2016). Clinicians' time constraints and the financial implications of multiple observations are barriers to complete the MOHOST. The MOHOST-SOF also allows clinicians the opportunity to draw conclusions from a single observation.

Overall, the MOHOST is an evidenced-based assessment used to examine performance within various OT clinical work settings (Maciver et al., 2015). Given the high validity and

reliability scores of the MOHOST to capture clients' improvement in participation and occupational performance, it is strongly suggested to increase research initiatives focusing on the MOHOST-SOF (Maciver et al., 2015).

Conclusion

Utilizing the MOHOST when treating clients with co-occurring SUD is imperative, given the high occurrence in multiple practice settings (Forsyth et al., 2011). The researchers have identified the flexibility in administration and utilization of the MOHOST in evaluation, treatment planning, and discharge/placement aspects. Increasing OTs knowledge and awareness of mental health treatment and recovery impacts practice areas. It improves clinical reasoning skills and addresses performance skill deficits for OT to effectively management SUDs treatment (Forsyth et al., 2011).

The literature review supports the notion that identification and treatment of clients with co-occurring SUDs is a challenge within current healthcare practice settings, and more specifically, OT settings. By utilizing the MOHOST to illustrate OT perceptions of competence treating clients with co-occurring SUD, this project will help OT practitioners' more fully understand OTs role and, in turn, contribute to knowledge about providing holistic approaches and improved outcomes for clients with co-occurring SUD.

Section 3: Methods

Research Design

For this study, the research design is a qualitative instrumental case study design (Baskarada, 2014; Stake, 1995). The MOHOST (*instrument*) is used to illustrate the *case* of occupational therapy practice with clients' diagnosed with co-occurring substance use disorders (SUDs) in a variety of settings. The purpose of the study is to illustrate and more fully understand the issue of OT evaluation and interventions for clients with co-occurring SUDs, specifically using the Model of Human Occupation Screening Tool (MOHOST) (assessment) in multiple settings (cases). Eastern Kentucky University (EKU), Institutional Review Board (IRB), study approval was obtained on 6/5/19.

Research Questions

1. Does this study allow us to fully understand OTs perceptions of competence in evaluating and treating clients with co-occurring SUD diagnoses?
2. How do we understand the meaning and use of the MOHOST in contributing to therapists' improved perceptions of competence when evaluating and treating clients' co-occurring SUD diagnoses?

Setting and Participants

The data for this study was collected within a large metropolitan area and from multiple settings (cases):

- Participant #1 works in a Continuing Care Retirement Community and practices in outpatient, assisted living, home health and subacute rehab settings.
- Participant #2 works in multiple settings of acute care, behavioral health, and inpatient rehab.

- Participant #3 works in acute physical dysfunction settings for 3 Baltimore-area hospitals.
- Participant #4 works in home care and skilled nursing facilities.

Inclusion Criteria

- Registered Occupational Therapists(OTRs)
- Licensed, Maryland OTs
    - Employed in each of the following settings: A continuing care facility (outpatient, assisted living, skilled nursing, and homecare), a community hospital with behavioral health unit, a homecare setting, and multiple settings of acute care, behavioral health, and inpatient rehab.
- OTs worked within the Baltimore metropolitan area
- OT's practiced for a minimum of three years
- OT's willingness to utilize MOHOST within practice area
- Participants volunteered for the study and could provide consent
- OTs identified clients with co-occurring SUDs in work environment

Exclusion Criteria

- Registered Occupational Therapy Assistants (COTAs)
- OTs not licensed in Maryland
- Participants who worked in outpatient, pediatrics, and public/private school settings
- OTs worked outside of the Baltimore metropolitan area
- OTs practiced less than three years
- OT's not willing to utilize MOHOST within practice area
- Participants who would not provide consent

- OTs unable to identify clients with co-occurring SUDs in work environment

Participant Recruitment

An advertisement (Appendix B) with study information was posted by the Primary Investigator (PI) using social media platforms: the PIs personal Facebook, Linkedin, and a post within the Mid-Atlantic Rehabilitation Coalition Facebook group. Online hashtags were utilized within the study post to allow easier viewing and increase engagement from clinicians'. Hashtags such as #Baltimore, #occupational therapists, #mentalhealth, #physicaldysfunction, #MOHO, #SUD, #bridgingthegap, #acutecarerehabilitation were utilized to increase visibility among social media. The PI was able to track how many views the recruitment post generated amongst LinkedIn, over 100 views and the initial recruitment post was shared three times within LinkedIn. In addition, several online comments were received from the occupational therapy community regarding interest in the study findings.

Additionally, interested participants sent the PI an email, as noted in the advertisement. Permission was also granted by the PI and to a former colleague of the PI to help recruit participants via the Facebook recruitment flyer; this resulted in four participants' contacting the PI with interest in volunteering.

For this qualitative study, a small sample size was critical to allow for rich description and illustration of OTs perceptions regarding SUDs. Landheim, Moller and Lien (2018) report that qualitative instrumental case studies are designed to examine individuals or groups in order to investigate certain phenomena, and it is a way to identify the importance of qualitative case studies within the health sciences as a means to advance theory, assess programs, and create meaningful interventions.

The PI explained and confirmed the study purpose with the four potential participants through e-mail and/or telephone correspondence. All four participants were given the opportunity to ask questions by telephone or email, and the PIs contact information was also disseminated for follow-up purposes. EKU approved Informed Consent forms were emailed (Appendix C), signed, and returned to the PI. All four participants were 21 years or older and agreed to participate in the study voluntarily. Finally, all participant consent forms were stored in a locked cabinet and online in protected iCloud storage to maintain anonymity.

Participants.

Table 1. 1

Participant demographics

Coding Name	**Gender**	**Age**	**Years of Experience**	**Work Setting**
Jeanette	Female	35-40	11	Multiple settings of acute care, behavioral health, and inpatient rehab.
Kathryn	Female	35-40	10	Continuing Care Retirement Community and practices in outpatient, assisted living and subacute rehab settings.
Ciara	Female	35-40	9	Acute physical dysfunction settings for three Baltimore-area hospitals.
Melody	Female	30-34	7	Home care and skilled nursing facilities.

Note. Participants were given pseudonyms to maintain confidentiality

Data Collection Methods

This research study was designed to explore perceptions identified by OTs regarding clinician competence specific to treatment for clients with co-occurring substance use disorders.

In-depth telephone interviews were utilized as the primary data gathering strategy. First, telephone interviews were conducted after informed consent was obtained, using a semi-structured approach to allow freedom of thought and expression (Taylor, 2017). A mutually agreed upon convenient time and location for initial and follow-up interviews between the participants and the researcher was determined through e-mail communication. All participants worked during the day; therefore, three participants were interviewed during evening hours via cell phone and video chats, and one participant required interviewing to be conducted through e-mail. Open-ended, semi-structured questions were modeled after specific MOHOST subsections to elicit responses and investigate emerging themes and perceptions of clinicians (Appendix D). Participants were provided with copies of the MOHOST assessment prior to the first interview, and instructions were given to integrate within their specific practice areas. These focused phone interviews were audio recorded utilizing an application called Otter Voice Meeting Notes – which allowed the researcher to review and collect comprehensive interview data during the sessions and retrospectively; this was advantageous as the researcher could listen and read interviews repeatedly. All initial participant interviews lasted approximately 15 minutes in length.

Participants were then interviewed five weeks after the initial interviews. The rationale for this time interval between the interviews was a function of study feasibility: The initial proposed timeframe for follow-up interviews did not work for the participants. The PI, in an effort to be transparent and allow for fluid and emergent data collection, agreed to change the interval time (number of weeks) between initial and follow-up interviews. This allowed for more in-depth participant responses and created more opportunities for participants to speak to their use of MOHO/MOHOST and SUDs during this time period. The follow-up interviews

lasted approximately 20- 25 minutes for each participant with follow-up which addressed SUD and MOHOST question prompts.

Interview Protocol

Questions were modeled after MOHOST subsections. First, participants were asked to describe their familiarity and/or experience using any part of the MOHOST: Since participants were sent the MOHOST prior to the initial interview, they were able to categorize their answers based on the MOHOST subsections of Motivation for Occupation, Patterns for Occupation, Communication & Interaction Skills, Process Skills, Motor Skills, and Environment. All participants had a copy of the MOHOST during initial and follow-up interviews for reference.

