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ACCEPTANCE

This dissertation, PREDICTORS OF CLINICAL MENTAL HEALTH COUNSELING STUDENTS' ATTITUDES TOWARD WORKING WITH CLIENTS WITH SUBSTANCE USE DISORDERS, by LAUREN ELIZABETH FLYNN, was prepared under the direction of the candidate's Dissertation Advisory Committee. It is accepted by the committee members in partial fulfillment of the requirements for the degree, Doctor of Philosophy, in the College of Education & Human Development, Georgia State University.

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PREDICTORS OF CLINICAL MENTAL HEALTH COUNSELING STUDENTS'
ATTITUDES TOWARD WORKING WITH CLIENTS WITH SUBSTANCE USE
DISORDERS

by

LAUREN FLYNN

Under the Direction of Brian J. Dew

ABSTRACT

With over 40 million Americans aged 12 and older meeting the criteria for a Substance Use Disorder (SUD) in 2020, and drug overdose deaths reaching record highs that same year, the treatment of persons with SUDs has become a focal point of the counseling profession (CDC, 2021; SAMHSA, 2021). There is a growing need for clinical mental health counselors (CMHC) trained to treat SUDs (The United States Bureau of Labor Statistics, 2022). However, negative attitudes and stigma toward substance-related addiction serve as a deterrent for counselors working in substance-treatment settings (Murphy, 2022). Addressing substance-related attitudes in counseling students is critical as they may harm the client and the therapeutic relationship (Boysen, 2010; SAMHSA, 2017; Van Boekel et al., 2013). The need for addiction-related

training standards in CACREP-accredited CMHC programs to address the knowledge, skills, and attitudes components of addiction counseling competency is reviewed in Chapter 1. In Chapter 2, the attitudes of 210 masters-level counseling students enrolled in CACREP-accredited CMHC programs toward working with clients with SUDs were assessed. Exposure to persons with substance addiction was found to predict students' attitudes toward working with clients with SUDs. Two facets of addiction attitudes were observed: how favorably students viewed working with clients with SUDs and students' desire to work with clients with SUDs. Several factors that facilitate more favorable perceptions of working with clients with SUDs and greater desire to treat this population were identified; these factors include exposure to persons with substance addiction and completion of addiction-related coursework and trainings. Implications for how CACREP-accredited CMHC programs may enrich addiction counseling curriculum to facilitate more positive addiction-related attitudes among students are presented. Implications for future research are provided.

INDEX WORDS: Substance use disorder, addiction counseling, clinical mental health counseling, attitudes

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LAUREN FLYNN

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1 THE NECESSARY INCLUSION OF ADDICTION COUNSELING KNOWLEDGE, SKILLS, AND ATTITUDES IN CACREP ACCREDITED CLINICAL MENTAL HEALTH COUNSELING PROGRAMS

The prevalence of substance-related addiction in the United States is well-documented, with over 46 million Americans meeting the criteria for a substance use disorder (SUD) in 2021 (Substance Abuse and Mental Health Services Administration [SAMHSA], 2022). Treating persons suffering from substance addiction has become a critical focus of the counseling profession, particularly as rates of substance use and overdose-related deaths have increased in recent years (Centers for Disease Control and Prevention [CDC], 2022; SAMHSA, 2022). Addiction counseling has changed significantly in recent decades as peer recovery services, provided by individuals with lived experiences with substance addiction, have become less recognized professionally (Miller et al., 2010). Now various types of helping professions provide treatment to persons with substance-related addiction, with mental health counselors serving one of the highest proportions of clients with primary addiction diagnoses, most frequently through outpatient services provided in substance-related rehabilitation facilities (SAMHSA, 2021).

Substance addiction counseling services, however, are not limited to treatment settings. Nearly all mental health counselors will work with clients impacted by substance addiction (Cavaiola et al., 2021). In fact, the demand for mental health counselors trained to work with persons who have substance use disorders is projected to grow 22 percent from 2021 to 2031 (United States Bureau of Labor Statistics, 2022). Thus, the preparation of counselors-in-training (CITs) should be evaluated to ensure high-quality training practices and effective learning opportunities. The responsibility of preparing CITs to be competent in the treatment of

substance-related addiction falls on counselor educators and counselor education programs. However, the training standards upon which program curricula are often delivered are determined by the accrediting bodies which ensure that the quality and content of educational programs meet the standards set by the profession (CACREP, n.d.).

Accreditation standards play a critical role in shaping substance addiction-related counseling education of a CIT. The Council for the Accreditation of Counseling and Related Educational Programs (CACREP) is recognized by the Council for Higher Education Accreditation (CHEA) as an accreditor for counseling programs across a variety of specialization areas at the masters-level, including Clinical Mental Health Counseling (CMHC) programs as well as at the doctoral-level.(CACREP, 2021). CACREP determines the educational requirements of all accredited counseling programs, therein setting the standards for addiction counseling training that are unique to each specialty track. CMHC programs significantly outnumber other counseling specializations (school counseling, rehabilitation counseling, career counseling, etc.), thus graduating the largest number of CITs (CACREP, 2023). Furthermore, although the CACREP-accredited addiction counseling specialization has its own set of CACREP standards, there are 23 times more CMHC programs (373) than addiction counseling programs (16) (CACREP, 2023). As all clinical mental health counselors, not just graduates of masters-level counseling programs with an addiction counseling specialization, are hypothesized to work with clients impacted by addiction (Cavaiola et al., 2021), it is therefore critical to address the standards that influence the addiction counseling education of the greatest number of

CITs. Thus, the focus of this article is to assess the CACREP standards that shape addiction counseling education specific to CMHC programs, highlight specific areas in which the current standards fall short of the addiction counseling competencies established by the SAMHSA (2017), and propose recommendations for inclusion to the CACREP standards (2017).

CACREP Standards

CACREP was founded in 1981 and has evolved its' training standards through multiple revisions. Since the establishment of its original CORE standards, CACREP has issued two revised editions of national preparation standards (2009 & 2016) that resulted in changes to counselor training specialty areas of practice, curricular standards, clinical field experiences, and student learning outcome measures (CACREP, 2001; CACREP, 2009; CACREP, 2016). With each standards' revision, the education and training requirements concerning addiction counseling were also modified. The 2009 CMHC program standards demonstrated the growing recognition of addiction counseling within the counseling profession by including six standards specific to the knowledge, skill, and practice of addiction counseling (CACREP, 2009). However, the 2016 iterations of CMHC program-specific standards reduced the number of educational requirements related to addiction counseling compared to the 2009 version.

The CMHC program standards were reduced from six addiction-specific standards in the 2009 edition to only two addiction-specific standards in the 2016 set of standards (CACREP, 2016). Although it is important to note that the 2016 CMHC standards are considerably briefer than the 2009 standards, the narrow inclusion of addiction-specific standards has far-reaching

implications. The 2016 CMHC CACREP standards now only require knowledge of “neurobiological and medical foundation and etiology of addiction and co-occurring disorders” (Section 5, C.1.d.) and “potential for substance use disorders to mimic and co-occur with a variety of neurological, medical, and psychological disorders” (Section 5, C.2.e.) (CACREP, 2016).

These 2016 CACREP standards, which have shaped the preparation of thousands of CITs, can be sharply contrasted with the addiction counseling competencies outlined by the Substance Abuse and Mental Health Services Administration (SAMHSA). Addiction counseling competencies, titled *Technical Assistance Publication (TAP) 21*, were published by SAMHSA and the Center for Substance Abuse and Treatment (CSAT) in 1998 and have been periodically revised 8 times over the past 20 years, with the most updated revision published in 2017. TAP 21 identifies 123 competencies considered essential to the effective practice of addiction counseling. These competencies are organized by a model containing transdisciplinary foundations (professional readiness, understanding of addiction, treatment knowledge, application to practice) and practice dimensions (counseling, professional and ethical responsibilities, clinical evaluations, treatment planning, service coordination, documentation, referral, and client, family, and community education) (SAMHSA, 2017). This comprehensive set of addiction counseling competencies is intended to operate as a benchmark by which addiction counseling curricula are developed and professional standards are measured in the addiction field.. However, these competencies have not been incorporated into the latest revision of CMHC CACREP standards,

nor were they proposed for inclusion in the drafted but not yet released 2024 standards (CACREP, 2016; CACREP, 2022; SAMHSA, 2017). If CACREP were to infuse elements of SAMHSA's addiction counseling competencies into its training standards, addiction counseling education requirements could be drastically altered. Though SAMHSA identifies 123 competencies as essential to effective addiction-counseling practice, it is infeasible to integrate and address each of these components in a single masters-level addiction counseling course. However, given the competencies established by SAMSHA, the two current addiction-related CMHC CACREP standards appear insufficient in preparing future counselors to meet the clinical needs of addiction-related clients as they do not address the following three characteristics of competency: knowledge, skills, and attitudes (KSAs).

KSAs: Knowledge, Skills, & Attitudes

KSAs are accepted by SAMHSA as the three essential characteristics of competency in addiction counseling (2017). Furthermore, KSAs are recognized as required dimensions of competency across numerous concentrations in the counseling profession, including human sexuality counseling (Zeglin et al., 2017), trauma-informed counseling (Land, 2018; Paige et al., 2017), animal-assisted therapy in counseling (Stewart et al., 2016), and multicultural counseling and social justice competencies, which includes action as an additional fourth competency dimension (Ratts et al., 2015). Due to the widespread use of KSAs as indicators of competency across counseling domains and SAMHSA's recognition that they are essential to addiction counseling competency, addiction-related knowledge, skills, and attitudes should be included as

a minimum standard of training for all CACREP-accredited CMHC programs. As such, in this article treatment related KSAs as areas for consideration in the next set of CACREP standards are proposed. Within each of these three domains (knowledge, skills, and attitudes), standards specific to these core areas of competency are highlighted for inclusion in the CMHC CACREP standards.

Knowledge

The counseling literature has recognized that addiction-related knowledge is required for clinicians to be effective in the treatment of addiction, and the more addiction-related knowledge a counselor obtains, the less they will ascribe to harmful stereotypical beliefs about addiction (Cavaiola et al., 2021). Yet, current addiction-related knowledge requirements of CMHC students in CACREP-accredited programs stops short at a mere two addiction-related standards. These existing standards are not sufficient nor adequately inclusive to cover the myriad of topics relevant to understanding and treating addiction-related concerns. Cavaiola et al. (2021) maintain that, prior to beginning their careers, CITs must have a foundational understanding of the addictive process, the neuroscience of addiction, and effective clinical interventions for addiction-related concerns. Giordano et al. (2016) recognized that knowledge of trauma and its impact in the lives and wellbeing of addicted individuals is pivotal to effective clinical treatment. In an effort to address these training needs and enhance the addiction-related education of CITs, the following knowledge-based standards are proposed to be included as minimal training requirements of CACREP-accredited CMHC programs: (1) neurobiological mechanisms

underlying addiction and addiction treatment, (2) the intersection of trauma and addiction, and (3) evolving epidemiological trends and legislation relevant to addiction counseling.

Neurobiological Mechanisms Underlying Addiction and Addiction Treatment.

During the past two decades, research into how the brain responds to mood-altering substances has significantly progressed our understanding of the neuroscience of addiction and its implications for clinical practice (Verdejo-Garcia et al., 2019; Volkow & Boyle, 2018). Knowledge of the neuronal changes that result from substance use provides a foundational understanding for how mood-altering substances yield tremendous changes in mood and behavior (Cavaiola et al., 2021). Although substance addiction is not simply a neurobiological phenomenon, the neuroscience underlying addiction is crucial to understand as neuroadaptations are common across all addictions (Humphreys, 2018). Such neurological adaptations influence one's urges and cravings to use substances, self-control over use, sense of unease in absence of substances, and substance tolerance. Furthermore, with sustained use, this neurological impact may result in neurocognitive deficits (Ekhtiari et al., 2017; Humphreys, 2018). In understanding the underlying neurological mechanisms behind the three-stage cycle of addiction (binge/intoxication, withdrawal/negative effect, and preoccupation/anticipation or craving) and their relationship to three primary brain regions (basal ganglia, extended amygdala, and the prefrontal cortex), counselors would be more knowledgeable and better prepared to treat addiction-related concerns (Volkow & Boyle, 2018; Ekhtiari et al., 2016).

Disruptions to these three regions of the brain are particularly important in the development and maintenance of substance use disorders (Volkow & Boyle, 2018; U.S. Department of Health and Services, 2017), and knowledge of these mechanisms enables CITs to understand more effectively the processes underlying addiction. For instance, it is essential for students to possess a basic knowledge of the role of the basal ganglia in triggering cravings (binge/intoxication stage)(U.S. Department of Health and Services, 2017), the role of the amygdala in increasing stress sensitivity in the absence of one's substance (withdrawal/negative affect stage) (Volkow & Boyle, 2018), and compromised executive function of the prefrontal cortex promoting impulsive and compulsive substance use (preoccupation/anticipation stage) (Volkow & Boyle, 2018), as they can result in an overwhelming drive for substance use (U.S. Department of Health and Services, 2017). This knowledge of the neurobiological basis for addiction demonstrates that substance use is not a simple matter of choice, thus reducing addiction-related stigma (Clark, 2021). Furthermore, knowledge of the neurobiology of addiction is necessary to assess client's predisposition to addiction as risk for developing addiction is recognized as an interaction between biological factors (neurocircuitry, genetics, epigenetics) and contextual factors (environment, systems, stress, trauma) (Volkow & Boyle, 2018).

A basic understanding of neurobiology is also necessary for counselors to select appropriate and effective treatment approaches. Neuroplastic changes to the executive function, reward, and stress systems of the brain worsen overtime with prolonged use, thus making recovery increasingly more challenging (Koob & Volkow, 2016). Neurocognitive deficits

resulting from long-term substance use, such as reduced functioning to working memory and attention (Squeglia et al., 2009, Ekhtiari et al., 2016) can have negative implications for daily life and treatment (Bates et al., 2013). Knowledge of these deficits is useful in the treatment of substance use disorders as it enables counselors to provide clients with psychoeducation on the role of neuroplasticity in recovery, while also teaching clients particular strategies to modify or override their automated neurological addictive processes (Ekhtiari et al., 2016; Volkow & Boyle, 2018).

The Intersection of Trauma and Addiction

SAMHSA recognizes that trauma is an almost universal experience of persons with substance use disorders (2014). Therefore, it is important to consider trauma in the context of neurobiology as trauma and addiction cause overlapping impairments to reward circuitry in the brain which damage neural structures in the prefrontal cortex and amygdala, and result in heightened stress responses and memory impairment (Michaels et al., 2021, Strathearn et al., 2019). Thus, the comorbidity of trauma and addiction have an interacting effect that contribute to symptomology and may pose challenges to treatment and recovery. As such, clients' experiences of trauma (childhood, transgenerational, historical, and current life traumas) must be assessed for a counselor to develop treatment interventions that appropriately and effectively address the needs of their clients.

Addiction and trauma expert, Gabor Maté, suggests that it is impossible to understand addiction without considering the pain and trauma that underly most addictions (Maté, 2018).

Furthermore, to treat addiction, providers must recognize the relief a person finds, or searches for, in using addictive substances (Maté, 2018). Substance use may begin as an attempt to self-regulate painful emotional, psychological, or physical states that pre-date development of a SUD. This process was originally defined by Khantzian (1985) as the self-medication hypothesis of substance dependence wherein substance consumption is first and foremost an attempt to cope with painful life experiences. Thus, a compassionate understanding is required of counselors to recognize that substances may have enabled their client to survive thus far by aiding them in coping with trauma. Although, their substance use is also threatening their survival, understanding the role the substances served in their life is critical to helping them maintain prolonged sobriety.

Due to the interconnected nature of their addiction and trauma, the literature points to differential opinions on the which treatment concern should be prioritized (Back et al., 2009; Flanagan et al., 2016). The sequential model of treatment was historically the most popular and requires clients to establish and maintain abstinence from substance use before initiating trauma-focused treatment (Flanagan et al., 2016). This model was based on the belief that trauma-focused treatment would lead to worsening substance use. More recently integrated models of trauma and addiction treatment that concurrently address both concerns have favored the sequential model (Dass-Brailsford & Safilian, 2016; Flanagan et al., 2016). Examples of structured and manualized integrated approaches include Seeking Safety (SS), Trauma Affect

Regulation: Guide for Education and Therapy (TARGET), and Addictions and Trauma Recovery Integration (ATRIUM).

Counselors should also be knowledgeable of integrative approaches to treating comorbid trauma and addiction without the use of manualized interventions. An example of an integrated session may begin with an assessment of recent substance use cravings and trauma-related symptoms prior to determining the appropriateness of trauma-related interventions. Depending upon the needs of the client, the session may then focus on topics such as exploring and restructuring the trauma narrative, self-care training, coping skill development, or psychoeducation. Lastly, an integrated session may end with review of relapse prevention strategies and discussion of safety in anticipation that thoughts and emotions related to the trauma may arise following the session. In possessing knowledge of the intersection of trauma and addiction, counselors are capable of more holistically understanding their clients and their addictions, and thoughtfully constructing therapeutic interventions that accurately meet the needs of their clients. Giordano et al. (2016) suggest that it is imperative that counselors treating addiction are sufficiently trained in trauma approaches, yet prior research suggests that the trauma-related education of addiction counselors has been minimal (Bride et al., 2009). Accordingly, training standards that require education on the intersection of trauma and addiction are necessary to address this gap in counselor preparation.

