All You Knead is Love

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All you knead is love
Bread Making as an Art Therapy Method

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Abstract

This thesis explores the development of a method to gain a deeper understanding of the process of making bread’s potential as art therapy. The Expressive Therapies Continuum (ETC), mindfulness arts-based research, and neurobiological research provide the foundation for understanding the method. Lusebrink and Hinz's schematic framework, the ETC provides a therapeutic model for the applications of media in art therapy. Research posits that the three levels of the ETC, Kinesthetic/Sensory, Perceptual/Affective, and Cognitive/Symbolic reflect different functions and structures in the brain that process visual and affective information (Lusebrink, 2004). In addition, the application of new techniques in brain imaging has expanded the understanding of the different functions and structures of the brain involved in information processing (Lusebrink, 2004). The mindfulness arts-based literature is also associated with arousing the brain region associated with more adaptive responses to stressful or negative situations (Davis & Hays, 2011). This thesis will present the development and interpretation of the bread-making method with one group of children between the ages of eight through eleven in a residential setting. Observations from the group illuminated the participant's self-expression, their engagement with the media, and their connection to the therapeutic goals. Finally, the method of breadmaking suggests that it would likely apply to other populations with a wide range of mental health issues and holds the potential to be a powerful vehicle both culturally and socioeconomically.

Key Words: expressive therapies continuum, mindfulness arts-based, children, bread making

Introduction
I discovered the therapeutic benefits of baking bread myself with my mother as a child. There’s something immensely satisfying about a method that’s so simple yet yields such delicious results. And as an adult who runs in many directions, returning to baking bread has been surprisingly fulfilling. You can’t rush the process of making bread. The entire process welcomes patience and slowing down. Within a culture surrounded by the constant need to be busy and always working, it felt validating to gain some control and attune to myself. Because breadmaking is a multisensory activity, my curiosity drew me to try making bread with children and connect my art therapy knowledge around that process within a therapeutic setting creating a loaf of bread that children could feel they accomplished something that they were proud of, experience gratitude in sharing, and were part of the community.

In developing the method of bread making as art therapy, arts-based mindfulness concepts and the Expressive Therapies Continuum (Lusebrink, 2010) support the construct of the concept. Core aspects of the process of bread making are separated and identified to illustrate why the process serves as a means of art therapy. This thesis provides an analysis of the bread-making method, the identification of the therapeutic values the method and media hold, the goals of the method, and the importance of the therapeutic alliance. This paper will discuss and provide research through the literature that the bread-making method is beneficial when working with children who have experienced trauma.

The importance of bringing this method into a residential setting for children who have experienced complex trauma is to provide therapy that speaks to them. Understanding what children enjoy helps show a child that you can relate to them. Breadmaking offers a process for children to explore. The bread dough like clay is malleable yet presents resistance. Children can move and change the structure of bread or clay into a dough-like ball which presents friction that
works in the opposite direction of the motion of their bodies and slows down the body’s motion, grounding the child in the present (Elbrecht, 2012). The development of this method offers an opportunity to ground the participants with arts-based mindfulness techniques by focusing one's awareness on the present moment, while calmly acknowledging and accepting one's feelings, thoughts, and bodily sensations. The importance of this process for children in this population is to manage their everyday life and have an impact on their physical and emotional health. This thesis will also explore connections through overlapping the capacities that bread making and clay work share through the use of the research presented in the studies from the clay fields and the ETC (Elbrecht, 2012).

The development of this method expands on the notion that breadmaking can be an effective method for the development of a positive sense of self, managing frustration, holding psychosocial benefits in providing a way to nurture others and self, and creating a feeling of satisfaction and accomplishment knowing that the bread was created by themselves with their own hands. It will explore the development of the method with children in a group format in a residential setting to experience making bread in a therapeutic setting to discover if bread making as art therapy holds the potential to enhance the lives of children who have experienced trauma. I hope to learn that this group showed curiosity to experience the media used to make bread and that the bread-making provided a unique experience that allowed them to explore themselves within the group and in an individual way.

