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Clay Use as Mindfulness for Women in Early Substance Use Recovery

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This thesis, written under the direction of the candidate's thesis advisor and approved by the program chair, has been presented to and accepted by the Biological Sciences Program, at Dominican University of California, in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Art Therapy.

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Clay Use as Mindfulness for Women in Early Substance Use Recovery

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A culminating dissertation submitted to the faculty of Dominican University of California in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Art Therapy

Dominican University of California

San Rafael, CA

2023

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Abstract

Substance Use Disorders (SUDs) are an epidemic in the United States comprising 4.4 million women, including high rates of recidivism, and often accompanied by comorbid mental health issues. Recognizing the need for effective tools to support women in recovery, this research aligns the key tenets of present focus and personal control within Alcoholics Anonymous (AA) with various established mindfulness-based therapies, while using a Positive Psychology framework to conceptualize strategies to help enhance mindfulness in women in early recovery. Although engaging in clay work has been linked to mindfulness for its capacity to foster a state of presence and self-centering, scant art therapy research exists to date on the use of clay with SUDs population. Using a mixed methods approach within a positive psychology framework, this study explored the experiences of eleven women in early substance use recovery as they engaged in four structured and unstructured clay sessions. Quantitative results indicated no significant changes in mindfulness and well-being scales. In comparison, qualitative results showed that clay's sensory and kinesthetic qualities along with its novel and positive energies during engagement elicited the use of metaphors, positive emotions, and enhanced mindfulness experiences such as self-awareness, attunement, and groundedness. Additionally, the women experienced meaning-making and positive changes in self-perception. Thus, the study highlights clay's potential to support mindfulness, AA, and positive psychology strategies and calls for further research exploring the intersection of clay work, art therapy, mindfulness, and SUDS recovery.

Keywords: art therapy, clay therapy, mindfulness, substance use disorders, women in recovery, positive psychology, emotional regulation, arts-based research

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Glossary

Throughout this paper there will be terms used regularly. It is important to understand their meaning in the context of this research. They are defined as follows.

Co-researcher: For this study, the participants will be referred to as co-researchers. The history of research includes hierarchical or authoritative research approaches, and this is one way to attempt to indicate the sharing of power by centralizing the voices and experience of those being represented (Zappa, 2017). The term co-researcher is used to describe the symbiotic relationship or co-creative relationship between the researcher and the people engaged in the research process. The fact is that they are contributing to this research and not being experimented *on* but *exploring* and *sharing* their experience of an activity. This researcher desires to acknowledge her privilege and be part of the necessary change in behavioral health research (Talwar, 2010). It is for this reason they are referred to as co-researchers.

Mindfulness: “The awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p.145).

Mindfulness-based interventions: “A treatment addressed to promote the moment-by-moment awareness of thoughts, feelings, bodily sensations, and surrounding environment. It also involves acceptance, paying attention to thoughts and feelings without judging them” (Sancho et al., 2018).

Mindfulness-based relapse prevention (MBRP): “An intervention that combines mindfulness strategies with relapse prevention techniques to help people with substance use disorders cope with cravings by increasing their awareness of thoughts, emotions, and

environments that lead to using substances and developing coping skills to prevent relapse” (Amaro et al., 2014, p. 558)

Substance use recovery: When a person has stopped using substance that does not automatically mean that person is *in recovery*. Being in recovery means a person who is not only abstinent from using substances but also actively working on bettering their situations and environments, either through ongoing therapeutic interventions or 12-step engagement (Brown, 1985). Recovery keeps on progressing, as recovery is a process not an event, and the person will continue to stabilize as they develop new behaviors (Brown, 1985) towards a new understanding of who they are and thus a whole new way of being in the world.

Early substance use recovery: In the DSM-5 the criterion for Substance Use Disorders has specifiers included for when a person no longer meets the criteria for the diagnosis. The specifier for Early Remission states that it is included when the criteria have not been met for at least three months but less than 12 months. For the purpose of this research, early recovery will be defined as anyone who has not used any substances (i.e. alcohol, marijuana, illegal drugs (such as methamphetamine, cocaine, or heroin), and prescription drugs used excessively (such as fentanyl and oxycodone)) within the past year, and could include within the past three months (or 90 days).

Structured directive: In art therapy often the art therapist states what should be created or made with the materials provided. This is considered a structured directive.

Unstructured directive: In art therapy when the art therapist provides the art materials to be used freely and without providing a subject but allowing the person to choose what they would like to create with the materials, this is considered an unstructured directive.

Chapter 1 Introduction

Problem Statement

Mental health and substance use disorders are current topics that are frequently in the news, on social media, and part of daily conversation. The casual discussions include a range of perspectives from reducing the stigma associated with mental health (MH) and substance use disorders (SUDs) to untreated populations to lack of adequate MH and SUDs services and so on. In 2021, there were roughly 39.5 million people worldwide between the ages of 15-64 who had a problem with illicit drug use, and only 1 in 5 received drug treatment (United Nations Office of Drugs and Crime, 2023). SUDs are a global epidemic (Taipale, 2017) that have serious consequences for not only individuals, but for families and the community at large (Grant et al., 2017; Priddy et al., 2018). Simply put, the diagnosis of a SUD is continuing to use (alcohol and other drugs) despite impairments in everyday life. Bachman et al. (2019) state it is a “chronic lifetime disease characterized by relapses and behavior” that does not change with the possibility of incarceration (p. 600). SUDs can be viewed as a way to manage (and escape) the pressures and traumas that have often been experienced (Bachman et al., 2019; Luke et al., 2018).

People sometimes choose or are mandated to enter recovery, and this can be at a variety of levels depending on the significance of the SUD. Additionally, relapse rates are slightly lower in comparison to those of other chronic diseases such as hypertension and asthma at around 40-60% instead of 50-70% (National Institute on Drug Abuse, 2020). Many treatment programs follow the 12 Step model that was developed by Alcoholics Anonymous (AA) and recommend that people engage with AA once they have completed the program. One of the main tenets of AA is spirituality (Tusa & Bergholzer, 2013) and that connects to focusing on the present. Those who are able to be aware of the present moment often find themselves engaging in mindfulness.

Some programs include mindfulness-based therapies as part of their treatment. Also included in treatment are adjunctive therapies such as art therapy.

Conceptual Framework

Substance Use Disorders

Those with a SUD diagnosis have trouble with delayed gratification (Taipale, 2017) and use substances to avoid painful memories and feelings (Schmanke, 2017). Additionally, those who struggle with addiction often have problems with attention, inhibition/impulsivity, learning/memory, stress, and affect (Garland et al., 2014; Perry & Lawrence, 2017). Emotional dysregulation is a common behavior for those with SUDs, and it is also one of the first warning signs indicating a possible relapse (Sancho et al., 2018). As one uses substances and gets farther from who they are (their goals, aspirations, relationships to self and others, to name a few aspects), there is also a loss in their connection to others around them (family, friends, educational or occupational roles). This loss may also include a connection to faith, possibly expressed through a religious or spiritual core belief. Spirituality offers an opportunity to look deep within and connect with the different parts of oneself – the cognitive, the emotional, the physical, the interpersonal. Some can find this spiritual connection in nature and some can find it in formal religious settings. The connection to something outside of oneself, has become a regular effect of our everyday lives that are filled with “concrete and plastic buttons” (Souter-Anderson, 2010). Thus, connecting with clay, literally the earth, may access the spiritual connection (or a power greater than oneself, to reference AA) that gets buried deep within as one misuses substances.

Women are particularly vulnerable to SUDs diagnoses with a co-morbid mental health diagnosis (SAMHSA, 2018). Whether these co-morbid diagnoses are formally diagnosed or not,

there are behaviors that affect the way a woman engages with the world around her. Often there are histories of child abuse, sexual abuse, and other traumas for women with SUDs (Bachman et al., 2019). Women self-identify feeling depressed and anxious and high levels of psychological stress (Amaro et al., 2014). A sense of safety is needed for women who are in recovery, especially early on, as they are learning, or re-learning, about trusting others, engaging in relationships, and healthy boundaries. Significant reasons for having women-only focused treatment programs for substance abuse treatment in the United States include prenatal care, childcare services, transportation, and assistance with housing and vocational needs (Greenfield et al., 2013; Johnstone et al., 2023). Research has demonstrated that women prefer women-only treatment programs and single-gender groups finding in them a greater sense of safety (Kauffman et al., 1995).

Substance Use Recovery

Recovery is a process and active treatment is the first step in this new way of being for many who are choosing to stop using substances (Brown, 1985). Treatment allows for the introduction of new concepts and to learn new skills, all of which help increase the development of new neural pathways in the brain. While in treatment clients are provided opportunities to learn about the recovery process, psychoeducation about the brain and physical health, and new ways to have good mental health. This information is offered in a variety of formats, including groups, individual talk therapy, and adjunctive therapies such as art therapy, mindfulness training, yoga and exercise, and gardening. Research has demonstrated that it is not only important to focus on addiction, but for women, to also focus on motherhood and the guilt and shame felt by women as failures as nurturers and caregivers (Kauffman et al., 1995).

Treatment programs were once more open with their timeline as there were not limits set by insurance and funding sources, however that has changed and currently there is a push for treatment to be prescriptive and effective in as short a time as possible. Research suggests that people reach a threshold of significant improvement at about three months, and then continue improving after that (Elsheikh, 2008). However, recovery does not happen at the same pace for each person, and when there are comorbidities, it may be a life-long process, but the main components of treatment are the same. Providing treatment that addresses these other areas of need, including using modalities (like art therapy, clay therapy, and mindfulness) that could develop into a life practice, becomes not only beneficial during treatment but beyond as well. This research will use clay (which may be a novel experience for some thus possibly increasing the development of new neural pathways) in a brief intervention model.

SUDs treatment programs that have a strengths-based approach are teaching skills that are based on what people already know about themselves. However, not all people go through a formal treatment program, as some find support and guidance from Alcoholics Anonymous (AA). AA was started in 1935 by Bill W. and Dr. Bob as the two met in Ohio, with Dr Bob seeing for the first time a person who had stopped drinking, and then he himself never drank again (Alcoholics Anonymous, n.d.). Over the next four years they worked with alcoholics and in 1939 the first publication was created by Bill, now known as the main text of AA and contains the philosophies and tenets of the program, with the 12 Steps and 12 Traditions being the most well-known and most frequently referred to part of the program (Alcoholics Anonymous, nd).

The premise of AA is to offer support to those who have tried and failed with the systems that were already set up, yet in a more non-shaming and welcoming way. No one is ever turned away from a 12 Step meeting, as the foundation is that everyone was once in that same place and

needs support in that moment, and all one needs for entry is the desire to stop drinking. There is a present moment focus carried through many messages in AA which connects well to the intervention focus of mindfulness being utilized in this study. The fellowship provided by AA through going to meetings, and by being actively engaged in recovery, is the course that helps people make the change they want to make – to stop drinking (or using substances). The mutual aid and peer-to-peer support provided by sponsors (other AA members who have worked through the 12 Steps) are always available (24 hours a day) for the person in recovery. This approach is geared towards making positive changes and setting people up for success.

Positive Psychology

One way to help people begin to make changes is to assist with the development of new skills by focusing on wellness. “Positive psychology focuses on wellbeing, happiness, flow, personal strengths, wisdom, creativity, and imagination (Hefferon & Boniwell, 2011, p. 2). The premise is not to ignore the trials and tribulations of one’s past but to teach one how to thrive (Hefferon & Boniwell, 2011) “in the face of adversity and fulfill [one’s] highest potential” (Wilkinson & Chilton, 2018, p. 1). Positive psychology aims to move the focus of psychology from the disease model of pathology to a more balanced position that highlights potential and strength (Hefferon & Boniwell, 2011; Wilkinson & Chilton, 2018). The roots start with Abraham Maslow and humanistic psychology in the 1950s, however positive psychology chose to separate itself from humanistic ideas citing the need for scientific study using hypotheses and quantitative methods (Hefferon & Boniwell, 2011). Positive psychology, also known as the “science of wellbeing,” can be a way to compliment the already established focus on mental illness by focusing on mental health and wellbeing with research, theory and practical applications”

(Wilkinson & Chilton, 2018, p. 9). One part of positive psychology is the aspect of flow, the feeling of time being suspended as one engages in an activity that is rewarding (Chilton, 2013).

The concept of Flow was studied by Csikszentmihalyi (1990) as a response to his earlier research focused on happiness. For a person to be in a flow state, they are between anxiousness and boredom and do not have extraneous distractions (Nakamura & Csikszentmihalyi, 2009). This state is defined by the ability to stay engaged as the activity gets more challenging and yet remains enjoyable (Nakamura & Csikszentmihalyi, 2009). In relation to Flow, the “therapeutic engagement in art making is intrinsically motivating as it also activates personal strengths” (Kapitan, 2013, p. 54) which can be beneficial to women in early substance use recovery. Simply stated by Nakamura & Csikszentmihalyi (2009) Flow is being “fully involved in the present moment” (p. 89) which is why it blends so well with mindfulness and art therapy.

Mindfulness

Good mental health includes connection to self and is part of the growing studied field of self-care. Today’s climate is challenging to many for a multitude of reasons including social injustice, lack of racial equity, and financial freedom, to name a few. Additionally, 2020 brought about a pandemic that affected how people related and connected to others, and this has taken a toll on the collective mental health for all. Mindfulness is a common way for people to find time for themselves and “get centered” in their way of being with others. Kabat-Zinn (2003) defines mindfulness as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (p. 145). Applying increased attention on the present moment combined with a decreased self-judgmental perspective assists with emotion regulation and self-awareness (Tang et al., 2015), which relate

to the two facets of mindfulness, non-judgment and acting with awareness, found to be significant predictors of decreased warning signs of relapse for SUDs (Temme & Wang, 2018).

Mindfulness-based interventions (MBIs) are being researched for both SUDs and relapse prevention with a progression from first generation MBIs to newer MBIs focused on SUDs (Priddy et al., 2018). Mindfulness-Based Relapse Prevention (MBRP) and Mindfulness-Oriented Recovery Enhancement (MORE) are two of the applicable types related to this research. A main focus of MBRP is to “increase awareness and acceptance of physical, emotional, and cognitive states” which can in turn decrease one’s desire to use substances to avoid negative feelings and then allow a person to act with intention (Bowen et al., 2009, p. 302). MORE is a treatment approach that involves mindfulness training (to focus on automatic behavior and increase nonreactivity); positive reappraisal training (to focus on the regulation of negative emotions and the development of meaningfulness in life); and principles from positive psychology (to focus on “savoring pleasant events and emotions to ameliorate deficits in natural reward processing and positive affectivity”) (Garland et al., 2016, p. 11). While MBIs have been used for addictions and shown improvement for mood state and emotional regulation, more work is needed to determine longer effects of the interventions as well as with adolescent and young people populations (Sancho et al., 2018). These different therapies can be adjunctive to treatment programs for people with SUDs along with a variety of other offerings, such as acupuncture, yoga, expressive arts, and most specifically related to this research, art therapy.

Art Therapy

Art therapy is a clinical focus of both psychology and the knowing about the ways to use and understand art (Junge, 2016). This therapeutic intervention offers a different process for people to learn about themselves through the act of creating. It is in this realm that people delve

into their inner thoughts, interpersonal relationships, as well as their own history. Art can be a preverbal way of communicating and can access thoughts, feelings, emotions, without the use of words (Gantt & Tripp, 2016; King, 2016). This nonverbal communication, as it can be viewed as a “universal language” (Kapitan, 2018, p. 40) that occurs in a safe space with a trained art therapist (Standora, 1981). The creative process can open new ways for expression and meaning making, as this language of the soul (Rubin, 2005) is a powerful force (Allen, 2008). The product created can “tell the untellable story” (Gerber, 2014, p. 86), provide self-esteem and joy, and can contribute to meaning-making through self-reflection and an individual narrative (Bar-On, 2007).

Due to the narrative nature and ability to bypass defenses the creation of art is very appealing in recovery treatment programs (Julliard, 1994; Standora, 1981). For decades programs have included art therapy (Feen-Calligan, 1995; Schmanke, 2017; Standora, 1981) to assist with lowering stress levels and allowing for more open communication (Halužan, 2012). Other benefits of art therapy are not only related to recovery and addiction, but also to emotional regulation, sensory integration, problem-solving, self-knowledge and group interaction (Halužan, 2012). Treatment programs often include art therapy, and there is an identified significance to focus on the same treatment goals as the program (Allen, 1985). Additionally, treatment programs often have a spiritual aspect, as it is a core concept in Alcoholics Anonymous and the 12 Steps. This spiritual focus is a central concept and relates to the centuries old concept of connection to earth. Many cultures have a great respect for the land and see it as essential for life. One way to be connected to earth in our current society is through the use of clay.

Clay

The story of the earth has been around for centuries, as that connection to earth was a primary focus for many civilizations. This story can be told through clay, with the different

textures and forms, and it was one of the first materials used by people as part of everyday life (Henley, 2002; Souter-Anderson, 2010). Over time this connection with clay decreased in proportion to the connection to the land. There had been a respect and honoring of the earth, that for some was a spiritual connection, that slowly declined in various cultures as modern society progressed. Hands were the original tools of the people, as they dug the earth, foraged, and helped to obtain whatever was necessary for life. One of the most basic ways to make connection to others is through our hands. There are caves in Australia with handprints, most likely from multiple tribes of people as they passed through the land and offered as a way to communicate with others (A. Etherington, personal communication, November 12, 2019). The sense of touch, one of the first to develop in humans, provides information back to the person, and is known as haptic perception. This perception is used when touching clay (Elbrecht, 2013).

Hands working with clay are using the sense of touch, which is connected to sensations and emotions as well as the implicit memory (Elbrecht, 2013; Sherwood, 2004). The non-verbal communication between the clay and the person, connects one to the language of the earth (Sherwood, 2004). Clay offers an opportunity to be creative without having a final product, should one choose to return the creation to a lump of clay. Just as mindfulness instills present moment awareness, the focus on the process and working with one's hands highlights the characteristic of impermanence inherent with clay work. Multiple senses are activated when using clay, which can be used to express thoughts and feelings without words (Henley, 2002). Therapeutically, the use of clay can bypass defense mechanisms, possibly opening up a person to process necessary material or negative emotions they are not yet ready to process (Henley, 2002). Additionally, clay use has been reported to increase self-esteem, provide a sense of purpose, and allow for psychological well-being.

Purpose of the Present Study

The purpose of this research study is to learn about the experience of clay use as a meditative practice for women in early recovery from substance use disorders. Based on previous research regarding MBIs this combination may increase mindfulness, a greater connection to the self, and improved well-being (Bowen et al, 2009; Sancho et al., 2018). This study can build upon the therapeutic benefits of clay therapy (Bar-On, 2007; Elbrecht & Antcliff, 2014; Nan et al., 2021; Nan & Ho, 2017; Nan & Wong, 2020) contributing information about a population previously not studied in this manner. Using clay as a mindful act is one more way mindfulness can be achieved, as there is no one correct way to be mindful (Kabat-Zinn, 2003). Finally, this study offers a way to include a Positive Psychology framework when engaging in the art therapy process and provide evidence for a different avenue to include art therapy in SUDs recovery programs.

Significance of the Present Study

The practice of art therapy includes an in-depth understanding of both psychology and visual art. Many different types of media may be used, and they can elicit different results and levels of awareness (Hinz, 2020). This study will focus on the use of clay and the properties associated with its use, especially the ability to stimulate the facets of acceptance and non-judgment within a mindfulness state. The forgiving nature of clay and its ability to allow one to start over (or not even keep the final product) is a benefit shown in previous research (Argyle & Winship, 2018). In addition, the kinesthetic and sensory properties of clay may contribute to a mindful state. Clay has been utilized for centuries in a multitude of cultures in a variety of manners, from utilitarian to magical to currency to creative expression and so on. Clay can be touched with only the hands, or with the use of tools, including the potter's wheel. This direct

connection to the material enhances the connection to the subconscious, as is apparent with all the media in art therapy, while having the added benefit of connecting a person to the earth, literally, and thus to nature.

Being outside among the trees or the sea can provide a connection to something other than oneself; an awareness that has been associated with the concept of spirituality. The concept of spirituality can “refer to the individual’s subjective experience of that which transcends human existence, be it of God, a Higher Power, a realm of spirit, meaning in life, or an ultimate reality” (Miller et al., 2019, p. 871). In substance use treatment there is a great focus is on spirituality; for some this includes a focus on formalized religion. The importance of being spiritual relates to treatment as a person learns new skills to be successful in a new way of living. It is the clinician’s job to help a person find these strengths and help integrate them into a positive and healthy manner to live each day. This is a protective factor against resuming use which is so important, as the percentage of people who return to their using patterns is very high. This research will contribute to the literature on the benefits of working with women in substance use recovery, art therapy using clay (clay therapy), and mindfulness.

Research Questions

This research focused on centering the voices of the women who engaged in the study, and as such there was not a hypothesis. The principal researcher set aside her own knowledge and any biases to allow the words and experiences of the women to be as true as possible. This study explored the experience associated with the act of creating with clay and how, if at all, this related to mindfulness and acceptance (a significant concept for those in recovery). The use of clay in this research highlighted the concept of impermanence, as none of the creations were kept, and what it was like for the women as they experience early recovery from substance use.

The data (as written self-reflections, questionnaire answers, and open-ended semi-structured interviews) provided by the co-researchers was the information used to answer the research questions.

1. How do the women in early substance use recovery experience the process of working with clay?
2. How does the focused time creating with clay relate to or informs the women's experience of recovery?
3. Are there aspects of working with clay that highlight spiritual aspects of recovery for the women?
4. What are the similarities and differences of the women's experiences using clay as it relates to the field of mindfulness?
5. How do they perceive the process of responding to a structured directive in clay versus an unstructured one?

Conclusion

Allen (1995) refers to art as a way of knowing oneself through using the process of creating, letting one's inner voice guide them, and allowing the product to be free of judgment. Those who are in early recovery from SUDs struggle with self-judgment, doubt, and impulse control. Providing an opportunity to work with clay mindfully may be a process to address these behaviors. Many women in SUDs recovery also have histories with abuse and trauma, as well as co-occurring mental illness and it is important to address these areas as well. The benefits of improved mental health and well-being through Positive Psychology have been documented in previous research (Wilkinson & Chilton, 2018). Clay is often written about in the art therapy literature as a common medium to use (C. Moon, 2010); however, there are few research studies

that involve clay and art therapy (Souter-Anderson, 2010) and no published studies including clay use and substance use disorders.

This convergent mixed methods study will employ a qualitative design using a phenomenological approach combined with quantitative measures. The experience of using clay will be explored as it relates to an increase of present moment self-awareness, the holding of a non-judgment stance towards the self, and the connection between a person's inner and outer worlds. Areas that will be explored through semi-structured interviews include the importance of working with one's hands, how clay can be meditative and/or improve mental wellbeing, the relevance of having clay experience to feel the positive benefits of working with clay, and how spirituality is felt through the use of clay. This research will contribute to the knowledge about clay therapy with women in early substance use recovery and how it connects to mindfulness, positive psychology, and SUDs treatment.