Epidemiological Trends and Legislation Relevant to Addiction Counseling

The field of addiction counseling is not stagnant. The availability of new substances, the composition and lethality of existing compounds, and the laws that regulate the use of those substances are continuously changing. Thus, the knowledge relevant to the treatment of addiction-related concerns is evolving as new addiction-related trends are reported, laws are implemented, and research findings are discovered. Addiction-related counseling training must adapt in response to new information to ensure that CITs are prepared to meet the current needs of clients (Cavaiola et al., 2022). To fail to address evolving trends and legislation relevant to addiction counseling is to produce counselors who are less prepared to enter the profession. Thus, it is essential that CACREP include knowledge of addiction-related trends and legislation within the required training standards, with the understanding that educators must remain informed as trends evolve.

Epidemiological Trends. The types and routes of administration associated with substance use, as well as the frequency of consumption have evolved immensely over the past several decades. In particular, research findings have found significant shifts in substance use trends in nicotine (FDA, 2022; Miech et al., 2021; National Institute of Health, 2020; Sindelar, 2020), cannabis (SAMHSA, 2021), psychedelics (Livne et al., 2022; NIH, 2022), and opioids (CDC, 2021; Mattson et al., 2021) such as fentanyl (CDC, 2021). Associated with these shifting trends is the growing rate of overdose-related deaths (CDC, 2021; Mattson et al., 2021). According to the CDC, the number of drug overdose deaths has quadrupled since 1999, with drug overdose deaths reaching above 100,000 in 2020, including over 75% caused by opioids

(CDC, 2021). During this time, as the opioid epidemic increased in the United States, the composition of the substance was altered, and the lethality of opioids swelled. Simultaneously, the geographic patterns and population-based mortality rates evolved.

Trends in opioid overdose deaths are outlined in three distinct waves, with the first wave of the opioid epidemic driven by prescription opioid painkillers in the 1990s (CDC, 2021; Deweerdt, 2019). Drug overdose mortality rates soared among middle-aged persons with physical disabilities linked to chronic pain (McGranahan & Timothy, 2021). During this first wave, drug overdose deaths rose most rapidly in areas with high physical disability rates (Ciccarone, 2019; McGranahan & Timothy, 2021). The second wave signaled the beginning of the illicit opioid phase of the epidemic in 2010 and involved the use of heroin (CDC, 2021; Ciccarone, 2019; McGranahan & Timothy, 2021). The third wave of the epidemic, beginning shortly after 2013 with the rapid rise of synthetic opioids such as fentanyl (CDC, 2021; Ciccarone, 2019; McGranahan & Timothy, 2021). Fentanyl and other synthetic opiates are highly potent and increasingly available across the United States as they are being found hidden in other substances, including heroin, cocaine, and counterfeit pills (CDC, 2021). In the illicit opioid phase of the opioid epidemic, drug overdose mortality rose, and are deaths are no longer linked to regions with higher rates of physical disability (McGranahan & Timothy, 2021). Between 1999 and 2020, overdose deaths based on geographic location type shifted, (CDC, 2021) with rapid increases in opioid overdose death rates in rural areas giving way to higher rates in urban areas starting since 2015 (CDC, 2021). The evolving trends in the opioid epidemic

demonstrate the necessity for addiction counseling educators to stay abreast of epidemiological trends, especially for those substance use patterns within their communities.

Addiction-related legislation. During the past ten years, significant changes have occurred at the federal, state, and even city level regarding policies that regulate numerous federally illicit substances. In particular, changes have occurred to legislation concerning the decriminalization and legalization of both medical and recreational use of federally illicit substances. Despite consistent national and federal laws, the existence of opposing state and city laws means that each counseling program will be exposed to legislation-related changes and challenges at different rates based on geographical location. For this reason, it is imperative that addiction counseling educators be knowledgeable of local legislation that regulates potentially addictive substances. Legislative changes regarding the regulation of cannabis and psychedelics have evolved, influencing both public perception and prevalence rates of use (Livne et al., 2022; Sperandio et al., 2021). According to the National Survey on Drug Use and Health, 52.5 million people aged 12 and older are estimated to have used cannabis and 7.4 million people are estimated to have used psychedelics in 2021 (SAMHSA, 2022). The public perception of cannabis has evolved in response to the recognition of the medical uses of cannabis and legislative changes regulating medical and non-medical cannabis use (Resko et al., 2019; Miech et al., 2021). Similarly, the public perception of psychedelic substances is also changing as psychedelics are increasingly being perceived as having low risk and a high potential for therapeutic benefit (Livne et al., 2022).

The evolving public perception and increasing rates of cannabis and psychedelic use may require changes in how their consumption is addressed and treated. Furthermore, due to the expanding scientific interest in the use of psychedelic substances in treating mental health concerns (Cavarra et al., 2022) and SUDs (DiVito & Leger, 2020), CITs must be made aware of these trends as they may impact their work with future clients. A study of individuals who self-medicate with microdoses of psychedelics found that participants viewed their use of psychedelics as more effective than traditional treatments for physical and mental health issues (Hutten et al., 2019). For this reason, addiction counseling curriculum should prepare students to work with individuals whose substance use is problematic and those who perceive their substance use to be beneficial to their overall well-being. To disregard the growing body of research utilizing psychedelics, and to fail to address evolving trends and public perception of various substances in addiction counseling curriculum is to ill prepare the next generation of counseling professionals.

Skills

The current 2016 CMHC CACREP addiction-related standards are based solely on knowledge comprehension, and thus, do not require the acquisition of skills related to addiction counseling such as techniques, interventions, and strategies for treating addiction-related concerns. Meanwhile, SAMHSA (2017) identifies the following eight practice dimensions of addiction counseling competency: clinical evaluation, treatment planning, referral, service coordination, counseling, client, family, and community education, documentation, and

professional and ethical responsibilities. Though they are not specific to addiction counseling, CACREP addresses many of these practice dimensions in the CMHC standards, such as utilizing conceptualization and treatment planning skills (Section 5, C.1.c), techniques and interventions for prevention and treatment (Section 5, C.3.b), legal and ethical considerations (Section 5, C.2.1), using assessments appropriately (Section 5, C.1.e), treatment of crisis and trauma (Section 5, C.2.f) (CACREP, 2016). Thus, to extend the skills-related training inherent in the CACREP standards to matters of addiction treatment, addiction counseling curriculum must address the practical application of clinical counseling skills to addiction-related concerns.

Application of Clinical Counseling Skills to Addiction-Related Concerns

To address the necessary skills component of addiction counseling competency, the training requirements must move beyond the current knowledge-based standards to ensuring that students gain the necessary clinical skills to work effectively with clients who have addiction-related concerns. This acquisition of skills will bridge the gap between CITs' ability to use their theoretical orientation to conceptualize and select appropriate interventions in the treatment of mental health concerns and apply these skills to work with clients with comorbid SUD.

Textbooks on addiction counseling have recognized the need for developing proficient skills in the practical application of counseling theory, assessment, individual, group, and family counseling, and relapse prevention, among other skillsets (Capuzzi & Stauffer, 2019; Cavaiola et al., 2021; Lewis, 2014).

Group counseling has been recognized as the treatment modality of choice in many substance use treatment programs (Cavaiola et al., 2021). As a result, it is important for CITs to be competent in their group counseling skills and capable of developing group counseling curriculum that meets the addiction-related needs of their clients. Relapse prevention is an additional skillset that is particularly valuable in addiction treatment. Though CITs are trained in developing interventions and treatment plans consistent with their counseling theory, they must also receive instruction on incorporating relapse prevention into treatment planning to aid the client in achieving long-term abstinence. Potential relapse prevention strategies include the identification of external and internal triggers and thought stopping technique to cope with cravings to use substances as well as conducting a functional analysis of substance use urges, and a planned schedule of low-risk activities with members of their support system.

Furthermore, results of a recent qualitative study demonstrate the need to address the application of counseling theory to addiction treatment as it found that CIT's viewed addiction counseling as separate from mental health counseling and experienced uncertainty concerning the integration of the therapeutic process with the process of recovery from substance addiction (Flynn et al., unpublished). Lewis (2014) acknowledged the need for counselors to be trained on the application of counseling theory in treating addiction as it is essential to ensure the use of theoretically grounded approaches and structured treatment interventions in addiction treatment. As such, the ability to conceptualize and treat addiction-related concerns through one's theoretical orientation is a further skillset that must be developed by CITs.

In addition to addressing the application of basic counseling skills to the treatment of addiction-related concerns, CITs must also be trained in adapting their therapeutic approach to appropriately meet the needs of the client and be prepared to modify their interventions based on the client's stage of recovery. For instance, the treatment needs and ability of a client to engage in the therapeutic process in early stages of recovery, while experiencing withdrawal symptoms, will likely differ from a client who is actively using or one who has sustained sobriety for a prolonged period. Moreover, given the significant rates of trauma within populations seeking treatment for SUD (Cavaiola et al., 2021), CITs should be trained to modify interventions to address comorbid substance use and trauma-related treatment concerns. To modify approaches for dual treatment, Najavits (2002) proposes centralizing safety, which encompass safety from self-destructive behaviors that reenact trauma and dangerous substance use.

In treating dual diagnosis, trauma and substance use, CITs must also be proficient in the use of trauma-informed care practices. SAMHSA outlined six key principles to the trauma-informed approach to treatment which include safety, trustworthiness, transparency, peer support, collaboration and mutuality, empowerment, voice, and choice, cultural, historical and gender issues (2014). In addressing the principles of trauma-informed care, providing opportunities for CITs to practice applying basic counseling skills to the treatment of addiction-related concerns, and adapting interventions to the needs of their clients, CITs will possess the practical skills necessary to treat addiction-related concerns.

Attitudes

The SAMHSA counseling competencies place equal emphasis on the addiction-related attitudes as it does addiction-related knowledge of counselors (2017). This assessment of attitudes is considered a professional responsibility as they can impact an individual's ability to administer effective addiction treatment (SAMHSA, 2017). SAMHSA proposes that negative addiction-related attitudes should be analyzed within the framework of stigma, and potential consequences to the client should be considered (2017). Furthermore, the ACA Code of Ethics (2014) highlights the need for counselors to be aware of their own attitudes and seek training in areas in which they are at risk of imposing their values onto clients, or if their attitudes are discriminatory in nature (A.4.b. Personal Values). As such, the exploration of addiction-related attitudes should be considered a critical component of the training of future counselors.

Addiction-Related Attitudes and their Implications for Treatment

In an article on addiction counseling pedagogy, Blagen (2007) noted that the teaching of an addictions counseling course is different from teaching most other courses as students come into the class with distinctly strong-held opinions about the subject matter. Unfortunately, many of these opinions are based on incomplete or inaccurate information (Blagen, 2007). The dominant culture in the United States perpetuates stigma toward addiction via harmful stereotypes and narratives that depict individuals with substance use disorders as blameworthy and potentially dangerous (Warren et al., 2012). These social messages about addiction are then internalized, resulting in individually held biases and harmful attitudes toward persons with addictions. The level of addiction-related stigma a student is exposed to through media (print,

social, and broadcast), as well as familial, community, and cultural messages about addiction may then shape the attitudes students hold when entering an addiction counseling course.

A recent qualitative study of CIT attitudes toward addiction prior to taking an addiction counseling course revealed that students entered the course with varying attitudes, levels of empathy, and biases toward addiction that were informed by students' prior experiences (Flynn et al., 2022). Though no other studies have been published examining the addiction-related attitudes of CITs, a recent study of the attitudes of licensed counselors toward addiction demonstrated that counselors' attitudes toward clients with SUDs were mostly positive, yet less positive than attitudes toward clients with major depression (Cornfield & Hubley, 2020). These findings were also supported by literature examining addiction-related attitudes in the larger health care profession, thus demonstrating a pervasive addiction bias within health care professionals (Avery et al., 2019). A systematic review of health professionals' attitudes toward individuals with substance use disorders found that health professionals generally had negative attitudes toward patients with substance use disorders (Ford, 2011; Van Boekel et al., 2013).

Though studies have not confirmed the extent of these negative attitudes within the counseling profession, the presence of harmful attitudes and biases toward addiction may likely persist in counseling students. Moreover, the importance of addressing addiction-related attitudes has been repeatedly recognized in literature pertaining to addiction counseling pedagogy (Giordano et al., 2015; Warren et al., 2012). Exploration of such attitudes is considered a crucial component of the training of future addiction counselors (SAMHSA, 2017). However, there

remains a need for additional research in order to understand the prevalence of harmful addiction-related attitudes in counseling students.

Discussion

In this article the need for enhanced training standards that address the core areas of competency (knowledge, skills, and attitudes) necessary for CITs in CACREP-accredited CMHC programs to be prepared to treat addiction-related concerns are presented. Though CACREP standards determine what addiction-specific curriculum and training standards are required for counseling students, how the standards are addressed in addiction counseling curriculum are pedagogical decisions left to addiction counseling instructors. Thus, in anticipation of these potential but necessary adaptations to the CACREP CMHC standards, recommendations for the implementation of these training standards are provided. Five KSA standards of addiction counseling competency are proposed as minimum standards of training for inclusion in the next edition of CACREP CMHC-specific standards. The five proposed standards include three knowledge standards: (1) neurobiological mechanisms underlying addiction and addiction treatment, (2) the intersection of trauma and addiction, and (3) evolving epidemiological trends and legislation relevant to addiction counseling, one skill standard: (4) application of clinical counseling skills to addiction-related concerns, and one attitude standard: (5) addiction-related attitudes and their implications for treatment.

A key consideration in the implementation of CACREP addiction-related standards pertains to the infusion of required addiction training into existing curricula required of CMHC

programs such as within diagnoses or lifespan development courses or the creation of a stand-alone addiction counseling course (Chasek et al., 2015; Lee et al., 2013). Although changes may have occurred in recent years, the most recent analysis of the incorporation of CACREP addiction standards in accredited programs found that 53% of programs required a specific stand-alone addiction course, 8% did not have a stand-alone course but infused content into existing courses, and 39% required both a stand-alone addiction course and infused addiction counseling content into other courses (Chasek et al., 2015). In programs that do not offer stand-alone addiction courses, the addiction-related standards are addressed within the eight core content areas (professional orientation and ethical practice, social and cultural diversity, human growth and development, career development, counseling and helping relationships, group counseling and group work, assessment and testing, and research and program evaluation) (CACREP, 2016).

For instance, the two existing and three proposed knowledge-based standards that collectively provide a foundational understanding necessary for treating addiction could be incorporated in courses related to diagnosis, personal, and population-based concerns (human growth and development, social and cultural diversity, or assessment and testing). The skills-based standard, which concerns the use of basic counseling skills in addiction treatment, could be included in each skill-based course (counseling and helping relationships, group counseling and group work, and assessment and testing) wherein students would have opportunities to learn and practice the application of each skillset to addiction-related concerns.

In programs that offer stand-alone addiction courses, these standards would be used to structure addiction counseling curriculum, where the acquisition of addiction knowledge, skill, and attention to addiction-related attitudes would each be equally emphasized. As such, in addition to traditional didactic teaching methods, educators would devote time to practice addiction counseling skills in class and develop assignments that include practice elements. Examples of practice-based activities and assignments include the following: partnered practice of relapse prevention skills, facilitation of psychoeducation and process groups, development of treatment plans, and group curriculum. It is additionally important that the knowledge-based standards are presented in an interactive and engaging manner, rather than in a solely didactic format. It is particularly important that the presentation of the neurobiological mechanisms underlying addiction and addiction treatment be delivered in such a way that invites students to engage with the topic as the neuroscience of addiction as recognized by CIT's in qualitative study as the addiction-related subject in which they felt the least competent (Flynn et al., 2022).

Due to low student self-efficacy and confusion regarding the topic of neuroscience, the authors recommend organizing instruction of concepts and functions into simple and clear explanations with visuals that are broken down in such a way that students could use explanations provided by instructors for psychoeducation with future clients. The authors propose that when crafting handouts and diagrams the instructors ask themselves, "*How might I further simplify this material for my student's client to understand?*". To facilitate CIT's understanding of the intersection of trauma and addiction, the authors recommend using case

scenarios, video documentaries, guest speakers, or memoirs in addition to didactic lectures to provide real world examples of lived experiences of trauma and addiction. To involve students in the exploration of the evolving epidemiological trends and legislation relevant to addiction counseling, the authors recommend assigning weekly student-led discussions of articles wherein each student has the opportunity to locate a recent article pertaining to substances, legislation, or treatment trends of their choice. This method eases the educators' burden of staying abreast of each development in the field of addiction and engages the student's in their own learning.

To address the attitude requirement of competency and meet the proposed attitude standard, addiction counseling curriculum must include instruction on the pervasiveness of addiction bias and its potential harm to clients and provide learning opportunities to increase CITs' awareness of their own addiction-related attitudes. Addiction counseling teaching methods, particularly experiential learning methods, have received considerable attention in addiction counseling literature for their ability to address such attitudes (Dice et al., 2019, Harrawood et al., 2001; Warren et al., 2012). Experiential learning methods applied to addiction counseling may be particularly beneficial to students unfamiliar with addiction-related struggles that enable them to empathize with clients with addictions (Dice et al., 2019). Experiential learning is viewed by numerous members of the addiction counseling profession as necessary to challenge student's preconceived notions about addiction and overcome obstacles to empathy for clients with addictions (Giordano et al., 2015; Warren et al., 2012). An abstinence project is a popular experiential learning method utilized in addiction counseling courses in which students

are required to abstain from mood-altering substances, compulsive behaviors, or something they value, such as sugar, shopping, or social media, for a designated period (Dice et al., 2019).