I hope to learn that the experience of bread making was enhanced and supported with arts-based mindfulness concepts to provide an additional way of being present and to connect the concept of bread making as art therapy. The following literature review examines the concepts of art, art therapy, the importance of the therapeutic alliance, the intrinsic properties that clay and
bread dough share, the neuroscience research that supports making and the brain, and the therapeutic framework of the ETC supporting the bread medium and the theories that support the method.

**Literature Review**

The literature review will provide support for the bottom-up approach in the context of the Expressive Therapies Continuum working from the Kinesthetic Sensory Level and up the continuum (Hinz, 2009). Scholarly sources related to this topic of qualitative-based works support that this method is also grounded in theories of human development highlighting sensorimotor perception, and haptic perception in helping the body regulate and mindfulness-based art therapy (MBAT). In conjunction with the development of the method, research will provide critical support for its benefits when working with children who have experienced complex trauma.

**Context**

Children who live in residential settings who have experienced trauma are faced with multiple obstacles. Their history of family dynamics impacted areas of their life, making understanding them incredibly important (SAMHSA, 2019). While family dynamics can positively impact health, the negative impacts of these relationships can initiate strong emotions and physical reactions that can persist and negatively impact health. Children who grow up in households with abuse, neglect, authoritarian parenting, permissive parenting, poor communication, and insecure attachment styles are more likely to develop mental health disorders and may experience more difficulty within relationships (Applebury, 2022). The family systems theory posits that individuals do not have individual problems that exist in a vacuum, but rather are impacted by the complexity of family dynamics on a multi-generational level (Alexander, 2014).

Family dynamics of intergenerational trauma can negatively impact children as a result
of unresolved emotions and thoughts, negative repeated patterns of behavior, untreated or poorly treated substance abuse or severe mental illness, poor parent-child relationships and emotional attachment, complicated personality traits, or personality disorders (Hill, 2017). Children exposed to six or more risk factors are two and half times more likely to develop externalizing behaviors that share the elements of being directed outward and being socially problematic such as conduct disorder in school, crimes, and substance abuse (Masten & Obradovic, 2006). They are also almost twice as likely to develop internalizing disorders that affect children’s mental health, such as depression anxiety, and somatic symptoms that manifest as physical symptoms (Masten et al., 2006). Children in residential facilities who typically lack family support and attachment bonds because of their trauma histories are our most vulnerable population (Menschner, 2016).

Research provides clinical information on what trauma looks like physically, cognitively, emotionally, and socially. Children who suffer from trauma can develop reactions that persist and affect their daily lives after the events have ended (NCTSN, n.d.). Trauma in children includes a diverse number of responses, such as intense and ongoing emotional upset, depressive symptoms or anxiety, behavioral changes, difficulties with self-regulation, problems relating to others or forming attachments, regression or loss of previously acquired skills, attention and academic difficulties, nightmares, difficulty sleeping and eating, and somatic symptoms, such as aches and pains (NCTSN, n.d.). Older children may use drugs or alcohol, behave in risky ways, or engage in unhealthy sexual activity. Children who suffer from traumatic stress often have these types of symptoms when exposed to triggers related to the traumatic event. When a child is experiencing continued trauma, these reactions interfere with the child’s daily life and ability to function and interact with others (NCTSN, n.d.). The way that trauma manifests will vary from child to child.
and will depend on the child’s age and developmental level. Without treatment, repeated childhood exposure to traumatic events can affect the brain and nervous system and increase health-risk behaviors such as smoking, eating disorders, substance use, and long-term health problems (NCTSN, n.d.; NCCL, n.d.). Traumatic stress can also lead to increased use of health and mental health services and increased involvement with the child welfare and juvenile justice systems. After childhood, adult survivors of trauma may also have difficulty in establishing fulfilling relationships and maintaining employment (NCTSN, n.d.).