Chapter 2 Literature Review

This chapter reviews the literature regarding Substance Use Disorders (SUDs) and treatment interventions including mindfulness. The specific focus of women receiving treatment and the needs they encompass will be reviewed. It is important to note the different aspects women encounter in treatment and how this affects their recovery. Knowing that a small percentage of people with SUDs seek treatment from a formal program, there will also be a review of Alcoholics Anonymous and the role they play in recovery and sobriety, including spirituality. Their focus on making a person's life better on their own terms will relate to the concept of Positive Psychology. The literature regarding this theory and how it relates to Art Therapy will also be reviewed. Art therapy literature will be broken down to address the various areas such as mindfulness, SUDs, and meaning making. Clay as media will be reviewed separately since it is a major component of this research. How clay is used historically and therapeutically will be discussed. Lastly, the method for this research is phenomenology and this will be reviewed along with examples of past research that relate to this topic.

Substance Use Disorders

Addiction is the process that is the causal factor for substance use disorders (Kalin, 2020). People with addictions are seen in across multiple systems: healthcare, social services, and the correctional system. "Health care inequities and societal barriers are major contributors to the continued high prevalence of substance use disorders, the individual suffering they inflict, and the huge toll that they incur at a societal level" (Kalin, 2020, p. 1017). Substance use addiction affects multiple areas of the brain, and there is no one single treatment modality, yet treatment should be available involving multiple therapeutic modalities and medication when appropriate (NIDA, 2018).

In the United States, the 2018 *National Survey on Drug Use and Health: Women* found that 4.4 million women 18 and over had both a substance use disorder (SUD) and a mental illness (SAMHSA, 2018-a). Along with this co-morbid prevalence, many women also have physical health diagnoses and traumatic histories. Substance use disorders not only affect the person using the substances but their families and communities as well (Pettersen et al., 2019). The combination of these circumstances contributes to high levels of stress, which may be higher in today's climate of the COVID-19 pandemic and the traumatic effects of racism and social injustice (Kalin, 2020). Those who battle with addiction often struggle with attention, inhibition/impulsivity, learning/memory, social functioning, stress, and affect (Garland et al., 2014; Perry & Lawrence, 2017; Pettersen et al., 2019).

The diagnostic criteria for SUDs include “maladaptive cognition and behavior arising from suboptimal decision-making, poor executive function, and inappropriate prioritization of goals” (Perry & Lawrence, 2017, p. 205). Many people use substances to avoid negative and painful feelings and act upon impulse, then find themselves unknowingly being directed by the activated reward pathway in their brain. Addiction can be attributed to a variety of factors including heredity, the disease model, adverse childhood experiences, (ACEs) and as a symptom of co-occurring emotional disorders (Quinn, 2021).

Women and SUDs and Recovery

Many women with SUDs have suffered through traumatic experiences, are disconnected from family and friends, and would not be considered to have a “secure” attachment style. This contrasts with what it takes to be happy, and “supportive relationships are fundamental to wellbeing” (Wilkinson & Chilton, 2018, p.36). “Women who seek treatment for addiction tend to have fewer financial resources than men, are more likely to need childcare, and tend to be

more stigmatized” (Lisansky, 1999). Women seek treatment for help with discontinuing use of substances, yet there are psychological needs and housing and employment needs that they would like to have met while in treatment (Hohnman & Loughran, 2013). The specific psychological needs that rated highest in a study by Hohnman and Loughran (2013) were help with the feeling of loneliness, how to relax better, decrease stress and tension, and help with depression or moodiness. Previous research has discussed the importance of having women-only programs and groups to best support recovery and ongoing sobriety (Greenfield et al., 2013; Kauffman et al., 1995).

Women-only treatment programs and groups may provide services to women to eliminate some of the barriers to treatment, such as childcare, pregnancy-related services, and treatment for co-morbid mental and physical health (Johnstone et al., 2023). There may also be a level of safety regarding communication among the group members, as well as the opportunity to be among other women when participating in the group. Kauffman et al. (1995) reported that women in their study felt safer talking about past sexual encounters in women-only groups. Greenfield et al. (2013) reported that in their women-only groups there were more affiliative statements both made and received by the women than in the mixed-gender groups where women made affiliative statements at a higher rate than they received them. Johnstone et al. (2023) reviewed 24 studies of gender-responsive treatments and found that women were more likely to stay in treatment when receiving gender-informed interventions.

Substance Use Recovery

Miller et al. (2019) outline four phases of treatment as a continuum of care starting with decreasing risks to the individual and society and encouraging contact with the person to help them move to the next phase. The next three phases move a person through detox, addressing

health and welfare needs, engaging a person in a treatment program, and ultimately supporting that person maintaining sobriety (Miller et al., 2019). Historically treatment can begin as soon as all substances have been safely eliminated from a person's body. There are various levels of treatment that focus on the recovery aspect, and they can either be provided while a person is living in their own home or when a person is living on the same site as the treatment occurs. People can also seek mutual self-help groups, such as Alcoholics Anonymous, when they have made the decision to stop drinking and drugging.

Temme and Wang (2018) reported on research stating 60% of individuals with SUDs return to using substances within a year of treatment and this could possibly be attributed to the lack of quality in treatment programs. Without treatment programs addressing the underlying issues and the far-reaching implications of SUDs, there is a greater chance of resuming use. When a person knows the warning signs of returning to use for themselves, they can be proactive in their treatment, which includes being aware of mood and how it relates to situational responses (Temme & Wang, 2018) and maintenance of positive relationships (Pettersen et al., 2019). The importance of treatment programs using a client-centered and client-driven plan of recovery, along with involvement of those who are part of the client's support network is underscored in research (Pettersen et al., 2019).

“Behavioral therapies for addiction involve identifying maladaptive patterns of behavior, and then developing and implementing strategies for changing these patterns. This places a high cognitive load on decision-making processes, behavioral flexibility and inhibitory control. This means that SUD clients are at a disadvantage from the outset because of the features of the disorder itself.”
(Perry & Lawrence, 2017, p. 212)

Due to the high rates of untreated trauma histories, especially among women, systemic barriers to treatment, and lack of equity in healthcare, it is more important now than ever to focus on the client perspective and what works for them. Yang et al. (2020) found there is scant research on client narratives, as most of the addiction research is quantitative to support evidence-based methods. Their participants reported their perceptions of change and recovery which included an increase in emotional regulation, mindfulness and self-awareness, and having a positive outlook for their future, to name a few. These benefits of recovery from a client perspective can inform future treatment needs, as there is a plethora of research outlining the challenges one faces and the lack of coping skills leading to addiction.

Stress and SUDS and Recovery

Stress and feelings of isolation from others are closely correlated with SUDs, as both the antecedent to using and the consequence of using (Luke et al., 2018). While the stigma of negative mental health has been reduced as noted by language use, there continues to be a gap between the view of positive mental health being seen as important as good medical health (Bjerklie, 2018). Belkofer and Nolan (2016) stated that it could be “argue[d] that an overemphasis on the mind (thinking and explaining) as opposed to the body (feeling and experiencing) has thrown mental health out of balance” (p. 160). Stress can include how one copes with the situation, and which situations are stressful, while affecting thoughts, emotions, and physical or bodily reactions (McGonigal, 2015). Stress has been connected to physical ailments (that lead to death), mental health illnesses, occupational productivity, and interpersonal relationship issues (Crum et al., 2013).

Perry and Lawrence (2017) reviewing the diagnostic criteria for SUDs, according to the DSM-5, noted that the criteria revolve around poor executive functioning, poor decision-making

skills, an inability to prioritize getting needs met, ultimately affecting cognitions and behaviors. Additionally, Kimport and Hartzell (2015) reported multiple studies indicated that those with a psychiatric diagnosis and elevated anxiety have more serious negative responses to stress, including suicidal ideation. Some research has shown that when people feel a lack of control in their lives, which can easily be felt with stress, there is an increased risk for depression in women and anxiety in men (Kimport & Hartzell, 2015).

Neurophysiology of Stress. Stress stimulates the release of the hormones of noradrenalin and adrenaline which easily affect the hippocampus, as it is the intermediary between the cortex (thinking brain) and the amygdala (feeling brain) (Elbracht & Antcliff, 2014, p. 22). Both the hippocampus and the amygdala as well as the nucleus accumbens and ventral tegmental area (VTA; Luke et al., 2018) are part of the reward circuitry (active for those with SUDs) known as the mesolimbic dopamine system (MSD). The amygdala is responsible for emotional responses and survival instincts, while also contributing to anxiety and self-perception. There is a greater fear response in normal situations when the amygdala is repeatedly exposed to high levels of stress (Tang et al., 2015). The presence of moderate to severe stress can reduce the size of the prefrontal cortex and hippocampus (Tang et al., 2015), which in turn, can decrease one's ability to regulate emotion, perform executive functions, learn new skills, and acquire new memories. However, mindfulness meditation for beginners "who need to overcome habitual ways of internally reacting to one's emotions" can increase prefrontal activity related to cognitive regulation (Tang et al., 2015, p. 218). Those with SUDs have been reported to have poor emotional regulation and tend to react, instead of act, in unfamiliar or stressful situations (Perry & Lawrence, 2017). Using mindfulness with women in early recovery, as is done in this study, can possibly begin to address automatic reactions and emotional dysregulation.

McGonigal (2015) is encouraging people to think of stress in a different manner, wanting to help people learn about the effects stress has on the body, and how to use these responses as a positive force in one's life. This new way of thinking can be one more new skill that people learn when in recovery. According to McGonigal, when people feel the stress response, they can be taught to tell themselves, this is my body gearing up to meet a challenge. The ability to change the way one thinks about a situation is key to changing behavior. Crane (as cited by Kimport & Hartzell, 2015) suggested that working with more fluid materials (like clay) resulted in a decrease in State Anxiety (how anxious a person is feeling in that moment). Knowing that clay can elicit some similar effects as mindfulness, this research sets out to explore the details surrounding this experience to enhance positivity and well-being, through present moment awareness and with non-judgmental attention. Changing one's way they respond to internal and external stimuli, as well as some forms of stress, can be an effective strategy for managing it, and ultimately can enhance recovery.

12 Steps and Recovery

Alcoholics Anonymous (AA) began in the United States but is now world-wide. The requirements for joining are only a desire to stop drinking and once engaged in the group a person begins to work the 12 Steps. These steps are essentially a guideline about how to look at one's substance use and begin to understand it and make changes so they may live a sober life. The 12 Steps and the 12 Traditions are not just for changing substance use patterns but to be used to engage in living one's life in general (Miller et al., 2019). AA focuses on fellowship (through meetings and individual connection with a sponsor) to help a person begin their sobriety and not be alone as they learn new skills. Many recovery programs, from outpatient to residential, use the 12 Steps as a foundation for the treatment and encourage participation in the groups (both during

and after treatment) as the focus elevates awareness of substance use and consequences of addiction.

Participation in AA requires that a person identify a “higher power” to which to surrender some control and to gain some strength in recovery. This element of the program (and others) has caused AA to be labeled a spiritually based program. In most treatment programs that are based in the 12 Steps, there is the unwritten idea that only the first four Steps will be completed with a sponsor while a person is in the program. The First Step refers to admission of powerlessness, the Second Step refers to a power greater than the self, the Third Step refers to making a decision to allow others to help, and the Fourth Step refers to taking a full inventory of one’s life (Alcoholics Anonymous, 2001). Each Step is expected to be “worked through” with a sponsor (the person who has been in recovery longer and has worked through all 12 Steps). This means that the sponsor and sponsee (the “newcomer” or person who has just begun their recovery) will discuss the meaning of the Step in relation to that person’s life, and all of the feelings that are associated with all of that material. As people begin to explore their life in this manner new skills are developed and boundaries are put into place, while the impulsivity and reactivity begins to diminish (Miller et al., 2019). At times this can be a challenge for a person, as the level of spirituality and message of the 12 Steps may not align with a person’s core beliefs.

Spirituality in Recovery

Spirituality is a concept that is often spoken about in recovery, a main tenet of AA, and a focus for how people reconnect with themselves as they become sober. Spirituality may “give individuals a framework in which to make meaning of their lives” (Tusa & Bergholzer, 2013, p. 242). There are multiple ways to access spirituality and it is important to remember that people come into treatment from all walks of life. It is the clinician’s job to respect the different

perspectives and be able to offer a variety of options to help engage a client in this aspect of recovery.

Within treatment clients may learn about positive and healthy coping skills, which includes an awareness of one's spiritual life, and this all assists in the maintenance of recovery (Elsheikh, 2008). Tusa and Bergholzer (2013) state the importance of clinicians and counselors to be aware of spiritual perspectives and interventions within treatment of SUDs to best support clients in their recovery. Krentzman and Barker (2016) researched how counselors use positive psychology within the treatment of addiction. Past research reviewed 12 Step recovery and how spirituality acts as a mechanism of change:

The evidence suggests that many of these spiritual mechanisms appear to work through common therapeutic elements present in other models of behavior change such as social support, meaning making, cognitive processes, coping skills, behavior modification, emotional growth, and psychological well-being. (Tusa & Bergholzer, 2013, p. 242)

Clinicians tend to hold space for clients as they work towards healing. Hope and faith are a part of spirituality that can be modeled by clinicians as they help instill those concepts in their clients (Zaphir-Chasman, 2001).

Positive Psychology

Positive psychology was intentionally created by Martin Seligman, Mihaly Csikszentmihalyi, and Ron Fowler in early 1998 as a way to focus on the healthy attributes of human beings instead of the pathology of the unwell (Seligman, 2019). This concept was new in the field of psychology since the motivation revolved around what humans want when they are happy and to continue that happy feeling, instead of the disease model that had been prevalent

(Seligman, 2019). “Positive psychology focuses on wellbeing, happiness, flow, personal strengths, wisdom, creativity, imagination and characteristics of positive groups and institutions” (Hefferon & Boniwell, 2011). As the year of 2020 has been a test of resilience and fortitude for many, this focus is relevant now more than ever for women in substance use recovery. People are encouraged to not just focus on the present, as with most mindfulness points of view, but also to look at the past and the future since all three time points are an important feature of positive psychology (Hefferon & Boniwell, 2011). The three time points are summarized as follows: contentment and satisfaction (the past), flow and happiness (the present), and optimism and hope (the future) (Hefferon & Boniwell, 2011). This framework blends with the recovery process, as those who have issues with substance use struggle in the areas of positive emotions, social connections, and being kind to others and themselves.

Positive psychology is a scientific method focusing on what is best for a person and cultivating that mindset, based on the values in their own culture, as opposed to focusing on the disease and what is not working. This strength-based approach is a way to increase the possibility of achieving a goal when there is the focus on that goal, instead of focusing on what a person does not have to achieve their goal. Seligman (2019) began the website www.authentic happiness.org with Chris Peterson and Peter Schulman as an early part of his research allowing tests of well-being to reach large groups of people and the continual test of new surveys. After the general public was introduced to his work and website through an article in *Time* magazine, the Three Blessings exercise was used extensively (Seligman, 2019). The informal research blossomed and demonstrated that writing three things that went well that day and why decreased depression by nearly 30 percentile points (Seligman, 2019). In SUDs recovery and the 12 Steps, there is a focus on gratitude, with one of the AA sayings being

“Attitude of Gratitude” as a way to encourage the grateful mindset. This blends with the foundation of positive psychology.

In positive psychology, the components of mental health—i.e., feeling better, feeling more love and connection, identifying and developing interests and strengths, increasing autonomy and mastery, broadening our perceptions, finding meaning and purpose, and developing resilience—come to the center and fore. Because these are the elements that create a life worth living, we are best served by giving them more focused attention.

(Wilkinson & Chilton, 2018, p.21).

When someone experiences positive emotions there is room to grow in thought processes and build resources so as to expand one’s own resiliency (Hefferon & Boniwell, 2011). These benefits can provide what is needed to women with histories of SUDs who have experienced negative relationships, lost connections with family members, and a lack of self-esteem.

“Positive psychology is about helping us all experience the highest quality of life possible with whatever assets, resources, limitations, and challenges we have.” (Wilkinson & Chilton, 2018, p. 24). Fredrickson researched the benefits of positive emotions and the upward spiral created as one has more positive emotions, they are able to be more creative in their thinking (Hefferon & Boniwell, 2011). On the contrary, “neuroticism, the tendency to be anxious, self-conscious, tense, and self-defeating, is a strong predictor of negative affect, pessimistic thinking, and lower psychological wellbeing” (Wilkinson & Chilton, 2018, p. 36). As people with SUDs experience a multitude of issues ranging from housing to employment to familial, sometimes coupled with systemic racism and social inequities, it is even more important to have treatment contribute to the upward spiral of positive emotions for a healthy outcome.

Subjective wellbeing (SWB) as it relates to happiness is part of positive psychology and described by Denier as “how people evaluate their own lives in terms of affective and cognitive explanations” (Hefferon & Boniwell, 2011, p. 47). To engage a person with their satisfaction with life is a core concept within recovery, whereas people are exploring their past actions and relationships with others and making a choice about making changes. Myers (2000) refers to SWB as the combined “pursuit of happiness and life satisfaction” (p. 56) and that viewpoint can get skewed for those in active addiction, as their pursuit and satisfaction is more closely aligned with the next high. Mental well-being scores have been shown to improve after four weeks of working with clay (Argyle & Winship, 2018). Combining clay use with mindfulness has yet to be researched, yet there have been documented benefits of mindfulness, as the next section will outline.

Mindfulness

Mindfulness has been explored as a possible antidote to stress and has demonstrated some positive benefits on the brain and physical health. Mindfulness can be defined as “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003, p. 145). The experience of mindfulness is thought to comprise several complex processes, including attentional control, emotion regulation, and self- awareness (Paulus, 2016). Mindfulness may increase one’s attention on the present moment, decrease one’s judgmental perspectives, and assist with emotional regulation and self-awareness (Tang et al., 2015) producing changes that are physiological, psychological, and cognitive (Temme & Wang, 2018). Kabat-Zinn (2003) explained the Buddha explored human suffering and found “a formal “medicine” for treating its fundamental “dis-ease,” typically characterized as the three “poisons”:

greed, hatred (aversion), and ignorance/ delusion (unawareness)” (p. 145). Knowing that those who have misused and abused substances have had some interaction with the concepts of greed, aversion, and unawareness, it is a linear process to include mindfulness in work with those in recovery.

The practice of mindfulness is about the act of engaging in the discipline, not trying to get something right or prepare oneself for a future event (Kabat-Zinn, 2003). This idea is further expanded when talking about *how* one participates in mindfulness, as there is not one correct way to do it, but many different ideas are offered as starting points for an individual to consume in their own manner and then practice in their own way (Kabat-Zinn, 2003). Using a clay activity to engage in the process of mindfulness is one more way to add to the knowledge in this area.

Li et al. (2018) highlighted research about reducing SUDs that are activated by stress by using mindfulness to enhance the development of a non-judgmental attitude allowing for an ability to accept distressing situations. It should be noted that the stress studied and reported on by Li et al. is not referring to the stress of systemic racism and social injustices inflicted upon BIPOC (Black, Indigenous, People of Color) starting from the moment they are born. Stress from oppressive systems has not been included when proposing to accept distressing situations and have a non-judgmental stance through mindfulness. Mindfulness meditation practice includes awareness of the present moment and letting go of fixed thoughts and behaviors (Garland et al., 2015). This directly relates to a tenet of Alcoholics Anonymous “Let Go and Let God” referring to letting go of a current stressor and the belief in a higher power, or a force outside oneself, to assist when things seem unmanageable. Lastly, research demonstrated when one can attend to their present moment emotions and disruptive thoughts, this also allows for a reduction in cravings for substances (Li et al., 2018). Garland et al. (2014) explained a prime

benefit of mindfulness for those in recovery is the ability to disrupt the cycle of craving, seeking, and using through newly learned positive coping skills. The practice of mindfulness and allowing the clients to have that experience will lead them to change in a healthy way (Marek, 2001). This research will be focusing on the benefits of engaging in a mindfulness state while focusing on awareness of the present moment (including feelings and thoughts one is having) as well as having a non-judgmental perspective of self in the present moment.

During mindfulness practice, the prefrontal regions of the brain are activated which coincides with a lowered amygdala response (Hass-Cohen & Findlay, 2015; Tang et al., 2015). Therefore, the person engaging in mindful activities is more thoughtful and less emotionally reactive. The brain receives sensory signals from the haptic focus of the fingers, hands, and arms when working with the clay; as well as the way the hands interact with each other, (Elbrecht & Antcliff, 2014; Hinz, 2020). Tang et al. (2015) postulated that the effects of mindfulness meditation are improved self-regulation and reduced stress thus boosting neuroplasticity, which all lead to increased health benefits. Chronic stress has been found to deplete the supply of the telomeres, the caps that protect the tips of chromosomes when cells divide. Telomerase is a protein enzyme that lengthens the cell structure by adding guanine-rich repetitive structure. Mindfulness based stress reduction (MBSR) has been shown to increase telomerase activity and those individuals with the greatest increase in telomerase also demonstrated the greatest reductions in cortisol levels and self-reported chronic stress (Daubenmier et al., 2012 as cited in Paulus, 2016). As one is able to help their body make these changes, the act of epigenetics is being demonstrated, where changes are happening to the cells, but in a positive manner (McQuown & Wood, 2010) Continuing with the trajectory of positive benefits from mindful meditation, research has shown that two benefits most highly correlated with substance use

relapse warning signs are acting with awareness and non-judging. That is, the more likely a person is to be aware of and non-judgmental about the present moment, the less likely they are to resume using substances. It is possible that clay sculpting can stimulate a meditative state thus reducing stress (Hass-Cohen & Findlay, 2015; Kruk et al., 2014) and increasing awareness to present moment actions.

Mindfulness-based Therapies

Mindfulness-based therapies focus on present moment attention to thoughts, feelings, and bodily sensations, as well as the current environment one is in (Sancho et al., 2018). Taking theory from Buddhist principles it involves acceptance and paying attention to thoughts and feelings without judging them (Sancho et al., 2018), a core aspect of this research study. These two principles are highly evident in recovery programs as a person is working through the effects of their substance use and behaviors not only on themselves but those around them. Considering many negative scenarios are brought up from the past when exploring substance use, being able to refrain from judgment of self is necessary for success.

Sancho et al. (2018) reviewed 54 studies that focused on mindfulness-based interventions (MBIs) and substance and behavioral addictions. The populations ranged in age with the mean being 34.9 and the majority (57.89%) being focused on men (whether that was in conjunction with women in the study or a study solely focused on men). Thirteen out of the 54 studies used Mindfulness-based Relapse Prevention (MBRP), while the remaining studies used Mindfulness Training for Smokers, Mindfulness Oriented Recovery Enhancement, ACT, Yoga, and other variations. Based on their review, the MBIs along with treatment as usual proved to be the most effective for improving mood state and emotional regulation however the results did not last for very long and more studies are needed in that area. Luberto and McLeish (2018) conducted a

study where they provided a brief (ten minutes) mindfulness exercise and determined an increase in state mindfulness, as evidenced by the State Mindfulness Scale (Tanay & Bernstein, 2013) among other self-report measures. However, this single intervention did not elicit improvements in distress tolerance or urges to smoke nicotine (Luberto & McLeish, 2018).

Mindfulness-based Relapse Prevention (MBRP) was developed by Bowen et al. (2009) and created from a combination of relapse prevention, mindfulness-based stress reduction, and mindfulness-based cognitive therapy (Bowen et al., 2009). This was designed to be used as an outpatient aftercare program once a person has completed an intensive outpatient program or medically cleared from inpatient treatment. Groups were run twice a week for 2 hours for a total of eight weeks. Homework was expected to be completed with the goal of the MBRP treatment to reduce substance use, increase mindfulness and non-judgment stance. The results indicated that while the MBRP was helpful in reducing relapse, cravings, and increasing acceptance and acting with awareness the effects wore off at the 4-month post intervention follow-up.