Addiction counseling research has demonstrated the utility of abstinence assignments in increasing CIT self-awareness and empathy toward addiction (Giordano et al., 2015; Harrawood et al., 2011; Warren et al., 2012). It is suggested that addiction counseling educators incorporate both reflective and experiential learning activities into addiction counseling curricula, such as weekly journals, abstinence assignments, behavioral logs, personal addiction philosophy, and family-of-origin papers, role plays, and attendance of community recovery meetings (Lee et al., 2013; Warren et al., 2012). Though traditional didactic methods are considered valuable, information alone is often insufficient for students to recognize their emotional predispositions and internalized biases related to addiction (Warren et al., 2012).

Implications for Future Research

In this article, five potential KSA standards of addiction counseling competency as minimum standards of training for inclusion to the next edition of CACREP CMHC-specific standards are provided. Further investigation is needed to determine best practices in the implementation of each of the proposed standards. Additionally, it would be important to explore the perspectives of educators, students, and addiction counseling clinicians and supervisors to identify further KSAs that are deemed necessary for inclusion in the CACREP addiction-related standards. Lastly, due to the dearth of research on the addiction-related attitudes of CITs, studies identifying the attitudes of students in CACREP-accredited CMHC programs toward working

with clients with SUDs are needed. This investigation would be especially pertinent as it would inform how educators can best address the attitudes dimension of addiction counseling competency.

Conclusion

The landscape of addiction counseling and the training needs of CITs are continuously changing. In response to these changes, the standards that determine addiction counseling training for future counselors must be refined to ensure that the needs of the population are met. To meet this need and address the gap within the existing CACREP-addiction related standards, five standards addressing the knowledge, skills, and attitudes dimensions of addiction counseling competency are proposed for inclusion in the next edition of the CACREP CMHC-specific standards. As the prevalence of substance addiction increases and the demand for counselors trained to treat SUDs is projected to continue expanding, the standards of preparation for CITs should be continuously evaluated to ensure high-quality training practices.

References

- American Counseling Association (2014). *ACA Code of Ethics*. Alexandria, VA: Author.
- Avery, J., Knoepfmacher, D., Mauer, E., Kast, K. A., Greiner, M., Avery, J., & Penzner, J. B. (2019). Improvement in residents' attitudes toward individuals with substance use disorders following an online training module on stigma. *HSS Journal*, *15*(1):31-36.
Doi:10.1007/s11420-018-9643-3
- Back, S. E., Waldrop, A. E., & Brady, K. T. (2009) Treatment Challenges Associated with Comorbid Substance Use and Posttraumatic Stress Disorder: Clinicians' Perspectives, *American Journal on Addictions*, *18*:1, 15-20, DOI: [10.1080/10550490802545141](https://doi.org/10.1080/10550490802545141)
- Bates, M. E., Buckman, J. F., & Nguyen, T. T. (2013). A role for cognitive rehabilitation in increasing the effectiveness of treatment for alcohol use disorders. *Neuropsychology review*, *23*(1), 27–47. <https://doi.org/10.1007/s11065-013-9228-3>
- Blagen, M. (2007). A researched-based, experiential model for teaching a required addictive behaviors course to clinical counseling students. Retrieved September 18, 2022, from <http://counselingoutfitters.com/vistas/vistas07/Blagen.htm>
- Capuzzi, D., & Stauffer, M. D. (2019). *Foundations of Addictions Counseling*. Pearson.
- Cavaiola, A., Giordano, A., & Golubovic, N. (2021). *Addiction Counseling: A Practical Approach* (1st ed.). Springer Publishing Company.

- Cavarra, M., Falzone, A., Ramaekers, J. G., Kuypers, K. P. C., & Mento, C. (2022). Psychedelic-Assisted Psychotherapy—A Systematic Review of Associated Psychological Interventions. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.887255>
- Chasek, C. L., Dinsmore, J. A., Tillman, D. R., & Hof, D. D. (2015). Addiction counseling practice competencies and curriculum in CACREP-accredited programs. *Vistas Online*. http://www.counseling.org/docs/default-source/vistas/article_69af5a22f16116603abcacff0000bee5e7.pdf?sfvrsn=4
- Ciccarone D. (2019). The triple wave epidemic: Supply and demand drivers of the US opioid overdose crisis. *The International journal on drug policy, 71*, 183–188. <https://doi.org/10.1016/j.drugpo.2019.01.010>
- Clark, T.W. (2021) Determinism and Destigmatization: Mitigating Blame for Addiction. *Neuroethics* 14, 219–230. <https://doi.org/10.1007/s12152-020-09440-w>
- Cornfield, Z. A. D., & Hubley, A. M. (2020). Counselors' Attitudes Towards Working With Clients With Substance Use Disorders. *The Counseling Psychologist, 48*(5), 630–656. <https://doi.org/10.1177/0011000020915451>
- Council for Accreditation of Counseling and Related Educational Programs [CACREP] (2016). 2016 standards for accreditation. Alexandria, VA: Author.
- Council for Accreditation of Counseling and Related Educational Programs [CACREP] (2009). 2009 standards for accreditation.

Council of the Accreditation of Counseling and Related Educational Programs [CACREP]

(2001). CORE Standards. www.CACREP.org

Dass-Brailsford P, & Safilian C. M. (2017) Integrated Approaches to Treating Psychological

Trauma and Substance Abuse in Women: An Update. *Trauma Acute Care* 2: 41.

Deweerd, S. (2019) The natural history of an epidemic: Understanding how the opioid epidemic

arose in the United States could help to predict how it might spread to other countries.

(2019). *Nature Journal*, 573(10).

Dice, T. F., Carlisle, K., & Byrd, R. (2019). Students' Perspectives of Experiential Learning in

an Addictions Course. *Teaching and Supervision in Counseling*, 1(1).

<https://doi.org/10.7290/tsc010106>

DiVito, A. J., & Leger, R. F. (2020). Psychedelics as an emerging novel intervention in the

treatment of substance use disorder: a review. *Molecular biology reports*, 47(12), 9791–

9799. <https://doi.org/10.1007/s11033-020-06009-x>

Drug Overdose Deaths in the U.S. Top 100,000 Annually. (2021). Centers for Disease Control

and Prevention.

https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm

Ekhtiari, H., Rezapour, T., Aupperle, R. L., & Paulus, M. P. (2017). Neuroscience-informed

psychoeducation for addiction medicine: A neurocognitive perspective. *Progress in brain*

research, 235, 239–264. <https://doi.org/10.1016/bs.pbr.2017.08.013>

- Ekhtiari, H., Nasser, P., Yavari, F., Mokri, A., & Monterosso, J. (2016). Neuroscience of drug craving for addiction medicine: From circuits to therapies. *Progress in brain research*, 223, 115–141. <http://dx.doi.org/10.1016/bs.pbr.2015.10.002>
- Ford, R. (2011) Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs, *Contemporary Nurse*, 37:2, 241-252, DOI: 10.5172/conu.2011.37.2.241
- Flanagan, J. C., Korte, K. J., Killeen, T. K., & Back, S. E. (2016). Concurrent Treatment of Substance Use and PTSD. *Current psychiatry reports*, 18(8), 70. <https://doi.org/10.1007/s11920-016-0709-y>
- Flynn, L., Shaikh, A., & Dew, B. (2022) *Master's Level Clinical Mental Health Counseling Students' Existing Attitudes toward Addiction Prior to Taking an Addictions Counseling Course*. [unpublished].
- General, O. O. T. S., & Services, U. D. O. H. a. H. (2017). Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. *Createspace Independent Publishing Platform*.
- Giordano A. L., Stare B. G., & Clarke, P. B. (2015) Overcoming Obstacles to Empathy: The Use of Experiential Learning in Addictions Counseling Courses, *Journal of Creativity in Mental Health*, 10:1, 100-113, DOI: 10.1080/15401383.2014.947011
- Harrawood, L. K., McClure, C. C., & Nelson, J. (2011). Using Experiential Activities to Prepare Counselors-in-Training to Understand the Power of Cravings When Addressing Clients

With Addiction. *Journal of Creativity in Mental Health*, 6(2), 105–117.

<https://doi.org/10.1080/15401383.2011.579872>

Humphreys, K., & Bickel, W. K. (2018). Toward a Neuroscience of Long-term Recovery From Addiction. *JAMA Psychiatry*, 75(9), 875.

<https://doi.org/10.1001/jamapsychiatry.2018.0956>

Hutten, N., Mason, N. L., Dolder, P. C., & Kuypers, K. (2019). Motives and Side-Effects of Microdosing With Psychedelics Among Users. *The international journal of neuropsychopharmacology*, 22(7), 426–434. <https://doi.org/10.1093/ijnp/pyz029>

Khantzian E. J. (1985). The self-medication hypothesis of addictive disorders: focus on heroin and cocaine dependence. *The American journal of psychiatry*, 142(11), 1259–1264.

<https://doi.org/10.1176/ajp.142.11.1259>

Koob, G. F., & Volkow, N. D. (2016). Neurobiology of addiction: a neurocircuitry analysis. *The Lancet Psychiatry*, 3(8), 760–773. [https://doi.org/10.1016/s2215-0366\(16\)00104-8](https://doi.org/10.1016/s2215-0366(16)00104-8)

Land, L. (2018). The Knowledge, Skills, and Attitudes That Are Foundational to Prepare Counselors-In-Training to Provide Trauma-Informed Counseling. 10751332. Doctoral Dissertation, The University of North Carolina at Greensboro. ProQuest Dissertations Publishing

Lee, T. K., Craig, S. E., Fetherson, B. T. L., & Simpson, C. D. (2013). Addiction Competencies in the 2009 CACREP Clinical Mental Health Counseling Program Standards. *Journal of*

Addictions & Offender Counseling, 34(1), 2–15. <https://doi.org/10.1002/j.2161-1874.2013.00010.x>

Lewis, T. (2014). Substance Abuse and Addiction Treatment: Practical Application of Counseling Theory.

Livne, O., Shmulewitz, D., Walsh, C., & Hasin, D. S. (2022). Adolescent and adult time trends in US hallucinogen use, 2002–19: any use, and use of ecstasy, LSD and PCP. *Addiction*, 117(12), 3099–3109. <https://doi.org/10.1111/add.15987>

Marijuana and hallucinogen use among young adults reached all time-high in 2021. (2022)

National Institute on Drug Abuse. <https://nida.nih.gov/news-events/news-releases/2022/08/marijuana-and-hallucinogen-use-among-young-adults-reached-all-time-high-in-2021>

Maté, G. (2018). *In the Realm of Hungry Ghosts: Close Encounters with Addiction*. Random House.

Mattson C. L., Tanz, L. J., Quinn, K., Kariisa, M., Patel, P., Davis, N. L., (2021) Trends and Geographic Patterns in Drug and Synthetic Opioid Overdose Deaths — United States, 2013–2019. *MMWR Morb Mortal Wkly Rep* 2021;70:202–207.

DOI: <http://dx.doi.org/10.15585/mmwr.mm7006a4>

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

- Michaels, T. I., Stone, E., Singal, S., Novakovic, V., Barkin, R. L., & Barkin, S. J. (2021). Brain reward circuitry: The overlapping neurobiology of trauma and substance use disorders. *World Journal of Psychiatry*, 11(6), 222–231. <https://doi.org/10.5498/wjp.v11.i6.222>
- Miech, R., Leventhal, A., Johnston, L., O'Malley, P. M., Patrick, M. E., & Barrington-Trimis, J. (2021). Trends in Use and Perceptions of Nicotine Vaping Among US Youth From 2017 to 2020. *The Journal of the American Medical Association*, 175(2), 185–190. <https://doi.org/10.1001/jamapediatrics.2020.5667>
- Miller, G., Scarborough, J., Clark, C., Leonard, J. C., & Keziah, T. B. (2010). The Need for National Credentialing Standards for Addiction Counselors. *Journal of Addictions & Offender Counseling*, 30(2), 50–57. <https://doi.org/10.1002/j.2161-1874.2010.tb00056.x>
- Najavits, L. M. (2002). *Seeking safety: A treatment manual for PTSD and substance abuse*. Guilford Press.
- Paige, M., DeVore, J., Chang, C. C., & Whisenhunt, J. L. (2017). The Trauma-Competent Clinician: A Qualitative Model of Knowledge, Skills, and Attitudes Supporting Adlerian-Based Trauma Psychotherapy. *The Journal of Individual Psychology*, 73(1), 8–37. <https://doi.org/10.1353/jip.2017.0002>
- Ratts, M. J., Singh, A. A., Nassar-McMillan, S., Butler, S. K., & McCullough, J. R. (2016). Multicultural and Social Justice Counseling Competencies: Guidelines for the counseling profession. *Journal of Multicultural Counseling and Development*, 44(1), 28–48. <https://doi.org/10.1002/jmcd.12035>

Substance Abuse and Mental Health Services Administration. (2022). *Key substance use and mental health indicators in the United States: Results from the 2021 National Survey on Drug Use and Health* (HHS Publication No. PEP22-07-01-005, NSDUH Series H-57). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2021-nsduh-annual-national-report>

Substance Abuse and Mental Health Services Administration. (2021). Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from

Resko, S., Ellis, J., Early, T. J., Szechy, K. A., Rodriguez, B., & Agius, E. (2019). Understanding Public Attitudes Toward Cannabis Legalization: Qualitative Findings From a Statewide Survey. *Substance use & misuse*, 54(8), 1247–1259.

<https://doi.org/10.1080/10826084.2018.1543327>

Sindelar J. L. (2020). Regulating Vaping - Policies, Possibilities, and Perils. *The New England journal of medicine*, 382(20), e54. <https://doi.org/10.1056/NEJMp1917065>

Sperandio, K. R., Gutierrez, D., Hilert, A., & Fan, S. (2021). The Lived Experiences of Addiction Counselors After Marijuana Legalization. *Journal of Addictions & Offender Counseling*, 42(1), 35–49. <https://doi.org/10.1002/jaoc.12088>

- Squeglia, L. M., Jacobus, J., & Tapert, S. F. (2009). The influence of substance use on adolescent brain development. *Clinical EEG and neuroscience*, 40(1), 31–38.
<https://doi.org/10.1177/155005940904000110>
- Stewart, L. A., Chang, C. Y., Parker, L. K., & Grubbs, N. (2016). *Animal-assisted therapy in counseling competencies*. Alexandria, VA: American Counseling Association, Animal-Assisted Therapy in Mental Health Interest Network.
- Strathearn L., Mertens C. E., Mayes, L., Rutherford, H., Rajhans, P., Xu, G., Potenza, M. N., & Kim, S. (2019) Pathways Relating the Neurobiology of Attachment to Drug Addiction. *Front. Psychiatry* 10:737. doi:10.3389/fpsyt.2019.00737
- Substance Abuse, Behavioral Disorder, and Mental Health Counselors: Occupational Outlook Handbook: U.S. Bureau of Labor Statistics. (2022). <https://www.bls.gov/ooh/community-and-social-service/substance-abuse-behavioral-disorder-and-mental-health-counselors.htm>
- Substance Abuse and Mental Health Services Administration. (2017). Treatment Improvement Protocol (TIP) Series, No. 21. SAMHSA Publication No.15-4171. Rockville, MD: Substance Abuse and Mental Health Services Administration
- Substance Abuse and Mental Health Services Administration. (2021). Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse

and Mental Health Services Administration. Retrieved from

<https://www.samhsa.gov/data/>

Substance Abuse and Mental Health Services Administration. (2022). *Key substance use and mental health indicators in the United States: Results from the 2021 National Survey on Drug Use and Health* (HHS Publication No. PEP22-07-01-005, NSDUH Series H-57).

Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2021-nsduh-annual-national-report>

Substance Abuse and Mental Health Services Administration. (2014) *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. HHS Publication No. (SMA) 14-4884. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration (US), & Office of the Surgeon General (US). (2016). *Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health*. US Department of Health and Human Services.

Understanding the Opioid Overdose Epidemic. (2021) Center for Disease Control.