Data Collection Tool

The purpose of using the MOHOST as a data collection tool was to attempt to triangulate data: The MOHOST, as a standardized occupational assessment, allowed the researcher to more fully understand how participants viewed co-occurring SUDs since this tool elicits qualitative characteristics in clients using occupation-based theory. The *Motivation for Occupation* section examines clients' abilities to recognize internal strengths and limitations: The ability to anticipate and verbalize potential challenges allows them to pursue and explore old and new occupations (Parkinson, Forsyth, & Kielhofner, 2006). The section, *Patterns of Occupation*, addresses clients' capabilities to balance and structure life roles. The third section, the *Environment* in which skills have been assessed, explains physical and social resources that allow a clients' goals and activities to be practiced within in order to obtain mastery (Parkinson, Forsyth, & Kielhofner, 2006).

Data Analysis

Participants were interviewed, recorded, and transcribed using the Otter Voice Meeting Notes application. The PI read all four transcripts and jotted notes helped the PI understand the transcripts information. First, the PI conducted a within-transcript review, followed by an across-transcripts review (4x). Transcripts were reread during the coding phase, and open coding was utilized to identify words and/or phrases that were repeated throughout transcripts, and the repeating words were systematically highlighted. Axial coding was then conducted by developing clusters for each set of words and attaching meaningful phrases from across all transcripts. Definitions were developed for each axial coding category, and axial clusters were revealed and helped the PI to develop emergent themes. Finally, transcripts were reviewed again to define further and illustrate the themes.

Validity and Reliability

Several factors contributed to notions of the validity of this study. First, the attrition of participants was expected, given the fluid and unpredictable nature of OTs practicing in clinics and managing client caseloads. For this study, attrition occurred prior to the initial interview because therapists declined to participate since they were unable to identify clients with SUD. Second, the use of the MOHOST as a data collection tool required a certain level of commitment to participate and utilize the MOHOST within the therapists' day-to-day evaluation or treatment practices. In order to ensure validity, several strategies were employed, as identified by Creswell (2014). The PI clearly described the setting and the purpose of the study in a concise matter for participants and readers to easily understand. The PI also disclosed her current role as an OT practitioner and passion for increasing OT practitioner knowledge of working with clients with

co-occurring SUD. In addition, the PI's clinical experience and daily exposure to co-occurring SUD client populations were explained during the initial interview.

Additionally, clarification and disclosure of researcher bias within the study are important to identify (Creswell, 2014). This researcher disclosed the intent of the study as a capstone project for her doctoral program in occupational therapy and interest in developing an OT presence within SUD populations.

Member checking (Creswell, 2014) was utilized; the PI informed participants of the results and allowed them to comment and provide feedback. Finally, the use of external auditors, in this case, was the PI's advisor, committee member, and OTs with expertise in the physical dysfunction practice area that was beneficial to review the study (Creswell, 2014).

Ethical Considerations

The PI obtained EKU, Institutional Review Board (IRB) approval before data collection was initiated, and informed consent gained from all four participants. Confidentially of and for participants was also maintained, since participants shared stories experiences.

The participant data was also coded anonymously to maintain confidentiality. The only instance of documented participant names was the signed informed consent form, which was filed in the PIs locked cabinet. Data collection was stored on a password-protected laptop. Microsoft Word and Otter Voice Notes applications were used for interviews and transcription, which were also password protected. Each application was private, and permission was needed by PI to share with the faculty advisor.

Section Four: Results and Discussion

Results

This qualitative study explored the perceptions of practicing OTs and their competence working with clients with co-occurring SUDs. Current literature supports service delivery which integrates SUDs into evaluation and treatment toward providing a holistic treatment approach for clients. Limited OT literature currently exists addressing the use of MOHOST with clients who have co-occurring SUDs.

The results of this study help to understand the shared experiences of the four participants who used the MOHOST in their practice when working with clients who have co-occurring SUD. The two primary objectives of this study were to: 1) more fully understand OTs perceptions of competence in evaluating and treating clients with co-occurring SUD diagnoses, and 2) understand the meaning of the MOHOST in contributing to therapists' perceptions of competence when evaluating and treating clients' co-occurring SUD diagnoses.

Throughout the participant interviews, three primary themes emerged: 1) The power of the MOHOST with SUD, 2) urban city considerations, and 3) on-the-job training. In The Power of the MOHOST with SUD, two participants recalled incorporating MOHO principles from OT school and psychosocial fieldwork experiences; however, they reported they did not actively use MOHO within their practice settings. Urban City Considerations, as the second theme, illustrated the environment where the participants worked and the clients resided: Three participants spoke to several environmental factors such as homelessness, low socioeconomic status, limited social support, and reduced education levels that directly impacted clients' independence. The third theme, On-the-Job Training, explored the informal learning opportunities about SUD that occurred through peer-to-peer or coaching activities. The secondary themes included: 1)

substance use withdrawal, 2) alcohol abuse, 3) pain medication, and 4) the importance of a client chart review. The secondary theme of *withdrawal*, or the detoxification process, occurs when a substance is suddenly stopped; three of the four participants responded that knowing the withdrawal process and the effects of various substances and their manifestations are highly significant when performing a complete chart review. It is also important to understand the withdrawal process as the participants realized that they can determine when to initiate and terminate OT services safely. The secondary themes of *alcohol abuse* and *pain medication* were revealed by four participants as meaning clients' dependence on these substances and the functional impact on clients' activities of daily living. The fourth, secondary theme of *client chart review*, spoke to the importance of individual client chart reviews to determine appropriateness of OT treatment. These primary and secondary themes emerged during the course of data collection, transcription, and analysis; an in-depth illustration of the themes is provided in the next section(s).

Primary Themes.

The power of the MOHOST with SUD.

All four participants revealed that they did not use MOHO actively prior to the study within their clinical settings; however, MOHO was presented in their educational program and occupational therapy psychosocial fieldwork experiences. As a result of participating in this study, the participants were reintroduced to the MOHO and the use of the MOHOST in practice.

The participants described how they utilized the MOHOST within their practice settings throughout the study's duration. In addition, they felt the MOHOST was beneficial when working with clients of SUD. The MOHOST, for purposes of the study, was easy and flexible to

integrate into their facility-specific documentation systems and included their use of MOHO based terminology. Kathryn relayed:

> The first time I saw it was actually when we had our first initial interview. But it does seem very like in line with the theoretical tenets of OT. So I can kind of see it as a tool to help address any occupational performance issues and as maybe their substance abuse disorder relates to it.

Ciara concurred:

> But I feel like you could help as a guide and whether it's talking about their routine or, you know, interests, like maybe finding different interests too, you know, take the place of any type of substance that they might be abusing.

Jeanette identified that she felt she had more knowledge about the MOHOST:

> I have become more familiar with the MOHOST since you first gave it to me to look at it. I didn't administer it formally like the manual states. But I did read over the basic sections, and it turned a light bulb on as to what I could look at and how it might present within homecare and my patients.

Ciara stated, “Yeah, their ADL’s their IADL’s, it deals with organizing and sequencing and anticipating problems, their cognition, functional cognition, relates to ideas and in that way”, and also indicated, “I was familiar with the Model of Human Occupation in school. However, that was more for psychiatric affiliations and settings”. Melody identified difficulties when preparing clients to be discharged back into their communities from the hospital:

> Definitely the psychosocial component, if it's not a safe environment, or they don't have a lot of support at home, job tasks and be able to get out in the community and go

> shopping, and things access to community resources. Their specific task-related behaviors, like their coordination and motor control.

An additional perspective is that three participants reported an increase in comfort level when addressing co-occurring SUDs with clients after they were introduced to the MOHOST. Kathryn said, "It's a pertinent comorbidity that they're presenting with…like almost like a secondary diagnosis to the primary diagnosis that they were referred to OT services", and Jeanette and Melody identified other professionals utilizing SUD screening tools but were not aware of any OT specific tools and how to document SUD. Jeanette indicated, "I mean, I did not know what questions to ask or what to look for before. Now, I can see myself integrating it into functional observations or subjective information related to substance disorders." Additionally, Melody identified changes in their treatment approach, "With a little increase in knowledge of SUDs, I felt empowered and actually was able to advocate for a client who had a history of SUD." A similar perspective from Ciara reads:

> Even when I did work with substance disorders previously, we didn't have a formalized evaluation, but observations are a big part. The MOHOST was a good guide to see what to look for it. It made me think outside the box or include other aspects I might not have before.

For these participants, the responses indicated that potentially, the use of the MOHOST, as introduced in this study, helped them initiate novice evaluation and treatment ideas. Participants reported that they incorporated the MOHO frame of reference within their evaluation and treatment procedures after participating in the study. MOHOST subsections were utilized informally during the study to examine clients' physical and psychosocial aspects in order to elicit individualized treatment. The results convey that in addition to participants using,

and potentially using, the MOHOST in the future for evaluation and treatment, they found it valuable to use in discharge planning.

Urban city considerations.