Witkiewitz et al. (2014) conducted an 8-week MBRP with women referred by the criminal justice system. They found that even though their protocol included only two 50-minute groups during the week instead of the previous 2-hour groups held twice weekly, the women who were part of the MBRP groups had fewer days of using and fewer medical and legal problems at the 15-week follow-up. Additionally, this study showed that the MBRP could be used in an open group format during active treatment, as opposed to the closed group and after-group parameters of the first study (Bowen et al., 2009).

Given that previous research using MBRP programs are eight weeks in length, it is important to note studies in which shorter amounts of mindfulness training were provided, as this research will only be four weeks in length. Bowen and Marlatt (2009) found that a one-time

short (under 30min) mindfulness intervention focused on acceptance of feelings and thoughts in a non-judgmental manner altered future responses to aversive situations. Additionally, MBIs have also been studied, and Howarth et al. (2019) found evidence that after only one mindfulness session as short as 5 minutes there were numerous health benefits when they reviewed 85 MBI studies where interventions lasted 30 minutes or less per session and no more than 100 minutes per week with a maximum of four weeks. This research will build on the knowledge about short-term mindful interventions, using the foundation from MBRP and MBIs, and add the component of including art therapy, specifically the use of clay.

Art Therapy

Art therapy is the meeting of psychology and the clinical understanding of the use of art (Junge, 2016). This process for therapeutic intervention can help a person understand and share their inner thoughts, relationships with others, as well as their own history. The art process allows for the communication of thoughts, feelings, emotions, struggles without the use of words, as art can be a preverbal way of communication (Gantt & Tripp, 2016; King, 2016) or a “‘universal language’ in human experience” (Kapitan, 2018, p. 36). This is an important aspect, as it allows for a different way to engage in therapy and possibly alleviate some of the anxiety and fears one may have when beginning therapy. Working with art bypasses a person’s natural defense and can allow subconscious or repressed material to emerge (Gantt & Tripp, 2016). Knowing this as a possible outcome of engaging in the art process is one of the many reasons it is crucial for someone with the correct training and expertise to use art in the therapy session. Additionally, art therapists are trained to know what materials to use to help elicit which result, as well as which materials and directives may be counter-productive for the client and their therapeutic work at the time (Lusebrink & Hinz, 2016).

The act of creating with an art therapist in the therapy session allows for a safe space for expression (Standora, 1981), with the added benefit of externalizing a problem. The creation process engages a person wholly – their mind, subconscious, energy, and creativity. When the art therapist supports the client in creating from the start (blank canvas, chunk of clay, empty page of paper), “what emerges are precious artifacts of a human psychological experience” (Gerber, 2014, p. 88). This engagement with the art, not only provides a product to be viewed in context between client and art therapist, but produces attentiveness (Kapitan, 2018), and can define oneself and create transformation (McNiff & Barlow, 2009). Using art and materials (some even previously unknown to the client) may provide new modes of problem solving (Riley, 2000), as well as being a novel experience and playful modality for the client (Standora, 1981). This can reduce defenses and allow for more open communication between the client and art therapist. The ensuing conversation about the art pays attention to the “authentic experience” both as the client creates the art and as they witness their created art.

Art and Meaning Making

Art has survived hundreds of generations, and provided different necessities for different cultures (Dissanayake, 1995). Allen (2008) refers to the power of creating art and Rubin (2005) states it is the language of the soul. Art has moved through centuries and continues to provide respite, joy, and meaning to those who engage in the process. People know the act of creating from an early age, as it is “uniquely human response to the world” (Kapitan, 2018, p. 37). Art making can be referred to as “the process of ensoulment” (B. Moon, 1995, p. 11), an action greater than a behavior, where “the artwork not only serves as an expression of inner feelings but its external structure also stimulates internal transformations” (McNiff & Barlow, 2009, p. 104).

The art product can create meaning through an increase in self-esteem by showing the work to others, can “tell the untellable story” (Gerber, 2014, p. 86), or can generate joy or transformation from the creative act. “Individual narratives and self-reflection contribute to meaning making ... [where] individual narratives may be underlying narratives of self-perception—how I perceive myself in any given context—or ongoing and changing narratives that result from reflection-in-action” (Bar-On, 2007, p. 226). Quinn (2021) states the process of “art therapy is a mindful practice that helps the client detach from concerns in the present moment through creativity and sensory experience” (p. 32).

Wilkinson and Chilton (2018) explain how Seligman’s PERMA construct combines with art therapy and the process of art making:

“Simply making art often leads to *positive emotions* and *engagement* as well as satisfaction, pride and a sense of *achievement*. Creating art with others and having it appreciatively received also fosters connection and *positive relationships*. These encounters help shift perceptions and lead to more expansive *meaning* and sense of possibility. (p. 44)

Creativity and Flow

Csikszentmihalyi (1990) discussed the concept of meaning making for a person in terms of Flow. This concept encourages a person to keep going the course, not that there is an end, but there is meaning in the doing of the action. For women in early substance use recovery, the need to find purpose in the doing of things is strong and very important. Additionally, those in recovery often have comorbid diagnoses, such as anxiety and depression. Csikszentmihalyi (1990) stated:

To overcome the anxieties and depressions of contemporary life, individuals must become independent of the social environment to the degree that they no longer respond exclusively in terms of its rewards and punishments. To achieve such autonomy, a person has to learn to provide rewards to herself. She has to develop the ability to find enjoyment and purpose regardless of external circumstances (p. 16).

Women living with cancer who engaged in artistic activities were able to enjoy the present moment while creating, thus it helped to suppress worries, increased a positive self-image, and heightened their feelings of mastery and control (Reynolds & Prior, 2006). Flow and creativity can elicit feelings of pride becoming a foundation for the therapeutic benefits of the experience of creating art (Chilton, 2013). The concept of flow can be found in many religious and spiritual teachings offering the idea that “spontaneous outpouring of joy” allows one to move into an “altered state of consciousness” (Kapitan, 2013, p. 54).

Art and Spirituality

Feen-Calligan (1995) stated “recovery from addiction requires finding a spiritual basis of living” and that “art therapy, a quiet, reflective, humbling, creative, and meaningful endeavor, may provide the means to assist with this process” (p. 50). Spirituality and art have been connected for centuries throughout various cultures, with Eskimos carving spirit animals into everyday objects, Hindu dance, Egyptian burial practices, artistically detailed places of worship, and the fact that art is not separate from religion or ritual for the Native Americans (Feen-Calligan, 1995). Art making as a behavior where something is made different than an everyday item can be considered “making special” (Dissanayake, 1995).

Moon (2001) discussed the powerful spiritual experience of creating art with discarded items she has in her office as a way to honor that which is no longer desired; as a symbol of faith

to persevere the obstacles that one has had to overcome and make-do with what was available to them. This can be connected to SUDs treatment when clients are being guided about how to change old patterns that no longer serve them. Using the art to help the person develop self-awareness, focus on, and respect the important aspects of themselves while recognizing the process as being a holy activity.

Art Therapy and Substance Use Disorders

Art therapy has been used in substance use treatment programs for many decades (Feen-Calligan, 1995; Schmanke, 2017; Standora, 1981). The appealing characteristic is that one's defenses are by-passed when creating art (Julliard, 1994; Standora, 1981), as their stress level lowers, they are more relaxed and able to communicate more freely (Halužan, 2012). This allows for honesty to come through for someone in early recovery, as those who have long histories of misusing substances tend to easily avoid the truth. The art allows a person to focus on something other than what is being asked of them, instead encouraging artistic expression, and allowing a person to be in touch with their feelings and needs (Feen-Calligan, 1995; Standora, 1981). This expression may then be used as a starting point for discussion; during which a person in early recovery is often able to start to make connections to ideas, thoughts, feelings, and emotions that have not been addressed and/or confronted in a long time.

Art therapy within the SUDs community has reached a level of significance where books can be dedicated to this focus, instead of an article or a chapter (Brooke, 2009; Schmanke, 2017). Schmanke (2017) concentrates on multiple areas within the scope of SUDs and art therapy, such as art therapy literature, theories, assessments, working with groups and spirituality. Brooke (2009) edited her book and included a variety of expressive arts modalities with an extensive sample of different populations from male offenders to children affected by parental SUDs to the

Deaf community and others. This study's principal researcher first began working with adolescents in substance use treatment twenty years ago and the research available was considerably less and the art therapy process was adapted as the work happened. It is important to note that SUDs issues are not just an American issue but affect the world on all of the levels, from individual to family to community, and the comorbid issues of mental health, occupational challenges, and social inequities are just as disconcerting in all of the countries (Brooke, 2009).

Alcoholics Anonymous (AA) is a main part of many treatment programs throughout the United States. The incorporation of art therapy is appealing due to the openness of creativity and the ability for art to access to subconscious (Julliard, 1994). An art therapist can relate the art directive to the 12-Steps, a cornerstone component of AA, and there have been art therapists who have created specific series of directives (Holt & Kaiser, 2009; Julliard, 1994; Stuebing et al., 2020). Allen (1985) identified the importance of art therapy focusing on the same treatment goals as the program thus increasing the possibility for change by receiving the same message in different formats.

When a person is beginning their journey of recovery there is a need for behavioral changes, such as emotion regulation and expression, distress tolerance and improved communication (Haluzan, 2012). When one is using substances, the reward system of the brain is highly activated and is "always on" making tolerance for discomfort or any sort of feelings to be very low, if it is even existent. The use of different art materials can elicit different responses while being focused on the achievement of specific goals for a client (Hinz, 2020). Small amounts of distress tolerance can be practiced as a client uses a new media, or maybe even one that is more complex to use. The artistic expression allows one to externalize their internal dialogue, sharing as much as they are able to in that moment (Allen, 1985; Haluzan, 2012).

These opportunities to practice these new skills can then be transferred to other areas of the client's life.

An art therapy group within a substance use treatment program can focus not only on themes from AA, such as powerlessness and surrendering, but also self-perception, loss, anger, family, and daily life (Allen, 1985). Additional goals using art therapy identified by Halužan (2012) are:

activation of multiple sensory systems, improving perceptions, releasing inner emotional tension by active work, discovering new knowledge through free pictorial expression, creating his or her own opinions on the drawing, boost in self-analysis resulting in personal conclusions and encouraging change (drawing, thinking, creating stories), updating the problem, enhancing creative thinking and making positive changes, graphomotorical exercise, group interaction (p. 101).

The fact is that the art therapist needs to be prepared for intense emotions and repressed memories that may surface during the creative act. This is another example of how important it is to have art therapy groups be facilitated by people with training in both art and psychotherapy.

Part of the journey of recovery includes reflecting on the actions a person has previously done and the changes they would like to make for their future. Art can assist in this exploration of thoughts, feelings, and behavior, which can then move a person towards self-regulation as they use this feedback system to track their progress (Bar-On, 2007). The focus on the process of creativity and innovation that naturally occurs during the making of art can foster growth and self-actualization (Standora, 1981). "Recovery, art and spirituality all require commitment and consistent effort" (Feen-Calligan, 1995, p. 48).

Art and Connection to Nature

Basilus Valentinus stated, “the earth (as prima materia) is not a dead body but is inhabited by a spirit that is its life and soul” thus connecting how various cultures honor the earth and clay (Souter-Anderson, 2010). The human-nature relationship is of increasing interest to researchers, and the scope of viewpoints is vast as is necessary to not miss any findings and to highlight any causal relationships (Seymour, 2016). The parallel relationship between self and the natural world and self and others is seen as beneficial when there is sameness, thus leading to greater empathy and compassion to both the natural environment and others (Dutcher et al., 2007). Seymour (2016) summarized Wilson’s Biophilia hypothesis as it emphasizes the evolutionary process of connection with nature and the innate preference for nature that is hard-wired. However, with all of the technology available today, and the pull towards machines, it is more important than ever to nurture this connection to the earth.

Working with hands and clay continues the “living experience of contact with natural elements – something primal immediate, personal, material, a dialogue between our dreams and the forces of nature” (Richards, 1962, p. 27). The idea of a primal connection may seem contradictory to the technology-driven society that is common in many first world nations, but it is something that is worth nurturing. It is part of the evolutionary growth that humans are naturally prone to, as well as the connection to the collective unconscious. As people tend to their daily lives, the focus of spirit is either front and center, or falls to the wayside as their different experiences vie for their attention; yet everyone has spirit and it deserves attention (Farrelly-Hansen, 2001).

This connection to spirituality is a concept that is central to SUDs recovery. The 12 Steps reference a “power greater than ourselves” which many connect to religion but more importantly

it is about a spirit outside of the person. Many cultures have found the connection to the land and nature to be essential for life, and practice ways to honor the earth. The clay represents a tangible way for one to be in contact with nature without necessarily needing to be out in nature, since that is not always an option for some.

Clay History

Clay comes from the earth. Being with the earth, taking in the smells and textures, is a sensory process. It is one of the first materials used by people to create structures and everyday items (Cooper, 2010; Henley, 2002; Souter-Anderson, 2010). Henley (2002) explained the “story of clay” as a demonstration of geological change that occurs over millions of years, where the water erodes the rock thus turning into rock bits, and more water, wind, and sand then make the bits smaller. As the bits settle into lakes and rivers, it is mixed with organic material and becomes raw clay (Henley, 2002, p. 21). Clay objects have been found in ancient civilizations and have endured, through the test of time, the best of all materials (Souter-Anderson, 2010; Staubach, 2005). Cultures have harnessed this material for use in their everyday life for thousands of years, with “the art of firing clay vessels” beginning on the Neolithic period (Blandino, 2001). Archeological finds have discovered clay figurines used in ceremonies from 28,000 years ago (Henley, 2002). Sherwood (2004) refers to the “primal raw truth” (p. 9) inherent in clay, and this contributes to its “intimacy and powerfulness” (p. 9).

Clay was first appreciated for its ability to stick together. There is evidence that clay pots were used for food preparation, as the remnants have been found as part of what was believed to be a fire (Cooper, 2010; Henley, 2002). Cultures likely came to pottery in different ways and found preferences for ways of working with the clay even using multiple processes (Staubach, 2005). Various cultures have since used clay as part of their community: for holding of items,

eating out of, ascribing magical properties to it, as part of death rituals, to name a few. Clay later became used for creative expression and as an art-form. Pre-dynastic Egyptian pots are a pictorial record of the time and showed how the people lived, prayed, deities, and sometimes historical events (Blandino, 2001).

As time has passed, ceramic containers have been made in multiple ways and ascribed different meanings. At times, they were given magical properties (Henley, 2002). Clay fertility symbols were made and either kept for their properties or let burn in a fire to emit their magical properties through the air to the whole village (Cooper, 2010; Schroeder, 2000). Blandino (2001) describes the magical properties as a way the people secured their survival, as well as having social and symbolic meanings. The Islamic potters developed the luster technique, which involves a third firing of the clay object at a low temperature after the thin metallic layer was applied, thus giving the illusion of precious metal (Blandino, 2001). Currently, technology continues to advance in its use of clay through semiconductors, automotive parts, and spaceship additions (Cooper, 2010).

Cultures have also used ceramic items to be part of their cultural rituals. In Japan, the Zen Buddhist tea ceremonies are very dependent on the teacup. When the teacup has mistakes, glaze abnormalities beyond the potter's control, or considered a "second" it is more favored and revered. Even when cups are broken, they are carefully put back together with a golden lacquer that highlights the crack. This process is known as Kintsugi (or Kintuskuroi), honoring something for its beauty because it has a history (of being broken) and that history should be appreciated and shown with pride (as it is now fixed and functional once again).

The opportunity for one material to change into another form by natural elements is very rich in symbolism. As clay originates from the earth in its primal form, it needs the addition of

fire, and this relationship between the two, where the clay becomes hardened by the fire is a powerful one (Henley, 2002; Richards, 1962; Souter-Anderson, 2010; Staubach, 2005). This transformation metaphor can be connected to those in SUDs recovery as their use of substances changed to abuse and is now once again changing to recovery. Change is scary for many as they embark on their journey in recovery, and the butterfly is a well-known symbol regarding transformation, thus it is used in logos for recovery and treatment programs across the country.

Clay as a Container

Henley (2002) referred to the Egyptian culture from 8,000 years ago who made large coil-built containers, and then two thousand years later, Persians were using a potter's wheel. Some cultures even perfected the creation of containers by hand that had so much precision, they looked like they were thrown on the wheel. The Jomon culture in Japan made the oldest known pottery vessels dated 12,500BC (Blandino, 2001). These vessels were most likely made by women, as the working of a craft was seen as women's work (Staubach, 2005).

The Zapotecs, a pre-Columbian civilization located in what is now Mexico, used vases, urns, and other pottery as part of funeral offerings in burial chambers (Schroeder, 2000). The Acoma Pueblo people are "bathed in a pottery bowl at birth and buried with pottery when they die" representing how pottery is ingrained in their culture as tradition, art, and a symbol of their people (Trimble, 1987). Indigenous people throughout the world have continued the customs of their cultures with pottery making and using the vessels for rituals, ceremonies, and decorative elements related to their culture (Cooper, 2010). Clay cooking pots appeared in connection to the discovery of fire, as pottery skills were associated with agriculture and settling down, and most archeologists believe women were the makers of these pots since domestic chores were their domain (Staubach, 2005). Additionally, the creating of a pot could be interrupted, as the women

needed to tend to childcare duties, since clay needed to firm up during the process of being made (Staubach, 2005).

The Pueblo people believed in using only their hands, as that was the connection to the earth and life-giving force and allowed for the shape to not be too perfect (Trimble, 1987). Small bowls were formed as pinch pots, while larger bowls were created using coils (Trimble, 1987), since before people invented the wheel, the clay was formed by hand. Cooper (2010) shared how some potters in Japan still use a pinching and squeezing method with small amounts of clay for tea bowls “because the qualities it offers are quite different from those of wheel-thrown ware” (p. 13). As modern technological advances have been made, many contemporary potters focus on the vessel as an object, using it as metaphor for different meanings, and possibly suggesting a connection to the mystical; all while creating with their hands as a nod to the earliest creations in clay (Cooper, 2010).

The Clay Figure

One of the earliest forms to be created in clay, the figure can be recognized with our eyes with very little detail and made with little effort on our part (a couple of small holes and slits can make a face) (Blandino, 2001). Twenty thousand years before vessels were widely made clay figures of people (gendered and non-gendered) and animals/birds were sculpted and baked in the household fire (Staubach, 2005). “Quickly modeled clay” has the ability to be an “alive, vital image in a way that no other three-dimensional material can” (Blandino, 2001, p. 7). The human form was included in many tombs from Cyprus during the early Bronze Age, and most likely fertility goddesses or fertility charms (Blandino, 2001).

Different cultures over thousands of years and continents have created figures of women, and they have been generally termed Venus figures though their historical context is largely

unknown, thus they have been ascribed the dominant cultural characteristics (Blandino, 2001). The Venus figures were made individually as people aptly responded to the “physical, social, and spiritual dangers and challenges of everyday life” (Blandino, 2001, p. 10). One of the most well-known fertility symbols is the Venus of Willendorf, however it was created out of limestone, but it is no less important in its significance. There are sites in the Czech Republic where the oldest ceramic artifacts have been found - Dolni Věstonice dated 29,000 – 25,000BC where the creations fired at a low temperature were destroyed as soon as they were created, with only fragments and a few human figures surviving (Blandino, 2001; Vandiver et al., 1989). In much of Mexico there are small hand-modelled figurines found and believed to be connected to rituals for crop fertility (Cooper, 2010).

Many of the earliest forms of figures are women, from young and shapely to pregnant and mothering to goddesses and offerings for the gods (Blandino, 2001). The figures are small and can be seen as personal pieces of art to carry around, however when looking at photographs of historical figures one is not able to feel the weight, see the texture, admire the craft of the creation (Blandino, 2001). The figures from the Late Bronze Age of Cyprus are heavily influenced by Syria and have a more curvaceous form, and are almost always holding a baby, created as a personal charm to hold, to increase the chance of giving birth; commonly known as Astarte figures (Blandino, 2001). Other human figures without a baby were created by Cyprus, and due to the way the feet are depicted it is thought that they are supposed to be lying down and be a “female companion” for the deceased and placed in tombs (Blandino, 2001). In contrast to the Astarte figurines found on Cyprus, known for the goddess of fertility, there were Yakshis found in India which represented the goddess of life from within the earth, always depicted with abundance of plants and flowers (Blandino, 2001).

Clay as Media

Clay is considered one of the traditional materials for use within the art therapy field (C. Moon, 2010), however, earthenware is challenging for most art therapists to work with it as it can be messy, needs time and space to dry, and must be fired in a kiln to be permanent. Interestingly, clay was used as the final part in one of the first formal art assessments created by Edith Kramer, as a way to assess a child's interaction with the different materials. Clay can be considered a regressive material on the continuum of materials, and for some art therapists that is not the direction they want to take the clinical work with the client. Clay can also be viewed as part of the Expressive Therapies Continuum, where it can be part of the kinesthetic and sensory components, depending on how one uses the material (Hinz, 2020).

Substitutions such as ModelMagic®, Plasticine®, air dry clay, or even Play-Doh® may mimic some aspects of working with clay but engaging with the earth can only happen with natural clay. Even within the realm of natural clay there are variances. Clay can contain different levels of grog – which is fired clay that is ground up and can range from fine to coarse. It is used as a binding agent for the natural earth, which helps the clay piece have more strength the larger it gets. Originally cultures used sand as a binding agent (Henley, 2002) but grog is the current additive most used today. The grog can change the tactile feel of the clay while lending itself to preferences for ceramic and clay artists. The more grog a clay has in its body, the sturdier it is when creating a piece, which works well for someone throwing or creating a large vessel or sculpture. Porcelain clay body has the finest particles of grog and some say it feels like working with cream cheese and does not have the same ability to withstand larger creations. However, only porcelain can be thrown so thin (and fired to a high point) that it can become translucent.

The use of clay activates multiple sensory experiences: movement, muscles, sensation, touch, sight, smell (Hass-Cohen & Findlay, 2015; Hinz, 2020; Sholt & Gavron, 2006). Even though one uses their hands to engage with the clay, there are other behaviors occurring simultaneously. Steadiness is needed when using the potter's wheel, as the clay responds to every touch and movement (Richards, 1962). All of the senses need to work together and using the clay can elicit memories within an individual (Sholt & Gavron, 2006). Sometimes it the smell of a fresh bag of clay that can transport someone back to a time when they were working with a different bag of clay and the successes they had at that time. Sometimes it is the way the clay feels, helping someone remember a touch memory and possibly eliciting certain muscle memory or other emotions (Elbrecht, 2013).