<https://www.cdc.gov/opioids/basics/epidemic.html>

U.S. Food and Drug Administration (2022). Products E-Cigarettes, Vapes, and other Electronic Nicotine Delivery Systems (ENDS). <https://www.fda.gov/tobacco-products/products-ingredients-components/e-cigarettes-vapes-and-other-electronic-nicotine-delivery-systems-ends>

Van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. *Drug and alcohol dependence*, 131(1-2), 23–35. <https://doi.org/10.1016/j.drugalcdep.2013.02.018>

Verdejo-Garcia, A., Lorenzetti, V., Manning, V., Piercy, H., Bruno, R., Hester, R., Pennington, D., Tolomeo, S., Arunogiri, S., Bates, M.E., Bowden-Jones, H., Campanella, S., Daughters, S.B., Kouimtsidis, C., Lubman, D.I., Meyerhoff, D.J., Ralph, A., Rezapour, T., Tavakoli, H., Zare-Bidoky, M., Zilverstand, A., Steele, D., Moeller, S.J., Paulus, M., Baldacchino, A. and Ekhtiari, H. (2019). A Roadmap for Integrating Neuroscience Into Addiction Treatment: A Consensus of the Neuroscience Interest Group of the International Society of Addiction Medicine. *Front. Psychiatry* 10:877. doi: 10.3389/fpsyt.2019.00877

Volkow, N. D., & Boyle, M. (2018). Neuroscience of Addiction: Relevance to Prevention and Treatment. *American Journal of Psychiatry*, 175(8), 729–740. <https://doi.org/10.1176/appi.ajp.2018.17101174>

Warren, J. A., Hof, K. R., McGriff, D., & Morris, L. B. (2012). Five experiential learning activities in addictions education. *Journal of Creativity in Mental Health*, 7(3), 273–288. <https://doi.org/10.1080/15401383.2012.710172>

Wiechelt, S. A., Lutz, W., Smyth N. J., & Syms, C. (2005) Integrating Research and Practice: A Collaborative Model for Addressing Trauma and Addiction, Stress, Trauma, and

Crisis, 8:2-3, 179-193, DOI: [10.1080/15434610590956930](https://doi.org/10.1080/15434610590956930)

Zeglin, R.J., Van Dam, D. & Hergenrather, K.C. (2018). An Introduction to Proposed Human Sexuality Counseling Competencies. *International Journal of Advanced Counselling* 40,

105–121. <https://doi.org/10.1007/s10447-017-9314-y>

2 PREDICTORS OF CLINICAL MENTAL HEALTH COUNSELING STUDENTS' ATTITUDES TOWARD WORKING WITH CLIENTS WITH SUBSTANCE USE DISORDERS

The treatment of persons with substance use disorders (SUDs) has become a critical focus of the counseling profession as over 46 million Americans aged 12 and older met the criteria for a SUD in 2021 and drug overdose deaths reached record highs in the same year (Substance Abuse and Mental Health Services Administration [SAMHSA], 2022; Centers for Disease Control and Prevention [CDC], 2022). Furthermore, with nearly 15.6% of individuals in the United States age 12 and older meeting the criteria for a SUD but only 1.5% of the population obtaining substance use treatment in the past year, it is evident that the treatment of SUDs requires urgent attention (SAMHSA, 2022). Substance use-related stigma, or the fear that one will be viewed negatively due to his/her addiction, remains one of the most prominent barriers preventing persons with addiction from seeking and receiving proper treatment (SAMSHA, 2020; van Boekel et al., 2013). The 2020 National Survey on Drug Use and Health identified stigma as the third greatest barrier to substance use treatment, following lack of affordability and difficulty locating desired treatment programs (SAMHSA, 2020).

Substance use-related addictions are stigmatized more than many other mental health conditions (Barry et al., 2014; Room, 2008). There is growing recognition in the mental health literature that stigma toward persons with SUDs is a problem that interferes with mental health care and must be addressed (Chasek et al., 2012; Cornfield & Hubley, 2020). Furthermore, stigmatizing attitudes toward individuals with SUDs held by healthcare providers impact the accessibility and effectiveness of treatment (Luoma et al., 2014). Harmful addiction-related

attitudes held by providers can damage client self-esteem in the counseling relationship and negatively influence treatment outcomes, thereby significantly impacting the well-being of those seeking SUD treatment and those trying to access the support and services they need (Keyes et al., 2010; Livingston et al., 2011; Van Boekel et al., 2013).

The addiction counseling competencies, established by Substance Abuse and Mental Health Services Administration (SAMHSA) in 2017, highlight the need to encourage counselors' self-awareness of their attitudes toward clients with SUDs, including the recognition of potential bias in the client's treatment process and subsequent harm to development of the therapeutic relationship (2017). Self-awareness of addiction-related attitudes is recognized by SAMHSA as a necessary component of addiction counseling curricula and condition of counseling proficiency (SAMHSA, 2017). The counseling literature has recognized the need to understand students' beliefs, attitudes, and potential bias toward addiction due to the negative perceptions and misinformation surrounding this subject (Chasek, et al., 2012; National Academies of Sciences, Engineering, and Medicine et al., 2016). As negative attitudes may calcify over time and become resistant to change, the attitudes of counselors-in-training (CITs) must be addressed early in counselor training (Crapanzano et al., 2014). As masters-level counseling programs are tasked with preparing CITs to treat clients with SUDs, addictions-related counseling coursework is an opportune time to address potentially harmful addiction attitudes.

Despite the importance of addiction-related attitudes among mental health providers, there is a dearth of published research about counselor attitudes toward clients with SUDs, and even less research addressing the attitudes of counselors-in-training (CITs). Awareness of CIT's addiction-related attitudes is imperative for counselor educators to address and challenge

stereotypical and moralistic beliefs that may influence their future treatment of clients with SUDs (Chasek et al., 2012). There is a particular need to address the absence of research on the attitudes of CITs enrolled in programs that are accredited by The Council for the Accreditation of Counseling and Related Educational Programs (CACREP), as CACREP accredits more than half (929) of the approximately 1,500 masters-level counseling programs in the United States, and determines the minimum standards for addiction-related training within those programs (CACREP, 2023; Counseling Degrees by State, 2021). CACREP accredits 9 masters-level counseling specializations, of which Clinical Mental Health Counseling (CMHC) and addiction counseling are two. With 23 times more programs than the addiction counseling specialization, the CMHC specialization graduates the largest number of CITs with the potential to treat clients with SUDs (CACREP, 2023). Thus, the addiction-related attitudes of CITs enrolled in CACREP-accredited CMHC programs are a gap in research that must be addressed. Due to the potential for negative addiction-related attitudes to harm clients, the counseling relationship, and treatment accessibility and outcomes (Keyes et al., 2010; Livingston et al., 2011; Van Boekel et al., 2013), it is pivotal that attitudes such as students' interest in treating clients with SUD and how favorably they view addiction counseling work are examined in CITs in CACREP-accredited CMHC program and potential predictors of these attitudes are identified.

Moralization of Addiction

Though substance use-related stigma and attitudes both shape perceptions of persons with SUDs and the treatment of SUDs, these concepts are not synonymous. Substance addiction stigma within the United States is perpetuated on multiple levels through the social stigma that occurs within a large group, such as the general public, whose members collectively endorse

stereotypes about persons with SUDs, as well as through structural stigma that restricts the rights and opportunities of persons with SUDs through rules, policies, and procedures (National Academies of Sciences, Engineering, and Medicine et al., 2016). These social messages about substance-related addictions can then be internalized, resulting in individually held biases and harmful attitudes toward persons with SUDs (National Academies of Sciences, Engineering, and Medicine et al., 2016). Substance addiction, a profoundly moralized concept (Frank & Nagel, 2017), has historically been attributed to the moral failing of an individual due to poor willpower and self-control. This notion is referred to as the moral model of addiction (Henden et al., 2013).

The Social Cognitive Theory of Moral Thought and Action (1991) developed by Albert Bandura as an extension of his more general social cognitive theory, proposes that morality-based beliefs, such as beliefs regarding the nature of substance addiction, are developed and maintained by a complex interplay of personal and environmental factors. Within this conceptual framework, personal factors (e.g., an individual's values and beliefs about themselves and others) and environmental factors (e.g., cultural norms, social institutions, and societal values) all operate as interacting influences that shape moral thought and behavior (Bandura, 1991). When applied to the moralized issue of substance addiction, addiction-related attitudes are shaped through observational learning and modeling, as individuals may learn attitudes and behaviors from authority figures, peers, social narratives, and media representations that reinforce or alter their perspectives.

Using the Social Cognitive Theory of Moral Thought and Action as a framework for understanding CIT's attitudes toward clients with SUDs, the substance-related norms and beliefs a student is exposed to through media, familial, community, or cultural messages about addiction

may determine the attitudes students hold when entering an addiction counseling course. In addition to shaping counseling students' attitudes in the classroom, a recent qualitative study by Murphy (2022) on recruitment and retention of rural addiction counselors demonstrated that addiction stigma might also influence counselors' desire to work with populations with SUDs. A program director interviewed by Murphy perceived social stigma toward individuals with SUDs as a force deterring potential counselors from the field of addiction counseling (2022). A review of the professional literature yielded no quantitative studies examining the relationship between stigma and counselor attitudes toward treating clients with SUDs to substantiate these findings. The United States Bureau of Labor Statistics (2022) projected the demand for counselors trained to work with people who have SUDs and co-occurring mental health disorders to grow 22 percent from 2021 to 2031. For this reason, it is critical that researchers examine CIT's attitudes toward treating clients with SUDs and identify potential deterrents to students' desire to work with populations with SUDs, such as the endorsement of moralistic beliefs that perpetuate addiction stigma.

Addiction as a Choice

The moral model of addiction has two distinguishing elements: (1) it views substance use as a choice, and (2), it takes a critical moral stance opposing this choice (Pickard, 2017). This model has also been referred to as the choice model wherein addiction is considered a disorder of choice (Heyman, 2009). The perception of substance addiction as a choice made by individuals with weak willpower has been a long-standing myth in U.S. culture, contributing to the stigma and blame of persons with SUDs (Kerr, 1996). Kelly et al. identified beliefs regarding cause and controllability as two primary factors that influence stigma (2010). Individual and social stigma

decreases if people believe that the individual with the addiction did not cause their problem (Zwick et al., 2020). People with SUDs are generally considered more responsible for their conditions than those with other mental health conditions (Lloyd, 2013; Schomerus et al., 2011). The perception that addiction is a choice invokes blame and shame for persons with substance addiction (Frank & Nagel, 2017), and this social narrative may influence the addiction-related attitudes of counseling students. A study of students enrolled in rehabilitation counseling-related courses found that the more addiction-related coursework students completed, the less likely they were to endorse the moral model of addiction (Davis et al., 2010).

In contextualizing these findings within the framework of the Social Cognitive Theory of Moral Thought and Action (Bandura, 1991), students' endorsement of the moral model can be influenced by their beliefs regarding the moral basis of addiction (i.e., personal factor) and their exposure to addiction-related coursework (i.e., external factor). Though the field of counseling has moved away from the moral model of addiction in favor of alternative models of addiction, such as the biopsychosocial and medical models, the stigmatized perception of addiction as a choice persists (Zwick et al., 2020). In a study of 374 healthcare workers, van Boekel et al. (2014) found that psychologists in the study (n= 89) who attribute responsibility for substance addiction to the person themselves held more negative addiction-related attitudes (van Boekel et al., 2013). Similarly, a study of 60 doctors and nurses found that those who viewed injection drug use to be within the control of their clients displayed more negative attitudes to their clients (Brener et al., 2010). Thus, due to the potential connection between beliefs that addiction is a choice (choice beliefs) and negative attitudes toward clients with addiction, it is also important to investigate counseling students' endorsement of choice beliefs.

Addiction Attitudes

As previously noted, there is a dearth of published research regarding the addiction-related attitudes of counselors and CITs. A single study conducted recently in Canada by Cornfield and Hubley (2020) assessed the attitudes of 263 practicing counselors toward clients with SUDs. This study found that counselors endorsed significantly fewer positive attitudes toward clients with SUDs when compared to clients with major depression (MDD) (Cornfield & Hubley, 2020). However, it is important to note that, although they referred to their sample as counselors, it comprised of counseling psychologists, social workers, and clinical psychologists. There is a solid body of research that has explored healthcare providers' attitudes toward persons with SUDs (Ford, 2011; Van Boekel et al., 2013; Van Boekel et al., 2014). However, no studies have been added to this body of work in nearly ten years.

Although social workers, psychologists, psychiatrists, and medical professionals were included in studies of SUD stigma within healthcare providers (Ford, 2011; McCarthy et al., 2022; Van Boekel et al., 2013; Van Boekel et al., 2014), counselors have been largely excluded from this body of research. Previous investigations of healthcare provider attitudes toward persons with SUDs identified a common perception that clients with SUDs were more difficult to work with, potentially violent, irresponsible, and manipulative (Ford, 2011; Van Boekel et al., 2013). Such perceptions have caused some healthcare professionals to feel powerless, resentful, disappointed, and frustrated in their work with clients with SUDs (Van Boekel et al., 2013). Negative attitudes held by providers may significantly harm the well-being of clients seeking treatment for SUD by damaging client self-esteem, impairing the counseling relationship, and

destructively influencing treatment outcomes (Keyes et al., 2010; Livingston et al., 2011; Van Boekel et al., 2013).

Though the addiction-related attitudes of graduate and undergraduate social work students have received some research attention (Senreich & Straussner, 2013a & 2013b), the attitudes of master's-level CITs remain under-studied. Though a clear trend in the addiction-related attitudes of mental health counseling students has yet to be identified, examinations of social work students' perception of substance-related addiction found that attitudes were influenced by students' educational exposure to SUDs (through internship or field placement in a substance use treatment center), personal exposure to individuals with SUDs, and racial and ethnic demographic factors (Senreich & Straussner, 2013a & 2013b). In studies by Senreich and Straussner (2013a & 2013b), social work students self-identifying as Hispanic, Black, and Asian endorsed less positive addiction-related attitudes as compared to White and multiracial students. A review of the literature revealed only one quantitative study of masters-level counseling students' attitudes toward substance addiction. This study of 64 graduate students enrolled in a midwestern university found that possessing non-stereotypical views of substance use and holding accurate addiction-related knowledge predicted treatment optimism, or the belief that addiction treatment will be effective (Chasek et al., 2010). These findings are important as treatment optimism positively influences treatment outcomes for persons with addictions (Miller & Rollnick, 2002). In addition to the study by Chasek et al., only one qualitative study conducted by Flynn et al. (2022) has assessed the attitudes of masters-level mental health counseling students toward addiction and clients with addictions. Counseling students' perceptions of addiction and self-perceived empathy toward persons with addiction before taking an addiction

counseling course were influenced by students' prior experiences with and exposure to substance addiction (Flynn et al., 2022).

Exposure

When considered within the framework of the Social Cognitive Theory of Moral Thought and Action (Bandura, 1991), exposure to persons with substance addiction is an environmental factor that provides opportunities to challenge stereotypes and misinformation via interaction with diverse perspectives and experiences. Bandura proposed that providing opportunities for positive interactions between individuals from different groups allows for the humanization of the othered group, whereas the separation of people into ingroups and outgroups fosters dehumanization (1991). Exposure to substance addiction, including encounters with family members, friends, partners, and acquaintances with SUDs, as well as their recovery, has been found to positively influence healthcare providers' attitudes toward clients with SUDs (Cornfield & Hubley, 2020; Davis et al., 2010; McCarthy et al., 2022; Mundon et al., 2015; Stein, 2003). The relationship between exposure to SUDs and attitudes toward clients with SUDs has been observed in social workers and social work students (McCarthy et al., 2022; Senreich & Straussner, 2013a & 2013b, Stein, 2003), psychology trainees (Mundon et al., 2015), undergraduate and graduate rehabilitation counseling trainees (Davis et al., 2010; Koch et al., 2006) and mental health professional in Canada (Cornfield & Hubley, 2020).

Cornfield and Hubley (2020) found that Canadian counselors, social workers, and psychologists who had been exposed to SUDs through a family member, friend, or coworker had more positive attitudes toward clients with SUDs. Findings from Davis et al. (2010) and Koch et al. (2006) demonstrated that rehabilitation counseling trainees who reported exposure to SUDs

through family, friends, or self were less likely to utilize a stigmatizing model of addiction than trainees who had not been exposed to SUDs. Results from Senreich and Straussner (2013a & 2013b) substantiate these findings in a population of social work students, suggesting that exposure to addiction through family and friends, or a student's personal history of addiction, have a significant impact on social work student attitudes toward substance-related addiction.

Furthermore, exposure to substance addiction may be high among students of the mental health profession (Flynn et al., 2022; Ponder & Slate, 2010; Senreich & Straussner, 2013a & 2013b). Senreich and Straussner found that a high prevalence of students reported close personal exposure to substance addiction, with 58% in one study (2013b) and over 60% of students in the other study (2013a). Additionally, according to a recent qualitative study of mental health counseling students' attitudes toward addiction (Flynn et al., 2022), the rates of substance-related addiction exposure may also be concerningly high among mental health counseling students. Of the 12 participants in this study, ten reported having family members who currently or have previously struggled with substance addiction (Flynn et al., 2022). Furthermore, in a study of familial addiction patterns in 129 counseling and psychology students, Ponder and Slate (2010) found high rates of exposure to familial alcohol and substance use disorder, particularly in female-identifying participants, with 78% of White participants and 86% of Hispanic participants reporting exposure to addiction in one's family. The findings demonstrated slightly lower rates of familial exposure to substance addiction in male-identifying participants, with 57% of White participants and 63.6% of Hispanic participants reporting familial exposure (Ponder & Slate, 2010). Exposure to substance addiction is high among students in the mental health field (Ponder & Slate, 2010; Senreich & Straussner, 2013a & 2013b), and the research literature suggests that

exposure rates may also be high among mental health counseling students (Flynn et al., 2022).

Given that exposure to persons with addiction have been demonstrated to impact attitudes toward substance addiction in non-counseling samples of mental health professionals, the relationship between exposure and mental health counseling student attitudes toward treating SUDs remains unclear (Cornfield & Hubley, 2020; Senreich & Straussner, 2013a & 2013b).