The multiple settings for this study were in urban environments. An urban environment is defined as the area that surrounds a city. The majority of the participants' clients lived in these surrounding areas where participants worked; plagued by high occurrences of drug use and unemployment, and minimal physical and social supports leading to difficulty accessing appropriate resources. These environmental factors heavily influence those with SUD and their ability to receive OT services. Economic segregation is the division of populations according to occupation, income or education levels (Scally, Krieger & Chen, 2018). Three of the four participants described their work settings as an urban environment. They referred to this urban environment as the "*inner city*" or *"The City"* and described it as rife with homelessness, limited resources, and challenges with social isolation for many clients. Melody stated, "I work in Baltimore with a lot of clients with substance use and mental health diagnoses. But then a lot of the other therapists are in that same environment." When Ciara was asked to describe the setting in which she currently works, she responded, "Well, it's kind of like the inner-city population, which has all substance abuse disorders." Both participants described several city barriers that made it challenging to address sobriety and incorporate healthy activities into treatment because of the evidence of the high rate of drug use. Kathryn referred to large caseloads of clients and a "revolving door" treatment environment due to high readmission rates of clients with SUD; "I mean they get discharged back into the same environment that brought them in here, the city." All four participants acknowledged that working within their city results in environmental limitations for practicing OT and addressing SUDs - especially since many clients already seek

treatment for sobriety. An urban environment, in this case Baltimore city, and the impact of city life on the clients, is a major theme to be considered by OTs when working with clients and co-occurring SUD.

On-the-job training.

The theme of on-the-job training meant that specific training for treating clients with SUD occurred through mentorship or coaching opportunities. Participants sought their own learning experiences when treating clients with co-diagnosed SUDs from colleagues who had more experience working with clients with SUD. All four participants responded that given the complexity of clients with SUDs, they did not receive any formalized training for SUDs; however, they conveyed that typical on-the-job training was how they gained knowledge of SUDs within physical dysfunction settings. Ciara and Melody respectively stated, “And you just get on the job experience, there wasn't a lot of specific instruction.”; “you just kind of observe behaviors and patterns of behaviors that you learn. What to expect and maybe how to teach people.” Closely associated with these two participants was Kathryn, who noted the high importance and need for formalized training to prepare them for working with clients with SUD: "I haven't attended a class or anything where I would've gotten specific training, and that might actually be nice, working in all the different types of hospital settings." Jeanette, with over ten years of experience, acknowledges limited formal education that focused on SUDs and states: So my level of knowledge was pretty small to start with because I feel like in school, they only touch on it minimally. And most of it was like self-educating, sounds terrible, but like Google, or something, and kind of getting ideas of like different diagnoses and how to deal with them

Melody may not have had formal training, but recognized environments of isolation when visiting clients in their homes compared to skilled nursing facilities:

> And also just on-the-job training sometimes co-treating with other therapists, who have longer dealing with that population is helpful because you can just bounce ideas off of specific like about how to deal with it. Now homecare is more like, just like, here's the drug abuse patient, what are we going to do?

In contrast, Jeanette, who practiced in trauma and behavioral health, reported increased comfortability working with the SUD population by the very nature of her setting: "There's the behavioral health unit and just in those, in general, you get more on the job experience working with patients." Overall, participants obtained the majority of their SUD learning from an informal train the trainer model within individual settings.

Secondary Themes.

All four participants identified that basic knowledge of the diagnosis of SUD is important before evaluating clients even when this is not the primary diagnosis of the referral. With this acknowledgment, four sub-themes emerged and include: 1) substance use withdrawal, 2) alcohol abuse, 3) pain medication, and 4) the importance of a client chart review.

The impact of withdrawal in treatment.

Three participants stated that in practice the withdrawal process begins after a client discontinues using their substance(s), and several physical and psychological characteristics are present during this phase. Jeanette and Ciara, who primarily work in acute care, spoke to the medical impact of being informed of the withdrawal process. For example, Ciara reflected on the differences in clients beginning to go through withdrawal versus a client who was no longer in withdrawal, "They are a totally different person once they finish going through withdrawal, more likely to participate and want to get better." Jeanette responded, "That there is always a part of them denying that they were in withdrawal. They disagree that it could get better if they

stayed with us in the hospital, and we still kept working with them." Understanding the complexities of substance withdrawal process is important as it influences a client's ability to participate and retain information during treatment. In addition, having knowledge and awareness of various substances, withdrawal symptoms and the duration of significantly impacts treatment.

Alcohol use a main treatment factor.

Alcohol was reported by participants as one of the most common substances used by clients in their settings. Kathryn, Jeanette and Melody identified alcohol abuse as the highest documented co-occurring SUD diagnosis. Kathryn states, "Many times, they are asked how many drinks they have. The number is much less when nursing asks than when you ask them while they are doing therapy." Melody also reflected on addressing clients' excessive drinking and instituting healthy leisure activities as a tool for increasing compliance during therapy: "Sometimes, finding new and exciting tasks for them to engage in makes all the difference in their carryover and willingness to participate." Clients also demonstrated a lack of leisure activities that were independent of consuming alcohol. Ciara commented on her client's comfort level when able to discuss his alcohol addiction: "Being able to just address alcohol with him, just opened doors to new topics. I think he felt better sharing his experiences. I gained some understanding too." Leisure exploration activities coupled with the ability to speak freely to the participants regarding their SUD led to increased treatment for clients. Alcohol is one substance that participants reported, while dependence on pain medication was also recognized as a contributing factor when working with clients in this study.

SUD and pain management in treatment.

Frequently mentioned in this study are both prescription and nonprescription pain medications. However, many with a history of SUD were prescribed heavy doses of narcotics following surgery or traumatic accident. Two participants reported that pain medications impacted how they initiated treatment because not all pain medications affected clients similarly. The recognition and integration of pain medications allowed participants to increase their awareness to address dependence with clients, care providers, and make appropriate referrals.

Jeanette, while working on a surgical unit, expressed a new understanding for clients with SUD and navigating post-surgical pain. She stated, "Many of my clients reported starting on pain medication after surgery and escalating to other substances from there." The participants' use of MOHOST allowed them to integrate an awareness of pain and medication management into their evaluation and treatment process. Participants also described their use of client charts along with the use of the MOHOST. This is described in the next section.

The importance of a client chart review.

Participants became even more aware of the need to obtain pertinent information about clients' co-diagnoses from medical charts before they could establish an occupational profile for the client. Jeanette related that certain expectations were needed when performing chart reviews of clients with SUD to determine the level of appropriateness and safety for OT evaluation. She acknowledged client treatment limitations in the acute care setting: "What's impacting them in the hospital is more like withdrawal. So they're going to have fevers and chills and blood pressure issues and tachycardia being shown. Also, shaking or seizures can happen." Kathryn reported that alcohol and pain medication dependence for clients was the most common cause of SUD in their workplace: "Kind of like alcohol only alcohol, or pain, prescription medication

abuse, primarily alcohol, I would say." Further reflecting on the potential medical complications within the acute care setting Jeanette stated, "Every day they could be different. It is important to check both their physical and mental state." Kathryn, Ciara, and Melody reported that sometimes SUD was documented in a client's medical record, yet other clients with SUDs were discovered during evaluation or treatment:

> I would get some referrals, where substance abuse was comorbidity or co-occurring diagnosis. But even now, in my current practice, I still will occasionally get residents where they do have coexisting comorbidity or at least a history of substance abuse, and it is not in their chart.

When reviewing clients' charts, participants identified the background of a client was vital because it assisted participants in developing an occupational profile using MOHOST tenets.

The majority of the participants recognized they utilized the MOHOST, pulling various subsections, but not integrating the MOHOST in the formalized manner the manual described. In addition, the benefits identified were limited training required and was easy to incorporate within the clinic. Secondly, two participants reflected on the importance of MOHO theory with clients with SUD. In contrast, one participant felt that the MOHOST manual allowed her to increase her comfort level with SUD as it provided more vocabulary for her to use.

Summary of Results

Most of the participants coined their clinical setting(s) as the *inner city*; and two participants specifically felt that the lack of resources in this environment resulted in clients more likely to have multiple admissions for the same diagnoses. A majority of the participants identified concepts of coaching and peer-to-peer support after working with their clients in this study; however, two participants reported difficulty finding SUD courses specific to the OT

scope of practice. Participants also reported a lack of comfortability when working with clients with co-occurring SUD's before the MOHOST was introduced. Three participants reported an increase in integrating SUD concepts into their own evaluation and treatment.

Participants also identified concepts related to substance use withdrawal, alcohol abuse, pain medication dependence, and clients' medical charts as important when establishing an occupational profile for a client with SUD. These results are presented below with the intent of discussing the meaning and implications for practice.