A potter has muscle memory when it comes to throwing on the wheel. Most potters perfect their technique and know when they are "off" by how it feels to them. Some potters may close their eyes at certain moments when throwing to feel the clay and shape beneath their fingers as it spins on the wheel. The handling of clay between the fingers as one creates a sculpture provides information back to the artist, as they know how thin the clay is getting based on how close their thumb and forefinger are. The clay contains a memory of shape and handling (Richards, 1962). A potter or ceramicist may try to "fix" a mistake that occurred during the creating process only to find that "mistake" reappear after the initial firing of the piece. Hass-Cohen and Findlay (2015) reported a quote from one of their research co-researchers, Janine Stuppel, describing her working with clay:

The earth is in my hands. It is soft and cold to the touch. Memories of childhood reenter my mind as I squeeze and allow it to gush through the tiny openings between my fingers. It reminds me of my first discovery, or taste for that matter, of earth ... What the earth

does for me is ground me and remind me of my roots. I am free to be with the earth again. It's quite enlivening. I spend my time playing with the clay. I have no intended shape or form for it, since I know that the clay will ultimately form itself. (p. 211)

Therapeutic Use of Clay

Clay can stimulate all of the body's senses, release repressed emotions, and bypass defense mechanisms (Elbrecht, 2013; Hass-Cohen & Findlay, 2015; Henley, 2002; Sherwood, 2004). Allen (1985) identified the importance of art therapy focusing on the same treatment goals as the program thus increasing the possibility for change by receiving the same message in different formats. Clay can be the different format for delivering the message of mindfulness. When working with clay there are benefits received even when an end product is not produced, as it is not always necessary to have one (Hinz, 2020; Ihde, 1999). Edith Kramer "emphasized the art-making process as the healing agent, rather than the art product as an entryway to the unconscious" (C. Moon, 2010, p. 7). The clay can be seen as representing impermanence for the physical object, a concept similar to Tibetan monks who create intricate time-intensive sand mandalas and then blow them away when finished. Elbrecht (2013) works with a technique called The Clay Field, which does not result in an end product yet focuses on the process and ways of working with the material.

As a material, clay allows for a non-verbal language (Sholt & Gavron, 2006) as external symbols are developed to represent ideas, feelings, relationships (Henley, 2002; Souter-Anderson, 2010). The clay process and product provide insight and information to the creator and this can be processed therapeutically. The therapist and the client are given an external representation with which to discuss and review in the session. Clay can create an "A-ha moment" between hands and the shape of the clay to connect to the person's internal

consciousness and touch memories (Elbrecht, 2013; Hass-Cohen & Findlay, 2015; Sherwood, 2004). Often when a person has suppressed their feelings or tried to ignore them, as is common with people with SUDs, this opportunity can be less-threatening than traditional talk therapy.

One can find freedom when working with clay that cannot be attained in the verbal world (Richards, 1962). There are various types of clay (earthen, oil-based, polymer, air-dry) and each can elicit different responses based on touch and the manipulation of the material (Hass-Cohen & Findlay, 2015). The role of the therapist is to be aware of these possible responses and choose materials according to their client's needs (Hinz, 2020). How the clay is presented can affect the process – wrapped/unwrapped, new/used, pre-formed/open supply, different types or one type (Hass-Cohen & Findlay, 2015; Hinz, 2020). When clay is used in a therapeutic environment it is with intention and understanding of the processes involved. Research has shown that people who receive instructions on what to make with clay and work with it for five minutes had an increase in their mood and a decrease in their state anxiety greater than when manipulating clay for 5 minutes with no specific instructions provided (Kimport & Robbins, 2012). Additionally, the previous research demonstrated that the simple manipulation of an object was not the sole factor for benefits of mood increase and anxiety reduction due to their control group using a stress ball (Kimport & Robbins, 2012).

Information provided by the sense of touch, referred to as haptic perception, that is central to clay use as well as the kinesthetic component involved, cannot be overlooked. Kinesthetic and sensory experiences can be elicited from physical movements that release energy (Argyle & Winship, 2018; Elbrecht & Antcliff, 2014; Hinz, 2020). McCormack (2014) noted multiple studies where the manipulation of three-dimensional objects has the ability to form complex pathways in the cortex related to behavior changes in response to stress. Tension can be

released, connections to life rhythms can occur, grounding, an opportunity to self-soothe, and increased awareness of the body can all occur when using clay (Hinz, 2020). When working with clay with individuals, it is important to remember that process and product are equally important (Henley, 2002). While previous research has demonstrated people on a psychiatric unit had overwhelmingly (87.8%) chose to keep their air-dry clay creations (Kimport & Hartzell, 2015), it is not the intent for this research. Considering this research is focused on mindfulness, specifically awareness of the present moment without judgment, the final product is not as important as the process. The focus of process and the impermanence of an object will be outlined with the co-researchers at the start of the study.

The way one works with the clay, with their fingers, hands, and arms; as well as the way that their hands interact with each other, all of this movement sends signals to the brain (Elbrecht & Antcliff, 2014; Hinz, 2020). This information helps a person process what is happening around them. However, with clay work, there is also information that is alerting a person to what is happening within themselves, as described by Henley (2002):

Claywork techniques are among the most dynamic and accessible in the practice of art therapy. Claywork processes are sure to stimulate all of the body's senses. Emotions which may have been repressed or inhibited often find expression through clay, as the deepest reaches of the psyche may be touched. (p. 55).

The above qualities of clay mentioned make it an ideal medium to use for an assessment related to mindfulness and stress reduction. It has qualities that can tell the trained therapist about a person's psyche, their childhood attachment patterns, sense of security, level of self-esteem and balance (Elbrecht, 2013). Watching a person use clay, whether it is their first time or the hundredth time, can also provide information about how they interact with the world around

them, their expectations of others, and their ability to get their own needs met (Elbrecht, 2013). Clay can be a reflection of mood, self-awareness, and ways one interacts with the others (Ihde, 1999).

How one works with their hands with the clay tells a story, thus allowing the art therapist to not have to delve into a client's history (Elbrecht, 2013; Henley, 2010). The approach one takes to the clay, the feelings about clay, and the way the clay is manipulated and touched are all part of the assessment a therapist can use for information (Bar-On, 2007). This early assessment may be the gentle introduction to therapy that could elicit a better response from some clients. The sense of touch holds the implicit memory, a person's body sensations and emotions, connecting them back to the language of the earth (Elbrecht, 2013; Sherwood, 2004). The use of clay makes a person get honest with themselves and the struggles they are battling, as the clay will shine a light on their defense mechanisms (Sherwood, 2004). These struggles may appear as frustrations with the clay, enchantment with one part and not another about the clay use, or an over-abundant use of water, to name a few examples.

Clay work can give "symbolic and narrative form to ideas, feelings and relationships" (Henley, 2002, p. 58). Using clay as a form of self-expression through squeezing, rolling, forming it can help "alleviate psychological, physical, neurological, and cognitive impairments" (Bae & Kim, 2018). Considering these concepts, the working of clay for a fifteen to twenty-minute time period should give enough information to the therapist about how to proceed in treatment (Elbrecht, 2013). Lastly, the use of clay has been shown to increase delta and theta activity (sleep state and internal focus (meditation-like activities) in the frontal lobe and increased right parietal lobe gamma activity (information and simultaneous processing) (Kruk et al., 2014).

The ideal way for the client to work is with their body centered to the workspace, feet planted flat on the ground, and their arms and elbows in line with their body (Elbrecht, 2013). This is true for either hand building, as will be the case in this research, or for using the potter's wheel. The trained clay therapist will be observing how the person works with the clay, with specific attention paid to "skin sense" and how one interacts with the tactile experience of clay (Elbrecht, 2013). This "skin sense" can be noted in how a person touches the clay (lovingly, immersing themselves in it, aggressive manipulations, moving it into separate sections) and the variety of pressure used (Elbrecht, 2013). The early sense of touch gives way to balance as an infant matures into a young child (Elbrecht, 2013). Balance can be represented in the clay work as demonstrated by a person making two shapes, only working on one side of the clay field, or separating pieces of clay and then reintegrating them into the whole (Elbrecht, 2013). While the client is working, encouragement is provided, "how" and "what" questions are asked (to focus awareness and involve the cognitive aspect of the work), and then ends with reflective questions to bring the client back to time and space and reflect on their creativity (Elbrecht, 2013). It is always important and ethical in art therapy to reorient a person after the art directive is completed. The way one engages with clay can be a reflection of ways one engages in other areas of their life (Elbrecht, 2013; Ihde, 1999). Women in substance use treatment programs are learning about themselves and the way they interact with the world, thus using clay with a present moment awareness may provide information that was not previously known to them.

Hands and Haptic Perception. To work with clay, from digging it from the earth to creating something out of it to hardening it in the fire, one must use their hands. Hands were the first tool used by humans. It was also a way to communicate with others and leave a mark. Hands were part of the original connection to the earth, as humans planted and received sustenance

from the earth (Farrelly-Hansen, 2001). The ancestral tribes in Australia used ground rock to help make either an imprint of their hand or an outline of their hand shape (A. Etherington, personal communication, November 12, 2019) possibly as way to let others know they have been there, to mark their territory, or share “imaginative capacity” (Henzell, 2019, p. 118). When one works with their hands it can provide stress release as there is a mind-body connection occurring (Schmanke, 2017), more specifically “physical sensorimotor hand usages along with ocular movements” (Bae & Kim, 2018, p. 6).

“Clay feels good to the touch” and mud is a “sensuous substance” (Staubach, 2005). Haptic perception occurs as one works with clay, with the hands interacting with each other and the clay (Bae & Kim, 2018; Elbrecht & Antcliff, 2014; Sholt & Gavron, 2006). The clay is the intermediary between one’s hands and their way of knowing, bringing them back to a place of connectedness with the earth. There is a language between the hands and the clay that allows a person to listen with more than their ears (Richards, 1962). Research has shown when a person is more focused and motivated to do the activity with their hands that functional neuroplastic changes occur (McCormack, 2014, p.12). McCormack (2014) expands upon this, which can easily relate to clay therapy:

The neuroscience evidence is clear; it does not seem to matter if a client is working with therapeutic media (crafts) or performing an activity of daily living; it is the combination of mental engagement and the somatosensory stimulation derived from the manipulation of objects with the hands that can indeed influence the state of one’s own health. (p. 12)

Hands are also used for creative endeavors – making music, creating art, part of a dance, cooking, or writing (poetry, fiction, non-fiction etc.). Making an item with one’s own hands can be seen as a way to increase pride and self-confidence (Hesselberth, 2018). When hands are used

as an image in art therapy (symbolically, traced, or free-drawn) it can be an important part of the therapeutic relationship (Hass-Cohen & Findlay, 2015). Muscle memory is held within a person's hands, and repetitious motions are remembered and easily repeated. This can be helpful for creative work with clay on the potter's wheel, as the beginning process for all shapes starts out the same way, and this proves to be a necessary skill when making a set of something (plates, bowls, cups, etc.).

The way the human hand is shaped and the ability to use opposable thumbs is mostly distinctive to homo sapiens, yet the use and reason for the thumb is continually debated (Adler, 2014). A child uses their hand to explore the world around them and develops fine motor skills as they mature. This feedback is the foundation for haptic perception, which can only be activated when an object is in arm's length unlike visual perception (James et al., 2002). Hands are used to make connections to others through the shaking of hands (Hass-Cohen & Findlay, 2015), or hands grasping the forearm of the other person as a greeting. Other ways the hands communicate is through the ability to write (Hass-Cohen & Findlay, 2015), or use sign language. A person's haptic perception is through the discriminative touch, that is the physical touch through skin receptors providing information back to the brain (Coelho & Gonzalez, 2018; McGlone et al., 2007), while the proprioceptors receive information from the joints, ligaments and muscles (Coelho & Gonzalez, 2018). Hands can hold mental and symbolic representations within the memory of touch (Elbrecht, 2013; Hass-Cohen & Findlay, 2015).

Touch. One of our first senses to be used is touch (Elbrecht, 2013; Sholt & Gavron, 2006). Touch holds the implicit memory, a person's body sensations and emotions, connecting them back to the language of the earth (Elbrecht, 2013; Sherwood, 2004) and is a "fundamental form of interpersonal communication" (Hass-Cohen & Findlay, 2015, p. 206). People learn about

“good touch” and “bad touch” based on experiences both as the giver and the receiver. The first pleasant touch as an infant received from a caregiver releases oxytocin (Hass-Cohen & Findlay, 2015). The memory of being hugged, holding hands, slapped, or pushed are all related to touch and communicate different feelings and relations. A person emotionally reacts to being touched based on their past experiences.

Fingers have the most sensory receptors in the body (Elbrecht, 2013). Fingers activate parts of the brain for storytelling and self-awareness, while the exploration with fingers allows one to “make sense of their experiences” (Elbrecht, 2013). As children learn about their world, they do it through the sense of touch. Feedback regarding different textures, temperatures, and comfort is received through the fingers and touch. Various memories of different types of touch can bring up unconscious reactions (emotions) and rational feelings (Hass-Cohen & Findlay, 2015). Clay work encompasses the “intense and powerful tactile experience of touch” (Wong & Au, 2020, p. 192) and through this manipulation of clay is self-discovery (Sholt & Gavron, 2006; Souter-Anderson, 2010). It should be noted that there is not one singular way towards self-discovery, and as such, this research employed both qualitative and quantitative methods to explore the topic of using clay to elicit mindfulness with women in early substance use recovery.

Mixed Methods Research

Research can be designed in a multitude of ways using different combinations of qualitative and quantitative methods. This research has integrated both types of data collection methods to increase and expand the understanding of the phenomena being studied and used a convergent mixed methods design. The choice provided for the opportunity to “describe, explain, or evaluate” the datasets as the topic is multi-faceted (Levy, 2017, p. 164). The addition of the quantitative measures added value to learning about the co-researcher’s lived experiences to

create a richer understanding, and to “confirm or disconfirm the qualitative findings” (Creswell & Creswell, 2020, p. 240). Gathering this variety of data can possibly make the results more relatable and generalizable to previous research concerning women, substance use recovery, and clay use.

Phenomenological Research

Phenomenological research is a qualitative inquiry focused on the lived human experience. SUDs affect how a person lives and the choices they make, thus their human experience is a current focus for many. Research that is concerned with the essence of the experience is dependent on the co-researcher’s ability to be reflective about their own experience. Part of phenomenological research includes doing interviews with people to capture their own words about the experience. Kvale (1996) has written that the purpose of the interview “is to obtain descriptions of the life-world of the interviewee with respect to interpreting the meaning of the described phenomena” (pp. 5-6). Reynolds and Prior (2006) chose semi-structured interviews “because they have the advantage of being both able to explore commonalities in participants’ experiences and flexible enough to probe unexpected responses” (p. 3). Previous research stated qualitative inquiry is needed to understand the “underlying mechanism” about the “value of working with clay in art therapy” (Kimport & Hartzell, 2015, p. 188). Mala Betensky (1977) has written on the subject of art therapy and the phenomenological approach and centered on the “maker’s subjective experience of self-discovery” (p. 173).

Hagens (2011) conducted a qualitative study to determine the contributions of art therapy to women in recovery who had a history of relapsing. She noted that the art therapy sessions created a space of safety allowing exploration of self and disclosure of personal histories. She stated that the art allowed for negative feelings to dissipate, space to practice problem solving

skills, and increased the women's self-confidence. Hagen's (2011) research demonstrated the significance of using art with women in recovery to assist with their own understanding of the process for themselves. Providing an opportunity for women to discover their own narratives and incorporate them into their way of being relates to this study in that the women will be exploring their use of clay connected to a state of mindfulness, and possibly how that state can be transferred over to other areas of their lives.

With Clay. Qualitative research blends nicely with studies including the use of clay, as the experience is valued and examined through the words of the person using the clay. This experience can be different for each person and yet there can be related themes that emerge from the discussion. Abromowitz (2013) conducted a qualitative study with older adults and unstructured use of clay. She was able to work with four older adults twice a week for fifteen weeks. This allowed the opportunity to obtain multiple points of data used for her research – field notes, photographs of the artwork, interview questions, interview data. It was determined that the benefits of working with clay in an unstructured manner were due to it being a unique medium that provided for self-direction and self-expression.

Bar-On (2007) conducted arts-based qualitative research to explore artists and non-artists verbal and non-verbal dialogues with clay, with dialogue being defined as the relationship between creator and clay as well as the forms created. The results indicated the differences between thinking and doing, as one engages with the clay. Bar-On defined these into four modes as planned thinking, associations, a group who did both, and a group who started out as planned thinking and then made a second creation by association. The benefits of this research, as defined by Bar-On, in regard to clinical work assists with understanding individual thinking-doing styles as applied to responses to new situations, problem-solving, idea generation, and self-perception.

Timmons and MacDonald (2008) conducted a phenomenological study with interpretive phenomenological analysis to determine the experience of using clay for those with a chronic illness. Their study included six people (five were women) who used clay occupationally (therefore a high level of experience with the medium) and also had a long-term illness. Their findings used an idiographic approach to analysis, and they found four themes. The two most relevant to this research was the identification of the process being beneficial to subjective well-being and the “alchemy and magic” of clay. Further definition of the subjective wellbeing referred to the engagement in the process, resulting in flow, and also enabling them to lose their awareness of self so that negative thoughts were not present. The “alchemy and magic” were words used by one person but summed up the experience of using clay and the feeling of working with one’s hands (not needing to use tools to separate oneself from the material) and with the elements (air and water within the clay itself and fire to transform the earth to the final permanent product). Additionally, there is an opportunity for choice and control, or lack of control, as one works with the clay which was described by one person as “being a living material, which can become ‘tired’ at times or has ‘vibrancy’ at others” (p. 91). Their research showed the depth of understanding a person can achieve when given the time and space to explore their engagement with clay. This research can build on this knowledge and contribute to the understanding about the experience of working with clay.

While Bae and Kim’s (2018) study was observational, their findings about the benefits of working with clay cannot be overlooked. In their 8-week study it was concluded that working with clay provided increased mood, better self-expression, increase in quality of life and improved hand dexterity (as their population was those with Parkinson’s Disease).

Conclusion

Substance use disorders are a global issue and yet in 2017 only about 19% of people affected sought treatment (SAMHSA, 2018-b). There are differences between men and women in recovery programs, such as safety, self-esteem, and trauma histories. People come to treatment with co-morbid mental illness and that is also part of treatment. Using a Positive Psychology framework, helping people learn about mental well-being, finding their strengths, and infusing optimism and hope, can benefit SUDs treatment. Knowing that SUDs have a high rate for recidivism it is important to provide as much effective treatment as possible when people are in a program. Mindfulness has become a significant part of many treatment programs, which is especially useful since the reward pathways of the brain can make one act without awareness. Additional components of treatment programs include adjunctive therapies such as art therapy, to provide alternative manners to access the knowledge within the self, build self-esteem, connect concepts of the 12-Step model, and allow creativity to flow. This research will explore how using clay and one's hands, reconnecting to the earth and to oneself for present moment awareness can provide a state of mindfulness to allow for ongoing sobriety within a modern society.

Chapter 3 Methodology

This chapter will discuss the methodology utilized in this convergent mixed methods design using a phenomenological approach for the qualitative method and a positive psychology theoretical orientation. The procedures for data collection and data analysis will be reviewed and explained, as they relate to the population and research questions. The risks and benefits to the co-researchers, as well as their protection and the protection of the data will be discussed.

Research Questions

This study explored the experience associated with the act of creating with clay and how, if at all, the clay making experience related to mindfulness or acceptance of the present moment without judgment. For those in recovery mindfulness relates to accepting their diagnosis, past events, and who they are as a person without judgment. The use of clay in this research highlighted the process of engaging without having the pressure to produce a final product, since the clay was returned to its original sphere shape at the end of each session. In addition, the concept of impermanence blended well with the concepts from positive psychology, including Flow, and letting go from the tenets of AA. Using clay, which necessitates tactile engagement, differentiates this medium from other materials in art therapy (Wong & Au, 2019) and may involve other aspects of recovery as the women work with the clay over time. The use of material from the earth, the clay, provided a connection to the natural world and possibly the spiritual realm. The data utilized to answer the research questions consisted of written self-reflections, questionnaire answers, and open-ended semi-structured interviews with the participants, also called co-researchers. The research questions were stated in Chapter 1 and will again be stated in Chapter 4, when the results are discussed.

Research Design

This was a convergent mixed methods study that used a phenomenological-based qualitative investigation with quantitative features and included a positive psychology theoretical framework. Qualitative design was chosen for the specific reason of exploring the topic, rather than confirming an already known hypothesis. The researcher chose this design to highlight the process of working with clay, and the felt experience of those allowing for an exploration of the unknown in a deep and meaningful way. Phenomenological research is focused on understanding “the meaning and nature of an experience” (Kapitan, 2018, p. 191) using “process-oriented language” to answer the how and why questions of social interactions (Van Lith, 2019, p. 84). The questions posed in phenomenological research are of importance to social meanings of the human experience and behavior, and have personal meaning to the researcher (Moustakas, 1994). In addition, these questions relate to finding out and describing the essence of an experience, ultimately illuminating the co-researchers’ lived realities (Kapitan, 2018). Using this framework allowed the researcher to highlight “the need to understand human beings in human terms” (Finlay as cited in Kapitan, 2018, p. 184). Using clay and the connection to mindfulness was a seamless fit for this qualitative research design, as it encouraged the research to be about the process and experience, therefore leaving room for each different co-researcher’s perspective and understanding.

Since qualitative research is interpretive, it was necessary for the principal researcher to “explicitly identify reflexively their biases, values, and personal background, such as gender, history, culture, and socioeconomic status (SES) that shape their interpretations formed during a study” (Creswell & Creswell, 2020, p. 208). Additionally, the reflection on personal experiences and how these may inform or skew the interpretation of results helps to complete the self-

reflection (reflexivity) process (Creswell & Creswell, 2020). When a phenomenological design is used as part of the qualitative method there are mindsets other than the researcher's included as part of the process.

The principal researcher adopted “the phenomenological mindset known as *epoché*, which means ‘to stay away or to abstain’ from judgment” (Kapitan, 2018, p. 193). The phenomenological researcher must keep judgement aside and experience the research as if for the first time. Additionally, Kapitan (2018) likened the process of *epoché* to that of mindfulness as it involves the act of being fully aware and still in one’s mind. As phenomenological research includes the researcher, this idea of *epoché* was a parallel process for the principal researcher and the co-researchers. While the focus of inquiry related to mindfulness, the act of being with the data analysis also required a level of mindfulness on the part of the principal researcher characterized by openness to what showed up and the ability to be present with that information without preconceived notions or judgment. The use of this approach was most appropriate for this study because both the topic and the methodology involved mindfulness. Therefore, this qualitative phenomenological investigation aimed to discover how women in substance use treatment experienced the use of clay, and if their experiences, as told by them, related to what is known about mindfulness and recovery from substance use disorders.

As is appropriate when using the phenomenological research approach, the principal researcher undertook the endeavor to set aside her biases as well as her experience and knowledge around clay use. This process is referred to as *bracketing* and it helps to ensure that the information that emerges can be clearly seen by the researcher (Kapitan, 2018). The principal researcher made an effort to avoid projecting onto her co-researchers her own experience of many years of working with and enjoying clay, as well as her personal experience of stillness

while creating with it. This bracketing created the *epoché* in the research where the principal researcher attempted to avoid preconceptions and judgement (Kapitan, 2018) and acknowledged and set aside any personal biases in the process.

Positive psychology was the theoretical framework for this research as it focused on the subjective experience of flow and well-being in the present moment (Seligman & Csikszentmihalyi, 2000). Csikszentmihalyi reflected upon positive psychology as a framework to focus on “strength and virtue” while still using a scientific method to explore human behavior (Seligman & Csikszentmihalyi, 2000). Seeing as this research used phenomenological methodology and was focused on women in early substance use recovery, the positive psychology theoretical framework felt appropriate as it is focused on authenticity and values (Linley et al., 2006). Paying attention to the present moment with awareness can facilitate self-knowledge and can help a person have a cohesive and effective way of being in the world (Temme & Kopak, 2016), thus allowing for personal growth during the early stages of substance use recovery.