Current Study

Treating individuals with SUDs has become a critical focus of the mental health counseling profession as rates of dependency and overdose-related deaths have increased considerably in recent years (Centers for Disease Control and Prevention, 2021; SAMHSA, 2022). The United States Bureau of Labor Statistics reported a growing need for counselors trained to treat addiction (2022). Addiction literature has indicated that the negative attitudes and stigma have served as both a barrier for clients seeking treatment (SAMSHA, 2020) and a potential deterrent from counselors entering substance-treatment settings (Murphy, 2022). It is, therefore, critical to explore counseling students' attitudes toward working with populations with SUDs and factors that may influence attitudes. Researchers indicate that exposure to persons with substance addictions reduces negative attitudes toward persons with SUDs (Cornfield & Hubley, 2020; Davis et al., 2010; McCarthy et al., 2022; Mundon et al., 2015; Stein, 2003), while choice beliefs that suggest substance addiction is within an individual's control may increase negative attitudes (van Boekel et al., 2013). Thus, it is integral to explore further the relationship between counseling students' exposure to SUDs, choice beliefs, and attitudes toward treating clients with SUDs. There has yet to be a study that focuses specifically on the attitudes of CMHC students toward clients with SUDs and potential predictors of these attitudes. The present study is an

exploratory analysis designed to address this gap in the research. In this study, CACREP-accredited CMHC student attitudes toward working with clients with SUDs will be measured. An array of variables have been identified in the literature as potentially contributing to attitudes toward persons with SUDs, including exposure to SUDs (Cornfield & Hubley, 2020; Davis et al., 2010; McCarthy et al., 2022; Mundon et al., 2015; Stein, 2003), choice beliefs (Brener et al., 2010; van Boekel et al., 2014), and demographic variables including race/ethnicity (Senreich & Straussner, 2013a & 2013b), age (Cornfield & Hubley, 2020; May et al., 2002), professional experience and training (Cornfield & Hubley, 2020; Davis et al., 2010; Howard & Holmshaw, 2010; May et al., 2002), and personal history of substance use (Davis et al., 2010; May et al., 2002). This study will assess the following research questions:

RQ1: How do CACREP-accredited CMHC students score on measures of addiction attitudes?

RQ2: How much exposure do CACREP-accredited CMHC students have to substance addiction in their personal lives?

RQ3: What is the relationship between student demographics and their attitudes toward working with clients with SUDs?

RQ4: To what extent does exposure to substance addiction and choice beliefs explain variation in CMHC students' attitudes toward working with clients with SUDs?

Method

Participants

Participants for this study were CITs currently enrolled in a CACREP-accredited CMHC program within the United States. Eligibility criteria included being over the age of 18 years and currently enrolled in a CACREP-accredited CMHC program. The G*Power 3.1.5 (Faul et al., 2009; Faul et. al., 2007) program was used for power analysis and utilized to determine the minimum required sample size. In order to reach the acceptable statistical power for the multiple regression analysis, seeking a medium effect size ($f^2 = .15$) with alpha levels of .05 and power set to .80, a minimum sample size of 55 was to be obtained in the multiple regression analyses with two predictors variables: (a) exposure to substance addiction (Contact Scale) and (b) choice beliefs (Drug Related Locus of Control - DR-LOC). Two multiple regressions were conducted to assess the two dimensions of addiction attitudes, Work Desire and Work Satisfaction (*Drug and Drug Problems Questionnaire – DDPPQ*). To accommodate for two multiple regression analyses of the two dependent variables and to ensure the sample includes enough variation necessary for multiple analyses of variance (RQ3), the sample size was increased to 200. The final sample size of 210 exceeded this minimum required.

A total of 232 participants completed the surveys, whereas the results from 22 participants were excluded from the final analysis due to failed attention checks, incomplete data, and removal of outliers. Thus, the final sample size included 210 CMHC students. An analysis of this sample's socio-demographics found that a majority (over 85%, $n = 179$) identified as women, heterosexual (70%, $n = 147$), and between the ages of 18 and 34 years (75%, $n = 158$). While over half of the sample ($n = 115$) self-identified as White or Caucasian,

nearly 40% of all participants ($n = 82$) describe one's religious tradition as Christian, Catholic, or Protestant. Over 86% of the sample ($n = 182$) identified either as first-year or second year CMHC students, and nearly 1 in 3 participants ($n = 77$) reported having completed a graduate-level addictions counseling course. With respect to one's personal histories of addiction, 21.4% ($n = 45$) of this sample of CMHC students reported past issues with substance use, and 4.3% ($n = 9$) reported uncertainty if they had experienced previous issues with substance use. Furthermore, 5.7% ($n = 12$) of participants reported receiving a SUD diagnosis. Table 1 comprises the demographic breakdown of the full sample.

Procedures

A university institutional review board located in an urban Southeastern area reviewed study procedures. After approval, participants were recruited from universities across the country using nonrandom convenience and snowball sampling. Recruitment materials were distributed to counselor educators within the researchers' professional networks, as well as via social media and professional listservs. Participants completed all measures via an online survey tool (i.e., Qualtrics), with an average completion time of 11 minutes. Three attention checks were included in the online surveys to ensure the integrity of the data (Kung et al., 2018). Participants missing more than one attention check were removed from the sample but were still compensated for their time completing the survey. After completion of all surveys, participants were compensated with a \$5 Amazon e-gift- card. The American Counseling Association's (ACA, 2014) Code of Ethics guided the ethical execution of this study. Primary ethical risks involved issues of

informed consent and confidentiality. Although participation in this study was voluntary, all data retrieved from participants was stored on password-protected computers, only to be viewed by members of the research team. To protect confidentiality, no participant names were collected or included on study records.

Measures

Demographics

Age, gender, race/ethnicity, SES, region/geographical location, sexual orientation, ability status, year in counseling program, prior personal experience with addiction, completion of an addictions counseling course, and completion of any addictions-related training were collected from each participant via a general demographic form that included 20 items.

Exposure to Substance Addiction

To assess exposure to persons with SUDs, an adapted version of the Contact Survey (Barr & Bracchitta, 2014) was utilized (See Appendix A). The 12-item survey designed by Barr and Bracchitta (2014) asked dichotomous yes or no questions to determine participants' contact with individuals with disabilities. The four items are repeated to assess contact with relatives, friends, schoolmates, or other individuals with various disability types (physical, developmental, and behavioral). If participants indicate yes that they did have contact with an individual, they then answer a follow-up question that asks how much contact they had with that individual on an 8-point scale ranging from never (0) to constant (7). Total contact scores were calculated by averaging the frequencies of the interaction with each individual, resulting in three contact

scores, one for each type of disability contact. The Cronbach's alpha measurement of internal consistency reliability for the study by Barr and Bracchitta (2014) was acceptable ($\alpha = .72$).

This survey was adapted for the current study to assess contact with individuals with substance addiction. The score was calculated by averaging the frequencies of the interaction with each individual, resulting in one total score for exposure to SUDs. Total scores ranged from 0 to 28, where higher scores indicated elevated levels of exposure to persons with substance addiction. In prior studies that measured exposure to substance addiction, validated exposure measures were not utilized (Cornfield & Hubley, 2020; Ponder & Slate, 2010; Senreich & Straussner, 2013a & 2013b). The alpha coefficient for the adapted measure was low ($\alpha = .59$) for the current study. Although this alpha level is poor, Nunnally (1967) reported that values as low as .5 are appropriate for exploratory research.

Choice Beliefs

To assess participants' endorsement of the belief that substance addiction is a choice, this study utilized the *Drug-Related Locus of Control Questionnaire* (DR-LOC; Ersche et al., 2012). This measure was developed to assess choice and control beliefs with regard to drug use behaviors. The measure assesses participant's perception that substance use is within or outside of a person's locus of control. By extension, internalized locus of control indicates that engagement in substance use is a choice. The scale consists of 16-item pairs presented in a forced-choice format based on the conceptual model of internal versus external control of reinforcement by Rotter (1966). Individual items are scored as either 0 (*internal LOC*) or 1 (*external LOC*).

Factor analysis revealed two 8-item factors: (a) addiction recovery subscale ($\alpha = .48$) and (b) drug-taking decisions subscale ($\alpha = .60$). Reliability of the scale in its entirety estimated by composite Cronbach's alpha was 0.62 in samples of both drug-dependent and non-dependent individuals. The DR-LOC demonstrated good discriminative value in differentiating the choice beliefs held by individuals with varying experiences with drug-related addiction. The Drug-taking Decisions Subscale was used in the analysis of this study as it most accurately assessed participants endorsement of choice beliefs. Scale items can be found in Appendix B. An initial reliability analysis for this 8-item subscale yielded an unacceptable Cronbach's alpha level of .48. Upon analyzing the reliability and correlation of the individual items, item 10 was removed from the scale as it was negatively correlated with the other items (-.40), resulting in a 7-item subscale with Cronbach's alpha of .57. The removal of this item to improve the overall alpha score is supported by Field (2018) as a method of improving scale reliability. The individual items were scored as either 0 or 1, where lower scores indicated greater internalized locus of control, and thus greater endorsement of beliefs that engagement in substance use is a choice.

Addiction-Related Attitudes

The participants' attitudes toward working with substance-using clients were measured using a version of the Drug and Drug Problems Perceptions Questionnaire (DDPPQ; Watson et al., 2003) adapted by Senreich and Straussner (2013a, 2013b). The original 22-item scale designed to measure attitudes toward clients using drugs was modified by Senreich and Straussner (2013a, 2013b) to become a 16-item scale that measures attitudes toward clients using alcohol and drugs. The adapted questions refer to alcohol and drugs collectively as substances. Scale items can be found in Appendix C. For each item, participants were asked about their level

of agreement from 1 (strongly agree) to 7 (strongly disagree) with statements regarding working with substance-using clients.

The DDPPQ includes a Total Attitude Scale, as well as five subscales: Role Adequacy, Role Legitimacy, Role Support, Work Satisfaction, and Work Desire. The Role Adequacy subscale consists of five items that measure participants' perceptions of their knowledge and skills in working with substance-using clients.. The Role Legitimacy subscale consists of two items that measure how much participants feel they have the right to ask clients about their substance use and related information. The Role Support subscale consists of a single item that measures how much students believe they can find someone who could help them formulate the best approach to working with a substance-using client if the need arose. The Work Satisfaction subscale consists of six items that measure how favorably participants view working with substance users. The Work Desire subscale consists of a single item that measures how much students want to work with substance-using clients. The Work Satisfaction and Work Desire subscales of the DDPPQ were used to assess two dimensions of attitudes toward working with clients with SUD: how favorably the students viewed working with clients who use substances (DDPPQ_WD) and to what degree they wanted to work with clients with SUD (DDPPQ-WD). For each of the DDPPQ subscales, higher scores indicated less favorable attitudes.

Work Satisfaction. This subscale contained six items and measured how favorably the students viewed working with clients who use substances. When adapted by Senreich and Straussner (2013a, 2013b) the subscale had a Cronbach's alpha value of .77 in both studies. Analysis of internal consistency reliability for the present study yielded an alpha value of .75 for the 6-item subscale.

Work Desire. This single item subscale inquired how much the students wanted to work with substance users. This item serves as a direct indicator of counseling students' desire to work specifically with clients with substance addictions.

Data Analysis

Data was analyzed using IBM SPSS statistics version 27. Data was first examined using a missing variable analysis. Prior to running analyses, assumptions of independence, multicollinearity, normality, homoscedasticity, independence of residuals, linearity, and outliers were addressed. Independence of observations was met, as there was no significant relationship ($< .30$ correlation coefficient) among the variable observations. Collinearity statistics (*Tolerance* = .968, *VIF* = 1.033) were all within accepted limits therefore the assumption of no multicollinearity was met (Pedhazur, 1997). To examine univariate normality, a visual inspection of histograms and Q-Q plots was conducted. Visual inspection of the histogram revealed a relatively bell-shaped curve and a fairly straight line on the Q-Q plots for all variables, which suggested a normal distribution. An assessment of the univariate normality of each scale was also performed. However, this analysis failed to satisfy the assumption. That is, the two inferential tests of normality were not satisfied, the Kolmogorov-Smirnov and Shapiro Wilk statistics (see Table 2).

To address non-normality of the data, utilizing performing transformations such as employing a logarithmic, square root, or inverse transformations to reduce the influence of non-normality is suggested (Field, 2018; Osborne, 2013; Tabachnick & Fidell, 2019). Logarithmic transformation was the first method used to transform the variables. An assumption of logarithmic transformation requires variables greater than zero. Thus, the value of one was added

to Contact Survey variable. Histograms, Q-Q plots, and the Kolmogorov-Smirnov and Shapiro Wilk statistics were reassessed using the transformed variables. Table 3 displays the significant Kolmogorov-Smirnov and Shapiro Wilk results of the logarithmic transformation.

This process was repeated for square root transformation (Table 4) and inverse transformation (Table 5). The significant Kolmogorov-Smirnov and Shapiro Wilk results confirm the non-normality of the data. Further, after comparing the results of the non-transformed variables to the transformed variables, there was no improvement in skewness or kurtosis. Thus, to maintain the fidelity of score interpretation, the original non-transformed variables were retained (Kline, 2011; Osborne, 2013).

Since the data was non-normal and visual inspection of bivariate scatterplots displayed violation of homoscedasticity, the data is presumed to be heteroscedastic. Although heteroscedasticity weakens analyses, Tabachnick and Fidell (2019) proposed that it does not invalidate analyses. The Kruskal-Wallis H test used in RQ3 is a nonparametric alternative to one-way analysis of variance (ANOVA) and was used in this study due to the abnormal distribution of the data. A more conservative significance value ($p = .01$) was used to protect against possible Type II errors (Field, 2018). To protect against the possibility of Type I error, each analysis of RQ3 was also conducted with one-way analysis of variance (ANOVA), followed by Levene's test of homogeneity of variances, and Welch's ANOVA if results yielded unequal variances (Field, 2018). All reported significant results of the Kruskal-Wallis H tests were deemed significant through the one-way ANOVAs with subsequent tests. The Durbin-Watson statistic was used to assess the independence of residuals, with the value of both models being 1.946 and 1.601, which suggests that this assumption was met (Field, 2018). To assess the

linearity between variables, bivariate scatterplots were assessed and a linear relationship between variables were confirmed (Pallant, 2016). Lastly, a combination of a scatterplot and Mahalanobis' Distance was utilized to identify any possible outliers. As outliers affect the mean, standard deviation, and correlation coefficients, they must be explained, deleted, or statistically accommodated (Tabachnick & Fidell, 2019). As previously mentioned, three case were removed based on the scatter plot and a significant Mahalanobis's distance value ($p < .001$). Outlier removal was conducted prior to data transformations.

To address the first research question, measures of central tendency and standard deviations were calculated for the measures of addiction attitudes (Work Desire and Work Satisfaction). To answer the second question, measures of central tendency and standard deviations were calculated for the addiction exposure measure (Contact Survey). To answer the third research question, a series of Kruskal-Wallis H-Tests, analysis of variance, and post hoc Tukey HSD and Games-Howell tests were used. To answer the fourth research question, two multiple regression analyses were used to estimate the relationship between the two independent variables and each of the dependent variables. The forced entry method of entering variables into the multiple regression model was used as the analyses in the present study are exploratory, and thus lack prior studies to inform alternative methods of entry, such as hierarchical regression and stepwise regression (Field, 2018).

Results

Scores of the full-scale Contact Survey ranged between 0 and 28 with a mean of 7.49 ($SD = 6.23$). DRLOC-DTD scores ranged from 1 to 7 with a $M = 6.18$ ($SD = 1.72$). Scores of the

DDPPQ-WS ranged between 6 and 28 with a $M = 12.32$ ($SD = 4.68$), and the scores of DDPPQ-WD subscale ranged from 1 to 7, with a $M = 3.53$ ($SD = 1.74$).

RQ1

To answer question RQ1, measures of central tendency were calculated for DDPPQ-WS and DDPPQ-WD. Measures of central tendency for DDPPQ-WS yielded a mean of 12.32, a median of 12, and a mode of 13. DDPPQ-WS has a minimum score of 6 and a maximum score of 28, thus the measures of central tendency revealed that participants held relatively neutral work satisfaction attitudes. DDPPQ-WD generated a mean of 3.53, a median of 3, and a mode of 2. DDPPQ-WD has a minimum score of 1 and a maximum score of 7, thus similar to DDPPQ-WS scores, measures of central tendency revealed that participants held relatively neutral work desire attitudes.

RQ2

To answer RQ2, measures of central tendency were calculated for the Contact Survey, yielding a mean of 7.49, a median of 6.5, and a mode of 0. As Contact Survey scores range from 0-28, the measures of central tendency revealed that on average participants had moderate exposure to persons with substance addiction. The mean provides an estimation of the average exposure via number of contacted individuals and frequency of contact with those individuals. Thus, the measures of central tendency could indicate that participants had high interaction with one person, or moderate interaction with several.