Discussion

This study allows us to more fully understand participant perceptions of competence in evaluating and treating clients with co-occurring SUD diagnosis and is supported by the emergent themes discovered through the data. The idea that the utilization of the MOHOST, within a range of OT practice settings, signals the flexibility of its use with clients co-diagnosed with SUD is apparent. To participants, the use of the MOHOST resulted in more awareness of clients with SUD: it captured more clearly clients' occupational profile and supported the idea that for these participants the use of MOHO theory in practice to address SUD is not so complicated.

How we understand the meaning of the MOHOST in contributing to therapists' perceptions of competence when evaluating and treating clients' co-occurring SUD diagnoses is explained through the power of the use of the MOHOST in evaluation and treatment of clients with SUD. Participants felt the MOHOST was a flexible tool that could be used across various practice areas. They were able to utilize the MOHOST to support their understanding of the MOHO theory, of which the majority of participants had not employed since graduating from OT school. Moreover, the MOHOST gave clinicians more of an understanding of how SUD

impacted a client and their manifestations. The MOHOST allowed participants to integrate MOHO treatment components into site-specific documentation to contribute to increase their own competence levels when working with clients and SUDs.

The urban city considerations led participants to be more conscious and aware of specific environmental factors when working with SUD clients – and therefore a different, yet positive, perception of treatment with clients with SUD. The impact of a client's environment, in this case, an urban environment, opens up a plethora of socioeconomic factors that participants recognized as familiar and the subsequent need to integrate appropriately into treatment. Clients' environmental barriers challenge participants and their attentiveness to the use of outside referrals and services to maximize clients' independence and return to the community.

The theme of on-the-job training, or lack of formalized training, is problematic from all four participants' perspectives - all who had seven to eleven years of experience. The introduction of the MOHOST allowed participants to become more comfortable and integrate SUD treatment with diverse clients. Despite the different clinical practice settings, the MOHOST afforded participants guidance on how to approach clients with SUD. Overall findings of this study show that participants *valued* the integration and use of the MOHOST when working with clients with SUD. Minimally, they utilized subsection components of the MOHOST to increase SUD understanding, terminology, and integrate into their clinical reasoning process during the evaluation and treatment of clients with co-occurring SUDs.

For these participants, the knowledge of their competence levels working with clients and SUD means that there needs to be more SUD clinical training opportunities and acknowledgment of the impact and challenges of working with this population in urban environments.

Connection to theoretical framework: Model of Human Occupation.

Principles of MOHO were re-introduced to participants through the use of the MOHOST to better understand perceptions of competence working with clients co-diagnosed with SUD. Participants experienced an increase in *awareness* of MOHO and the value of a MOHO assessment to help them treat clients. Participants became aware, through the use of the MOHOST, of the potential impact on clients' motivation, habits, and performance especially when treating clients from and in an urban environment,

Volition, as the first domain of MOHO, was apparent in the participants' desire to increase their competence level when working with co-occurring SUD clients: By gaining a better understanding of their SUD clients' intrinsic motivation and desire for participating in OT, the participants demonstrated volition in wanting to increase their knowledge of co-occurring SUD. The domain of habituation was exemplified through the use of the MOHOST, as clinicians were able to recognize and address contributing or hindering factors that limited their ability to evaluate and treat clients with SUD effectively. Participants were able to categorize specific SUD signs and symptoms by integrating MOHOST subsections into treatment. Participants exhibited performance capacity when discussing clients' substance abuse withdrawal periods, which impaired clients' motor control and thought processes during the OT evaluation. Participants described fluctuation in clients' judgment and safety awareness during treatment which limited their client's ability to perform activities of daily living safely. Participants became more aware of performance capacity, via their clients, as an application of MOHO theory.

Strengths and Limitations

This capstone had several strengths and limitations. First, the sample of four participants allowed the PI to conduct semi-structured interviews one-on-one to enable the freedom of expression. Participants were able to offer personal information independently without the influence of additional participants during interviews. Through reflexive journaling, the researcher was able to identify potential bias through the anticipated responses of participants during the interviews. The PI was able to reflect after each interview and summarize each session. In collaboration with the faculty advisor, semi-structured questions were adapted to promote open-ended responses. These participants also represented diverse clinical backgrounds. Additionally, the experience of the PI as a practitioner who works with clients and SUD allowed the PI to provide prompts if needed during the semi-structured interviews. The use of social media allowed the PI to increase visibility and access to potential study participants. Gelinas et al. (2017) identified that traditional methods such as telephone and print advertisements are costly and generate reduced participation rates. Social media platforms such as LinkedIn and Facebook permitted the PI to have faster communication (i.e., answer questions, disseminate information, and collect data).

Limitations of the study included PI difficulty with recruiting participants and clinician uncertainty regarding working with SUD populations in their respective settings. Rationales for not participating in the study included: having sporadic exposure with clients with SUD, working in specific settings per diem, and these clients needing drug rehabilitation, not OT. Lastly, the experience of the PI as a practitioner who works with clients and SUD contributed to researcher bias allowed the PI to provide prompts if needed during the semi-structured interviews.

Implications for Future Practice

Due to the lobbying efforts of AOTA, OTs are now included in current federal legislation that attempts to address the opioid epidemic through non-pharmacological management and treatment options. Participants reported their clients with SUD had disturbances in their occupational roles, habits, and routines: An understanding of the implications of SUDs on client functioning is imperative for OTs to improve competence levels when working with this population and to maximize clients' participation in their life roles.

This study highlights the importance of utilizing the MOHO frame of reference across practice settings, especially with clients with co-occurring SUDs. Participants identified a lack of awareness for MOHO components and limited integration into their current practice before study initiation. To better align with ACOTE standards, AOTA would be strongly encouraged to highlight the topic area of SUDs within the Special Interest Sections and evidence-based practice (EBP) publications.

Participants' increased knowledge of those clients with SUD allowed to identify when to initiate OT evaluation/treatment, create individualized goals, and coordinate effectively with other members of the interdisciplinary team. Moreover, self-knowledge of SUDs was often self-taught or learned through "osmosis" from more experienced therapists.

OTs identified limited formalized training opportunities available to increase their competency levels in working with clients who have SUD co-diagnosis; therefore, site-specific learning opportunities would be beneficial to OTs. Lastly, evidenced-based practice assessments such as the MOHOST should be integrated into current practices to improve OT competence and improve occupational-based evaluations when working with clients with co-occurring SUDs.

The study results determined that participants utilized the MOHOST within their evaluation and treatment as a guide to effectively document client barriers and impairments. It also provided them with specific vocabulary and additional knowledge to advocate for their clients when returning to their communities. The increase in competence levels allows OTs to understand co-occurring SUD and the environmental impact it can have on a person's recovery.

Future Research

Future research opportunities focusing on OTs working with clients of co-occurring SUD continue to be highly essential. This study identified various environmental constraints that impacted both clients with SUD and OTs who provided treatment. There is a necessity to further illustrate and understand clients with SUD and their perspectives of receiving OT intervention in various settings.

Secondly, how a person's environment, such as urban, suburban, and rural contexts, influences clients with co-occurring SUDs and their occupational performance is needed. This capstone identified that clinicians were able to utilize specific subsections from the MOHOST to support in observational skills, documentation, and learning opportunities. The role of the MOHOST as both a formalized assessment tool and an informal guide can assist and improve therapists in addressing clients with co-occurring SUD. Investigating various practice settings in greater detail could be beneficial in determining appropriate assessment tools to demonstrate integration of holistic, evidenced-based outcomes.

Summary

This capstone project aimed to address two research questions: 1) Does this study allow us to fully understand OTs perceptions of competence in evaluating and treating clients with co-occurring SUD diagnoses? 2) How do we understand the meaning and use of the MOHOST in

contributing to therapists' improved perceptions of competence when evaluating and treating clients' co-occurring SUD diagnoses? The results from this study help to support OT practitioners' competency levels with clients co-diagnosed with SUD, through the use of the MOHOST in diverse settings. The study supports the first research question, as participants were able to use the MOHOST as a guide to assist them in the evaluation and treatment process of clients with co-occurring SUD. Secondly, the study explored the meaning behind evaluating and treating clients' co-occurring SUD diagnoses through several primary and secondary themes highlighted in this study. This concept was important as participants recognized a lack of training opportunity, thereby limiting their perceptions of competence.

The information gained from this study highlights the importance of therapists' perceived competence in addressing underlying conditions and their ability to use theoretically driven assessment tools to foster in-depth interviewing about the client's conditions. This capstone assisted in recognizing training gaps for OTs when working with clients with co-occurring SUDs. The ease of use of the MOHOST increased practitioners' competence for exploring and understanding of co-occurring SUDs and how they impact clients to maximize occupational outcomes.