Co-researchers

The eleven co-researchers (CRs) were self-selected from a residential women-only substance use treatment program in Northern California. Originally there were thirteen CRs however two were unable to continue after the first and second sessions. They were all adults aged 25-54, who reported self-assessed comfort with the English language, with a varied ethnic make-up. This research study was open to any cisgender or trans woman who was currently residing at the treatment program. All CRs were voluntary and in the early stages of recovery. For this research, early recovery was defined as the person having under one year of sobriety from alcohol and/or other drugs. Due to the self-selection criterion, it is probable that the CRs

were interested in working with clay, and some had had clay experience, or had an art background; this may have led to biases in the results, and these will be addressed in the discussion section.

All CRs were recruited from a singular women's residential substance use recovery program located in Northern California. This program has been established for over 150 years, serving women with substance abuse issues, mental health issues, intergenerational trauma, and poverty. The program supports the women with their medical and dental health, legal issues, and assists with securing housing after completion of the program. There are women who are pregnant and parenting (as they can have their children up to age 3 live with them), who receive support for their current medical needs and the medical health of their children. A major focus of the agency is keeping families together through dual-diagnosis treatment, support and connection to resources, and a safe place to begin the healing process.

The research took place in the art room which was a second-floor room with good lighting. There was a sink and plenty of table space to be creative, as well as have social distancing. This was the same room that the women used for art therapy groups and other groups offered as part of the treatment program. All research was completed on-site by the PR who was also concurrently providing group therapy and art therapy services to these women.

Measures

Demographic Questionnaire

Each CR completed a brief questionnaire to determine their age, ethnicity, religion or spirituality, level of education, sexual orientation, marital status, parental status, and length of sobriety (see Appendix A).

Mindfulness and Well-Being Surveys

Two surveys based on mindfulness and well-being were administered at the end of each session. The State Mindfulness Scale (SMS; Tanay & Bernstein, 2013) and the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS; Stewart-Brown & Janmohamed, 2008) were chosen for their focus on the matter being studied and their succinctness. Both scales are written in everyday language allowing for people of varying levels to report on their experiences. All items were measured on a 5-point Likert-type scale ranging from 1 (not at all or none of the time) to 5 (very well or all the time).

State Mindfulness Scale. The State Mindfulness Scale (SMS) is a 21-item scale that measures two levels of mindfulness during the specific time frame of the past 15 minutes and context of having just completed a mindfulness experience. Due to copyright permissions, the scale is not included as an appendix, but was allowed to be used for the study as no permission was needed for research use. The first is what a person attends to, or “the objects of mindful awareness” (Ruimi et al., 2019, p. 5) which focuses on the physical and mental states in the present moment. The second level is how a person attends to an experience, or “the qualities of mindful awareness” (Ruimi et al., 2019, p. 5) which focuses on perceived sensitivity to stimuli, curiosity, deliberate attention, and willingness to feel one’s subjective experience). Numeric responses are collected from 1-Not at all to 5-Very well when answering the instruction of indicating how well each statement reflects their experiences within the past 15 minutes. The higher scores indicate a greater level of mindfulness. Sample state mind items include, “I felt closely connected to the present moment,” and “I noticed pleasant and unpleasant thoughts.”

Additionally, the time frame being studied may be adjusted based on the context of interest (Ruimi et al., 2019). This assessment was originally tested on a college campus in Israel

and has since been normed on adults using yoga (Roche et al., 2016), college students in the United States induced to a mindful state (Bravo et al., 2018), adult smokers (Luberto & McLeish, 2018), and adults experiencing negative state affect (Hussain et al., 2020). The reliability is reported with a strong internal consistency when measured alongside other mindfulness scales (SMS total $\alpha = .92$, Mind sub-scale $\alpha = .91$, Body sub-scale $\alpha = .85$) (Ruimi et al., 2019). While research about the change in mindfulness from week to week was not mentioned in previous studies using this scale, Garland et al. (2017) reported using a different yet similar mindfulness scale and found statistical difference from week 1 of their study to week 4, with the difference being much smaller from week 4 to week 7. Permission is not needed for non-commercial research and the scale may be reproduced for those engaged in a study (see Appendix B).

The State Mindfulness Scale (SMS) has two subscales, and previous research has combined the sums when looking at results as the separate numbers did not reveal additional information (Bravo et al., 2018). Hussain et al. (2020) reported that the average scores of the SMS in their study ranged from 59.10 – 64.30 pre-test and 55.90 – 68.70 post-test (out of the possible 105 points achievable) noting that the higher the score the greater the level of mindfulness present for the individual, which correlates to the original research averages of approximately 50 – 86 (Tanay & Bernstein, 2013). There do not appear to be any cut-off scores for the SMS based on previous research (Ruimi et al, 2019; Tanay & Bernstein, 2013).

Well-being Scale. The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) is a 14-item scale of positively worded mental well-being that covers positive psychological functioning as well as positive subjective well-being (Stewart-Brown & Janmohamed, 2008; Tennant et al., 2007). Due to copyright permissions, the scale is not included as an appendix, but was allowed to be used for the study as no permission was needed for research use. This

assessment is normed on adults across Europe (Gremigni & Stewart-Brown, 2011; Lloyd & Devine, 2012; Smith et al., 2017) and translated into Spanish (Castellví et al., 2014; López et al., 2013) and German (Lang & Bachinger, 2017) demonstrating good validity and reliability. There is good content validity shown through Cronbach's alpha score of 0.89 (student sample) and 0.91 (population sample) with high correlations with other mental health and well-being scales and lower correlations with scales measuring overall health. It is important to note that the short WEMWBS was not used due to research from England noting that there is a gender difference in the short WEMWBS due to the removal of the questions related to affective or feeling components of well-being (Ng Fat et al., 2017). Numeric responses are collected from 1-None of the time to 5-All of the time when answering the instruction of indicating how well each statement reflects their experiences within the week.

The one-week timeframe was kept for this research to ensure the integrity of the original instructions for this measure and how it has been normed. A minimum score is 14 and a maximum score is 70. Argyle and Winship (2018) used this measure for a mixed methods study involving clay and found that there was an increase of nine points from week one to week four, thus demonstrating that well-being can improve with one weekly clay session and be detected in the WEMWBS. Sample items include "I've been feeling optimistic about the future," and "I've been feeling relaxed." Permission is not needed for non-commercial research and the scale may be reproduced for those engaged in a study (see Appendix B).

The original research for the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) stated that out of the possible 70 points achievable the median score was 50 for their student sample and 51 for the population sample (Tennant et al., 2007). The WEMWBS had a one-point difference between men and women, and a three-point spread for age differences with the lowest

median score (=50) in their population sample being for the 45-54 age group and the highest median score (=53) for the 16-24 age group (Tennant et al., 2007). Smith et al. (2017) reported percentage of answers for each of the items in the scale as well as the median score for each item based on their sample of 799 persons, with 73% being women, 44% having higher than secondary education and average age of 37.3. It was possible to see a change weekly, as previous research detected an increase in the WEMWBS with a pre-posttest design of a 30-minute intervention and although the effects were not present one week later, they recommended future research to extend the time involved working with clay (Wong & Au, 2019)

Individual Writing

Each session, the women were asked to write a short paragraph describing their experience and reflect on any feelings, thoughts, or challenges they had while creating with the clay (see Appendix D). This was done to provide the women some space to move from their creative and meditative space back into their cognitive space of answering questions as part of the semi-structured interview.

Semi-structured Interview

These questions were developed by the researcher to further explore the connection of the act of working with clay to the experience of mindfulness. A semi-structured interview is ideal for this type of study because each person was asked the same questions; however, conversation and additional questions allowed additional information to emerge (see Appendix E). The basic questions were:

1. What was it like to work with the clay?
 - a. What emotions arose while you were working?
 - i. Feelings, thoughts, and other observations such as energy level engagement level, frustration tolerance
 - b. What qualities of the clay did you like or not like?
 - c. How did it feel to use the clay?
2. What thoughts did you have about working with the clay in relation to what you made?
3. While you were working, did you have any thoughts about your recovery and the process of recovery? And if so, what were they?
4. While you were working, did you have any feelings about a connection to something greater than yourself? And if so, what was that like?

Researcher Notes

Part of qualitative research process includes an *observational protocol* that incorporates both descriptive notes and reflexive notes developed and completed by the principal researcher prior to the start of data collection (Creswell & Creswell, 2020). Notes were made both during and after the sessions and included observations, early analysis and reflections, and self-reflections (Kaplan, 2018). Descriptive notes included observations of what the CRs did, how they worked with clay, or answered certain questions. Reflexive notes were the PR's reflections on the interactions and experiences that occurred and how they related to theory or specific research questions. Reflective notes also included the PR's own thoughts and feelings, awareness's, and insights that arose during the session. All of this data was collected as a way for the PR to bracket her own biases when analyzing the data and to help make connections between

emerging categories and themes from the qualitative data as well as to connect theory and previous research. (see Appendix C).

Data Collection Procedures

The data collection was designed to occur individually during four weekly sessions; however, there were times when more than one week passed between sessions. To help ensure their comfort, the process began with a structured directive and moved to an unstructured directive, as the women might not have had experience working with clay (Argyle & Winship, 2018). As is usual with a convergent mixed methods research, the qualitative and quantitative data were collected concurrently. The qualitative data was obtained through the art making process, individual writings, and semi-structured interviews. The quantitative data was gathered through established questionnaires to obtain information about mindfulness and well-being. The PR kept written notes describing each session as well as documented the clay creations photographically. The women were treated with dignity and respect throughout the process honoring their contributions and time. An atmosphere of openness and nonjudgement was created during all meetings between the principal researcher and co-researchers.

Each of the four, individual 45 to 60-minute sessions spent with the CRs included three activities: (1) creating with clay, (2) processing of the experience, and (3) completion of the Mindfulness and Well-Being measures. The processing about the clay experience included writing a brief reflection and answering open-ended questions in a semi-structured interview format. The qualitative data which included written reflections on the clay making experiences and verbal responses to semi-structured interviews about the process, were analyzed using an inductive process to determine categories and themes of experience. These categories and

themes were then compared to themes in current art therapy research to explain the experience of clay use with women in early recovery.

During each session, the space was set the same, with earthen clay material introduced to the CR. Earthen clay was specifically chosen because it comes from the earth possibly fostering a greater connection to nature and the spiritual aspect of creation, and because it has grog (minute pieces of already fired clay to assist in building and drying) to symbolize the “grit” one needs to engage in recovery. In the first session, the PR explained about how to create a pinch pot. In subsequent sessions, a small selection of wooden tools was provided for use. The CR began each session with a ball of clay about three inches in diameter, slightly larger than a baseball as used in research by Kimport and Robbins (2012), and then completed the session by returning their creation to the ball of clay. Not keeping the creations had a two-fold meaning.

First, the women focused on the *process* of working with clay for this research and not the *product* made, as this connected to mindfulness and awareness of the present moment. Previous research found a benefit of not keeping clay work allowed the participants to honor their individual response to the material and not be concerned with creative expectations (Argyle & Winship, 2018). Second, due to the transient nature of many of the women’s lives it was best to not imbue a particular object with meaning, but instead have the meaning of the experience be something they could keep with them internally. Each woman received a fresh-straight-out-of-the-bag ball of clay during each session, so they were always the first and only person to use that clay. This began as a concern for health and safety due to the pandemic but proved to be a benefit throughout the research. Once the creation was completed, they set it aside and took a few minutes to look and reflect on it, and then wrote a reflection of their experience. Photographs were taken of their creation. The PR conducted semi-structured interviews, asking open-ended

questions about the CR's experience of the art making process, experience of the use of clay, and their own perceptions about their recovery while working with the clay. It should be noted that the CRs were not working with clay in their art therapy groups.

Session One – Structured Clay Work

The first session began with informing the CR of the purpose of the research to ensure that each woman understood the research and the risks and benefits of their participation. Each CR had the opportunity to ask any questions and was informed that there would be no consequences to their treatment if they declined to participate or leave the study at any point. The consent form was offered to be reviewed in detail, for those with challenges in reading, processing, or comprehension. They were asked to sign the consent form indicating their understanding of the research and knew they could withdraw at any point with no repercussions. Following informed consent, the CR completed a demographic questionnaire.

The first session began with a few rounds of box breathing (a mindful manner of breathing) and an introduction by the PR to clay (which included instruction to roll the ball of clay around in their palms activating their heart chakra) and a brief history of pinch pots. The PR demonstrated basic instructions about how to create a pinch pot and the CR continued working with clay to create their pinch pot. The PR did not plan to work simultaneously with the CRs, to help eliminate the feeling of competition or inadequacy by the women; however, at the third session (out of the 47 sessions completed) it became apparent that it put the women at ease to have the PR working on her own clay creation at the same time. Following the clay creation, the CR wrote a paragraph describing their experience, and completed the Mindfulness and Well-Being measures. The CR and PR engaged in a brief semi-structured interview about the experience. Photographs were taken of the clay pinch pot. Following the interview and

photographing, the clay was returned to its original, spherical shape by the CR and the box breathing ended the session.

Session Two – Structured Clay Work

The second session occurred approximately one week later and followed the same format, minus the signing of the forms. The session began with the box breathing, and the providing of clay with the instruction to roll the ball of clay around in their palms activating their heart chakra. The PR gave a brief introduction to the history of human form in clay and demonstrated how to use the clay tools. This second structured session focused on creating a human form. This included the CR having ample time to create, reflect on their creation through writing, complete the two questionnaires, engage in the short, semi-structured interview about the experience, and ultimately return the clay to the original spherical shape. After the reflective writing, the PR took photographs of the creations.

Sessions Three and Four – Unstructured Clay Work

The third session followed approximately one week later and followed the same format as the second session, with the focus of creation being unstructured or whatever the CR wanted to create. The PR provided brief guidance about how to let the clay help guide the CR if they were unsure what to create. The session concluded with the clay returning to its original spherical shape. The written reflection, the questionnaires, and the semi-structured interview were all completed. The fourth session followed the same format, approximately one week later. Both sessions began with the box breathing, and the providing of clay with the instruction to roll the ball of clay around in their palms activating their heart chakra. At the end of each of these sessions the semi-structured interview included one additional question inquiring about the CR's preference between working on a structured directive versus an unstructured one. At the end of

the fourth session this conversation was taken further by discussing if the CR preferred being directed or choosing to create on their own.

Data Analysis

Qualitative Data

The data obtained from the individual interviews and writings were analyzed using an inductive systematic method. The creations in clay were considered only in relation to the experience the women shared, and when the choice was theirs to make then just for subject matter, as the focus of this research was not on the product created. Analysis of the interviews began with the listening of the interview with notes being created along the way and with the transcription and the review of all observation notes (Maxwell, 2013). The information was both organized by themes and reviewed as whole in context of each transcript, as one without the other will not provide a complete picture of the experience being studied (Maxwell, 2013).

Using the systematic method Giorgi outlined, as described by Wertz et al. (2011), the principal researcher “(1) read for a sense of the whole; (2) differentiated the description into meaning units; (3) reflected on the psychological significance of each meaning unit; and (4) clarified the psychological structure(s) of the phenomenon” (p. 131). This required the first reading to be just a reading, as a way to familiarize oneself with the information. Then the information was read again and explored for themes that emerged based on the research questions (with each question being given individual attention). It is at this time that the PR employed bracketing, to refrain from judgment allowing the information to be seen with a clear perspective (Kapitan, 2013). All the data was grouped together with themes from the written paragraphs and reflexive notes, looking at both similarities and differences. Lastly, the data was reviewed for the relationship among the information provided, known as connecting strategies, to

demonstrate how there are connections between the themes, not just the similarities and differences (Maxwell, 2013).

Quantitative Data

These quantitative measures were included to supplement the qualitative data and to enhance understanding of the effects of mindfulness and well-being with each individual. Furthermore, it was hoped that this data would allow greater comparison of the results to previous studies and enhance the generalizability of the results. The measures were thought to objectively reflect the state mindfulness and mental well-being after each of the sessions.

Risks and Benefits for Co-researchers

The risks to CRs from participation in this study were deemed to be minimal in relation to the potential benefits. It was possible that the CRs experienced minor psychological or emotional discomfort when completing the questionnaires, engaging in the clay process, or discussing the process with the PR. This was addressed in the Informed Consent interview, along with the caveat that should further intervention be needed, the PR ensured the CR would receive time to meet with a clinician employed at the treatment center. All CRs were made aware that their participation or withdrawal from the study was voluntary and in no way affected the treatment they received through the program in which they were enrolled, nor would it affect the relationship the PR had with them during the ancillary groups led by the PR.

The benefits that could have been experienced from participation were varied. It is possible that the act of working with clay could have natural relaxation properties, as well as provide the CR with some space to be with their own thoughts in a quiet space during the day. It is also possible that the opportunity to be still allowed for a moment of mindfulness, giving time for each woman to be in the present moment. The use of the clay may have highlighted the idea

of impermanence for the CR, a desirable quality when one is working on letting go (the concept referred to in SUDs recovery about letting go of the past, of resentments, of mistakes, and other situations that may keep a person stuck in a negative loop of shame. Additionally, the processing of the creations immediately after being made may have been an opportunity for the CRs to learn about and understand the benefits of working with clay and how it related to their own present moment self-awareness. This new awareness about the clay and its ability to induce positive thoughts and feelings may contribute to the CRs using clay regularly for self-therapy or seek out professional art therapy services in the future.

Protection of Co-researchers and Data

The protection of all co-researchers (CR) was primary, as was maintaining their dignity throughout the process. Each CR was treated with respect and honor and appreciated for their participation during each session. They were provided information about their decision to participate as well as their ability to withdraw participation at any point in the study, both verbally and in writing, using the standard of education for a 6th grade reading level. When two of the co-researchers chose to withdraw from the study, they were ensured it would not, and did not, affect their relationship with the PR/therapist or their enrollment in the treatment program. All expectations about confidentiality were followed by the PR, including removing all names and identifying information from all data, and not discussing their participation with the treatment program.

All digital data was kept secure within a password protected computer file behind a locked door and written data was kept in a locked cabinet behind a locked door. All relevant data collected from the study will be used only for the purpose of education and research, retained, and kept securely by the principal researcher (PR) for seven years. This study met the

approval requirements for the Institutional Review Board (IRB) for conducting the study and for use of its materials in publication from Notre Dame de Namur University (where the PR was enrolled at the start of the study; see IRB approval letter as Appendix H). The complete research study observed and complied with the ethical guidelines of the American Art Therapy Association (AATA), the California Association of Marriage and Family Therapists (CAMFT), and the ethical guidelines and policies defined by Notre Dame de Namur University (NDNU).

Conclusion

Using a mixed methods research design, with phenomenological methodology and a positive psychology theoretical perspective allowed for the discovery of the lived experiences of the women in early substance use recovery as they worked with clay over the course of four weeks. This study was carried out in conjunction with the women receiving their regular services as part of the program in which they were already enrolled. The primary researcher set aside her own clay knowledge and encouraged authentic participation with the women in order to obtain the most genuine and valid responses. Their phenomenological experience was unique to each individual and valued their diversity and the sacredness of each woman. The positive aspects of working with clay, using mindfulness-based interventions and the historical knowledge about clay objects all came together in the experiences of the women who participated in this research.

Chapter 4 Results

This chapter will review both the quantitative and qualitative results from this convergent mixed methods designed and phenomenologically based research. The qualitative results will be broken down into two sections, the structured directive sessions (sessions 1 and 2, referred to as S1 and S2) and unstructured directive sessions (sessions 3 and 4, referred to as S3 and S4). Each of those sections will explore the themes found overall within those two domains as well as the themes specific to each session.

Co-Researchers

The women in this study have been referred to as co-researchers, since the focus of the information gathered was about their lived experience of using clay as an act of mindfulness and they were learning about themselves in this process. Originally there were thirteen co-researchers however two were unable to continue beyond the first and second sessions. The eleven co-researchers were self-selected from a residential women-only substance use treatment program in Northern California. The demographic characteristics of the co-researchers are presented in Table 1. As can be seen in Table 1, they were adults aged 25-54, who reported self-assessed comfort with the English language.

All co-researchers were voluntary and in the early stages of recovery (defined as having under one year of sobriety from alcohol and/or other drugs). Most women reported less than 60 days of sobriety ($n = 5$) and two reported having under 30 days ($n = 2$). Since this program was a women's program that provided support for women with young children, data was gathered about parenting and relationship status. The relationship status mostly included being single ($n = 5$) and married ($n = 4$). The number of children each woman had is reported in Table 1. What is notable about the number of children is three ($n = 3$) of the women had one of their children on

site with them, and during three different sessions their babies accompanied them. While the ages of the children were not formally gathered, information was shared casually throughout the interviews and three of the women shared they had adult children and two of the women shared their children were in the care of their mother (the children's grandmother).

Table 1
Co-researcher Demographics

Age Ranges	<i>n</i>	Sexual Orientation	<i>n</i>
25 - 34	5	Heterosexual	6
35 - 44	3	Bisexual	2
45 - 54	3	Pansexual	2
Ethnicity	<i>n</i>	Level of Education	<i>n</i>
White	4	Some College	7
Black	2	HS graduate	1
Hispanic/Latino	2	Some HS, no diploma	2
Mixed	3	Certificate Program and AA completion	1
Religion	<i>n</i>	Length of Sobriety	<i>n</i>
Catholic	1	Under 30 days	2
Buddhist	1	31 - 60 days	5
Greek Orthodox	1	4 - 6 months	1
Christian	4	6-11 months	2
Spiritual but not formally religious	3	Just over 1 year	1
Prefer to not state	1		
Relationship Status	<i>n</i>	Number of Children	<i>n</i>
Single	5	None	2
Married	4	One	2
Divorced	1	Two	3
Separated	1	Three	3
		4 - 6	1

Methodology

Descriptive statistics were used to summarize mindfulness and well-being scores at each session using means and standard deviations. Inferential statistical analyses were performed to

explore whether or not significant changes in scores across the four sessions (repeated-measures ANOVA) as well as between session 1 and 4 (paired-samples t-test). Level of significance 0.05 was used for inferential analysis with p-values < 0.05 reported as statistically significant. SPSS version 28 was used for all statistical analysis.

Results

Quantitative Results

The 11 co-researchers completed two questionnaires (SMS and WBMWBS) at each of the four sessions. The State Mindfulness Scale (SMS) questionnaire contains 21 questions with 5-point Likert scale and measures the level of mindfulness (possible scores range 21-105 with higher score indicating a greater level of mindfulness). The Warwick-Edinburgh Mental Well-Being Scale (WBMWBS) questionnaire has 14 questions with numeric responses resulting in total possible score in 14 to 70 range. Higher WBMWBS score indicates a greater level of well-being.

Repeated-measures ANOVA showed no statistically significant change in SMS scores across the four sessions, $F(3,30) = 0.14, p = 0.93$. Paired-samples t-test also showed no significant change between session 1 and session 4, $t(10) = 0.00, p = 1.00$. Repeated-measures ANOVA showed no statistical significant change in WBMWBS scores across the four sessions, Greenhouse-Geisser $F(1.6,16.3) = 0.08, p = 0.91$. Paired-samples t-test also showed no significant change between session 1 and session 4, $t(10) = 0.25, p = 0.81$.