RQ3

To answer RQ3, a series of Kruskal-Wallis H-Tests were completed to determine mean differences in scores of Contact Survey, DDPPQ-WS, DDPPQ-WD, and DRLOC-DTD

across each element of the demographics survey. The differences in the study variables (i.e., higher contact scores and lower scores across DDPPQ measures) were found between demographic variables including past SU, past SU diagnosis, completion of addiction-specific training and completion of an addiction counseling course. No differences were found in the DRLOC-DTD measure across demographic variables. Differences in study variables were identified by Kruskal-Wallis H-Tests and confirmed one-way ANOVA as a result of completing an addiction counseling course (DDPPQ-WS: $F(1, 207) = 7.854, p = .006, \eta^2 = .037$; DDPPQ-WD: $F(1, 207) = 15.735, p < .001, \eta^2 = .071$; Contact Survey: $F(1, 208) = 8.3, p = .004, \eta^2 = .038$ and addiction-specific training (DDPPQ-WS: $F(1, 207) = 12.21, p < .001, \eta^2 = .056$; DDPPQ-WD: $F(1, 207) = 32.16, p < .001, \eta^2 = .134$; Contact Survey: $F(1, 208) = 17.75, p < .001, \eta^2 = .079$). Post-hoc comparison using the Tukey HSD test indicated that the participants who completed an addiction counseling course had significantly lower DDPPQ-WS scores ($M = 11.16, SD = 4.29$) and DDPPQ-WD scores ($M = 2.92, SD = 1.69$), and higher Contact Survey scores ($M = 9.09, SD = 6.04$) than participants who had not completed a course (DDPPQ-WS: $M = 13.01, SD = 4.78$ DDPPQ-WD: $M = 3.88, SD = 1.68$, Contact Survey: $M = 6.56, SD = 6.17$). These findings indicated that participants who completed an addiction counseling course held more favorable views toward working with clients with SUDs, had greater desire to work with clients with SUDs, and had more contact with persons with addiction. Similarly, Tukey HSD test indicated that the participants who completed an addiction-specific training had significantly lower DDPPQ-WS scores ($M = 10.43, SD = 4.27$) and DDPPQ-WD scores ($M = 2.43, SD = 1.43$), and higher Contact Survey scores ($M = 10.49, SD = 6.92$) than participants who had not completed a course (DDPPQ-WS: $M = 12.97, SD = 4.66$, DDPPQ-WD: $M = 3.90, SD = 1.68$,

Contact Survey: $M = 6.48$, $SD = 5.65$). These findings indicated that participants who completed addiction-specific training held more favorable views toward working with clients with SUDs, had greater desire to work with clients with SUDs, and had more contact with persons with addiction

Furthermore, Kruskal-Wallis H-Tests identified differences in DDPPQ-WS and Contact Survey scores as a result of past issues with substance use. One-way ANOVA confirmed significant differences in DDPPQ-WS scores $F(2, 206) = 5.089$, $p = .006$, $\eta^2 = .047$. The test of homogeneity of variance yielded a significant result for the Contact Survey. As the assumption of homogeneity of variance was not met for this data, the obtained *Welch's* adjusted F ratio was used for the Contact Survey $F(2, 22.98) = 12.95$, $p < .001$, $\eta^2 = .136$. Post-hoc comparisons using the Tukey HSD test indicated that the participants who reported past issues with substance use had significantly lower DDPPQ-WS scores ($M = 10.40$, $SD = 3.74$) than participants who reported no prior issues with substance use ($M = 12.83$, $SD = 4.76$). Post-hoc comparison using Games-Howell test for unequal variances indicated that the participants who reported past issues with substance use had significantly higher Contact Survey scores than participants who reported no prior issues with substances use, $p = 0.024$, 95% C.I. = [2.92, 8.25]. No significant differences were found between participants who reported that they were unsure if they had experienced issues with substance use in the past and those who indicated yes or no.

Similarly, differences in Contact Survey, DDPPQ-WS and DDPPQ-WD scores were identified by Kruskal-Wallis H-Tests in participants who endorsed past SUD diagnoses. One-way ANOVA confirmed significant differences in Contact Survey scores $F(1, 208) = 32.31$, $p < .001$. Due to violation of the assumption of homogeneity of variances among the DDPPQ

variables, the Welch test was used to confirm significant differences within the DDPPQ-WS, $F(1, 21.09) = 69.73, p < .001, \eta^2 = .067$. Likewise, the DDPPQ-WD presented significant differences in scores based on past SUD diagnosis, $F(1, 21.12) = 87.67, p < .001, \eta^2 = .083$. Tukey HSD test indicated that the participants who had received a SUD diagnosis in the past had significantly higher Contact Survey scores ($M = 16.75, SD = 6.79$) than participants had not received a SUD diagnosis (Contact Survey: $M = 6.93, SD = 5.75$). Games-Howell test for unequal variances indicated that the participants who received past SUD diagnoses had significantly lower DDPPQ-WS scores ($p = .009, 95\% \text{ C.I.} = [6.25, 8.58]$) and DDPPQ-WD scores ($p = .001, 95\% \text{ C.I.} = [1.07, 1.93]$) than participants who had not received SUD diagnoses.

Race/ethnicity was an additional demographic variable identified by Kruskal-Wallis H-Tests as a factor that influenced study variables, specifically the Contact Survey. As the assumption of homogeneity of variance was not met, *Welch's* adjusted F ratio was used to confirm the significant influence of race and ethnicity on Contact Survey scores $F(5, 16.79) = 6.88, p < .001$. Post-hoc comparison using Games-Howell test for unequal variances indicated that the participants who identified as White/Caucasian had significantly higher Contact Survey scores than participants who identified as Asian/South Asian/Pacific Islander ($p = .003, 95\% \text{ C.I.} = [-9.50, -1.28]$) and participants who identified as Black/African American ($p < .001, 95\% \text{ C.I.} = [-9.64, -1.89]$). Race/ethnicity did not significantly influence any other study variables (DRLOC-DTD: $p = .12$, DDPPQ-WS: $p = .35$, DDPPQ-WD: $p = .08$)

Nonparametric tests revealed that no other significant differences ($p = .01$) were found among the study variables (Contact Survey, DRLOC-DTD, DDPPQ-WS, DDPPQ-WD) as a

result of differences in age, gender, religion/spirituality, disability status, socioeconomic status, sexual orientation, year in program, region of the country, or geographic location.

RQ4

To answer RQ4, two multiple linear regressions (MLR) were conducted to examine if DRLOC-DTD and Contact Survey scores predicted DDPPQ-WS (MLR 1) and DDPPQ-WD (MLR 2). Correlation analyses were conducted to examine relationships between the scores of predictors (Contact Survey and DRLOC-DTD) and the scores of the dependent variables (DDPPQ-WS and DDPPQ-WD). Bivariate correlations demonstrated statistically significant relationship among all four variables of this study (see table 6).

In examining the correlations among the variables in MRL 1 (DRLOC-DTD, Contact Survey, and DDPPQ-WS), Pearson correlation coefficient showed statistically significant and negative relationship between exposure to addiction (Contact Survey) and work satisfaction (DDPPQ-WS), $r(209) = -.336, p = .001$. As the level of exposure to addiction increases, the work satisfaction score decreases. The table shows another statistically significant and negative relationship between choice beliefs (DRLOC-DTD) and work satisfaction (DDPPQ-WS), $r(209) = -.177, p = .005$. suggesting that as the choice belief score increases, the work satisfaction score decreases.

MRL 1 was conducted to test the predictiveness of exposure to addiction (Contact Survey) and choice beliefs (DRLOC-DTD) on work satisfaction (DDPPQ-WS). The final model was significant, indicating the predictor variables accounted for roughly 12.7% ($R^2 = .127$) of the variance in work satisfaction scores, $F(1, 207) = 15.01, p < .001$. The model had a small

effect size ($f^2 = .381$; Cohen, 1988). Exposure to addiction emerged as the only significant predictor in the model (see Tables 7 and 8 for model summary and regression coefficients), such that respondents with greater exposure to addiction had more favorable perceptions of working with clients with substance addictions.

For MLR 2, the Pearson correlation coefficients among the variables (DRLOC-DTD, Contact Survey, and DDPPQ-WD), showed statistically significant and negative relationship between exposure to addiction (Contact Survey) and work desire (DDPPQ-WD), $r(209) = -.374$, $p = .001$. On the other hand, the table shows a statistically non-significant and positive relationship between choice beliefs (DRLOC-DTD) and work desire (DDPPQ-WD) $r(209) = -.106$, $p = .064$. An MRL was conducted on these three variables to test the predictiveness of exposure to addiction (Contact Survey) and choice beliefs (DRLOC-DTD) on work desire (DDPPQ-WD). The final model was significant, indicating the predictor variables accounted for roughly 14.1% ($R^2 = .141$) of the variance in work satisfaction scores, $F(1, 207) = 33.67$, $p < .001$. The model had a small effect size ($f^2 = .405$; Cohen, 1988). Exposure to addiction again emerged as the only significant predictor in the model, as such that respondents with greater exposure to addiction had greater desire to work with clients with substance addictions.

Discussion

The purpose of this study was to initiate an exploratory analysis of the attitudes master's-level clinical mental health counseling CITs hold toward working with clients with SUDs. These findings support previous research results regarding addiction-related attitudes and addiction exposure among healthcare professionals, and present novel evidence specific to the counseling profession. As the first quantitative study to examine CMHC students' attitudes

toward working with clients with SUD, the findings illuminate key characteristics about CITs that could shape the preparation of future counselors' engagement with this population.

One of the most significant contributions of the study were the results regarding the prevalence of exposure to addiction among counseling students. The results of this study substantiate findings from previous research which proposed that exposure to substance addiction may be high among students enrolled in counselor education programs (Flynn et al., 2022; Ponder & Slate, 2010; Senreich & Straussner, 2013a & 2013b). Present findings confirm prior research claims that presume high prevalence of addiction exposure within mental health students and surpass prior prevalence rates (Senreich & Straussner, 2013a & 2013b), as 83.33% (N=175) of participants in this study endorsed personal exposure to substance addiction via parent, relative, friend, or acquaintance. The high prevalence rate is consistent with the addiction exposure reported by CMHC students within a smaller sample from a qualitative study, which found that 10 of 12 participants (83.33%) reported exposure to addiction via family members (Flynn et al., 2022).

The prevalence of addiction exposure among CITs necessitates attention from educators of addiction counseling courses and supervisors who oversee students' treatment of clients with SUDs due to the potential for the client to trigger complex emotions in the counselor. As exposure to addiction via family members and loved ones may be linked to experiences of interpersonal trauma (Lander et al., 2013), some students may harbor lingering and unprocessed pain related to the topic of addiction. As a result, it is important for counselor educators to be aware that some students may encounter difficulty while working through course content that is reminiscent of their experiences. Educators should be proactive in providing lists of supportive

resources, encouraging self-care practices among their students, and monitoring of their students who may be in need for referral to psychological support services.

Additionally, due to the high prevalence rate of exposure to addiction in the sample, addiction-related countertransference among counseling students is a plausible concern. Counseling students echoed this concern in a recent qualitative study, wherein participants with personal connections to addiction identified their potential need to regulate countertransference when working with clients with SUDs as a major concern (Flynn et al., 2022).

Countertransference toward clients with SUDs may manifest in negative perceptions of and reactions to their clients, as well as heightened fear and judgement toward clients' relapse. Alternatively, there is also potential for countertransference to arise toward clients who are the children, siblings, relatives, partners, parents, or friends of persons with SUDs as CITs may connect with their experiences. This countertransference may lead counselors to over-identify with a client, resulting in poor boundaries and unequal treatment of clients with SUDs in family and couples counseling. Therefore, it is important that educators and supervisors be intentional to monitor and address countertransference. Supervisors should be active in initiating discussions with their supervisees early on in supervision to determine if they need additional support to work through instances of countertransference or if they require time for processing and personal development prior to working with clients with SUDs.

In addition to high rates of exposure to addiction via close relationships, results from this study also revealed considerable personal experience with substance use issues among participants. Though the prevalence of past SUD diagnosis was relatively low among participants at 5.7%, the prevalence of past issues with substance use were higher than

anticipated with 21.4% of the participants reporting past issues with substance use and 4.3% reporting uncertainty if they had experiences issues with substance use. With approximately one quarter of CITs endorsing potential prior substance use concerns, addiction counseling educators must consider how these student characteristics may influence student engagement and classroom dynamics. For instance, though it is important for educators to invite classroom discussions that explore harmful addiction-related attitudes and stereotypes, educators must be mindful that several of their students may identify as a person who has struggled with addiction and feel stigmatized by addiction-related narratives and stereotypes.

Furthermore, it is also important for educators to consider how students' past experiences with substance use issues may influence addiction counseling course assignments. An abstinence assignment that requires students to sustain from using mood alerting substances and an assignment requiring attendance of an Alcoholics Anonymous or Narcotics Anonymous meeting are frequently used in addiction counseling courses (Golubovic et al., 2021). For students without personal histories of addiction, these assignments pose opportunities for students to engage in new experiences and reflect on how these assignments shaped their perception of addiction. Educators should consider what they hope students with histories of substance use issues may gain from these learning experiences, or if they would like to adapt the assignment for such students. Educators may create an alternative set of reflection questions following each assignment for students with substance use histories to allow for those students to engage with the experience in a different way.

Additionally, results from this study yielded compelling findings relating to the influence of addiction exposure on addiction-related attitudes. The results of this study revealed that

greater exposure to addiction predicted more favorable views of working with clients with SUD and greater desire to work with clients with SUDs. These findings were demonstrated through exposure to addiction via parents, relative, friend, and acquaintance, and through participants' self-reported history with substance addiction. Present findings confirm the results of previous research that exposure to addiction positively influences healthcare providers' attitudes toward clients with SUDs as demonstrated among social workers and social work students (McCarthy et al., 2022; Senreich & Straussner, 2013a & 2013b, Stein, 2003), psychology trainees (Mundon et al., 2015), undergraduate and graduate rehabilitation counseling trainees (Davis et al., 2010; Koch et al., 2006) and counselors and other health professionals in Canada (Cornfield & Hubble, 2020). The results of this study are the first to substantiate these findings in the counseling profession within the United States and among CITs.

The Social Cognitive Theory of Moral Thought and Action provides a potential explanation for the positive influence of addiction exposure on attitudes, suggesting that exposure humanizes subgroups by providing opportunities to challenge stereotypes and misinformation via interaction with the subgroup (Bandura, 1991). These findings hold valuable implications for the field of counselor education, as creating opportunities for addiction-related exposure within course curriculum can be used to facilitate positive attitudes toward clients with SUD among CITs. Potential experiential opportunities for addiction exposure that can be imbedded within addiction counseling courses may include invited guest speakers at various stages of recovery, volunteer and service opportunities within the community, and assignments that require attendance of 12-step meetings such as alcoholics anonymous and narcotics. In congruence findings from addiction counseling literature, the authors recommend that such

activities be paired with opportunities for processing and self-reflection, including small group discussions, self-reflection assignments, and student-led demonstrations (Golubovic et al., 2021).

Lastly, another notable finding of this study was the influence of addiction counseling course and training completion on CIT's addiction-related attitudes. The completion of an addiction counseling course and addiction-related training each predicted more favorable views of working with clients with SUD, greater desire to work with clients with SUDs, and greater exposure to addiction. Potential explanations for the relationship between course and training completion and exposure could be that students who had prior exposure to addiction sought out academic addiction-related opportunities, or through training and coursework students increased their exposure to persons with addiction. The present findings pertaining to the relationship between addiction related coursework and training completion and addiction attitudes confirm the results of prior research.

The results of this study substantiate findings from (Senreich & Straussner, 2013a & 2013b) who found that course and training completion was a predictor of positive addiction-related attitudes in social work students. When considered within the framework of the Social Cognitive Theory of Moral Thought and Action, potential explanations for the positive relationship between addiction education and addiction attitudes could be the observational learning and modeling occurring within the classroom or training environment, or the exposure to new information and perspectives that broadens an individual's beliefs and values (Bandura, 1991). The predictive relationship between addiction course completion and positive addiction attitudes demonstrates the necessity for CACREP to require stand-alone addiction courses to be offered across all accredited CMHC programs. Although changes may have occurred in recent

years, the most recent analysis of the incorporation of CACREP addiction standards in accredited programs found that 53% of programs required a specific stand-alone addiction course, 8% did not have a stand-alone course but infused content into existing courses, and 39% required both a stand-alone addiction course and infused addiction counseling content into other courses (Chasek et al., 2015). As addiction counseling course completion was predictive of both more favorable views of working with clients with SUD and greater desire to work with clients with SUD, addiction counseling courses should be included as a minimum training requirement across CACREP CMHC programs.

Limitations and Future Directions

When interpreting the results of this study, there are several limitations that must be considered. Data used in this study failed to meet the homogeneity of variance assumption and the assumption of normal distribution. Although the researcher took precautionary steps when analyzing the data, the results of the study still could be biased, and reliability may be compromised. Particularly, the likelihood of Type I error may be increased, and the significance of the results may be overestimated. As a result, these findings must be interpreted with this violation in mind. Additionally, the measures and instrumentation were a central limitation to this study. Analysis of internal consistency reliability yielded poor alpha scores for two of the measures: Contact Survey ($\alpha = .59$) and DRLOC-DTD ($\alpha = .57$), indicating that the measures may not be exactly representative of the intended constructs. Due to unacceptable initial internal consistency reliability ($\alpha = .48$), one question was removed from the DRLOC-DTD prior to analysis. This may serve as a limitation to the study as it subtracts from the fidelity of the original measure. All data collection instruments relied upon participants' self-report. A

fundamental limitation in the usage of self-report instruments is social desirability and false participant responses. Subsequently, the results of this study may have been influenced by false self-report and social desirability.

Considering the limitations presented in the current study as a result of instrumentation, it is particularly important for future research to construct and validate measures of addiction exposure and choice beliefs with high internal consistency reliability. The results of the present study did not find the belief that addiction is a choice to be predictive of addiction-related attitudes. However, analyses of addiction attitudes found choice beliefs to be negatively correlated $r(209) = -.177$, $p = .005$ and near significant at the .5 level ($p = .069$) for one dimension of attitudes (work satisfaction). Thus, future investigation using validated measures of choice beliefs is needed to further assess the effects of choice beliefs on addiction attitudes.

As a portion of the study's results contradicted previous findings regarding the influence of gender and racial/ethnic identity on exposure to addiction, it is imperative for this topic to be explored further. Prior research found gender differences in exposure to addiction and racial and ethnic differences in addiction-related attitudes that were not substantiated by the findings of this study (Ponder & Slate, 2010). Results of the present study revealed that White identifying participants reported the highest rates of exposure to addiction across all racial/ethnic demographic groups. These findings were not corroborated by other research studies. Thus, additional investigation is needed to further explore the influence of gender and racial/ethnic identity on exposure to addiction. Lastly, as the current study focused specifically on substance addiction, and thus did not assess CIT's exposure and attitudes to behavioral addictions, future investigation on behavioral addictions attitudes and exposure is recommended.