Children can develop resiliency and healthy coping skills. For example, attachment theory suggests that attachment-based trauma resulting from an insecure relationship with a caregiver can negatively impact self-regulation and social skills into adulthood (Doyle & Cicchetti, 2017; Marcus, n.d.). In a residential setting, the attachment figure may be the child’s one-to-one mentor or day-to-day worker. Since, children relate to mentors, coming to understand how the creative art of therapy as a treatment may be especially helpful to children who find themselves in residential settings with no other option for home or attachment is essential.

**Trauma-Informed Care**

Both quantitative and qualitative research studies use trauma-informed care to provide caregivers an understanding of the underlying consequences of trauma and children aiding in the knowledge of some of the broad goals that present when working with children (Cohen & Barron, 2021). Trauma-informed care recognizes the impact of a history of trauma on a child’s day-to-day living and the need for trauma-aware staff who can provide safe containment and reduce the likelihood of re-traumatization (Cannon & Hsi, 2016). Consequently, many models of residential care share similar underpinnings with attachment frameworks and trauma-informed
Attachment theory is the theoretical framework that can help us understand how and why children are biologically, psychologically, and socially driven to form close bonds and connections from birth, usually with one or two main attachment figures, most often parents (Bowlby & King, 2004). Within TIC models for children’s residential care, the attachment figure is often the child’s key worker. One-to-one mentorship to nurture hopeful thinking and problem-solving skills has also been shown to be very effective for children in residential care in Israel (Sulimani-Aidan & Melkman, 2022). Both historical and contemporary residential care for children has been found to present risks to their safety and security. A qualitative study obtained views about the characteristics of workers that helped them to feel safe in the placement of twenty-seven children. Competent and trustworthy staff were considered essential. These workers were characterized as caring in building relationships, and available. They listened and ensured young people had a voice. The study affirms the central role of the alliance in ensuring residential care is a positive and safe experience for children and identifies structural factors that children and young people believe are barriers to them feeling safe (Moore et al., 2017). Children in this type of care often experience further trauma due to staff turnover, multiple placements with multiple transitions in school, and no consistency to keep friends (Parry & Weatherhead, 2014), all of which provoke further relational instability and losses. Consequently, by the time children reach a residential setting, it becomes crucial to concentrate on the complex trauma through trauma-informed care (Menschner, 2016).

**Trauma-Informed Expressive Arts Therapy and Trauma-Informed Art Therapy**

Trauma-Informed Expressive Arts Therapy and Trauma-Informed Art Therapy are approaches developed by Dr. Cathy Malchiodi that integrate trauma-informed practices, "brain-wise" arts-based interventions, and embodied awareness concepts to support trauma
reparation and recovery. Malchiodi believes expressive arts therapy, the integrative use of art, music, dance movement, improvisation, storytelling narrative, play, and imagination is a key psychotherapeutic strategy when addressing traumatic stress (Malchiodi, 2019). Engaging children with the arts provide a way for them to explore creativity, and themselves, and develop important character traits for survival. It is important to meet the child where they are at in the present moment (Malchiodi, 2019). The willingness to compromise and show flexibility in adapting the various strategies to the specific needs and context of each child is necessary when working with children who have experienced trauma (Malchiodi, 2019). APA (2021), as cited in Malchiodi, 2020, p. 24) “rests on current evidence-based and emerging brain-body practices, there are eight key reasons for including expressive arts in trauma intervention: (1) letting the senses tell the story; (2) self-soothing mind and body; (3) engaging the body; (4) enhancing nonverbal communication; (5) recovering self-efficacy; (6) rescripting the trauma story; (7) making meaning; and (8) restoring aliveness.”