Qualitative Results

The qualitative data consisted of written paragraphs and open-ended interviews with the women. Before the data were collected, the principal researcher wrote down her own biases and suppositions about clay use and mindfulness, as well as creativity and engagement. The co-

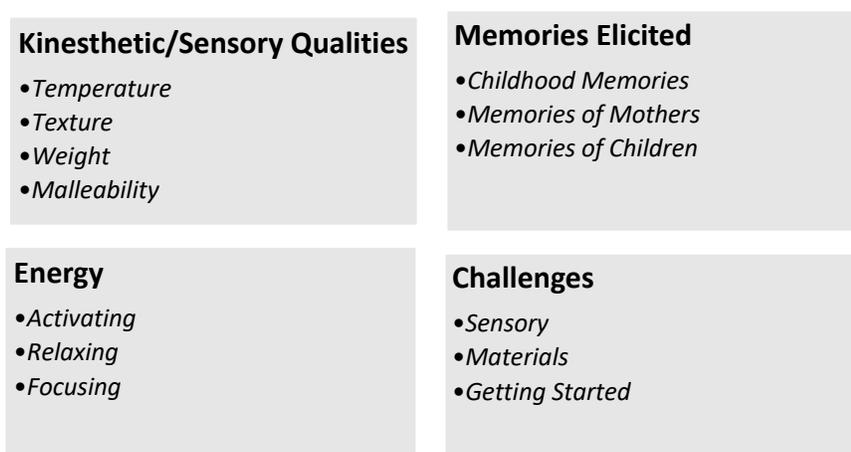
researchers' hand-written paragraphs were transcribed into Word documents for ease of reviewing. The interviews were transcribed using AI software and then reviewed for accuracy by listening to the interviews and reading the transcripts. The transcripts were read again and explored for general themes or information that emerged related to the research questions. The information for each co-researcher was then reviewed in connection to the information from the other interviews, and the themes were grouped together. Lastly the principal researcher utilized connecting strategies, to demonstrate how there are connections between the themes, not just similarities and differences (Maxwell, 2013).

Structured Sessions

The research began with the first two sessions, sessions 1 and 2 (S1 and S2), being structured, meaning the principal researcher (PR) directed the co-researchers (CR) in what they should make with the clay provided. To familiarize each co-researcher with the clay material, the first session involved only the clay and their hands (e.g., no tools). Moving into the second structured session was the introduction of tools, and then they had the option of using tools for the remaining sessions. Most of the women had little experience with clay, with two of the women stating they had not touched clay from the earth before. Five of the women expressed having had experience using clay with one of those women having extensive experience, and another woman stating she had only thrown on the wheel but had not done any hand building.

Figure 1

Categories and Themes Resulting from Analysis of Qualitative Data (S1 and S2) Related to Research Question 1: Co-Researchers' Experience of Working with the Clay



Experience the Process of Working with the Clay. The first research question was How do the women in early substance use recovery experience the process of working with clay? This was answered through the open-ended interview as well as their own writings. While the two structured sessions focused on different creations, there were similarities with how the women experienced the clay itself. At times there were differences simply because the directive was different.

Sensory and Kinesthetic Qualities. They noticed the sensory and kinesthetic qualities of the clay, using their haptic perception. The kinesthetic qualities related to the knowledge they received from their hands. They noted how their hands were working, fingers were moving and keeping busy, feeling the intensity and their muscles working in their hands. The sensory qualities included the temperature of the clay, which was cold and appreciated in the warmer months of the data collection, as well as the way it warmed up in their hands as they worked with it. The women noted how the clay was soft, smooth, silky, and heavy. One woman who had not worked with clay stated, “it was a different experience, like I mean I never really worked with clay. Umm, like play-doh you know, it's like different, its softer. This is more, a little more

intense.” They appreciated how easy it was to smooth it or change the shape and mold it into what they wanted. They did not like how it cracked, started to break open, or needed to be patched up. This was more notable when making the pinch pot than when creating the human figure.

Eliciting Memories. Sensory based activities can elicit memories (Sholt & Gavron, 2006) and memories were shared spontaneously by the women as they were working and during the interviews. The first session included memories based on childhood, like making mudpies, playing with clay on the riverbank, working with clay with her father, and feeling like a kindergartener. One woman noted how she was thinking of the past based on the introduction about clay made by the PR at the start of the session. During the second session, when making the human figure, there were more stories about the figure. The memories were more closely associated with either their mothers or their children. One woman stated, “That little clay statue is my mom... I think. Who else would it be?” Another woman remembered holding her child (now an adult) as she was working with the clay. The remembrances were not always expected and sometimes provided a different sort of feeling. One example from a woman whose mother had passed away a year before and she was still working through her grief as she created her pinch pot:

“When I started doing the clay, first I was just trying to stay present, and feel the clay in my hand and the texture of it the coldness of it and I realized all that but then as I begin to go around in a circle I start to think about my mother. And as I was writing the paragraph, it made me emotional um, cuz I really miss my mother, you know. My mother loved clay and she loved dirt, you know. And so it brought that up for me, and I was able to, I think

embrace, that she's no longer here um and kind of feel like and focus on doing it for her you know and that's just kind of like how I felt as I was going around.”

Energy From the Clay. The women noted how calm and relaxed they were feeling, as well as the energy they could feel with the clay as they were working. There were repeated ideas about feeling focused, and how the clay cleared their thoughts, and they felt more at ease. The women noted how their anxiety lessened as they were in the session, one even noted that her pain had gone away, and she had not thought about it the whole time she was working. For a few of the women, they noted how there was a release of tension because of the way they were working with the clay. Sometimes it was challenging for the women to explain their feelings, but they would try, as example, “to come up with some words that mimic how I was feeling, but I don't know. It just felt a release of tension a little bit too because I was putting all my strength into the clay. And it just felt like a release of some of my pent-up emotions and (trailed off).” This change in mood allowed for the women to feel ready to take on the day, per their report.

The energy also related to the experience the women were having. It was a new experience for most and they felt a positive energy from that. They allowed themselves to have fun and enjoy the process. One woman spoke about having fun and another shared that this time was where she “was free to just play and have a good time.” As the women worked with the clay, they got more immersed in the process, stating they developed confidence, or noticed a “spark.” A few of the women shared ideas about learning about themselves, feeling creative, and getting more connected to their creation. These moments were tangible to the PR as the session was happening and she knew to control her own excitement to not influence the CRs and their own reflection about the process.

Challenges. While there were positives about using the clay and being creative, there were also some challenges that were noted. This is important to share since it reflects the PR's acceptance of all the data and allowing the experience of the CRs to be elevated. Many of the women did not like how the clay cracked or how it dried on their hands. One woman disliked the way the clay got under her nails and gloves were offered as an option. The CR accepted the gloves but then did not like how she could not feel the clay on her palms, so the PR cut out a large circle for the palm. The CR liked this and then used the gloves in this manner for the following three sessions. Others commented on how messy the process was or frustrations when the clay would break in places.

The women struggled to get started, as this was mostly an unfamiliar material to them. With the pinch pots (S1) they wanted to make sure they were doing it correctly. They compared their creation to what the PR was making and checking her skills. With the human figure (S2) they felt lost and did not know how to begin. The women talked about not having the skills to carry out their ideas and being frustrated with that. They felt like the clay was not doing what they wanted it to do, and they also understood that the clay could probably carry out their ideas, but it was them who could not make the clay do something. They were learning how hard to push the clay, or what happens when it gets too thin in one place. They felt unsure of what direction to take their work. While these problems were real and the PR did not offer suggestions, it did allow for some creative solution-based thinking on the part of the CRs. The creativity and the process of problem-solving was overtly linked to their recovery for some of the women.

Figure 2

Categories and Themes Resulting from Analysis of Qualitative Data (S1 and S2) Related to Research Question 2: Experience of Working with the Clay Relating to Recovery



Relating to Recovery. The second research question was: How does the focused time creating with clay relate to or informs the women’s experience of recovery? This was answered as the women worked with the clay or shared about the process and they spoke of concepts and ideas that related to recovery. Sometimes they made the direct connection and spoke through metaphor, while other times it was subtle and interrelated with the theories about recovery. Additionally, the principal researcher asked directly if they had thoughts about recovery, or the process of recovery, as they were working; or a connection to something greater than themselves.

The women demonstrated self-awareness in various ways. There were multiple mentions about self-efficacy and pride, based on their attempts to work with the clay and what their final product was. One woman stated, “I’m just satisfied that I made something out of not knowing where I was going and not still knowing if I did the right thing” in relation to her pinch pot. Other women shared about the pride they felt in themselves for not giving up, for trying, for liking this new activity, and even discussing how proud they are for standing up for themselves.

Whether it was a human figure or the pinch pot, there were multiple comparisons of the creative process to themselves and their recovery process. There were metaphors about shaping the clay being similar to how they were changing or wanting the human figure to feel safe (a concept that was often discussed in therapeutic groups). One woman noted how the more she tried to get rid of her fingerprints the more she made, which related to another woman noting how she had to have patience with making the bowl and then she acknowledged she needed to

have patience with herself. Another woman noted how her interactions with herself was reflected in her interactions with clay, like not pushing too hard on the clay or herself, and the impact it has had on her, by realizing the exchange of energy between herself and the clay to exchanges between herself and others in the world.

As the women shared about the process of creating, they spoke about having patience with themselves, accepting not being perfect, and liking the cracks and imperfections. They were proud of themselves for noticing a change in their emotional state, with one woman stating she “felt good being able to change my own emotions.” These ideas around acceptance of what they were doing, relating it to themselves, their recovery, and the process in general can be connected to the tenets of the 12 Steps where they are learning about powerlessness, accepting themselves for who they are, and learning about the importance of letting go of control and perfectionism.

When the PR directly asked about connections to recovery, most women had a definite response, and there were a couple of women during each session who did not feel the work was connected. When thinking of recovery and the clay work they just finished, two of the women shared about the control in the process and how the clay’s malleable properties and abilities illustrated their own choices available to them. This connection was closely related to those who are supporting them in their recovery. For some it was God and for others they mentioned their family too. The women were keenly aware about using this time in the recovery program to make changes for themselves. Remaining in the program for some women meant that they had to focus on themselves and “be selfish,” that they have the power to save their own life. For most of the women this was not their first time in a recovery program, providing different previous perspectives to be brought up for them. Other women were aware that they needed to work through this part of their recovery to get to the next parts of their lives. A few examples were

being able to reconnect with their family or getting a job they had been coveting. Regardless, they knew they needed to be focused and work the program, either by trying something new this time or being more engaged, the outcome was the same.

Figure 3

Categories and Themes Resulting from Analysis of Qualitative Data (S1 and S2) Related to Research Question 3: Highlighting Spiritual Aspects of Recovery



Spiritual Aspects. The third research question was: Are there aspects of working with clay that highlight spiritual aspects of recovery for the women? This was answered as the women shared about their awareness to their recovery and discussed aspects of spirituality. Sometimes this was indirectly stated and other times it was because of the specific question during the interview. The question asked was more about connecting to something greater than themselves since some were not religious and this was one way to allow for interpretation. Therefore, some women compared spirituality to religion, and some compared it to creativity or other aspects in their life. There was mention of being aware of their higher power but using the time to be more focused on themselves or knowing that their higher power is always doing something for them. On a few occasions the connection to something greater than themselves included themselves and the creative process. The women were open in sharing their thoughts about ideas other than religion. This connected to a sense of playfulness and enjoyment.

Lastly, they spoke metaphorically about the work with the clay. The creative act of being with the clay, thinking about form, and executing it allowed for thoughts surrounding their lives. One woman shared how her creation illustrated the connection to the power of the land and women in general. Another woman felt her higher power allowed her to be in the right place at

the right time, as the day of the session had been challenging for her and the session had made her feel better.

Figure 4

Categories and Themes Resulting from Analysis of Qualitative Data (S1 and S2) Related to Research Question 4: Relating to the Field of Mindfulness



Relating to Mindfulness. The fourth research question was: What are the similarities and differences of the women’s experiences using clay as it relates to the field of mindfulness? This study sought to highlight the importance of two of the main facets of mindfulness, specifically non-judgment and acting with awareness. It seemed that using the two questionnaires during each artmaking session primed the women to think about the different facets of mindfulness and well-being. They appeared to use this knowledge and spoke of increased awareness of the environment, themselves, and their feelings and thoughts. They spoke about letting go of judgment, which also led to them discussing how to be kinder to themselves in this process of early recovery. The acceptance of the creation as it progressed helped them to not overthink things, another coping skill beneficial for success in recovery. One woman spoke about this being a break from her thoughts because “it can be exhausting to get stuck in my thoughts.” The focus they felt with the process related to their change in emotional states, as well as their appreciation for the process to help them achieve this new calmness.

The women spoke about feeling attuned to the environment and the process. This included feeling like their mind was able to shut down as they created and working with the clay allowed them to focus. Sometimes this meant they were aware of the temperature in the room in contrast to the clay, or they could hear the birds outside as they worked. Sometimes they were

aware of the moment itself and just being connected to the clay and the process. There was talk about the energy from themselves to the clay, as well as getting energized from the work with the clay. One woman noted how the clay helped her heart relax and she could hear it beating.

The women not only noticed what was going on around them, but also internally self-aware. They were judgmental about their work, more so in the first session than in subsequent sessions. Negative comments were made about their work, about their abilities, and not being able to do things correctly. They shared openly about wanting their product to be better, thinking that it was ugly, or not what they were hoping for. The PR gently reminded them that this process was about being with the clay and to release judgment for the moment and this usually redirected their thoughts. Others had positive things to say about their product and the process, noting that they could be okay with being a beginner and trying new things. A few women were aware of self-criticism and made an effort to change their mindset or find an acceptable way of being with the process. One woman shared about how her judgment of her creation turned into acceptance, another shared she appreciated being able to release any expectations, and another shared being inspired by the experience of it all.

As the women spoke about their experience with the clay and the process, they shared ideas and feelings related to the feelings elicited by people who meditate, one woman made a direct connection. This area was not a direct question asked to them, however with the questionnaires they were offered some vocabulary and concepts. There were multiple women who shared about feeling calmer, or more focused at the end of the session than when they had begun. Some noted a reduction in anxious feelings or overthinking, others stated they felt relaxed and present in the moment, while a few felt the session had been healing. In both the writings and the interviews there was mention of being happy and at ease.

Unstructured Sessions

The second half of the research sessions, sessions 3 and 4 (S3 and S4), were unstructured time with the clay; the PR did not give instructions on what to do. Many of the women were unsure about how to begin and wanted a suggestion. The women were informed to let the clay guide the shape and allow it to move around in their hands until they felt the urge to begin to create. When the fourth session began a few of the women were surprised that they were being given the choice to make something of their own choice again, as the first three sessions had all been different each time up until that one. At the end of each session was an opportunity to learn how the women experienced creating something of their own choosing versus being instructed what to make.

Figure 5

Categories and Themes Resulting from Analysis of Qualitative Data (S3 and S4) Related to Research Question 1: Co-Researchers' Experience of Working with the Clay



Experience the Process of Working with the Clay. The second half of the research sessions allowed more conversation around the product since it was a creation of their own choosing. The women were interested in sharing the story behind what was made and their reasoning for making that choice. Not only did they share about what was made but also the

experience of working with the clay – the process, the clay itself, and the stories remembered or created during the time spent in the session.

Sensory and Kinesthetic Qualities. The women discussed their feelings about the clay, both as they worked and as they answered questions in the interview process. They once again noticed the temperature, and since it was colder outside for the latter half of CRs (due to the length of time conducting interviews) some of the women noticed how the clay matched the temperature in the room. Many talked about the texture and the smoothness of the clay, and how good it felt to roll the ball of clay in their hands, as well as roll out coils or slabs with their hands. There was more use of the tools, as the designs being created called for details and creativity that their hands alone could not create. The clay was inviting to some, one woman remarked it was nice to just hold it in her hands and another stated the clay “worked with me well.”

Product and Process. As the women chose their own designs, they also were faced with choices about construction limitations. The designs ranged from choosing something familiar or recently occurring in their lives to trying to challenge themselves. The subject matter related to missing family (children and mothers), babies, freedoms, and nature. There was a greater appreciation for the product they created as they made what they envisioned eliciting feelings of pride and increased confidence. As one woman stated, “I’m so impressed that my hands can make these things out of a ball of clay.” There was some idealizing that occurred with the creation, “this is a dream picture,” “I could picture myself here,” and “I wanted to make it nice.” Some of the women were also frustrated with the process, not knowing what to make or how to start. The mechanics of the clay was more of a focus instead of the malleability, as a few of the women noted how pieces can come apart and be put together easily. The construction of their ideas was also prominent as a challenge, as one woman focused on the way she altered her

design so it could stand the way she wanted. Despite the frustrations there were also greater connections to the creations, as some women said “bye” to their creations before returning it to the ball shape, even commenting that the PR was making them destroy their “masterpiece.” One woman was very pleased with her creation in the final session, stating, “I think that this creation, if he was a real man, he would be an artist like me (laughs)”

Sharing Memories and Stories. As the women worked on their creations there was more sharing of stories. Sometimes this was about memories either related to their designs or something coming up for them as they worked. One woman felt her thoughts of her children informed her choice to create a heart, and she spoke lovingly about them. The heart was a creation subject for another woman who was remembering her mother. The women shared about childhood experiences and family members, sometimes together, and noting they were good memories. They also made-up stories about their creations, sometimes loosely connected to a recent event or one from their past, or to their children. Most of the women centered themselves in their stories of their creations.

Emotions and Energy. As the women shared about their process and what they made, they also noted their change in affect and energy. There were a couple of women who felt sad, as the thoughts of their children or a recent incident were weighing heavy on their mind. A couple of women felt confused and exhausted, while two women in session three got more frustrated during the process. One noted how she started how she began as calm and then when the second object she was making did not turn out as well as the first she got really frustrated and had to stop, while another woman felt a disconnect between her head not thinking and her hands kept working as she was frustrated. Despite this frustration, she was aware of how she separated herself from her creation and did not hold onto the feeling of being frustrated. Others noted slight

improvements in their mood or an increase in energy, feeling sentimental and peaceful, and feelings of calm and relaxation. There were women who shared positive traits about the experience, that it was playful and made them feel like a kid and they felt creative and artistic. One woman shared how happy she was and felt like the time was like a nice therapy session and she was leaving lighter.

Figure 6

Categories and Themes Resulting from Analysis of Qualitative Data (S3 and S4) Related to Research Question 2: Experience of Working with the Clay Relating to Recovery



Relating to Recovery. As the women had a choice of what to make and shared about their process there was more talk about recovery in the last two sessions of the study. This could partly be due to the awareness that this was a question as part of the interview, or their focus on their recovery was increasing as they had more time in the program and sober. There was a self-awareness about their feelings and actions and how they could relate that to their situation. This focus on recovery created many conversations around coping skills and the 12 Steps.

The women shared about their different thoughts and feelings that occurred during the process in relation to themselves. One woman felt present and happy, forgetting she was in a recovery program, and another spoke of her awareness of her feelings being temporary, a quality that is developed in recovery to avoid resuming use. One spoke of her awareness of herself, “Somewhere deep in there, there’s beyond all of the pain that I’ve gone through and all of the

craziness. There is good in me. I have to remember that.” The discussions around frustrations were polarized between one woman making herself stop when she got frustrated and another woman realizing she did not stop when she got frustrated. There was a learning and a freedom to do as they wanted through the clay process, where a couple of the women acknowledged they would know what to do if they were to do it again or were able to create it however since it was not being saved.

As the women spoke about the process and their feelings, they shared about different skills they were using and learning in the sessions, and some directly related this to their recovery. The examples ranged from knowing the current situation is transformative, to acknowledging not being able to control everything and letting things pass. The co-researchers also mentioned a growing awareness of how paying attention to the moment can relieve frustration allowing them to maintain sobriety. Some women shared about learning how to not overthink because of this process, how to stop before they messed up, and recognizing that mistakes are not an end-all but an opportunity to learn. One woman specifically focused on a recovery skill of gratitude, “I’m just so grateful I’m here, because [PR name], all my friends are dead.” These ways of being seemed to represent different ways to cope with stressful situations without using substances.

The hopeful message about recovery and wanting something different for themselves was evident in their creations as well as what was shared indirectly and directly related to this question. The 12 Steps came up in both creations and conversations. One woman made a 12 Step meeting in a hot tub (as she infused humor and related it to a movie she had just watched) and another shared she was thinking about the 12 Steps as she was creating, feeling good about being sober, noting how she could put art supplies where she once used to put bottles, and doing this

for herself so she could do more. The theme of rebirth and transformation was part of one creation, while another shared her excitement about getting a sponsor. There was talk about enjoying the NA meetings and identifying with the speaker, as well as knowing they cannot keep doing the same thing and expecting different results, something that is often said in meetings. The focus on recovery was clear when women shared how they were remembering why they are in recovery, for their children and family, and then acknowledged they needed to be there for themselves first. There were a couple of instances where the women realized their progress and how far they have come already, and how they could not have done any of this while they were using substances.

The experience of recovery is closely related to spirituality, as the 12 Steps mention God and Higher Power. This was a specific question asked in the open interview, and while it elicited specific responses in S1 and S2, it did not elicit more than what was shared during the specific question related to recovery. Therefore, it will be discussed here within the section of recovery for S3 and S4. A few of the women spoke about their direction connection to God and how that shows up for them daily, whether that is “He is always with me” or feeling connected due to specific behaviors like fasting on a specific day. One woman noted how the fact that the PR came to do the research and be in her life was God showing up for her. Another shared her conflicted feelings of appreciating God in her life and being angry with Him. Sometimes the spiritual connection was related to feeling peaceful or to nature.

Figure 7

Categories and Themes Resulting from Analysis of Qualitative Data (S3 and S4) Related to Research Question 4: Relating to the Field of Mindfulness

Attunement

- *To the environment*
- *To the process*

Self-Awareness

- *Judgments*
- *Acceptance*

Groundedness

- *Calmness*
- *Present*
- *Meditative*

Relating to Mindfulness. As the discussions were more focused on recovery and the process for the women, the concepts of mindfulness were not as overtly present in their conversations; however, the previous concepts of attunement, self-awareness, and groundedness were present. There was mention about the environment, such as hearing the birds chirping outside which was used to calm one woman down when she got frustrated. Women spoke about paying attention to rolling the clay in their hands and using the clay to distract themselves and not think, thus increasing their mood. They noticed their own body temperature, in relation to the room and the clay. As they were aware of the room or their thoughts, a few women noticed how they did not have to pay attention so closely to what was occurring around them or they could calm their thoughts, both indirectly referencing an increase in safety.

While they spoke of their frustrations, they also noticed they were being judgmental and corrected themselves. Only one woman overtly stated she was being negative with her self-judgment. They were aware of their thoughts “coming and going” as this was one of the questions in the Mindfulness Scale and they referenced it. They were more accepting of their creations, “it is what it is” or when a part was falling over “it’s good ... everyone knows what it’s for.” It seemed to be okay for the imperfections to happen or they created it that way, consciously leaving it rough or liking that it was sloppy. While one woman who had struggled in earlier sessions with getting the clay to do what she wanted felt glad that she kept it simple in the last session.

The feelings of calm and being relaxed were mentioned, as their pride and satisfaction in their work were discussed. A few of the women appreciated thinking about themselves in the scene they created, thus eliciting the feelings of peacefulness. There was mention of letting the

PR to “facilitate to bring opening and peeling back layers.” The women spoke of feeling present and connected to the clay, this connection could be possible due to increased familiarity.

Structured versus Unstructured Sessions

The research was divided into two halves with one including structured directives and the other half being unstructured time with the clay. This decision was based on previous research from clay studies (Bar-On, 2007), specifically noting that those involved may or may not have experience working with clay. It was important to determine if this had any bearing on the women’s experiences in this research, therefore the final research question was asked at the end of both sessions 3 and 4. The feelings were split between preference and reasons why, and this section will outline those differences.