Conclusion

Addiction-related attitudes held by providers may considerably influence the therapeutic relationship, treatment outcomes, and future treatment-seeking behaviors for clients with SUDs. The results of this study revealed that CITs in CACREP-accredited CMHC programs have considerably high exposure to persons with addiction, and they hold generally neutral attitudes toward working with clients with SUDs. Exposure to addiction and completion of addiction-related trainings and coursework were found to facilitate more favorable perceptions of working with clients with SUDs and a greater desire to treat this population. The findings from this investigation provide support for previous studies regarding addiction attitudes and addiction exposure as well as contradicted past results on the influence of gender and racial/ethnic identities. As this study was the first quantitative exploration of CMHC students' attitudes toward working with clients with SUD, this topic must be explored further as it could have implications for the training of CITs to work with clients with SUDs. By gaining a better understanding of CIT's attitudes toward working with clients with SUDs, curriculum and training standards that target harmful attitudes and misconceptions related to substance addiction can be developed.

References

- American Counseling Association (2014). ACA Code of Ethics. Retrieved from <https://www.counseling.org/resources/aca-code-of-ethics.pdf>
- Avery, J., Knoepfmacher, D., Mauer, E., Kast, K. A., Greiner, M., Avery, J., & Penzner, J. B. (2019). Improvement in Residents' Attitudes Toward Individuals with Substance Use Disorders Following an Online Training Module on Stigma. *HSS journal : the musculoskeletal journal of Hospital for Special Surgery*, *15*(1), 31–36. <https://doi.org/10.1007/s11420-018-9643-3>
- Ayu, A. P., van der Ven, M., Suryani, E., Puspawati, N., Joewana, S., Rukmini, E., de Jong, C., & Schellekens, A. (2022). Improving medical students' attitude toward patients with substance use problems through addiction medicine education. *Substance abuse*, *43*(1), 47–55. <https://doi.org/10.1080/08897077.2020.173251>
- Balasanova, A. A., MacArthur, K. R., & DeLizza, A. A. (2020). "From All Walks of Life": Attending an Alcoholics Anonymous Meeting to Reduce Addiction Stigma Among Medical Students. *Academic psychiatry: the journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, *44*(6), 714–720. <https://doi.org/10.1007/s40596-020-01302-0>
- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development, Vol. 1. Theory; Vol. 2. Research; Vol. 3. Application* (pp. 45–103). Lawrence Erlbaum Associates, Inc.
- Barr, J. J., & Bracchitta, K. (2015). Attitudes toward individuals with disabilities: The effects of contact with different disability types. *Current Psychology: A Journal for Diverse*

Perspectives on Diverse Psychological Issues, 34(2), 223–238.

<https://doi.org/10.1007/s12144-014-9253-2>

Blagen, M. (2007). A researched-based, experiential model for teaching a required addictive behaviors course to clinical counseling students. Retrieved from

<http://counselingoutfitters.com/vistas/vistas07/Blagen.htm>

Brener, L., Von Hippel, W., Kippax, S., & Preacher, K. J. (2010). The role of physician and nurse attitudes in the health care of injecting drug users. *Substance use & misuse*, 45(7-8), 1007–1018. <https://doi.org/10.3109/10826081003659543>

Bride, B. E., Smith Hatcher, S., & Humble, M. N. (2009). Trauma Training, Trauma Practices, and Secondary Traumatic Stress Among Substance Abuse Counselors. *Traumatology*, 15(2), 96–105. <https://doi.org/10.1177/1534765609336362>

Cavaiola, A., Giordano, A., & Golubovic, N. (2021). *Addiction Counseling: A Practical Approach* (1st ed.). Springer Publishing Company.

Cernasev, A., Kline, K. M., Barenie, R. E., Hohmeier, K. C., Stewart, S., & Forrest-Bank, S. S. (2022). Healthcare Professional Students' Perspectives on Substance Use Disorders and Stigma: A Qualitative Study. *International journal of environmental research and public health*, 19(5), 2776. <https://doi.org/10.3390/ijerph19052776>

Chasek, C. L., Dinsmore, J. A., Tillman, D. R., & Hof, D. D. (2015). Addiction counseling practice competencies and curriculum in CACREP-accredited programs. *Vistas Online*. http://www.counseling.org/docs/default-source/vistas/article_69af5a22f16116603abcacff0000bee5e7.pdf?sfvrsn=4

- Chasek, C.L., Jorgensen, M. and Maxson, T. (2012), Assessing Counseling Students' Attitudes Regarding Substance Abuse and Treatment. *Journal of Addictions & Offender Counseling*, 33: 107-114. <https://doi.org/10.1002/j.2161-1874.2012.00008.x>
- Corrigan, P. W., & Watson, A. C. (2002). Understanding the impact of stigma on people with mental illness. *World psychiatry: official journal of the World Psychiatric Association* (WPA), 1(1), 16–20.
- Cornfield, Z. A. D., & Hubley, A. M. (2020b, May 6). Counselors' Attitudes Towards Working With Clients With Substance Use Disorders. *The Counseling Psychologist*, 48(5), 630–656. <https://doi.org/10.1177/0011000020915451>
- Council for Accreditation of Counseling and Related Educational Programs [CACREP]. (2023). Directory. from <https://www.cacrep.org/directory/>
- Crapanzano, K. A., Hammarlund, R., Ahmad, B., Hunsinger, N., & Kullar, R. (2018). The association between perceived stigma and substance use disorder treatment outcomes: a review. *Substance abuse and rehabilitation*, 10, 1–12.
<https://doi.org/10.2147/SAR.S183252>
- Davis, S. J., Sneed, Z. B., & Koch, D. S. (2010). Counselor trainee attitudes toward alcohol and other drug abuse. *Rehabilitation Education*, 24(1/2), 35–42. <https://doi.org/10.1891/088970110805029859>
- Drug Overdose Deaths in the U.S. Top 100,000 Annually. (2021). Centers for Disease Control and Prevention.
https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm
- Ersche, K. D., Turton, A. J., Croudace, T., & Stochl, J. (2012). Who Do You Think Is in Control in Addiction? A Pilot Study on Drug-related Locus of Control Beliefs. *Addictive*

disorders & their treatment, 11(4), 173–223.

<https://doi.org/10.1097/ADT.0b013e31823da151>

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: tests for correlation and regression analyses. *Behavior research methods*, 41(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>

<https://doi.org/10.3758/BRM.41.4.1149>

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods*, 39(2), 175–191. <https://doi.org/10.3758/bf03193146>

Feingold, D., Ratson-Blumenfeld, B., & Lev-Ran, S. (2019). Negative attitudes towards addiction among mental health students in Israel. *Israel Journal of Psychiatry and Related Sciences*, 56(2), 33–41.

Field. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed., North American edition.). SAGE Publications.

Ford, R. (2011) Interpersonal challenges as a constraint on care: The experience of nurses' care of patients who use illicit drugs, *Contemporary Nurse*, 37(2), 241-252. DOI: 10.5172/conu.2011.37.2.241

Flynn, L., Shaikh, A., & Dew, B. (2022) *Master's Level Clinical Mental Health Counseling Students' Existing Attitudes toward Addiction Prior to Taking an Addictions Counseling Course*. [unpublished].

Frank, L. E., & Nagel, S. K. (2017). Addiction and Moralization: the Role of the Underlying Model of Addiction. *Neuroethics*, 10(1), 129–139. <https://doi.org/10.1007/s12152-017-9307-x>

- Golubovic, N., Dew, B., Rumsey, A., Murphy, T., Dispenza, F., Tabet, S., & Lebensohn-Chialvo, F. (2021). Pedagogical Practices for Teaching Addiction Counseling Courses in CACREP-Accredited Programs. *Journal of Addictions & Offender Counseling*, 42(1), 3–18. <https://doi.org/10.1002/jaoc.12086>
- Harwood, H. J., Kowalski, J., & Ameen, A. (2004). The need for substance abuse training among mental health professionals. *Administration and policy in mental health*, 32(2), 189–205. <https://doi.org/10.1023/b:apih.0000042746.79349.64>
- Heyman, G. M. (2009). *Addiction: A disorder of choice*. Harvard University Press.
- Henden, E., Melberg, H. O., & Røgeberg, O. J. (2013). Addiction: choice or compulsion?. *Frontiers in psychiatry*, 4, 77. <https://doi.org/10.3389/fpsy.2013.00077>
- Hewstone, M., & Swart, H. (2011). Fifty-odd years of inter-group contact: from hypothesis to integrated theory. *The British journal of social psychology*, 50(3), 374–386. <https://doi.org/10.1111/j.2044-8309.2011.02047.x>
- Howard, V., & Holmshaw, J. (2010). Inpatient staff perceptions in providing care to individuals with co-occurring mental health problems and illicit substance use. *Journal of psychiatric and mental health nursing*, 17(10), 862–872. <https://doi.org/10.1111/j.1365-2850.2010.01620.x>
- Kelly, J. F., Dow, S. J., & Westerhoff, C. (2010). Does our choice of substance related terms influence perceptions of treatment need? An empirical investigation with two commonly used terms. *Journal of Drug Issues*, 40(4), 805-818.
- Kerr, J.S. (1996), Two myths of addiction: the addictive personality and the issue of free choice. *Hum. Psychopharmacol. Clin. Exp.*, 11: S9-S13. [https://doi.org/10.1002/\(SICI\)1099-1077\(199602\)11:1+<S9::AID-HUP747>3.0.CO;2-6](https://doi.org/10.1002/(SICI)1099-1077(199602)11:1+<S9::AID-HUP747>3.0.CO;2-6)

- Keyes, K. M., Hatzenbuehler, M. L., McLaughlin, K. A., Link, B., Olfson, M., Grant, B. F., & Hasin, D. (2010). Stigma and treatment for alcohol disorders in the United States. *American journal of epidemiology*, *172*(12), 1364–1372.
<https://doi.org/10.1093/aje/kwq304>
- Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). New York, NY: Guilford Press.
- Koch, D. S., Sneed, Z., Davis, S. J., & Benschoff, J. J. (2006). A pilot study of the relationship between counselor trainees' characteristics and attitudes toward substance abuse. *Journal of Teaching in the Addictions*, *5*(2), 97–111. https://doi.org/10.1300/J188v05n02_07
- Koyi, M. B., Nelliott, A., MacKinnon, D., Rastegar, D. A., Fingerhood, M., Alvanzo, A., Feldman, L., & Neufeld, K. J. (2018). Change in Medical Student Attitudes Toward Patients with Substance Use Disorders After Course Exposure. *Academic Psychiatry: the Journal of the American Association of Directors of Psychiatric Residency Training and the Association for Academic Psychiatry*, *42*(2), 283–287.
<https://doi.org/10.1007/s40596-017-0702-8>
- Kung, F.Y.H., Kwok, N. & Brown, D.J. (2018), Are Attention Check Questions a Threat to Scale Validity?. *Applied Psychology*, *67*: 264-283. <https://doi.org/10.1111/apps.12108>
- Lander, L., Howsare, J., & Byrne, M. (2013). The impact of substance use disorders on families and children: from theory to practice. *Social work in public health*, *28*(3-4), 194–205.
<https://doi.org/10.1080/19371918.2013.759005>
- Lee, T. K. (2014). Addiction education and training for counselors: A qualitative study of five experts. *Journal of Addictions & Offender Counseling*, *35*: 67–80. <http://doi.org/d6t5>

- Lee, T. K., Craig, S. E., Fetherson, B. T. L., & Simpson, C. D. (2013). Addiction Competencies in the 2009 CACREP Clinical Mental Health Counseling Program Standards. *Journal of Addictions & Offender Counseling*, 34(1), 2–15. <https://doi.org/10.1002/j.2161-1874.2013.00010.x>
- Lloyd, C. (2013) The stigmatization of problem drug users: A narrative literature review, *Drugs: Education, Prevention and Policy*, 20(2), 85-95. DOI: 10.3109/09687637.2012.743506
- Livingston, J. D., Milne, T., Fang, M. L., & Amari, E. (2012). The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. *Addiction Abingdon, England*, 107(1), 39–50. <https://doi.org/10.1111/j.1360-0443.2011.03601.x>
- Luoma, J. B., Kulesza, M., Hayes, S. C., Kohlenberg, B., & Larimer, M. (2014). Stigma predicts residential treatment length for substance use disorder. *The American journal of drug and alcohol abuse*, 40(3), 206–212. <https://doi.org/10.3109/00952990.2014.901337>
- Lytle, A., Apriceno, M., & Kowal, M. (2020). How intergroup contact and demographic factors influence attitudes toward and perceptions of addiction. *Addiction Research & Theory*, 28(5), 425–432. <https://doi.org/10.1080/16066359.2019.1680647>
- May, J. A., Warltier, D. C., & Pagel, P. S. (2002). Attitudes of anesthesiologists about addiction and its treatment: a survey of Illinois and Wisconsin members of the American Society of Anesthesiologists. *Journal of clinical anesthesia*, 14(4), 284–289. [https://doi.org/10.1016/s0952-8180\(02\)00359-8](https://doi.org/10.1016/s0952-8180(02)00359-8)
- McCarthy, K. M., Mariscal S. E., & Wahler E. A. (2022) MSW Student Concerns about Addressing Clients’ Substance Use and Misuse, *Journal of Teaching in Social Work*, 42(1), 45-64. DOI: 10.1080/08841233.2021.2003923

- McCullough, R., Dispenza, F., Chang, C. Y., & Zeligman, M. R. (2019). Correlates and predictors of anti-transgender prejudice. *Psychology of Sexual Orientation and Gender Diversity, 6*(3), 359–368. <https://doi.org/10.1037/sgd0000334>
- Miller, W. R., & Rollnick, S. (2002). *Motivational interviewing: Preparing people for change* (2nd ed.). The Guilford Press.
- Mundon, C. R., Anderson, M. L., & Najavits, L. M. (2015). Attitudes toward Substance Abuse Clients: An Empirical Study of Clinical Psychology Trainees. *Journal of psychoactive drugs, 47*(4), 293–300. <https://doi.org/10.1080/02791072.2015.1076090>
- Murphy, J. (2022). Improving the Recruitment and Retention of Counselors in Rural Substance Use Disorder Treatment Programs. *Journal of Drug Issues, 52*(3), 434–456. <https://doi.org/10.1177/00220426221080204>
- National Academies of Sciences, Engineering, and Medicine. (2016). *Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change*. Washington, DC: *The National Academies Press*. doi: 10.17226/23442.
- Osborne, J. W. (2013). *Best practices in data cleaning*. Thousand Oaks, CA: Sage.
- Pallant, J. (2016). *SPSS survival manual : A step by step guide to data analysis using IBM SPSS* (6th ed.). Maidenhead, Berkshire, England: McGraw Hill.
- Pedhazur, E.J. (1997) *Multiple Regression in Behavioral Research: An Explanation and Prediction*. Holt, Rinehart & Winston, New York.
- Pickard H. (2017). Responsibility without Blame for Addiction. *Neuroethics, 10*(1), 169–180. <https://doi.org/10.1007/s12152-016-9295-2>
- Ponder, F. T., & Slate, J. R. (2010). Family of origin addiction patterns amongst counseling and psychology students. *Forum on Public Policy*.

- Room R. (2008). Stigma, social inequality and alcohol and drug use. *Drug and alcohol review*, 24(2), 143–155. <https://doi.org/10.1080/09595230500102434>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>
- Senreich, E., & Straussner, S. L. (2013a). Does bachelor's-level social work education impact students' knowledge and attitudes regarding substance-abusing clients? *Journal of Teaching in Social Work*, 33(1), 87–103. <https://doi.org/10.1080/08841233.2012.751083>
- Senreich, E., & Straussner, S. L. (2013b). The effect of MSW education on students' knowledge and attitudes regarding substance abusing clients. *Journal of Social Work Education*, 49(2), 321–336. <https://doi.org/10.1080/10437797.2013.768485>
- Schomerus, G., Lucht, M., Holzinger, A., Matschinger, H., Carta, M. G., & Angermeyer, M. C. (2011). The stigma of alcohol dependence compared with other mental disorders: a review of population studies. *Alcohol and alcoholism*. 46(2), 105–112.
- Sperandio, K. R., Gutierrez, D., Hilert, A., & Fan, S. (2021). The Lived Experiences of Addiction Counselors After Marijuana Legalization. *Journal of Addictions & Offender Counseling*, 42(1), 35–49. <https://doi.org/10.1002/jaoc.12088>
- STATE System E-Cigarette Fact Sheet. (2022). Center for Disease Control and Prevention. Retrieved September 18, 2022. From <https://www.cdc.gov/statesystem/factsheets/ecigarette/ECigarette.html>
- Stein, J. B. (2003). Attitudes of social work students about substance abuse: Can a brief educational program make a difference? *Journal of Social Work Practice in the Addictions*, 3(1), 77-90. doi:10.1300/J160v03n01_06

Substance Abuse and Mental Health Services Administration. (2017). Treatment Improvement Protocol (TIP) Series, No. 21. SAMHSA Publication No.15-4171. Rockville, MD: Substance Abuse and Mental Health Services Administration.