Expressive Therapies Continuum

The Expressive Therapies Continuum (ETC) is a theoretical and practical framework to understand the mode in which clients process information during their interactions with art media. The ETC provides a framework for communicating with clients, other art therapists, and professionals about the therapeutic uses of art media and processes. In addition, it offers a method for conceptualizing how and why particular art interactions can be therapeutic. According to Lusebrink (2004), the levels of the ETC reflect three established systems of human information processing: kinesthetic/sensory, perceptual/affective, and cognitive/symbolic with a fourth level the creative level which is a synthesis of the other three levels. The concept of the ETC provides an opportunity to approach artistic expression on a systematic basis, and it
incorporates recent psychological and neuroscience approaches to imagery and visual information processing (King, 2016).

Developmentally, the first way in which babies process information is through sensation and movement (Piaget, 1972). At the bottom level of the ETC, the Kinesthetic/Sensory level is described as preverbal information processing that is rhythmic, tactile, and sensual. In the bottom-up approach in the context of the ETC, the Kinesthetic/Sensory Level is simple motor expressions with art media and their corresponding visual manifestations of energy and sensory involvement. The Kinesthetic/Sensory level of the ETC provides experiences through vigorous movement and various sensory activities. Art media may simply serve as facilitators of action or touching (Hinz, 2009; Lusebrink, 1990). The focus of Kinesthetic is then on rhythmic repetition of motor impulses where the mind receives feedback from the body. Through rhythm and movement, children experience a mind-body connection, a feeling of grounding, allowing for the release of energy and tension, and can self-soothe. In addition, an emphasis on movement can help children break through physical and psychological deprivation of feeling (Shanker & Baker, 2017). Vigorous art activity with the Kinesthetic component can give children the opportunity to develop important characteristics, self-regulation, and increase social skills to navigate difficult behaviors (Hinz, 2020).

The Sensory component of the bottom level refers to the tactile and haptic senses or any other sensation experienced while interacting with art media. The healing functions of the Sensory level include discovering, valuing, and expressing inner sensations, as well as increasing tolerance for internal and external sensations (Hinz, 2020; Lusebrink, 1990). Children can learn to manage internal sensation by externalizing it through the use of media or to manage external sensation by channeling it through art-making (Chapman, 2014). Additionally, Sensory
experiences can lead to reduced dependence on poor coping skills to provide or manage sensation (Hinz, 2020). It can support self-soothing through the use of sensation (Hinz, 2015). Stimulating sensory-based art therapy can aid sensory integration (Chapman, 2014; Hinz, 2020). Sensory integration is important when working with children who have experienced complex trauma because sensory processing problems often lead children to feel confused, afraid, or angry which may be seen through their behaviors (Hinz, 2015).

“Due to the inverse relationship between the two components (K/S), as the movement becomes more active and energetic (K increases), the ability to discriminate fine sensations is naturally reduced (S decreases). Alternatively, as involvement with sensation becomes the focus of art therapy (S increases), movement slows down and eventually stops (K decreases). Examples of Kinesthetic work include forceful work with clay or other resistive materials where movement is the predominant activity. Sensory activities include working with soft, wet clay. When working with the Kinesthetic/Sensory level, the art process often is more important than the art product. The emergent functions of the Kinesthetic/Sensory level are the perception of form and/or the awareness and experience of emotion” (Hinz, 2015, p 44-45).

Lusebrink’s research in neuroscience links the ETC and science in understanding brain activity alongside the framework. The framework can assist in the successive planning of interventions based on the media use in art therapy and their value in stimulating brain structures involved in processing information (Lusebrink, 2010). The transition between the K and the S components of the ETC reflects the direct pathway between movement and the somatosensory association cortex (Hinz, 2015). The somatosensory cortex is a region of the brain which is
responsible for receiving and processing sensory information from across the body, such as touch, temperature, and pain. This is how infants learn to interact with their surroundings; they touch objects and receive instant sensory feedback from the texture, and the temperature and they learn to communicate through touch in this sensorimotor feedback loop (Hinz, 2009). The basal ganglia via the thalamus is another pathway between K and S that has the capabilities to reform cognitive processes through the kinesthetic connection with three-dimensional media (Menzen, 2001). Understanding how the brain works may provide insights into the power of making art and the science of healing, activating the brain through creativity.