Figure 8

Categories and Themes Resulting from Analysis of Qualitative Data (S3 and S4) Related to Research Question 5: Co-Researcher’s Experiences of Responding to a Structured Directive Versus an Unstructured Directive

Structured	Unstructured	Preference for Order
<ul style="list-style-type: none"> • Preferred • Told what to make • Not creative on own • Removed self-doubt • Richer experience 	<ul style="list-style-type: none"> • Preferred • Liked autonomy • Learn from experience • No-fail experience 	<ul style="list-style-type: none"> • Depended on prior experience

The fifth question was: How do they perceive the process of responding to a structured directive in clay versus an unstructured one? This question was only utilized in the second half of the study. When asked about preference at the end of S3 the women had only one opportunity to create something of their own choosing and compare it to the previous two structured sessions. At the end of S4 they had twice created something of their choice and twice been asked to create something specific. Additionally, S4 was the only session that was a repeat since the previous three sessions were all different in expectations. Overall, eight women preferred the structured sessions better, as they felt it was easier to be told what to do. This was further explained by

feeling like they do not have their own ideas (thus had to focus more when it was their choosing), do not feel creative in their mind, or become negative when they must make their own choice. On a positive note, a couple of women felt the experience was richer in the structured sessions and one woman felt she was too nervous to make her own choice and since she felt she is a “people pleaser” she wanted to succeed. Those who preferred the unstructured sessions felt they could let their brain work, bring in ideas from others, and could not get it wrong since it was their own idea. Two of the women stated they liked not being told what to do. One woman felt the final session was her favorite as she was most familiar with the clay and it’s malleable and forgiving properties.

At the end of S4 the women could reflect further on their preferences and which type of session worked best to start with for them individually. A couple of the women were surprised that they were getting to repeat to make something of their own choice, while a couple others felt they had more ideas and were excited to execute them. Many of the women reflected how their confidence grew as they worked with the clay and the process of creating. Since most of the women had previously not worked with clay, they appreciated having the structured time first so they could get used to working with the clay without also having to think of what to create. There was mention of being playful in both sessions, enjoying the symbolism of rolling the ball in their hands at the start and end, and having the time for themselves. Those who had prior clay experience spoke about no preference and just enjoying the time with the clay. A couple of the women made suggestions for the future, which included alternating between structured and unstructured sessions and offering an option to keep one creation and paint it.

Summary

This research sought to understand the experiences of women in early substance use recovery creating with clay and if themes of mindfulness would be present. The women demonstrated how clay can provide opportunities for growth, self-awareness, reflection, and exploration of feelings, memories, and the experience of being in recovery. The co-researchers shared openly about their experience using clay and what it brought up for them either directly or through metaphor. As time progressed in the study there was more conversation relating to recovery and the 12 Steps, providing space for curiosity and pride. The women shared how the individual experiences provided a sense of calm and relaxed them, while over time they noted an increase in ways of managing frustrations with skills similarly found in mindfulness research. The implications of this information, along with recommendations for both clinical work and future research will be discussed in Chapter 5.

Chapter 5 Discussion

This study aimed to understand the experience of women in early substance use recovery using clay as an act of mindfulness. The topics of clay use, mindfulness, and working with women in recovery were all areas of professional importance to the principal researcher (PR). Because the nature of phenomenological research requires one to inquire without the interference of bias, the PR needed to set aside any preconceived notions about the benefits of the clay process, excitement about working with clay, and knowledge of the positive effects of mindfulness in order not to bias the data gathered. The data for this study was acquired through multiple avenues including open interviews, self-reflective writings, and questionnaires. The most salient component of this research was to amplify the voices of the women and their understanding of the mindful, art making experience. The women involved were referred to as co-researchers (CRs) to honor their contributions in an equitable manner, attempting to reduce the traditional research hierarchy of researcher and participant. This chapter will review the interpretations made by the principal researcher from the information provided by the co-researchers, discuss the limitations of this study and implications for clinical practice as well as provide considerations for future research.

Interpretation of the Results

The analysis of the data from questionnaires administered at each session did not yield statistically significant results; therefore, the research results focused on understanding the ways in which the women interacted with the clay and their experience of the artmaking process, analyzed through qualitative means. In addition, the centering of the co-researchers' voices in the results, and subsequent interpretations, was a conscious decision to further understand the mechanisms of change involved in the creative process. The women shared their experiences of

being mindful in relation to working with the clay and its relationships to their recovery. While their creations were of great interest and discussed in the open interviews, these artistic products were not the focus of the current investigation. The themes emerged from the analysis of the interview data will be described and discussed as they relate to each of the main questions of this research.

Experience the Process of Working with Clay

Impermanence Allowed for Freedoms. The study design did not allow the women to keep their creations but rather required that they return the clay to the original ball-shape they were given. At first this was a shock and something they did not expect; however, over the course of the research they came to accept and even respect the impermanence of the product. The emotions expressed when returning their creations to the original ball of clay ranged from indifference to disappointment, resignation to enjoyment, and playfulness to practicality. One woman at the end of a session said, “No! This has to last forever!” and then laughed and returned the clay to the sphere, sharing her playfulness with the PR. The impermanence of the creation allowed for a variety of freedoms. The women allowed themselves to make mistakes, knowing they could try again since clay is a forgiving medium. They could start again as needed without any waste of material. Or they could try a couple of different ideas and then use the one that worked best, mashing the discarded idea back in with the other unused clay. Knowing that the clay was not going to be fired or kept allowed for the creations to be thick or clunky; they did not have to be perfect. Abramowitz (2013) reflected on how allowing a person to engage in the clay process without having a permanent product is one of the factors that makes clay a unique medium. Making mistakes and forgiving oneself is part of recovery and often spoke about in AA, and being playful is connected with Positive Psychology and wellness.

Clay Elicited Memories. The touching of clay and working with the sensory-based material can release embodied memories (Elbrecht, 2013; Sherwood, 2004; Sholt & Gavron, 2006). The memory-evoking aspect of clay work was apparent in almost every session for the women, as Elkis-Abuhoff et al. (2008) noted a similar effect from their study with clay use with patients with Parkinson's Disease. The earlier sessions began with memories from childhood, whereas the latter sessions included memories from childhood as well as current memories of people in their lives. Here are two examples from different women in the earlier sessions:

“When I was little I used to make mud pies with clay pots. And we used to have a rocking boat and I used to sit in the rocking boat and I would make it, you know, put dirt in them and I would play for like hours.”

“I also was thinking about, like, going to a neighbor's pond and we would, like, play with the clay on the banks. We wouldn't go swimming there, but there was, like, this grayish blackish clay that, like, had a pretty good texture and we would make, like little mud men and play with the clay.”

There were memories about family, mostly mothers and children, although there were a couple of memories from growing up that focused on other family members. One woman spoke of her father and their connection through clay work, “I was five when I started working with clay. And, like, I really enjoyed it. Um, my dad got into it too and he made some really nice pots ... And it was a good bonding experience for a father/daughter.” And another woman shared about missing her mother, “I miss my mom a lot. So I guess I was kinda... I don't know... I was thinking about my mom when I was making it. Just how awesome a woman she is. How I'm striving to be like her.” In the last session, one woman summed up what it was like for her, “it was more like memories coming, flooding back from my childhood the first time. After that I

just got used to that it was gonna happen.” The connection to family and memories of who they were when younger, or to their children, are important as people become sober and work towards recovery because research has demonstrated the importance of “interpersonal relationships and emotional connections” (Haluzan, 2012, p. 103).

Energy from the Clay. The use of the clay which required working with the hands and learning through haptic perception (Elbrecht, 2013, Nan et al., 2021), elicited themes related to how the co-researchers’ energy changed as they engaged in the process. In the earlier sessions, there was more talk about how activating, energizing, and focused the clay made them. Some of the women talked about how calm and relaxed they felt as energy was released through the clay work. One woman shared, “I think I’m a little more at peace now than before. I’m just a little more focused.” This release of energy and subsequent state of relaxation demonstrates the therapeutic aspect of Kinesthetic work as described by the Expressive Therapies Continuum (Hinz, 2020; Lusebrink, 1990). This discharge of energy can be one way to deal with the buildup of tension that characterizes craving and desire to use (Hinz, 2009), similar to the way Mindfulness Based Interventions (MBIs) “reduced cravings and other addiction-related symptoms (e.g., pain, health-related quality of life, depression, and anxiety) through improving mood state and emotion dysregulation” (Sancho et al, 2018, as referenced by Priddy et al, 2018, p. 104).

Additionally, in early sessions, the co-researchers mentioned that while working with the clay they found themselves caught up in their thoughts. In later sessions, the clay work seemed to offer space to focus on something other than their thoughts and therefore to manage their emotional states. In later sessions, a couple of the women stated they felt more frustrated than when they started because of the process and one woman noted how her confidence dipped for

this reason. She had tried to make two different objects because there was the second ball of clay available to her. Despite her initial lack of success, she persisted and created a pleasing final product. Therefore, the opportunity to focus on something other than their thoughts and manage their emotional state can allow for the development of new coping skills to avoid resuming to use due to strong emotions (Schmitt & Yarosh, 2018; Yang et al, 2020).

Sensory/Kinesthetic Qualities. When the women were asked to talk about their experience of the process, they often talked about the clay felt in their hands, and the different sensations when working with it. The women noted the different unique aspects of working with clay, such as needing to use both hands, the body relaxed as the hands were kept busy, as well as being comforted by the feel of the clay. Some noted the texture and appreciated the opportunity to develop a love for this new material. One woman shared how multiple senses were engaged in the process:

“I like the texture of it and then I like the smell the smell was like (sniffs) smells fresh.
and then I liked when I put a little bit of water how I actually got my hands into it.”

Some of the women referenced the way they could move the clay and the different properties of the clay, as well as their own movements in connection with the clay. They noted the way clay could be manipulated, how it was adaptable to different shapes and positions, and when one piece of clay was not needed it could be altered to be something else later. These benefits of clay relate to previous research (Argyle & Winship, 2018) and underscore the importance of providing this experience to people. As one woman noted, the more she worked with the clay the less slimy it felt in her hands and “more like an extension of myself.” It is highly likely the sensory aspects of clay work helped the women to establish, extend, and maintain a sense of mindfulness that is grounded in paying attention to the present moments (Hinz, 2009).

Challenges. The women were open to sharing the challenges they had with the clay work and the process. This included the clay itself, the way they were working with it, what to make, and how they did not have the skills they wanted to carry out their ideas. They also spoke about the negative qualities of working with the clay, as it did not do as they wanted, or they did not have knowledge of techniques to use with the clay. They were challenged about how to connect pieces of clay or unhappy with once they were connected that they were not sturdy or as expected. One woman stated:

“I didn't like that it wouldn't do the things that I wanted to do sometimes, or that I didn't have the skillset to know how to, you know. So I started fidgeting with things and then realizing like, well, I really don't know how to correct that or whatever, so I'll just go with the way that it is.”

The way the clay felt on their hands as it dried was not pleasant for some of the women. They were frustrated with their fingerprints being on the clay, or not being able to smooth out the clay to their liking. Despite these challenges, as the sessions progressed there was less focus on these negative aspects and more willingness to work through them. One woman made a conscious choice to leave it rough and sloppy, while another struggled with her idea and execution but persevered and completed her creation. This ability to face challenges and reduce their self-criticism aids in their ability to be mindful and increases their positive feelings towards themselves. Problem solving and positive thinking have been noted as protective factors against resuming to use substances (Elsheikh, 2008).

Inform the Experience of Recovery

Language as Metaphor. As the co-researchers learned about themselves through the process of creating and let their inner voice guide them, they also spoke directly and indirectly

about recovery. The creations they made were described in a manner that fostered the use of language as a metaphor. Multiple women spoke about their creation as an extension of themselves, and likened parts of the process to recovery.

“...like me thinking like, oh, if I put too much pressure too quickly, that really relates to recovery in my mind. Like if I put too much pressure on myself to, to get everything done really quickly or, or to be perfect again, really quickly, it's like I need to remember I only have two weeks of sobriety. Like, I can't, I can't push down real hard. I'm going to make holes, you know? And just to be gentle, just to be gentle with myself.”

12-Step Connections. Sometimes the connections were about something they had heard the night before in a 12 Step meeting, or as part of a group earlier in the week. There was talk about different skills relating to gratitude, being hopeful, and transformation. Thus, the creating from a non-verbal place allowed them to form the ideas that could then be expressed with language (Standora, 1981). One example included a woman discussing a concept in AA when thinking about her recovery:

“I just embraced it, invited it. Because I, I'm a person who always trying to change what I can't change. You know what I mean? And I'm not going to keep doing that because I find my life becomes a lot harder when I do that. So it's like if I just allow life to show up, whatever that look like, because I didn't write the script. I think if I just allow it to show up, it just, getting, my life gets so much simpler. You know what I mean? And the more simple, the easier, for me. Just keep it simple, stupid. KISS. Keep it simple, stupid.”

Another woman shared how her clay creation was a picture and how recovery was on her mind as she was creating.

“I was thinking that the drug drugs that I used to use and not using today, it makes me feel good to be sober. And it makes me feel like it's a happy sober picture. And I was reading an Alcoholics Anonymous book and I was thinking of the 12 steps when I was doing it.”

In a different session, this concept was shared, “Can't keep doing the same thing, expecting different results because it's just not working.” The women were simultaneously engaged in the full recovery program, and those concepts were being shared as they were working with the clay, highlighting how working with their hands was a way to reinforce new learning.

Self-Awareness and Learning. While many people like to make art in solitude or quiet, most of the women opted to talk as they created. When they shared about the process this sometimes included what they were learning about themselves as they began to master working with the clay. The women spoke about feeling proud or appreciative of themselves for trying something new. Comments such as these highlight aspects of Positive Psychology, as the CRs were learning how to succeed in their current circumstances (Hefferon & Boniwell, 2011). They noted how success with the clay connected to their work in the program, sometimes this was in direct answer to the question or as part of conversation as they were working. One example:

“That I wanna keep doing well here. It seems like time going by fast now [sic]. At first it was a little rocky, but I got outta that state of mind. Now I gotta just give it my all. That's all. My recovery. Try to keep on a good track. Cuz I wanna get a year and once I hit that year, I want to make another year. I'm really trying to get that. Not so fast, not so... but at my own pace.”

The choice was always theirs in every session, whether to talk or create in silence, and some varied from session to session or even within a single session's time. As the sessions

progressed there was more opening up and discussion about their struggles and willingness to challenge themselves. They spoke about missing a daughter, getting a sponsor, incidents with other residents, conversations with their children, and thoughts about their future. In the latter sessions they reflected more on the art they were doing in the art therapy groups during the week, and how it connected to the work they did in the study or the feelings that were getting brought up for them. This demonstrated their increased self-awareness, and possibly the comfort they felt with the principal researcher. As the women learned more about themselves it became apparent through their descriptions of the experience that they were also developing a deeper connection to themselves (Yang et al., 2020). This is an important part of recovery leading to long-term abstinence and a reconnection to others, as many people have severed connections with family (Elsheikh, 2008). Their reflections on their thoughts and behaviors were exhibiting the increase in their self-reflective process, which can assist with their ability to be aware of their progress (Bar-On, 2007).

Spirituality. There was a specific question focused on if the women thought about something greater than themselves, as spirituality is described in the AA literature and may provide people with a “framework in which to make meaning of their lives” (Tusa & Burgholzer, 2013, p. 243). The women shared more concepts about spirituality when asked in the earlier sessions than in the later sessions. In the later sessions the information they shared focused more on recovery and recovery concepts than spirituality as a separate concept. The women discussed a Higher Power, which was God, or creativity, or something within themselves. They shared about knowing that God or a higher power was providing for them. One woman shared:

“I'd like to think that I always kind of have my higher power looking over my shoulder, but I don't think I had any specific thoughts about it. I was, I guess I was like a little bit self, not self-centered, but I was more turned into myself.”

Other women noted that their feelings of peace related to a spiritual connection or the fact that they were doing this program for themselves and God is working on them. Elsheikh (2008) noted how daily prayer is connected with long-term abstinence and “throughout medicine, there is increased interest in how spiritual events interact with body and mind in the management of, and recovery from various illnesses” (p. 312). Additionally, when Tusa and Burgholzer (2013) reviewed spirituality as a mechanism of change they noted the inclusion of social support, meaning making, coping skills, emotional growth, and psychological well-being. These elements were present as the women shared about their experiences using clay.

Mindfulness

Self-awareness. Over the course of the study, many women who at first were quite critical of how their products looked or functioned became aware of the language they were using to discuss their work and made an effort to alter it to one of a more accepting stance. Others shared that they knew their creation did not have to be perfect and people would know what it was, even if it did not look exactly as they had planned. The idea of perfection is a recurring theme for people in recovery, and often they are plagued by the binary of failure or success when entering treatment, as shared by one woman:

“Well, I think there is like the perfectionist part of me now is like, oh, there's a little crack there I could've smoothed, or there's this or that. But I think no, I would say this is finished because I think that nothing is, I'm working on learning that things aren't perfect.”

It seemed that using the two questionnaires during each artmaking session primed the women to be thinking about the different facets of mindfulness and well-being. They appeared to use this knowledge and spoke of increased awareness of the environment, themselves, and their feelings and thoughts. They spoke about letting go of judgment, which also led to them discussing how to be kinder to themselves in this process of beginning recovery. This increase in self-awareness and of the present moment can assist with emotional regulation, a known protective factor for maintaining recovery (Tang et al., 2015; Yang et al., 2020). The acceptance of the creation as it progressed helped them to not overthink things, another coping skill beneficial for success in recovery.

Attunement. The engagement in the research was a way of giving to themselves with time, as several women noted how nice it was to get away and engage in the study. As they allowed themselves to be absorbed in the process, their curiosity about it and the experience increased and provided for a greater sense of compassion towards themselves. Historically, women tend to be more giving to others of their time and efforts, and this was witnessed by the principal researcher in the regular art therapy groups with these same women. While they were trying to make sense of their new experience with clay, their fingers were exploring and allowing them to “make sense of their experience” (Elbrecht, 2013). This awareness of self and appreciation of pleasant events and emotions contribute to the restructuring of the natural reward process assisting in possibly lower rates of resuming to use (Garland et al., 2016; Temme & Wang, 2018). One woman noted her self-awareness related to being mindful and how it was a new coping skill.

“What I’m learning with myself is, certain coping tools. When I used to use, um, I would get very frustrated. Or, right before I would use, I would get really frustrated or angry and

be like, 'f this.' And, then wanna, like, pop a pill. And like, that little frustration I had [when creating with the clay] kind of reminded me of when I would do that. And then I heard birds chirping, and it was, like, weird for me cuz I was like, like, really listening to it and letting it get into my head to calm me down. So, it kind of, like, helped in a way. So I kinda felt that.”

This act of giving a new opportunity to themselves while simultaneously having a purpose by contributing to research possibly filled a need that may not be overtly addressed in a standard treatment program, as Yang et al. (2020) noted there are various components missing from current treatment options.

Groundedness. The principal researcher is using the term groundedness to encompass the general feelings shared by the women as they relate to the field of mindfulness. This choice is based on the subjective reports by the women in this study. The women paid attention to themselves and noted how their mood changed and allowed them to be more at peace, which in turn reflected a grounded state of mind, similar to skills used in mediation (Zgierska et al., 2009). They shared how the process improved their mood, allowed them to be less anxious, have reduced or no pain, and provided a break from cyclical thinking. The creating with clay kept them focused on the present moment, utilized their senses, and occupied their mind in a positive manner, which can be related to staying grounded as this benefits those who have had traumatic experiences or are emotionally reactive (Sarid & Huss, 2010). Montero (2017) reviewed current literature and systematic reviews of MBIs and his summary relates to the positive benefits noted by the women during different parts of the interviews:

Mindfulness teaches the importance of choosing thoughts, words, and actions carefully.

When caught up in addiction, the users identify with thoughts and act on them without

considering the consequence of their action or their effects on others. By applying mindful-awareness, addicted individuals can observe anxious thoughts and emotions without becoming tangled up in them. They can challenge the authenticity of core beliefs and rewrite their narrative in such a way that pain and addiction are not the star players (p. 439).

Preference of Session Structure

The study was designed where half of the session creations were directed by the PR and the other half allowed the CRs to choose what they wanted to create. When the CRs were asked about their preference for either session structure and if one should be before the other there was a clear majority for preference of structured sessions and to have them be first. This correlated with the CRs prior clay experience, as was previously researched by (Argyle & Winship, 2018). Most of the women appreciated being told what to make, as they felt their imaginations were not that great. This may be connected to early recovery and the brain going through changes as it heals. A few women liked it better when they could choose what to make as they did not like being told what to make. This may be connected to feelings of control that are often found in people who abuse and misuse substances. Most of the women liked having the structured sessions first, as they shared this allowed them to get used to the clay and its properties, as well as increase their confidence with using the clay.

Summary of Qualitative Data

The themes generated by the qualitative analysis highlighted the myriad ways that clay use can be therapeutic and echoed previous work (Bar-On, 2007; Elbrecht & Antcliff, 2014; Nan et al., 2021; Nan & Ho, 2017; Nan & Wong, 2020) demonstrating that the ETC can be a useful structural model for summarizing these benefits. To begin, the strong sensory qualities of clay

draw clients into the process and ground their attention in the present moment thus setting the stage for mindfulness. The results showed that the resistive nature of clay allowed for the release of energy (negative and anxious energy) that can build up as tension to be a precursor to substance use (Hinz, 2009; Yang et al., 2020). The resulting state of relaxation can enhance the mindful use of clay, as well as elicit similar traits to engaging in mindful practice (Temme & Wang, 2018). The challenges encountered when trying to create with clay evoked emotion and through persistence the co-researchers gained experience with emotional regulation. Working with their hands and the clay elicited childhood memories and allowed for the creation of meaningful or metaphorical sculptures. The metaphorical use of clay extended not just to the products created, but also to the process of creation itself. The women applied metaphorical interpretations to what they learned about themselves in relation to working with the clay and the recovery process, both spiritually and related to the 12 Step process. There was an interesting cognitive shift that seemed to occur as women mastered the challenges of working with the clay. As the co-researchers became less invested in their previous perfectionistic expectations of themselves and more willing to make mistakes, they expressed more feelings of increased self-confidence. This feeling, coupled with the decision making learned through trial-and-error, are two factors that assist with long-term abstinence (Elsheikh, 2008). Finally, through the sensory, kinesthetic, affective, symbolic and cognitive processes experienced, the women found that their attention was supremely focused. With this focus they mentioned that time flew by indicating they experienced a state of Flow (Csikszentmihalyi, 1990), which likely was associated with long-lasting feelings of well-being (Wilkinson & Chilton, 2018). These feelings may have prompted attunement to their own needs and thus, a willingness to spend time meeting their own needs.

Strengths of the Study

This study focused on the lived experience of women in early substance use recovery using clay. It was important to center their voices, as opposed to reporting on the perception of their experience, as history has typically silenced women or not included them often in research. The use of clay provided strong evidence for the inclusion of clay work for women in SUDs recovery and offered an alternative structure for art therapists to engage with this population. The themes that emerged through the analysis of the data corroborated the therapeutic qualities of clay as explained by the ETC theory. Providing an opportunity for women to learn about themselves and determine the positive benefits of such an activity affirms the need for a Positive Psychology framework in recovery programs.

Study Limitations

As with all research studies there are limitations. Some are beyond the control of the principal researcher, and some are a by-product of the research itself. The varied limitations included a global pandemic, the nature of SUDs treatment programs, and the principal researcher holding dual roles.