References

Addiction Technology Transfer Center Network. (2011). *SBIRT curriculum*. Retrieved from http://attcnetwork.org/home

Aldridge, A., Linford, R., & Bray, J. (2017). Substance use outcomes of patients served by a large US implementation of screening, brief intervention and referral to treatment (SBIRT). *Addiction, 112*, 43–53. doi.org/10.1111/add.13651

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

American Occupational Therapy Association. (2014). AOTA Centennial Vision Priorities 2015. *OT Practice, 19*(11), 19–21. Retrieved from https://www.aota.org/Publications-News/otp.aspx

American Occupational Therapy Association. (2017). Vision 2025. *American Journal of Occupational Therapy, 71*(3), 1. doi.org/10.5014/ajot.2017.713002

Amorelli, C. R. (2016). Psychosocial Occupational Therapy Interventions for Substance-Use Disorders: A Narrative Review. *Occupational Therapy in Mental Health*, *32*(2), 167-184. doi:10.1080/0164212X.2015.1134293

Baskarada, S. (2014). Qualitative case study guidelines. *The Qualitative Report, (19)*24, 1-18. Retrieved from: https://nsuworks.nova.edu/tqr/vol19/iss40/3?utm_source=nsuworks.nova.edu%2Ftqr%2Fvol19%2Fiss40%2F3&utm_medium=PDF&utm_campaign=PDFCoverPages

Bray, J. W., Del Boca, F. K., McRee, B. G., Hayashi, S. W., & Babor, T. F. (2017). Screening, brief intervention and referral to treatment (SBIRT): rationale, program overview and cross-site evaluation. *Addiction, 112*, 3–11. doi.org/10.1111/add.13676

Centers for Disease Control and Prevention. (2015). *Data and statistics*. Retrieved from https://www.cdc.gov/mentalhealth/data-stats.htm

Centers for Disease Control and Prevention. (2018). *Guideline for prescribing opioids for chronic pain.* Annual surveillance report of drug-related risks and outcomes: United States. Surveillance Special Report, U.S. Department of Health and Human Services. Retrieved from https://www.cdc.gov/drugoverdose/prescribing/guideline.html

Choo, S., & Wen, L. S. (2018). Baltimore citywide engagement of emergency departments to combat the opioid epidemic. *American Journal of Public Health, 108*(8), 1003–1005. doi.org/10.2105/AJPH.2018.304551

Corrigan, P. W., Druss, B. G., & Perlick, D. A. (2014). The impact of mental illness stigma on seeking and participating in mental health care. *Psychological Science in the Public Interest, 15*(2), 37-70. doi:10.1177/1529100614531398

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches.* 5th Ed. Thousand Oaks, California: Sudbury, MA: Sage.

Estreet , J. (2018). *Capstone project proposal.* Unpublished manuscript, Eastern Kentucky University.

Fan, C. W., Morley, M., Garnham, M., Heasman, D., & Taylor, R. (2016). Examining changes in occupational participation in forensic patients using the Model of Human Occupation Screening Tool. *The British Journal of Occupational Therapy, 79*(12), 727–733. doi.org/10.1177/0308022616651644

Florence C. S., Zhou C., Luo F., Xu L. (2016). The economic burden of prescription opioid overdose, abuse, and dependence in the United States, 2013. *Med Care, 54*(10), 901-906. doi:10.1097/MLR.0000000000000625.

Forsyth, K., Parkinson, S., Kielhofner, G., Kramer, J., Mann, L. S., & Duncan, E. (2011). The measurement properties of the Model of Human Occupation screening tool and implications for practice. *New Zealand Journal of Occupational Therapy*, *58*(2), 5-13. Retrieved from https://www.otnz.co.nz/public/publications/new-zealand-journal-of-occupational-therapy/

Forsyth, K., Parkinson, S., Kielhofner, G., Kramer, J., Summerfield Mann, L., & Duncan, E. (2011). The measurement properties of the Model of Human Occupation Screening Tool and implications for practice. *New Zealand Journal of Occupational Therapy, 58* (2), 5 - 13. Retrieved from https://www.otnz.co.nz/

Fossey, E. (2016). The Model of Human Occupation: A framework for occupation-focused practice. In T. Krupa, B., Kirsh, D., Pitts, & E. Fossey (Eds.), *Bruce & Borg's psychosocial frames of reference: Theories, models, and approaches for occupation-based practice.* (5th ed., pp. 107-123). Thorofare, NJ: Slack Incorporated.

Gelinas, L., Pierce, R., Winkler, S., Cohen, I. G., Lynch, H. F., & Bierer, B. E. (2017). Using social media as a research recruitment tool: Ethical issues and recommendations. *American Journal of Bioethics*, *17*(3), 3–14. https://doi.org/10.1080/15265161.2016.1276644

Guy, G. P., Zhang, K., Bohm, M. K., Losby, J., Lewis, B., Young, R., … Dowell, D. (2017). Vital signs: Changes in opioid prescribing in the United States, 2006-2015. *MMWR: Morbidity & Mortality Weekly Report*, *66*(26), 697–704. doi.org/10.15585/mmwr.mm6626a4

HCPro. (2017). Opioid addiction: When seniors follow “doctor’s orders.” (2017). *PPS Alert for Long-Term Care*, *20*(12), 5–8. Retrieved from https://www.hcpro.com/archive-newsletter-department-long-term-care.html

Horghagen, S., Fostvedt, B., & Alsaker, S. (2014). Craft activities in groups at meeting places: Supporting mental health users' everyday occupations. *Scandinavian Journal of Occupational Therapy*, *21*(2), 145-152. doi:10.3109/11038128.2013.866691

Hser, Y.-I., Mooney, L. J., Miotto, K., Bell, D. S., & Huang, D. (2017). Chronic pain among patients with opioid use disorder: Results from electronic health records data. *Journal of Substance Abuse Treatment, 77*, 26-30. doi:10.1016/j.sat.2017.03.006

Ikiugu, M. N. (2010). The new occupational therapy paradigm: Implications for integration of the psychosocial core of occupational therapy in clinical specialties. *Occupational Therapy in Mental Health*, 26(4), 343-353. doi:10.1080/0164212X.2010.518284

Kannenberg, K. & Mahaffey, L. (2014). Applying the newly revised occupational therapy practice framework to mental health practice. *OT Practice*, *19*(13), 7-8.

Kielhofner, G., de las Heras, C. G., & Suarez-Balcazar, Y. (2011). Human occupation as a tool for understanding and promoting social justice. In F. Kronenberg, N. Pollard & D. Sakellariou (Eds.), *Occupational therapies without borders: Towards an ecology of occupation-based practices (Vol. 2, pp. 269-277).* Edinburgh: Elsevier

Knopf-Amelung, S., Gotham H., Kuofie, A. (2017). Consider the setting: Challenges in integrating screening, brief intervention, and referral to treatment into nursing and social work students’ clinical practice. *Journal of Addictive Behaviors, Therapy & Rehabilitation, 6*(1), 1-3. doi: 10.4172/2324-9005.1000160

Kochanek, K. D., Murphy, S. L., Xu, J., & Arias, E. (2017). Mortality in the United States-2016. *National Center for Health Statistics Data Brief, 293*, 1-8.

Lee, S. W., Forsyth, K., Morley, M., Garnham, M., Heasman, D., & Taylor, R. (2013). Mental health payment by results clusters and the Model of Human Occupation Screening Tool. *OTJR: Occupation, Participation & Health, 33*(1), 40–49. doi.org/10.3928/15394492-20120426-01

Lee, J., & Kielhofner, G. (2010). Vocational intervention based on the Model of Human Occupation: A review of evidence. *Scandinavian Journal of Occupational Therapy, 17*(3), 177-190. doi:10.3109/11038120903082260

Lee, S. W., Kielhofner, G., Morley, M., Heasman, D., Garnham, M., Willis, S.,… Taylor, R. R. (2012). Impact of using the Model of Human Occupation: A survey of occupational therapy mental health practitioners' perceptions. *Scandinavian Journal of Occupational Therapy*, *19*(5), 450-456. doi:10.3109/11038128.2011.645553

Lee, S. W., Morley, M., Taylor, R. R., Kielhofner, G., Garnham, M., Heasman, D., & Forsyth, K. (2011). The development of care pathways and packages in mental health based on the Model of Human Occupation Screening Tool. *British Journal of Occupational Therapy, 74*(6), 284–294. doi.org/10.4276/030802211X13074383957940

Leppard, A., Ramsay, M., Duncan, A., Malachowski, C., & Davis, J. A. (2018). Interventions for women with substance abuse issues: A scoping review. *American Journal of Occupational Therapy, 72*(2), 1–8. doi.org/10.5014/ajot.2018.022863

Maciver, D., Morley, M., Forsyth, K., Bertram, N., Edwards, T., Heasman, D., … Willis, S. (2015). Innovating with the Model of Human Occupation in mental health. *Occupational Therapy in Mental Health, 31*(2), 144-154. doi:10.1080/0164212X.2015.1029603