The term kinesthetic refers to the touching, the doing, the experiencing, or being physically active. The kinesthetic pathway is one of the three main pathways to the brain. Information gathering through the K/S level does not require words. The K/S level represents simple motor expressions with art media and their corresponding visual manifestations of energy and sensory involvement (Lusebrink, 2010). An emphasis on kinesthetic activity decreases awareness of the sensory component of the expression, and emphasis on the sensory component decreases and slows down kinesthetic action because the focus is directed to the experience of sensations. The psychopathological variation of the K component in children who have experienced complex trauma is characterized by agitated actions and disregard for boundaries and limits, such as frantic scribbling, throwing or destruction of materials, or marked lack of energy. The K component appears to reflect the predominant involvement of the basal ganglia and the primary motor cortex of the brain (Lusebrink, 2010).

The sensorimotor approach is a term to describe body-focused psychotherapies that use a bottom-up approach. Instead of a cognitive top-down strategy, such as intentionally creating an image and then talking about it, sensorimotor is bottom-up from the ETC levels encouraging the
awareness of the implicit felt sense; how the muscles, the heart rate, and breath shape our sense of being. With this heightened awareness of the embodied self, as you touch the art media, for example, it touches you. As you move your body, it moves you. Motor impulses and their sensory feedback define the core relationship of ourselves with the world. In the bottom-up approach in the context of the ETC, participants begin with the Kinesthetic/Sensory Level. The focus is then on rhythmic repetition of motor impulses where the mind receives feedback from the body. It reflects the way we learned to touch and be touched in relationships and how we were taught to handle the world. By using “bottom-up” methods involving kinesthetic, tactile, auditory, and other channels of communication, the concept of sensorimotor expands possibilities for deeper somatosensory expression, including body awareness like calm, joy, aliveness, and pleasure.

Working with children, the ETC characteristics need to be evaluated in the context of developmental stages, since one of the main goals in art therapy is to help children to use the visual expression to progress in their processing of cognitive and affective information according to the developmental stages, simultaneously addressing their behavioral, emotional and cognitive disorders and difficulties by dealing with areas of blocked or arrested development. In trauma-focused work, the bottom-up approach generally means a progression that begins with the body’s sensory and somatic experiences as the foundation for the eventual exploration of emotions or effects, and personal narratives or cognition (Hinz, 2015).

**Mindfulness arts-based therapy (MBAT)**

Mindfulness is the intentional and careful consideration to be in the present moment with an attitude of openness, non-judgment, and acceptance (Hick, 2009). Art therapists professionals purposively use specific art-based approaches, like MBAT with children, adults, groups, and
families to support, maintain, and improve overall health, physical, emotional, and cognitive functioning, interpersonal skills, personal development, and quality of life. Originated from Buddhist meditation practices, mindfulness is “the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment.” (Kabat-Zinn, 2003. p.145). At its most simple level, mindfulness involves paying more attention to the present, to the moment you are in now. It involves placing one’s attention, intentionally on your thoughts, feelings, or senses and bodily sensations. By concentrating on the senses, what you can hear, see, smell, touch, feel, and taste, one can connect better with their bodies and their physical nature. By intentionally bringing focus to yourself in the present, mindfulness practices improve one’s capacity to cope with stress, anxiety, and depression (APA, 2019). Placing attention on what you are thinking, feeling, and sensing becomes a reminder that you are not your thoughts or feelings. This intention is the opportunity to shift your mind into observer mode to use as a valuable tool in fostering mental well-being (Beaumont, 2016). Mindfulness intentions provide important avenues for these shifts to occur to work on challenges by supporting feelings of safety and by providing opportunities for growth and change in children's learning and behaviors. Research supports that the application of mindfulness plans may provide a resource for addressing children's negative experiences and behaviors and replacing them with positive experiences (Kinder, 2017). Mindfulness arts-based therapy (MBAT) combines the benefits of mindfulness training within the structure of an art therapy framework. Since in mindfulness and art-making, there is awareness away from the habitual thinking mind, toward heightened feeling and sense, it is suggested that both these processes promote the activation of the parasympathetic nervous system (Monti, 2004 ) which induces a relaxation response and reduces psychological distress. During the MBAT sessions,
children learn to reconstruct meanings, minimize self-judgment, and find a way to navigate experiences and life events (Meghani, 2018).