Substance Abuse and Mental Health Services Administration. (2021). Key substance use and mental health indicators in the United States: Results from the 2020 National Survey on Drug Use and Health (HHS Publication No. PEP21-07-01-003, NSDUH Series H-56). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from <https://www.samhsa.gov/data/>

Substance Abuse and Mental Health Services Administration. (2022). *Key substance use and mental health indicators in the United States: Results from the 2021 National Survey on Drug Use and Health* (HHS Publication No. PEP22-07-01-005, NSDUH Series H-57). Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/report/2021-nsduh-annual-national-report>

Tabachnick, B. G., & Fidell, L. S. (2019). *Using Multivariate Statistics* (7th ed.). Pearson

van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2013). Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. *Drug and alcohol dependence, 131*(1-2), 23–35. <https://doi.org/10.1016/j.drugalcdep.2013.02.018>

van Boekel, L. C., Brouwers, E. P., van Weeghel, J., & Garretsen, H. F. (2014). Healthcare professionals' regard towards working with patients with substance use

disorders: Comparison of primary care, general psychiatry and specialist addiction services. *Drug and Alcohol Dependence*, 134, 92-98.

doi:10.1016/j.drugalcdep.2013.09.012

Zwick, J., Appleseth, H. & Arndt, S. (2020). Stigma: how it affects the substance use disorder patient. *Substance Abuse Treatment Prevention Policy*, 15(50).

<https://doi.org/10.1186/s13011-020-00288-0>

APPENDICES

Table 1: Member Demographics

Table 2: Tests of Univariate Normality

Table 3: Tests of Univariate Normality Post Logarithmic Transformation

Table 4: Tests of Univariate Normality Square Root Transformation

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Table 6: Correlations among Exposure to Addiction, Choice Beliefs, Work Satisfaction, and Work Desire

Table 7: Model Summary

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Appendix A: Modified Contact Survey

Appendix B: Drug-Related Locus of Control Questionnaire

Appendix C: Modified Drug and Drug Problems Perceptions Questionnaire

Appendix D: Informed Consent

Appendix E: Recruitment Email

Table 1*Participants' Demographic Data*

Characteristic	<i>n</i>	Total %
Gender Identity		
Woman	179	85.8
Man	23	11
Non-binary & Gender non-conforming	6	2.8
Trans	2	1
Racial/Ethnic Identity		
White/Caucasian	115	54.8
Hispanic/Latino/Latina	39	18.6
Black/African American	23	11
Asian/South Asian/Pacific Islander	20	9.5
Multiracial	9	4.3
Native American	1	.5
Sexual Orientation		
Straight/Heterosexual	147	70
Bisexual	36	17.1
Lesbian/Gay	12	5.7
Pan-sexual/Omnisexual	8	3.8
Other sexual identities	5	2.4
Age		
18-24	72	34.3
25-35	86	41.1
36-45	22	10.5
46-55	25	11.9
56-66	4	1.9
Religion/Spirituality		
Christian/Catholic/Protestant	82	39
Spiritual, but not religious	58	27.6
Agnostic	26	12.4
Atheist	13	6.2
Jewish	10	4.8
Muslim/Islam	6	2.9
Hindu	4	1.9
Other religious/spiritual identities	8	3.9
Year in Program		
First year student	97	46.2

Characteristic	<i>n</i>	Total %
Second year student	85	40.5
Thirst year student	26	12.4
Other	2	1
Completed Addiction Counseling Course		
Yes	77	36.7
No	133	63.3
Completed Addiction-Specific Training		
Yes	53	25.3
No	157	74.8
Past Issues with Substance Use		
Yes	45	21.4
Unsure	9	4.3
No	156	74.3
Past Diagnosis with SUD		
Yes	12	5.7
No	198	94.3

Note. *N* = 210

Table 2

Tests of Univariate Normality

Subscale	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	<i>df</i>	Sig.	Statistic	<i>df</i>	Sig.
Contact	.115	209	.000	.926	209	.000
DRLOC-DTD	.312	209	.000	.723	209	.000
DDPPQ-WS	.111	209	.000	.942	209	.000
DDPPQ-WD	.159	209	.000	.926	209	.000

Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-WS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Note. *N* = 209 due to missing variables from an incomplete case.

Table 3

Tests of Univariate Normality Post Logarithmic Transformation

Subscale	Kolmogorov-Smirnov	Shapiro-Wilk
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	Statistic	df	Sig.	Statistic	df	Sig.
DRLOC-DTD	.281	209	.000	.613	209	.000
Contact	.154	209	.000	.898	209	.000
DDPPQ-RS	.078	209	.003	.972	209	.000
DDPPQ-WD	.156	209	.000	.912	209	.000

Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-RS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Note. N = 209 due to missing variables from an incomplete case.

Table 4

Tests of Univariate Normality Square Root Transformation

Subscale	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DRLOC-DTD	.296	209	.000	.681	209	.000
Contact	.125	209	.000	.940	209	.000
DDPPQ-RS	.091	209	.000	.967	209	.000
DDPPQ-WD	.149	209	.000	.936	209	.000

Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-RS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Note. N = 209 due to missing variables from an incomplete case.

Table 5

Tests of Univariate Normality Reciprocal Transformation

Subscale	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
DRLOC-DTD	.346	209	.000	.389	209	.000
Contact	.278	209	.000	.650	209	.000
DDPPQ-RS	.237	209	.000	.766	209	.000
DDPPQ-WD	.143	209	.000	.931	209	.000

Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-RS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Note. N = 209 due to missing variables from an incomplete case.

Table 6

Correlations among Exposure to Addiction, Choice Beliefs, Work Satisfaction, and Work Desire

	1	2	3	4
1. Contact Survey	1	.		
2. DRLOC-DTD	.178**	1		
3. DDPPQ-WS	-.336**	-.177*	1	
4. DDPPQ-WD	-.374**	-.106	.391**	1

Note. * Correlation is significant at the .001 level (2-tailed). **Correlation is significant at the .005 level (2-tailed). Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-WS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire

Table 7

Model Summary

Model	<i>R</i>	<i>R</i> ²	<i>Adj. R</i> ²	<i>Sig.</i>
Model 1 – DDPPQ-WS	.357	.127	.119	<.001
Model 2 – DDPPQ- WD	.376	.141	.133	<.001

Note. DDPPQ-WS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Table 8

Multiple Regression Coefficients

Model		Unstandardized		Stand. Coeff.	<i>t</i>	<i>Sig.</i>	95% C.I.
		β	S.E.				
Model 1	Constant	17.070	1.635		10.443	<.001	[13.847, 20.292]
	Contact Survey	-.236	.050	-.351	-4.758	<.001	[-.334, -.138]
	DRLOC-DTD	-.481	.264	-.212	-1.825	.069	[-1.001, .039]
Model 2	Constant	4.517	.648		6.970	<.001	[3.475, 5.851]
	Contact Survey	-.103	.018	-.371	-5.664	<.001	[-.251, .131]
	DRLOC-DTD	-.031	.093	-.022	-.336	-.336	[-.138, -.066]

Note. DRLOC-DTD = Drug Related Locus of Control Drug Taking Decisions subscale; DDPPQ-WS = Drug and Drug Problem Questionnaire – Work Satisfaction; DDPPQ-WD = Drug and Drug Problem Questionnaire – Work Desire.

Appendix A

Contact Survey

Directions: Please place a check next to the response that indicates your answer to each of the following questions. Please answer all questions.

Do you have a **parent** with a substance addiction? Yes _____ No _____

If yes, on average how much contact do you have with this individual?

- Less than once a year
- One–six times per year
- Six–twelve times per year
- Once per month
- Once per week
- Two–seven times per week
- Constant

Do you have a **relative** with a substance addiction? Yes _____ No _____

If yes, on average how much contact do you have with this individual?

- Less than once a year
- One–six times per year
- Six–twelve times per year
- Once per month
- Once per week
- Two–seven times per week
- Constant

Do you have a **friend** with a substance addiction? Yes _____ No _____

If yes, on average how much contact do you have with this individual?

- Less than once a year
- One–six times per year
- Six–twelve times per year
- Once per month
- Once per week
- Two–seven times per week
- Constant

Do you have an **acquaintance** with a substance addiction?

Yes _____ No _____

If yes, on average how much contact do you have with this individual?

- Less than once a year

- _____ One–six times per year
- _____ Six–twelve times per year
- _____ Once per month
- _____ Once per week
- _____ Two–seven times per week
- _____ Constant

No = 0

Less than once a year = 1

One–six times per year = 2

Six–twelve times per year = 3

Once per month = 4

Once per week = 5

Two–seven times per week = 6

Constant = 7

Appendix B

Drug-Related Locus of Control Questionnaire

DR-LOC

Instructions: This questionnaire assesses your opinion about drugs and drug use. Each item consists of a pair of alternatives marked with a or b.

1. Select the alternative with which you most agree (only one, not both).
2. If you believe both alternatives to some extent, select the one with which you most strongly agree.
3. If you do not believe either alternative, mark the one with which you least strongly disagree.
4. Be sure to select the answer that you actually believe to be true not the one that you would like to be true. Since this is an assessment of opinions, there are obviously no right or wrong answers.

1.* a. Everybody has a choice as to whether they take drugs or not; what other people say or do has nothing to do with it

b. There is often a lot of pressure from peers to join in and use drugs.

2.* a. It is difficult to resist drinking at a party where everybody is enjoying the booze.

b. There should be no problems resisting temptations to drink on a night out if somebody has made up their mind beforehand that they don't want to drink.

3.* a. Those who are successful in getting off drugs are often the lucky ones.

b. Getting off drugs depends upon lots of effort and hard work; luck has nothing to do with it.

4.* a. For people who are addicted to drugs, it is impossible to stop taking drugs for good.

b. By taking an active part in a treatment program, it is possible to learn to control

the use of drugs.

5.* a. Drugs bring out the bad side of people, making them do things that they later regret.

b. People who have become addicted to drugs have to take responsibility for their drug problems.

6.* a. There is no such thing as an irresistible temptation to take drugs.

b. There are people who experience strong irresistible urges to take drugs that they

cannot control.

7.* a. Only when people come to terms with the long-term effects the drugs have on their

lives, are they able to change their behaviour and give up drugs for good.

b. Drugs are so powerful; just knowing that they are around undermines all good

intentions of giving up.

8.* a. The idea that people are driven to take drugs because of peer pressure is nonsense.

b. People are unaware of their friends' influence when taking drugs.

9.* a. Feelings of helplessness and anxiety drive people to drink or to take drugs.

b. The idea that people use drugs or drink alcohol to cope with feelings of anxiety is just an excuse for their behaviour.

- 10.* a. There isn't such a thing as an addictive personality.
- b. Not getting involved in drugs mainly depends on things going right for you.
- 11.* a. For people who have known drugs for all their lives, it is almost impossible to break away because they cannot compare drugs to anything else.
- b. There is a direct connection between how hard people try and how successful they are in getting off drugs.
- 12.* a. Everybody can pull themselves together and fight the urge to drink or to take drugs.
- b. There are people who feel completely helpless when it comes to resisting taking drugs.
- 13.* a. Anybody can become addicted to drugs when they get off the straight and narrow.
- b. Drug use is an excuse for not doing the things that you are supposed to do.
- 14.* a. Addiction is for life: once contracted, it will never go away, no matter what you do.
- b. Successful recovery from addiction is possible but it is hard work.
- 15.* a. If people want something badly enough, they can make it happen; they can even beat addiction.
- b. People with addictive personalities will always be addicted to something; if they stop using drugs they start using something else.
- 16.* a. No one is in control of what they do when drunk or drugged up.
- b. With enough effort, everybody is able to control what they do.

Scoring

DR-LOC addiction recovery: 3a, 4a, 5a, 7b, 11a, 14a, 15b, 16a DR-LOC

drug-taking decisions: 1b, 2a, 6b, 8b, 9a, 10b, 12b, 13a

Appendix C

MODIFIED DDPPQ

Drug and Drug Problems Perceptions Questionnaire

Watson, H., Maclaren, W., Shaw, F., & Nolan, A. (2003). *Measuring staff attitudes to people with drug problems: The development of a tool*. Glasgow, Scotland, UK: Glasgow Caledonian University.

MODIFIED BY:

Senreich, E. & Straussner, S.L.A. (2013). The effect of MSW education on students' knowledge and attitudes regarding substance abusing clients. *Journal of Social Work Education, 49* (2), 321-336.

For Questions 1-16, please indicate how much you agree or disagree with the following statements about working with people who have problems with substance use.

Circle a number for each of the statements. Number 1 represents that you *strongly agree* with the statement, whereas Number 7 represents that you *strongly disagree* with the statement. Choose the number from 1 to 7 that most applies to your level of agreement.

NOTE: For the following questions, "substance use" applies to either the use of drugs or alcohol.

	Strongly Agree						Strongly Disagree
1. I feel I have a working knowledge of substances and substance-related problems.	1	2	3	4	5	6	7
2. I feel I have the right to ask clients questions about their substance use when necessary.	1	2	3	4	5	6	7
3. I feel I know enough about the physical effects of substance use to carry out my role when working with substance users.	1	2	3	4	5	6	7
	Strongly Agree						Strongly Disagree

- | | | | | | | | |
|--|---|---|---|---|---|---|---|
| 4. I feel I know enough about the psychological effects of substances to carry out my role when working with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5. I feel I have some basic knowledge about how to counsel substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 6. I feel I can appropriately advise my clients about substances and their effects. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 7. I feel I have the right to ask a client for any information that is relevant to their substance problems. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 8. If I felt the need, I could find someone who would be able to help me formulate the best approach to working with a substance using client. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 9. I want to work with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 10. I feel there is little I can do to help substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 11. In general, I have less respect for substance users than for most other clients I may work with. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 12. I feel like there is not much to be proud of when working with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 13. At this time, I feel I would be no good at all working with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 14. In general, I believe that one can get satisfaction from working with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 15. In general, it can be rewarding working with substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 16. In general, I feel I can understand substance users. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

SUB-SCALES

ROLE ADEQUACY: Items 1,3,4,5,6

ROLE SATISFACTION: Items 10, 11, 12, 14, 15, 16

ROLE LEGITIMACY: Items 2,7

ROLE SUPPORT: Item 8

WORK DESIRE: Item 9

ITEM 13 IS NOT PART OF ANY SUB-SCALE.

The following items are reversed scored:

10, 11, 12, 13

Appendix D

Georgia State University Informed Consent

For the research study entitled:
**Predictors of Clinical Mental Health Counseling Students'
Attitudes toward working with Clients with Substance Use Disorders**

I. Purpose of the research study

I am conducting a study to help understand CACREP-accredited Clinical Mental Health Counseling (CMHC) students' attitudes toward working with clients with Substance Use Disorders (SUD). The results of this study are intended to provide insight into the addiction-related attitudes of CMHC students and potential predictors of those attitudes. This study is being conducted to fulfill the requirements for my dissertation as a doctoral student in Counseling, Education, and Practice at Georgia State University.

II. What you will be asked to do

If you decide to be in this study, you will be asked to complete three brief questionnaires in addition to demographic information.

Your participation in this study will take a total of 15 minutes.

III. Risks and discomforts

Sometimes when people are asked to think about their feelings, they may feel sad or anxious. Recalling addiction-related experiences may also trigger difficult emotions. If you would like to talk to someone about your feelings at any time, you can call toll-free, 24 hours a day:

9-8-8 National Crisis Counseling hotline:

Call 1-800-273-8255 or dial 9-8-8 on any phone Text BRAVE to 741741
Available 24/7

National Alliance of Mental Health (NAMI) hotline:

Call 1-800-950-NAMI (6264)
Available Monday-Friday 10am-6pm ET

Substance Abuse and Mental Health Services Administration (SAMHSA) national helpline:

Call 1-800-662-HELP (4357)
Available 24/7

IV. Benefits

There are no direct benefits to the participants for participating in this study. The indirect benefit to participants is knowing that their responses will be used to contribute to the knowledge about CMHC student attitudes toward working with clients with SUDs.

V. Confidentiality

If you choose to participate in this study, no identifying information will be collected, such as your name, contact information, or computer's IP address. All data will be downloaded from the online survey into a password-protected file on a password-protected computer. All electronic data and surveys will be kept secure for a period of 7 years in accordance with APA guidelines for the retention of data. After this time, the electronic files will be deleted. Your real name will not be collected or linked to your data. The results of this research project may be made public and information quoted in professional journals and meetings. Still, information from this study will only be reported as a group, not individually.

VI. Compensation

You will be compensated for your time with a one-time \$5.00 Amazon e-gift card upon completion of the study.

VII. Optional Nature of this Research

Participation in this study is entirely voluntary. You do not have to do this; you can refuse to answer any question or quit at anytime. Your participation or decision not to participate is confidential, and no one will know. Your decision regarding participation will not affect any mental health services you may receive or your standing with any organization. You may choose not to participate in this study at any time.

VIII. Contact Information

If you have any questions about this research, you may contact:

Lauren Flynn, MA

Email: lflynn2@student.gsu.edu

Phone: (901) 489-6611

I have read the above information and consent to participate in the study.

Appendix E

Recruitment Email

My name is Lauren Flynn, and I am a doctoral candidate in the Counseling and Psychological Services department at Georgia State University, currently completing my dissertation. I am interested in understanding the attitudes of students enrolled in CACREP-accredited Clinical Mental Health Counseling (CMHC) programs toward working with clients with Substance Use Disorders (SUD). There are no anticipated risks associated with participating in this study. This study has been approved by the Institutional Review Board (#) at Georgia State University.

Participants will receive a one-time \$5.00 Amazon e-gift card for participation upon completion of the study. Participants will be asked to submit an email address to receive the compensation. It is recommended that they use an email address that does not contain an identifying name (for example, panther01@email.com). Their email will not be associated with any survey research collected.

To participate in the study, participants must meet the following criteria:

1. **18 years or older**
2. **Currently enrolled in a CACREP-accredited master's clinical mental health counseling training program.**

By clicking the survey link, participants will be directed to the informed consent to begin the study.