Maciver, D., Morley, M., Forsyth, K., Bertram, N., Edwards, T., Heasman, D., … Willis, S (2016). A rasch analysis of the Model of Human Occupation screening tool single observation form (MOHOST-SOF) in mental health. *British Journal of Occupational Therapy, 79(*1),49-56. doi.org/10.1177%2F0308022615591173

Malone, M., & Hoffmann, N. (2016). A comparison of DSM -IV versus DSM -5 substance use disorder diagnoses in adolescent populations. *Journal of Child & Adolescent Substance Abuse*, *25*(5), 399–408. doi.org/10.1080/1067828X.2015.1049679

Mattila, A., & Provident, I. (2017). Education for occupational therapists to develop the role of healthcare leaders in screening, brief intervention, and referral to treatment (SBIRT). *Journal of Occupational Therapy Education, 1* (3). doi.org/10.26681/jote.2017.010304

McCombie, R. P., & Stirling, J. L. (2018). Opioid substance abuse among occupational therapy clients. *Occupational Therapy in Mental Health*, *34*(1), 49-60. doi:10.1080/0164212X.2017.1360827

Parkinson, S., Forsyth, K., Kielhofner, G. (2006). Model of Human Occupation screening tool (MOHOST) [Assessment instrument]. University of Illinois Chicago, Illinois.

Pedersen, M., Landheim, A., Moller, M., & Lien, L. (2018). Acting on audit & feedback: A qualitative instrumental case study in mental health services in Norway. *BMC Health Services Research*, *18*, 1–11. doi.org/10.1186/s12913-018-2862-y

Peloquin, S. M., & Ciro, C. A. (2013). Self-development groups among women in recovery: Client perceptions of satisfaction and engagement. *American Journal of Occupational Therapy*, *67*(1), 82–90. doi.org/10.5014/ajot.2013.004796

Rosenthal, L. D. (2018). Initiating SBIRT, alcohol, and opioid training for nurses employed on an inpatient medical-surgical unit: A quality improvement project. *MEDSURG Nursing*,

27(4), 227–230. Retrieved from http://www.medsurgnursing.net/cgi-bin/WebObjects/MSNJournal.woa/wa/viewSection?s_id=1073744514

Rudd R. A., Seth, P., David, F., Scholl, L. (2016). Increases in drug and opioid-involved overdose deaths - United States, 2010-2015. *Morbid and Mortality Weekly Report, 65* (50-51),1445-1452. Retrieved from https://www.cdc.gov/mmwr/mmwr_wk/wk_pvol.html

Savage, C. L., Daniels, J., Johnson, J. A., Kesten, K., Finnell, D. S., & Seale, J. P. (2018). The inclusion of substance use-related content in advanced practice registered nurse curricula. *Journal of Professional Nursing*, *34*(3), 217–220. doi.org/10.1016/j.profnurs.2017.08.006

Scala, C. (2018). Own your role in curbing addiction: Dental professionals possess many resources for spotting or limiting addiction to opioids. *RDH*, *38*(2), 36–43. Retrieved from https://www.rdhmag.com/index.html

Scally, B. J., Krieger, N., & Chen, J. T. (2018). Racialized economic segregation and stage at diagnosis of colorectal cancer in the United States. *Cancer Causes & Control*, *29*(6), 527–537. https://doi-org.libproxy.eku.edu/10.1007/s10552-018-1027-y

Sharp, E. H., Coffman, D. L., Caldwell, L. L., Smith, E. A., Wegner, L., Vergnani, T., & Mathews, C. (2011). Predicting substance use behavior among South African adolescents: The role of leisure experiences across time. I*nternational Journal of Behavioral Development, 35*(4), 343-351. doi.10.1177/0165025411404494

Stake, R. E. (1995). *The art of case study research.* Thousand Oaks, CA: Sage

Stoffel, V. C., (2013). Opportunities for occupational therapy behavioral health: A call to action. *American Journal of Occupational Therapy, 67*(2), 140-145. doi:10.5014/ajot.2013.672001

Stoffel, V. C. & Moyers, P. A. (2004). An evidence–based and occupational perspective of interventions of interventions for persons with substance-use disorders. *American Journal of Occupational Therapy, 58,* 570-586. doi: 10.5014/ajot.58.5.570

Stols, D., van Heerden, R., van Jaarsveld, A., & Nel, R. (2013). Substance abusers' anger behaviour and sensory processing patterns: An occupational therapy investigation. *South African Journal of Occupational Therapy*, *43*(1), 25–34. Retrieved from http://www.sajot.co.za/index.php/sajot

Substance Abuse and Mental Health Services Administration (SAMSHA). (2017). *Mental and Substance Use Disorders*. Retrieved from https://www.samhsa.gov/disorders page # 2

Substance Abuse and Mental Health Services Administration (SAMHSA). (2018). *State and local government partnerships.* Retrieved from https://www.samhsa.gov/state-local-government-partnerships

Taylor, R. R. (2017). *Kielhofner's Model of Human Occupation: Theory and application.* 5th Ed. Philadelphia, PA: Wolters Kluwer Health.

Taylor, R. R. (2017). *Research in occupational therapy: Methods of inquiry for enhancing practice* (2nd ed.). Philadelphia, PA: F.A. Davis.

The Accreditation Council for Occupational Therapy Education. (2018). Standards and interpretive guide (effective July 31, 2020). *American Journal of Occupational Therapy, 72*, p1–p71. doi.org/10.5014/ajot.2018.72S217

The American Occupational Therapy Association (2017). Occupational Therapy Practice Framework: Domain and Process (3rd edition). *The American Journal of Occupational Therapy, 68,* S1-S48. doi:10.5014/ajot.2014.682006

Thompson, K. (2007). Occupational therapy and substance use disorders: Are practitioners addressing these disorders in practice? *Occupational Therapy in Health Care, 21*(3), 61-77. doi/abs/10.1080/J003v21n03_04

United States Department of Health and Human Services (2018). *Facing addiction in America: The Surgeon General's report on alcohol, drugs and health*. Retrieved from https://addiction.surgeongeneral.gov/sites/default/files/OC_SpotlightOnOpioids.pdf

Appendix A: MOHOST

Model of Human Occupation Screening Tool (MOHOST) Rating Form (USA English)

Client: _____ **Age:** _____ **Date of birth:** _____/_____/_____ **Gender:** Male □ Female □ **Identification code:** _____ **Ethnicity:** Caucasian □ African American □ Asian □ Hispanic/Latino □ Other: _____ **Health condition:** _____	**Assessor:** _____ **Designation:** _____ **Signature:** _____ **Date of first contact:** _____/_____/_____ **Date of assessment:** _____/_____/_____ **Treatment settings:** _____ _____

Rating Scale	F A I R	**Facilitates** occupational participation **Allows** occupational participation **Inhibits** occupational participation **Restricts** occupational participation

Analysis of Strengths & Limitations

_____

_____

_____

_____

_____

_____

Summary of Ratings

Motivation for Occupation				Pattern of Occupation				Communication & Interaction Skills				Process Skills				Motor skills				Environment: _____			
AppraisalofAbility	ExpectationofSuccess	Interest	Choices	Routine	Adaptability	Roles	Responsibility	Non-verbalSkills	Conversation	VocalExpression	Relationships	Knowledge	Timing	Organization	Problem-solving	Posture&Mobility	Coordination	Strength&Effort	Energy	PhysicalSpace	PhysicalResources	SocialGroups	OccupationalDemands
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F
A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I
R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R