Art

The literature found to support the idea that the methodology of making bread is art therapy requires defining art and understanding the meaning of bread. The arts are a basic form of human communication (Mittler, 2006). Art is described by the means of the expression of sensations, perceptions, feelings, thoughts, ideas, and experiences non-verbally through images, using art media (Lusebrink, 2013). Additionally, the arts are defined as modes of expression that use skill or imagination in the creation of aesthetic objects, environments, or experiences that can be shared with others (Britannica, 2018). The experience of making art or the process provides communication avenues both verbal and non-verbal. The difference between the art medium and the art process is important. Art media consists of the materials the artist uses to create artworks. The art therapist chooses to engage the client with specific media. The understanding of media is an important piece of the foundation of art therapy. The art process is the action involved in making art. Art in its broadest sense is a form of communication that is shaped by its materials, the methods used, the ideas and feelings it creates in its viewers, as well as the product (Lumen, 2019). Art is an act of expressing feelings, thoughts, and observations (Lumen, 2019). The client applies their expressive imagination to the basic framework of the medium to communicate. The arts are inherently communicative and actively engage learners in the processes of creating, expressing, interpreting, and responding to art.

Bread

Bread communicates and connects people to culture, tradition, and sometimes religion.
Today, bread is a staple food for many peoples worldwide. But bread has been more than food in the history of mankind. Bread has become a symbolic element with connotations attributed to socioeconomic, religious, cultural, and political values. “The word companion comes from the Latin words for with (cum) and for bread (panis). The word was used to describe a person who shared food with another. Now the meaning of companion is a friend someone who goes alongside us” (Beaumont, 2016). The development of the method of breadmaking is to come and make and break bread together as a way to build trust to build bonds between us as well as a sense of home and warmth in the usually depressing residential settings. The art of making something with your own hands and then sharing it with others is fundamental to bread’s humanity and our connectedness (Beaumont, 2016, p.17). This art of making bread can be a reminder to us all that we are capable of transformation just like the media transforms first into the dough and then into a loaf. The importance of both the process of making the bread and the bread loaf is based on the conception that the expression is not just about the final product but the process by which the product has been made holds meaningful information about the maker and also the transformation that takes place.

Clay

Clay-work involves an intense and powerful tactile experience of touching and haptic involvement. Touch was identified as one of the first sensory responses to develop in humans (Sholt, 2006). Tactile contact is the first mode of communication that an infant learns. For humans, the early stages of life are dominated by oral and skin contact between infant and caregiver (Sholt, 2006). Thus, clay work involves a very primal mode of expression and communication. Touch in clay work also requires body movements in endless opportunities for touching and modeling. Thus clay-work makes possible an entire non-verbal language or
communication for the creator, through which his or her mental realm, emotional life, and primary object relations can be expressed. The nonverbal modes of expression, including art, can function as a way of communicating these procedural representations. This is especially true concerning clay work, which taps into primary modes of communication and expression like touch and is thereby linked to actual memories and feelings that were encoded through touch and movement. Clay making allows children to engage and focus, diverting their attention to the soothing visual and haptic sensations of creating which can calm unquiet souls that are beset by disturbing thoughts and emotions (Nan & Wong, 2021). In this respect, clay-work could function as a central window to these unconscious, nonverbal representations and may be especially helpful for children who find it hard to express themselves verbally or who are very defensive (Malchiodi, 2015). The clay process and creation show powerful therapeutic effects in reorganizing and incorporating challenging experiences and failures, regulating feelings, and instilling new meanings to existential struggles and life issues (Nan & Wong, 2021).