This research was designed prior to the start of the global COVID-19 pandemic that began in March 2020. At the time the principal researcher was working in a women's residential SUDs treatment program. Due to the changes in the way everyone was living, the start of the research study was delayed. Additionally, the treatment program had strict protocols which limited the number of women admitted to the program, as well as the number who stayed beyond the isolation period; thus, attracting new co-researchers was difficult. At one point during the data collection period there was an outbreak of covid, and the PR was not allowed on site for two weeks.

Within the treatment program there were multiple obstacles to sticking with the timeline of the research protocol, as well as extenuating and varied circumstances. Most of the research was conducted on the weekends, which was both helpful and challenging. Challenges included an occasional lack of childcare available while the women were in the research. This meant the women either had to postpone to a later time or there were babies present during the research. Planned activities for the weekend sometimes conflicted with the pre-arranged time the PR had planned to be on site, creating a situation where the women had to choose to engage in the research or engage in the activity. The PR did not want the women to have to choose and therefore had to change times last minute or extend the time between sessions to accommodate. However, it should be noted that since the research was mainly on the weekends, many of the women commented on how nice it was to have something to do, especially on those days when nothing was planned by staff. This enjoyment in the process is possibly related to the fact that the CRs were self-selected, and this was not a random sample.

As with all treatment programs there can be staffing and program changes. Since the data collection spanned over eight months, this created a limitation regarding resident retention, thus shrinking the possibility of more people engaged in the research. This area relates to the fact that the women were participating in treatment, meaning this research was not carried out in a vacuum, and it cannot be certain that some of the benefits noted in this research were not also confounded by the other treatment they were receiving concurrently.

Perhaps the most relevant limitation was the fact that the PR was also providing art therapy services in the treatment program. This dual role can be a limitation in that it was possible the women had a desire to please, known as the Hawthorne effect (Elkis-Abuhoff et al., 2008), and also wanted the PR to succeed with the research. They were aware that the research

was in partial fulfillment for a PhD, and some wanted to ensure the PR earned a good grade. Additionally, due to the dual relationship, many CRs were looking for guidance and reassurance during the process. The CRs would sometimes refer to their current creative processes happening in the art therapy groups, and this created an overlap between the research and the art therapy groups. This relationship possibly created a more relaxed state and allowed the co-researchers to be more open (Halužan, 2012). There was more discussion during the creative process that was socially oriented, and some were very open about current struggles and distressing situations. Sometimes the PR needed to be in the role of therapist on the weekends, as there was not a clinical staff member on site during those times. Lastly, while it is highly debated about whether a researcher should hold dual roles, it was apparent that throughout the various transcripts the PR was able to provide support and co-regulate the CRs.

Validity Check Due to the nature of the PR needing to come on the weekends, and not disrupt the regular treatment program or remove the women from those groups and services, this created a very limited time that the co-researchers were available. This lack of availability was a primary reason that a validity check of co-researchers reviewing the transcripts was not possible. There were only a few hours on the weekends that the research could be conducted, and it was used for data collection. Additionally, some of the women left quickly after their last session, eliminating the possibility of an additional meeting for a validity check. However, the PR consulted with a fellow art therapist who reviewed the raw data and together they considered the themes found independently and discussed the possibilities of how they answered the research questions. This opportunity to review the data with a colleague intended to keep the results as close to the intent of the co-researcher's lived experience.

Implications for Practice

The positive benefits of having art therapists in SUDs treatment programs have been researched and documented, but not nearly enough (Hagens, 2011; Halužan, 2012; Schmanke, 2017). The provision of services can focus on the 12 Steps and spirituality (Feen-Calligan, 1995; Julliard, 1994), be an open studio model (Allen, 2008), or coincide with themes being used within the treatment program structure (Allen, 1985). Many residential treatment programs are time-limited and attempt to provide an exorbitant amount of recovery information in the hopes that the important information will be retained. Art therapy is another way to help women discover parts of themselves and learn skills that will support their recovery (Halužan, 2012). This research supports the inclusion of registered (and board certified, if possible) art therapists to be part of the multi-disciplinary teams within SUDs treatment programs.

There is research about clay use, mindfulness, and different mental health conditions (Kimport & Hartzell, 2015; Nan et al., 2021; Smalley, 2019; Van Lith et al., 2022). But research about clay use and how it supports emotional growth and self-awareness, connecting it to mindfulness, has not been documented. The current research adds to that body of knowledge by including mindfulness with the clay use, and then went beyond to demonstrate those effects with a population that has previously not been part of the research. Should one want to implement clay use as part of SUDs treatment it is imperative that the art therapist is competent with clay and all its properties, as well as the different ways it can be manipulated. It is beneficial for the art therapist to know about the different ways one can engage with the material and how it relates to other aspects of self-awareness and development. One can look to the ETC (Hinz, 2020) or the Clay Field (Elbrecht, 2013) for further information about how this is applicable.

Working with one's hands and clay continues the "living experience of contact with natural elements – something primal, immediate, personal, material, a dialogue between our dreams and the forces of nature" (Richards, 1962, p. 27). This research demonstrated the importance of using clay from the earth instead of air-dry clay or other artificial substitutes. The women reflected on the clay properties, and it contributed to their sensory experience of the research. The richness of using a material from the earth also allowed for grounding and connection to nature that was either implied or overtly stated. This can be further connected to spirituality and other aspects of recovery.

The co-researchers were all self-selected. They appreciated being part of the research, learning about themselves, having a novel experience with a material they had not previously used, and "getting an extra therapy session." Research enables a field to progress and adapt to the needs of a population. The women participated in something outside of themselves and the work of recovery, allowing them to be a part of something larger than themselves. This action can give them a purpose, something that is embedded in the world of 12 Step recovery. Being part of research is meaningful work and an aspect that should be continued.

Recommendations for Future Research

There are many aspects to consider that were not addressed in this research, such as differences in age, cisgender versus transgender women, substance that was used as well as years using, and any prior experience with recovery or mindfulness. Additionally, this research was conducted as the women were simultaneously involved in an established treatment program. The study was conducted during a global pandemic, not something that can be replicated in the future, hopefully. These different circumstances and levels of awareness is the basis for how research can be continued from this starting point.

In the future it would be helpful to have more people in a study, thereby allowing for greater generalization of results. This could possibly mean that the principal researcher may be better situated to welcome people into the study if they are a full-time member of the treatment program from which they are recruiting. Also, having someone fully immersed in the program will allow for easy schedule changes, which was a frequent need in this current research. Lastly, a full-time person can have more knowledge about the various information those involved are receiving as part of their standard treatment. It is possible that mindfulness or clay use could be suspended while the study is being conducted.

If time and interested people engaged in the study were not a concern, it would be beneficial to have a control group. This could be set up in a variety of ways with the focus being on the mindfulness component or the clay use. More mindfulness techniques could be provided to those engaged in the study, and homework could be assigned. Different art materials could be introduced or different art directives with the clay. There could be more than four weeks provided, thus noting if more is better. With greater interest and people, it is possible that transfer of skills and process be provided in the form of giving people their own bags of clay and tools so they may use this process any time they wanted. The questionnaires could then be utilized more often, or less often, to determine if reliable and statistically significant quantitative data could be gathered. Finally, future research could focus on the use of clay with men.

Conclusion

This research set out to explore the experience of women in early substance use recovery using clay to elicit feelings of mindfulness. The components of mindfulness that were of focus included non-judgment and acting with awareness, both found to be significant predictors of decreased warning signs of relapse for SUDs (Temme & Wang, 2018). Additionally, when there

is focus on the present moment and less self-judgment, there is greater emotional regulation, all of which allow for reduced cravings for substances (Li et al., 2018; Tang et al., 2015). The women in this research shared how their mood changed as they worked with the clay, how they increased their awareness to their surroundings and to their own thoughts and actions and opened up their perspectives to not be so critical of themselves when trying something new. As they reflected about the process of working with the clay, they generalized it to themselves and applied this to coping skills needed for their recovery process, building on previous research (Elsheikh, 2008; Greenfield et al, 2013; Yang et al., 2020). Using a Positive Psychology theoretic framework demonstrated how their experience is reflected in Seligman's PERMA construct according to Wilkinson and Chilton (2018) as they experienced positive emotions, satisfaction, pride and a sense of achievement, along with a shift in perception and meaning making for themselves. The new ways the women were able to see their actions (and interactions with the clay) and generalize them to themselves and their recovery relates to previous research about dispositional mindfulness, having "mindful awareness in everyday life" (Garland et al., 2016, p. 11). With this significant contribution of the voices of the women engaged in SUDs treatment and the benefits they shared about their experiences, this study has highlighted the need for more research with clay work, art therapy, mindfulness, and recovery.

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Appendix A
Demographic Questionnaire

This information is only used for this study and will not be provided to anyone else. All responses will be kept confidential and no information will be used for discriminatory purposes.

1. Age: What is your age?

- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- 55-64 years old
- 65-74 years old
- 75 years or older
- Prefer not to answer

2. Please specify your ethnicity.

- Hispanic or Latino
- White
- Black
- Native American or American Indian
- Asian / Pacific Islander
- Other / Mixed Race _____ (if you would like to state)
- Prefer not to answer

3. What is your nationality?

- North America
- Central America
- South America
- Europe
- Asia
- Africa
- Caribbean
- Oceania
- The Middle East
- Prefer not to answer

4. What is your religion?

- Agnostic
- Anglican
- Atheist
- Buddhist
- Catholic
- Christian
- Hindu
- Jehovah's Witness

- Jewish
- Muslim
- Protestant
- Spiritual but not formally religious
- Other _____ (if you would like to state)
- Prefer not to answer

5. What is your current level of education?

- Some high school, no diploma
- High school graduate, diploma or the equivalent (for example: GED)
- Some college credit (for example: less than a year, or did not graduate)
- Trade/technical/vocational training
- Certificate Program completion
- Associates degree (for example: AA, AS)
- Bachelor's degree (for example: BA, BS, BFA)
- Master's degree (for example: MA, MS, MFA, MBA)
- Doctorate degree (for example: PhD, EdD, DNP)
- Prefer not to answer

6. What is your sexual orientation?

- Asexual
- Bisexual
- Gay
- Heterosexual (straight)
- Lesbian
- Polysexual
- Pansexual
- Queer
- Questioning or unsure
- Prefer not to answer

7. Marital Status: What is your marital status?

- Single, never married
- Married or domestic partnership
- Widowed
- Divorced
- Separated
- Prefer not to answer

8. Parental Status: Do you have children and if so, how many?

- No children
- One child
- Two children
- Three children
- Four to six children
- More than six children
- Prefer not to answer

9. Length of sobriety: How long have you been clean and sober?

- Under 30 days
- 31 – 60 days
- 61 – 90 days
- 4 – 6 months
- 6 – 11 months
- 1 – 2 years
- Prefer not to answer

Appendix B
Permissions for Scales



State Mindfulness Scale

PsycTESTS Citation:

Tanay, G., & Bernstein, A. (2013). State Mindfulness Scale [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t29421-000>

Instrument Type:

Rating Scale

Source:

Tanay, Galia, & Bernstein, Amit. (2013). State Mindfulness Scale (SMS): Development and initial validation. *Psychological Assessment*, Vol 25(4), 1286-1299. doi: <https://dx.doi.org/10.1037/a0034044>

Permissions:

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Warwick-Edinburgh Mental Well-Being Scale

PsycTESTS Citation:

Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Weich, S., Parkinson, J., Secker, J., & Stewart-Brown, S. (2007). Warwick-Edinburgh Mental Well-Being Scale [Database record]. Retrieved from PsycTESTS. doi: <https://dx.doi.org/10.1037/t01628-000>

Instrument Type:

Rating Scale

Test Format:

Responses for the 14 items range from "none of the time," "rarely," "some of the time," "often," and "all of the time" on a 5-point scale. A minimum score is 14 and maximum score is 70.

Source:

Reproduced by permission from Tennant, Ruth, Hiller, Louise, Fishwick, Ruth, Platt, Stephen, Joseph, Stephen, Weich, Scott, Parkinson, Jane, Secker, Jenny, & Stewart-Brown, Sarah. (2007). The Warwick-Edinburgh Mental Well-being Scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes*, Vol 5, np. doi: <https://dx.doi.org/10.1186/1477-7525-5-63>

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Appendix C
Researcher Notes

Participant Number _____

Session # _____

Session

Affect (Defined as: Co-researcher's overall demeanor)

Attention (Defined as: concentration on the activity or focus on other stimuli or topics)

Engagement and Interactivity (Defined as: degree in which co-researcher is involved with, and invested in the use of the clay; including any noted struggles or frustrations)

a) How did co-researcher work with the clay?

b) What struggles or frustrations were present?

c) What was the length of, and occurred during, the time creating?

Expression of self (Defined as: how did the co-researcher discuss their creation and answer any subsequent questions, including non-verbal communication)

Researcher reflections (Defined as: the interactions and experience that occurred between both people and how it relates to theory or specific research questions, as well as thoughts and feelings, awareness and insight, that may have occurred during the session for the researcher)

a) Interactions and experience between both people

b) Relationship to theory or questions thought of in the moment by the researcher

c) Thoughts or feelings that arose for the researcher during the session

d) Awareness and insight that arose for the researcher during the session

Other Reactions/Observations made during session to intervention that has not been mentioned above:

Appendix D Individual Writing Template

Appendix E

Review of Clay Creation and Semi-structured Interview Questions

Thank you for being willing to participate in this research project. You are helping to contribute to research about women in early recovery using clay to connect with mindfulness. Remember your participation is voluntary and you can stop at any time without any consequences or change to your treatment. We will now be doing a short interview where I will ask some questions and you are free to answer however you like. First, I would like to review your creation, if that is okay with you.

Review of clay creation:

1. Tell me about what you created.
2. What comes up for you (thoughts, feelings, emotions) when looking at this creation?
3. Does this now feel finished to you, or looking at it now you are wanting more time to work on it?

Semi-Structured Interview Questions

1. What was it like to work with the clay?
 - a. What emotions arose while you were working?
 - i. Feelings, thoughts, and other observations such as energy level engagement level, frustration tolerance
 - b. What qualities of the clay did you like or not like?
 - c. How did it feel to use the clay with your hands; in your body?
2. What thoughts did you have about working with the clay in relation to what you made?
3. While you were working, did you have any thoughts about your recovery and the process of recovery? And if so, what were they?
4. While you were working, did you have any feelings about a connection to something greater than yourself? And if so, what was that like?
5. (Asked in session four only): What are your thoughts about making something I said to make versus you choosing to make something of your own choice?

Appendix F
IRB Approval Letter



**UNIVERSITY OF NOTRE DAME DE NAMUR
INSTITUTIONAL REVIEW BOARD**

TO: Cheryl Feldman
PROJECT S2021-001
DATE OF IRB REVIEW AND APPROVAL: 3-11-21
APPROVAL RELEASE DATE: 4-11-22

The above-referenced project was reviewed and approved by NDNU's Institutional Review Board (IRB) in accordance with the requirements of the Code of Federal Regulations on the Protection of Human Subjects. This approval, based on the degree of risk, is for **365 days from the date of IRB approval**.

Expiration and Continuing Review:

Federal regulations require that continuing review be conducted on or before the 1-year anniversary date of IRB approval. If the research will take more than 365 days to complete, submit complete continuing review documentation at least 45 days prior to the expiration date to guard against a lapse in IRB approval. Ultimately, it is the responsibility of the Principal Investigator to initiate a continuing review application, allowing sufficient time for the review and re-approval process to be completed before the current approval expires. Please refer to the IRB website for a copy of a Study Renewal/Continuation Form: <http://www.ndnu.edu/irb/content/forms.asp>. If the IRB has not reviewed and approved a research study by the study expiration date, **all research activities must stop**.

Modification(s) to an IRB-Approved Study:

IRB approval is required before implementing any changes in the approved research plan, consent documents, recruitment materials, or other study-related documents. Please refer to IRB policy for information about submitting a Research Modification Form: <http://www.ndnu.edu/irb/content/modifications.aspx>.

Research Completion:

The completion or termination of a research protocol is a change in activity and must be reported to the IRB. Please fill out and complete the official Research Completion Form at the close of the study. Attach an abstract summary of the study along with this form, which is found on the IRB website: <http://www.ndnu.edu/irb/content/completion.aspx>. Student researchers must submit these documents to the Principal Investigator (PI). Ultimately, it is the responsibility of the PI to submit the Research Completion Form to the Chair of the IRB.

On behalf of the Institutional Review Board,

Dr. Jean Nyland
Chair, Institutional Review Board
jnyland@xxxxxx

Appendix G

Letter Requesting Permission to Conduct Research Study



From: Cheryl Feldman
To: [redacted – program director]
Subject: Permission to Conduct Research Study

March 31, 2021
[redacted – center name]
[redacted – center address]

Dear [program director name],

I am writing to you to request permission to conduct a research study at your program. As you know, I am currently enrolled in the PhD program at Notre Dame de Namur University and in the process of writing my dissertation. The study is entitled, *The Use of Clay as an Act of Mindfulness for Women in Early Substance Use Recovery*.

I am hoping that you and [redacted name] (CEO), as well as the Board of Directors, will allow me to recruit women from the residential treatment program to anonymously participate in this research. If approval is granted, the women will meet with me four times over the course of four weeks, each time creating an object with clay, writing a brief reflection about their creation, answering two questionnaires, and participating in a semi-structured interview. Each session will be approximately an hour and completed on my own time and not interrupt with the women participating in any part of the treatment program. There are no costs to be incurred by either your program or the individual participants. All participation will be held with the strictest confidence both while conducting the research and the writing of the results (both for the dissertation and if any future possible publication). Your approval to conduct this study will be greatly appreciated. I would be happy to answer any questions or concerns you may have. You may contact me at my email address: cfeldman@xxxxxx. If you agree kindly reply to me and acknowledge your consent and permission for me to conduct this study at your program.

Sincerely,

Cheryl Feldman
Department of Art Therapy Psychology, Notre Dame de Namur University

Appendix H

Co-Researcher Consent and Release Form



Title of Research Project: *The Use of Clay as an Act of Mindfulness for Women in Early Substance Use Recovery*

Purpose of the Study: The purpose of this research study is to learn about the experience of using clay as a meditative practice for women in early recovery from substance use disorders. Based on previous research this combination may increase mindfulness, a greater connection to the self, and improved well-being.

Intended Outcomes of the Study: The study is intended to contribute to our awareness of using clay as part of art therapy treatment within a substance use treatment program. The knowledge gained from this study will contribute to literature on art therapy, clay therapy, positive psychology, and mindfulness within recovery. The results of this study may be published in an open-source online archive, as an article in a peer-reviewed academic journal, and professional conference presentations.

Procedures and Participation Details: The anticipated time commitment for your participation is approximately a total of 4-5 hours over a course of four separate meetings weekly. You will be required to meet with the student researcher in person each time and will be working with clay during each meeting. During each session, you will write a paragraph about your experience and participate in a semi-structured interview. You will complete two short surveys about mindfulness and well-being. The clay activities are designed in such a way that no former art training or skills are necessary, and all levels of experience are welcome. The sessions will be audio recorded in order to obtain transcripts. There will be no right or wrong responses or clay productions. The goal will be to experience the activity and to share your perspective.

Confidentiality: The records from this study will be kept strictly confidential. No individual(s) will be identified in any of the reports. All hard copy and electronic copies of online questionnaires, and transcribed materials will be coded with a number that matches the corresponding consent forms. All forms and the number key will be stored separately from all surveys, questionnaires, and transcribed material and will be stored in a password protected computer file assessable only to the student researcher and the research study supervisor. All information will be kept by the researcher for three years (seven years if published) and will be used only for research purposes. Unless published, all questionnaire information will be destroyed after the seven-year period.

Participant Rights: Your participation in this study is strictly voluntary and you may withdraw at any time without consequence. You have the right to ask questions at any point during the study.

Possible Risks and Benefits: Possible risks of your participation, while considered minimal, may include some discomfort based on a reaction to the artmaking activity. If this happens,

please let the student researcher know. Should any feelings of discomfort be elicited based on my participation in this study, I can speak with the student researcher, Cheryl Feldman, and I will be provided with a list of low- cost agencies that provide psychological services in my area of residence. Possible benefits you may experience as a result of your participation include momentary (or longer lasting) increases in self-awareness, mindfulness and well-being. Additionally, you may feel empowered through sharing your experience with the knowledge that it has potential to help others.

Costs and Compensation: There will be no costs to me as a result of participating in this art therapy research study. There will be no monetary compensation for my participation in this art therapy research study.

I understand that:

1. I will be asked to take part in 4 sessions using clay, write my reflection about creating with clay, answer two questionnaires and participate in a semi-structured interview each time.
2. The possible psychological risks of participating in this study are considered minimal and may include some discomfort based on reaction to the art directive.
3. There may be minor benefits to me personally in the area of increased mindfulness and well-being, and the results of this study will help expand our knowledge of using clay to achieve these benefits.
4. I will allow photographs to be taken of my clay creations.
5. I will allow myself to be audio recorded during each session and understand those recordings will be transcribed and then destroyed. The transcriptions will be held confidential and destroyed after three years (seven years if the results are published).
6. The results of this study may be published, but any information from this study that can be identified with me will remain confidential and the data will be coded to maintain anonymity. Details will be changed to protect my identity should any details be too recognizable.
7. Any questions about my participation in this study will be answered by Cheryl Feldman through email or by telephone (cfeldman@xxxxxx or XXX-XXX-XXX). Any questions or concerns about this study should be addressed to the research supervisor, Dr. Amy Backos at abackos@xxxxx. Any complaints about this study should be directed to the IRB Committee Chair, Dr. Jean Nyland at jnyland@xxxxx.
8. I have received a copy of this consent form for my record.

PARTICIPATION IS VOLUNTARY. My consent is given voluntarily without being coerced. I may refuse to participate in any part of this art therapy research study. I understand that I may withdraw at any time, without penalty by NDNU.

Please check one:

_____ YES, I agree to participate in this research study

_____ NO, I do NOT agree to participate in this research study

Please check one:

_____ YES, I give permission to use my written words and art as part of the study

_____ NO, I do NOT give permission to use my written words and art as part of the study

Print Co-researcher's Name

Co-researcher's Signature

Cheryl Feldman, NDNU PhD Candidate, and Student Researcher's Signature

Date

Appendix I
Debriefing Statement

Dear [Name],

Thank you for your participation in this research project. The purpose of this research project was to examine the use of clay as a mindful activity for women in early recovery. Addiction and recovery are of epic proportions in our society and it is crucial to support new research about alternative treatments to contribute to recovery success. By participating you are contributing to the development of new research to help guide future treatment for women in recovery and was a valuable contribution to the field of art therapy.

The possible benefits of having participated in this study are listed below:

- You may have experienced a sense of fulfillment from contributing to art therapy research and creating art.
- You may have enjoyed doing something different and in turn learned something about yourself in the process.
- You may have discovered insights about the power of using clay to access a meditative state allowing you to be more present in your daily life.

Cheryl Feldman, the student researcher, will be available to answer any questions concerning my involvement in the research project, and can be reached by email: cfeldman@ndnu.edu. Additionally, Dr. Amy Backos, research supervisor, will be available to answer any questions regarding the qualifications of the student researcher or about this study. Dr. Amy Backos may be reached by phone: XXX-XXX-XXXX, or by email: abackos@xxxxx

If you have any unresolved feelings from this research that cannot be answered by Cheryl Feldman or Dr. Amy Backos, low-cost and sliding scale mental health services are provided at the following locations.

Bay Area (SF, East Bay, Marin, Peninsula): Bay Area Community Counseling (phone num)

San Francisco: Liberation Institute (phone num)

Berkeley: Blue Oak Therapy Center (phone num)