MOTIVATION FOR OCCUPATION		
Appraisal of Ability Understanding of current strengths & limitations Accurate belief in skill, accurate view of competence Awareness of capacity	**F** **A** **I** **R**	Accurately assesses own capacity, recognizes strengths, aware of limitations Reasonable tendency to over/under estimate own abilities, recognizes some limitations Difficulty understanding strengths and limitations without support Does not reflect on skills, fails to realistically estimate own abilities *Comments:*
Expectation of Success Optimism & hope Self-efficacy, sense of control & self-identity	**F** **A** **I** **R**	Anticipates success and seeks challenges, optimistic about overcoming obstacles Has some hope for success, adequate self-belief but has some doubts, may need encouraging Requires support to sustain optimism about overcoming obstacles, poor self-efficacy Pessimistic, feels hopeless, gives up in the face of obstacles, lacks sense of control *Comments:*
Interest Expressed enjoyment Satisfaction Curiosity Participation	**F** **A** **I** **R**	Keen, curious, lively, tries new occupations, expresses pleasure, perseveres, appears content Has adequate interests that guide choices, has some opportunities to pursue interests Difficulty identifying interests, short-lived, ambivalent about choice of occupations Easily bored, unable to identify interests, apathetic, lacks curiosity even with support *Comments:*
Choices Appropriate commitment Readiness for change Sense of value and meaning Preferences and goals	**F** **A** **I** **R**	Clear preferences & sense of what is important, motivated to work towards occupational goals Mostly able to make choices, may need encouragement to set and work towards goals Difficulties identifying what is important or setting and working towards goals, inconsistent Cannot set goals, impulsive, chaotic, goals are unattainable or based on anti-social values *Comments:*
PATTERN OF OCCUPATION		
Routine Balance Organization of habits Structure Productivity	**F** **A** **I** **R**	Able to arrange a balanced, organized and productive routine of daily activities Generally able to maintain or follow and organized and productive daily schedule Difficulty organizing balanced, productive routines of daily activities without support Chaotic or empty routine, unable to support responsibilities and goals, erratic routine *Comments:*
Adaptability Anticipation of change Habitual response to change Tolerance of change	**F** **A** **I** **R**	Anticipates change, alters actions or routine to meet demand, (flexible/accommodating) Generally able to modify behavior, may need time to adjust, hesitant Difficulty adapting to change, reluctant, passive or habitually overreacts to change Rigid, unable to adapt routines or tolerate change *Comments:*

Roles Role identity Role variety Belonging Involvement	**F** **A** **I** **R**	Identifies with a variety of roles, has a sense of identity/belonging that comes from roles Generally identifies with one or more roles and has some sense of belonging from these roles Limited identification of roles, role overload or conflict, poor sense of belonging Does not identify with any role, negligible role demands, no sense of belonging *Comments:*
Responsibility Role competence Meeting expectations Fulfilling obligations Delivering responsibilities	**F** **A** **I** **R**	Reliably completes activities and meets the expectations related to role obligations Copes with most responsibilities, meets most expectations, able to fulfil most role obligations Difficulty being able to fulfill expectations and meet role obligations without support Limited ability to meet demands of activities or obligations, unable to complete role activities *Comments:*

COMMUNICATION AND INTERACTION SKILLS		
Non-verbal skills Eye contact Gestures Orientation Proximity	**F** **A** **I** **R**	Appropriate (possibly spontaneous) body language given culture and circumstances Generally able to display or control appropriate body language Difficulty controlling/displaying appropriate body language (delayed/limited/disinhibited) Unable to display appropriate body language (absent/incongruent/unsafe/aggressive) *Comments:*
Conversation Disclosing Initiating & sustaining Speech content Language	**F** **A** **I** **R**	Appropriately initiates, discloses and sustains conversation (clear/direct/open) Generally able to use language or signing to effectively exchange information Difficulty initiating, disclosing or sustaining conversation (hesitant/abrupt/limited/irrelevant) Uncommunicative, disjointed, bizarre or inappropriate disclosure of information *Comments:*
Vocal expression Intonation Articulation Volume Pace	**F** **A** **I** **R**	Assertive, articulate, uses appropriate tone, volume and pace Vocal expression is generally appropriate in tone, volume and pace Difficulty with expressing self (mumbling/pressured speech/monotone) Unable to express self (unclear/too quiet or loud/too fast or too passive) *Comments:*
Relationships Cooperation Collaboration Rapport Respect	**F** **A** **I** **R**	Sociable, supportive, aware of others, sustains engagement, friendly, relates well to others Generally able to relate to others and mostly demonstrates awareness of others' needs Difficulty with cooperation or makes few positive relationships Unable to cooperate with others or make positive relationships *Comments:*
PROCESS SKILLS		
Knowledge Seeking & retaining information Knowing what to do in an activity Knowing how to use objects	**F** **A** **I** **R**	Seeks and retains relevant information, know how to use tools appropriately Generally able to seek and retain information and know how to use tools Difficulty knowing how to use tools, difficulty in asking for or retaining information Unable to use knowledge/tools, does not retain information, asks repeatedly for same info *Comments:*

Timing Initiation Completion Sequencing Concentration	**F** **A** **I** **R**	Sustains concentration, starts, sequences and completes occupation at appropriate times Generally able to concentrate, start, sequence and complete occupations Fluctuating concentration or distractible, difficulty initiating, sequencing & completing Unable to concentrate, unable to initiate, sequence or complete occupations *Comments:*
Organization Arranging space and objects Neatness Preparation Gathering objects	**F** **A** **I** **R**	Efficiently searches for, gathers & restores tools/objects needed in occupation (neat) Generally able to search, gather and restore needed tools/objects Difficulty searching for, gathering and restoring tools/objects, appears disorganized/untidy Unable to search for, gather and restore tools and objects (chaotic, messy) *Comments:*
Problem-solving Judgement Adaptation Decision-making Responsiveness	**F** **A** **I** **R**	Shows good judgement, anticipates difficulties and generates workable solutions (rational) Generally able to make decisions based on difficulties that arise Difficulty anticipating and adapting to difficulties that arise, seeks reassurance Unable to anticipate and adapt to difficulties that arise and makes inappropriate decisions *Comments:*

MOTOR SKILLS		
Posture & Mobility Stability Walking Alignment Reaching Positioning Bending Balance Transfers	**F** **A** **I** **R**	Stable, upright, independent, flexible, good range of movement (possibly agile) Generally able to maintain posture and mobility in occupation, independently or with aids Unsteady at times despite any aids, slow or manages with difficulty Extremely unstable, unable to reach and bend or unable to walk *Comments:*
Coordination Manipulation Ease of movement Fluidity Fine motor skills	**F** **A** **I** **R**	Coordinates body parts with each other, uses smooth fluid movements (possibly dextrous) Some awkwardness or stiffness causing minor interruptions to occupations Difficulty coordinating movements (clumsy/tremulous/awkward/stiff) Unable to coordinate, manipulate and use fluid movements *Comments:*
Strength & Effort Grip Lifting Handling Transporting Moving Calibrating	**F** **A** **I** **R**	Grasps, moves & transports objects securely with adequate force/speed (possibly strong) Strength and effort are generally sufficient for most tasks Has difficulty with grasping, moving, transporting objects with adequate force and speed Unable to grasp, move, transport objects with appropriate force and speed (weak/frail) *Comments:*
Energy Endurance Pace Attention Stamina	**F** **A** **I** **R**	Maintains appropriate energy levels, able to maintain tempo throughout occupation Energy may be slightly low or high at times, able to pace self for most tasks Difficulty maintaining energy (tires easily/evidence of fatigue/distractable/restless) Unable to maintain energy, lacks focus, lethargic, inactive or highly overactive *Comments:*
ENVIRONMENT	**Environment in which skills have been assessed: _____**	

Physical space Self-care, productivity and leisure facilities Privacy & accessibility Stimulation & comfort	**F** **A** **I** **R**	Space affords a range of opportunities, supports & stimulates valued occupations Space is mostly adequate, allows daily occupations to be pursued Affords a limited range of opportunities and curtails performance of valued occupations Space restricts opportunities and prevents performance of valued occupations *Comments:*

Physical resources Finance Equipment & tools Possessions & transport Safety & independence	**F** **A** **I** **R**	Enable occupational goals to be achieved with ease, equipment and tools are appropriate Generally allow occupational goals to be achieved, may present some obstacles Impede ability to achieve occupational goals safely, equipment and tools are inadequate Have major impact on ability to achieve occupational goals, lack of tools lead to high risks *Comments:*
Social groups Family dynamics Friends & social support Work climate Expectations & involvement	**F** **A** **I** **R**	Social groups offer practical support, values and attitudes support optimal functioning Generally able to offer support but may be some under or over involvement Offer reduced support, or detracts from participation, some groups support but not others Do not support participation due to lack of interest or inappropriate involvement *Comments:*
Occupational demands Activity demands (self-care, productivity and leisure) Cultural conventions Construction of activities	**F** **A** **I** **R**	Demands of activities match well with abilities, interests, energy and time available Generally consistent with abilities, interest, energy or time available, may present challenges Some clear inconsistencies with abilities and interest, or energy and time available Mostly inconsistent with abilities, construction of activity is under or over-demanding *Comments:*

Appendix B: Research Flier

Occupational Therapists and Substance Use Disorders!

Be part of an important occupational therapy research study

- *Are you an occupational therapist licensed to practice in Maryland?*
- *Do you currently work in the Baltimore, Maryland area?*

If you answered YES to these questions, you may be eligible to participate in an occupational therapy research study.

The purpose of this research study is to investigate occupational therapists' views regarding clients with co-occurring diagnoses of substance use disorders.

Participation is completely voluntary

Occupational therapists ages 21+ are eligible to participate.