**Therapeutic Alliance**

The therapeutic alliance among art-making, client, and art therapist is the foundation, and it is through the quality and nature of the relationship that goals are set and positive therapeutic outcomes are achieved. (Gullo et al., 2012; Robbins, 2001). Research explores the associations within this triangle. The relationship between the therapist and the client, which is often referred to as the therapeutic alliance (Doran, 2016), is a cornerstone of the psychotherapeutic process (Zilcha-Mano, 2017) and is generally viewed as the collaborative component of the therapeutic relationship. It is defined as consisting of three components: agreement on the goals of therapy, collaboration on interventions that guide a client in achieving these goals, and the development of an emotional bond between therapist and client (Bordin, 1979). The strength of the therapeutic
alliance is a major predictor of high psychological functioning, can reduce the severity of negative symptoms, and promote a better quality of life (Xu & Tracey, 2015). Art therapy is an interpersonal experience in which a therapist facilitates, guides, witnesses, and responds to an individual’s art process and art expressions. The relationship between a therapist, an individual, and the art process and art products is essential to art therapy and includes purposeful dialogue and specific therapeutic interventions in response to both process and product. The therapeutic alliance influences the communication process stimulating change.

Within the alliance, art materials are the prime components of therapeutic interventions and can be considered to add a third dimension to the therapeutic alliance to form a triangular relationship between the art therapist, the client, and the artwork (Schaverien, 2000; Moon, 2010). One of the key theoretical assumptions in the alliance is that the art process, which expresses the inner world of the client (Hilbuch et al., 2016), may also reflect or deepen the relationship between the art therapist and the client (Gazit et al., 2021). Another crucial theoretical assumption is that the art therapist serves as an active partner in the process of art-making by providing the mediums, and enabling a safe space in which clients can make associations, visit emotions, explore, and discover self-awareness (Moon, 2002).

**Art Therapy**

Art therapy is the application of the visual arts and the creative process within a therapeutic relationship, to support, maintain, and improve the psychosocial, physical, cognitive, and spiritual health of individuals of all ages. Art therapists are educated to understand media properties and how they can potentially influence art therapy outcomes. Through clinical observations of client interactions with art media, as well as qualitative and quantitative studies, art therapists have developed theories of material interaction (Hinz, 2019). Art therapy is a
non-threatening way to treat since it works on a pre-verbal level; art-making can alleviate symptoms of overload by focusing on a specific task using one’s hands. Hands-on directives are a great way to release, redirect clients from negativity, and feel successful which is positive (AATA, 2020). It is based on current and emerging research that art-making is a health-enhancing practice that positively impacts the quality of life. Current and emerging research in neuroscience, mind-body medicine, allied health, and integrative healthcare demonstrates that art therapy is an effective, health-enhancing intervention and form of treatment (Malchiodi, 2012). Art therapy provides time for engaging all the senses and integrating these aesthetic experiences so that participants can reimagine and rework established neural pathways to establish new ways of seeing, thinking, and experiencing (Kaimal, 2020). Art therapy has also widely embraced discoveries about art and the brain, information that supports the application of specific art-based approaches in the reduction of stress, and improvement in quality of life, especially for those challenged by disability or illness. It emphasizes the body’s experience of trauma and uses action-oriented, mostly non-verbal, sensory-based methods to assist individuals in trauma repair and restoration of the self. In particular, it taps embodied intelligence that helps individuals experience themselves, their relationships, and the environment in novel ways. Traumatized individuals, especially those who have endured chronic or early childhood trauma, find themselves literally cut off from their bodies. At the very least, they are not conscious of how their bodies are communicating or sensing their surroundings. In other words, there is a lack of body-kinesthetic knowledge that impairs the resolution of traumatic stress (Malchiodi, 2019).