This study is being conducted over the phone, e-mail or in-person

Please contact Jaimie Estreet

for more information

JaimieEstreet@gmail.com

(301) 461-7752

Appendix C: Informed Consent

Consent to Participate in a Research Study

Title of Study

EKU
Institutional Review Board
Protocol Number
2412
Approval Valid
6/5/19-5/15/20

Key Information

You are being invited to participate in a research study. This document includes important information you should know about the study. Before providing your consent to participate, please read this entire document and ask any questions you have.

Do I have to participate?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study and still keep the benefits and rights you had before volunteering. If you decide to participate, you will be one of about fifteen people to do so people in the study.

What is the purpose of the study?

The purpose of this study design is to better understand the role of occupational therapists when working with substance use disorder populations.

Your participation will help better understand occupational therapist's competence when evaluating and treating clients with co-occurring SUD diagnoses.

Where is the study going to take place and how long will it last?

The research procedures will be conducted over the phone. You will need to participate in a total of 3 electronic or phone interviews during the study. An initial and two follow-ups (one and two months after) regarding the MOHOST within treatment. Each of these visits will take about 15- 45 minutes. The total amount of time you will be asked to volunteer for this study is two hours over the next two months.

What will I be asked to do?

You will receive a detailed letter regarding the study, including a consent form. Please read the information carefully. If you consent to participate, sign the consent form and return to the PI. You will be asked to participate in a total of 3 phone interviews. An initial and two follow-ups (one and two months after) regarding the MOHOST within treatment.

Your participation will help occupational therapy practitioners learn more about treatment of clients with co-occurring substance use disorders.

Are there reasons why I should not take part in this study?
If you are NOT in good stating with the Maryland Board of Occupational Therapy or practice within the Baltimore, Maryland region. You should not participate in this study.

What are the possible risks and discomforts?

To the best of our knowledge, the things you will be doing have no more risk of harm than you would experience in everyday life.

You may, however, experience a previously unknown risk or side effect.

What are the benefits of taking part in this study?

There is no guarantee that you will get any benefit from taking part in this study. However, some people have experienced and increased understanding when working with patients with co-occurring SUD diagnoses. We cannot and do not guarantee that you will receive any benefits from this study. Your participation is expected to provide benefits to others by increasing therapists understanding of substance use disorder diagnoses.

If I don't take part in this study, are there other choices?
If you do not want to be in the study, there are no other choices except to not take part in the study.

Now that you have some key information about the study, please continue reading if you are interested in participating. Other important details about the study are provided below.

Other Important Details

Who is doing the study?
The person in charge of this study is Jaimie Estreet at Eastern Kentucky University. She is being guided in this research by Dr. Christine Privott. There may be other people on the research team assisting at different times during the study.

What will it cost me to participate?
There are no costs associated with taking part in this study.

Will I receive any payment or rewards for taking part in the study?
You will not receive any payment or reward for taking part in this study.

Who will see the information I give?
Your information will be combined with information from other people taking part in the study. When we write up the study to share it with other researchers, we will write about this combined information. You will not be identified in these written materials to maintain confidentiality.

We will make every effort to maintain confidentiality and prevent anyone who is not on the research team from knowing that you gave us information, or what that information is. For example, your name will be kept separate from the information you give, and these two things will be stored in different places under lock and key.
However, there are some circumstances in which we may have to show your information to other people. For example, the law may require us to show your information to a court. Also, we may be required to show information that identifies you for audit purposes.

We will make every effort to safeguard your data, but as with anything online, we cannot guarantee the security of data obtained via the Internet. Third-party applications used in this study may have terms of service and privacy policies outside of the control of the Eastern Kentucky University.

Can my taking part in the study end early?
If you decide to take part in the study, you still have the right to decide at any time that you no longer want to participate. You will not be treated differently if you decide to stop taking part in the study.

The individuals conducting the study may need to end your participation in the study. They may do this if you are not able to follow the directions they give you, if they find that your being in the study is more risk than benefit to you, or if the University or agency funding the study decides to stop the study early for a variety of reasons.

What happens if I get hurt or sick during the study?
If you believe you are hurt or if you get sick because of something that is done during the study, you should call Jaimie Estreet (PI's name) at 301-461-7752 immediately. It is important for you to understand that Eastern Kentucky University will not pay for the cost of any care or treatment that might be necessary because you get hurt or sick while taking part in this study. That cost will be your responsibility. Also, Eastern Kentucky University will not pay for any wages you may lose if you are harmed by this study.

Usually, medical costs that result from research-related harm cannot be included as regular medical costs. Therefore, the costs related to your child's care and treatment because of something that is done during the study will be your responsibility. You should ask your

insurer if you have any questions about your insurer's willingness to pay under these circumstances.

What else do I need to know?

You will be told if any new information is learned which may affect your condition or influence your willingness to continue taking part in this study.

We will give you a copy of this consent form to take with you.

Consent

Before you decide whether to accept this invitation to take part in the study, please ask any questions that come to mind now. Later, if you have questions about the study, you can contact the investigator, Jaimie Estreet at 301-461-7752. If you have any questions about your rights as a research volunteer, you can contact the staff in the Division of Sponsored Programs at Eastern Kentucky University at 859-622-3636.

If you would like to participate, please read the statement below, sign, and print your name.

I am at least 18 years of age, have thoroughly read this document, understand its contents, have been given an opportunity to have my questions answered, and voluntarily agree to participate in this research study.

_____

Signature of person agreeing to take part in the study Date

_____

Printed name of person taking part in the study

Jaimie Estreet

_____

Name of person providing information to subject

Appendix D: Participant Initial Interview Questions

Date:

Name of Interviewer: **Type of Interview:**

Interview audio-recorded? Y N

Interview documented and with jotted notes? Y N

Informed Consent obtained and secured? Y N

Interviewer introductions/review of study completed prior to interview? Y N

Interview Questions

- Briefly describe your experience and the practice area you work in?
- Describe your level of comfort when working with those with diagnoses or history of substance use disorders?
- Please explain how you acknowledge and integrate substance use disorders within your current practice?
- Please describe your level of knowledge and how you obtain knowledge regarding substance use disorders?
- Describe your familiarity and/or experience using any part of the MOHOST. If you have used any part of the MOHOST, describe how it impacts your evaluation and treatment processes?
- In your experience, what areas of dysfunction? function? clinical? do you identify as directly impacted by a co-occurring diagnosis of substance use disorder?

Appendix E: Capstone Timeline

April 2019	Completion of IRB and submission
June 2019	Approval from IRB Committee received
July- August 2019	Dissemination of Research Flier
August 2019	Consent forms signed August 2019
September 2019	Conducted initial phone interviews at beginning of study
October 2019	Conducted follow-up five-week phone interviews using MOHOST
November 2019	Transcription and coding of participate interviews
November 2019	Capstone results and discussion section written
December 2019	Oral presentation and defense at Eastern Kentucky University (EKU)

Appendix F: Definition of Terms

Acute care hospital- A hospital that provides inpatient medical care and other related services for surgery, acute medical conditions or injuries (usually for a short duration)

Assisted living facility- A facility that provides care to residents who are in need of assistance with their activities of daily living.

Behavioral Health Unit- A unit within a hospital designed to provide mental health services to those who are in danger of harming themselves or others.

Continuing Care Retirement Community (CCRC)- A facility designed to provide residents with a lifetime continuum of care. Most CCRC's have an independent living, assisted living and skilled nursing care.

Co-occurring diagnosis- When a person experiences a mental illness and a substance use disorder simultaneously. Previously referred to as a dual-diagnosis

Hashtag- A word or phrase preceded by a hash sign (#) used on social media to identify a certain topic

Homecare- Services provided to individuals with medical conditions within their home

Inner city- An urban area often associated with lower social and economic problems.

Inpatient rehabilitation - A licensed facility providing intense rehabilitative services.

Occupational therapy- A type of therapy focusing on maximizing a client's independence across the life span. Includes an evaluation, intervention, and outcome measures.

Outpatient- A type of therapy provided to all ages when continued medical care is not required.

Model of Human Occupation- A model that defines how individuals interact with their environment and its influences.

Model of Human Occupation Screening Tool (MOHOST)- The MOHOST is an assessment that addresses the majority of MOHO concepts (volition, habituation, skills and environment), allowing the therapist to gain an overview of the client's occupational functioning

Screening, brief intervention, referral, and treatment (SBIRT) model- An early intervention method used with people with substance use disorders and those at risk of developing these disorders.

Skilled nursing facility (SNF)- A nursing home that provides long-term healthcare needs to individuals who may transition back to their prior living environment.

Substance use disorder (SUD)- Historically referred to as drug addiction, a disease that affects a person's inability to control the use of a legal or illegal drug or medication.

The Occupational Therapy Practice Framework (OTPF)- A framework designed for OT practitioners and students providing vocabulary and structure for occupational therapy tenants.