**Method**

Participants who lived in the residential setting signed up to be part of a creative bread-making wellness group. One group of five children between the ages of eight and eleven
participated in a therapeutic bread-making session. The children were from diverse backgrounds having various racial, ethnic, and cultural backgrounds, and shared a low socioeconomic history including a past that included both a lack of safety and social support. The children were welcomed into the baking bread therapeutic workshop with an invitation to share in the excitement to turn flour, water, and salt into a loaf of bread. The potential of the bread-making process provides me, with an opportunity to weave together many important aspects of life to strengthen each participant's skills and abilities to support their healthy development as they share stories through this balanced approach. I intentionally asked the children to share their knowledge about how to make bread and where bread comes from. This invitation was my way of connecting with the participants through storytelling as a way to provide a safe space. I observed the relationship between participants with myself as a way to connect and begin bonding during the storytelling. As the workshop in bread making began, participants were asked to combine in a small bowl two teaspoons of yeast, two teaspoons of oil, one teaspoon of sugar, and one cup of warm water with two cups of flour and one teaspoon of salt. The temperature of the dough was warm to the touch to encourage engagement with the dough. The addition of warm water was intentionally added to significantly enhance contact, especially as the powdery flour is turned into a soft malleable dough that the hand can sink into and be covered in the wet dough. The active pleasure of self-touch held the opportunity to lead to deep bodily reassurance where self-fulfillment is possible. Inner tensions may be released as the hands experienced a nurturing all-encompassing environment. These mindfulness arts-based actions were intended to resonate in the entire body and awaken focus and awareness. As a result restless unfocused children often settled into this holding space and became calm. Once a sense of trust had been gained, children had the opportunity to explore the sensory aspect of the dough. Trust was gained
through experimentation with fast and slow pressing, rhythms, and through the repetition of kneading while being witnessed by me. The next directive was to place the dough on the sheet to rise for one hour. The bread was baked for fifteen minutes at three hundred seventy-five degrees. This experience of turning flour water and salt into a loaf of bread had the potential to touch all the senses and provide a child with a sense of accomplishment and meaning. The participants were asked at different points about their senses. Before we began, I asked the participants to notice their breath. Was it fast? Slow? Shallow or Deep? During the proofing of the yeast, they were asked to describe what they saw, felt, smelled, heard? When they began kneading their dough, how did they feel, how did the dough feel, and what did they notice about the smell of dough? The texture? The transformation of the dough? How did their bodies feel? Where were their thoughts during the kneading of the dough? Did they notice their breath? What did that feel like? Had their breath changed? Was it the same?

Results

My primary focus was on the process of making rather than the artistic product, which allowed participants to gain insights into their situations and develop inner emotional resilience. Later I used the artistic bread loaf to focus on how the participants felt about their work. The participants kneaded the dough for ten to fifteen minutes. The temperature of the dough was warm to the touch and the participants excitedly engaged with the dough. The addition of warm water was intentionally added to significantly enhance contact, especially as the flour was turned into a soft malleable dough into which the participant’s hands sunk in it and out of the dough. Some participants covered their arms in the wet dough. It was visible that the active pleasure of self-touch held an awareness and created laughter and pleasure. Inner tensions were released as participants' hands experienced the warm environment of the bread dough. Participants had more
intense motor impulses, they grabbed it, pinched it, moved it, stretched it, and pushed it around. When the five participants first came into the group, their bodies were tense and moving, and it seemed difficult for them to stay still or focused. Once each participant was welcomed into the space they found their place around the table and the check-in began. During the check-in, I noticed that participants appeared to be anxious with stiff, erect body positions. As participants began to engage with the therapist, the therapist responded warmly and empathically about their expectations of making bread together. The group was asked if anyone knew how bread is made which opened up storytelling and sharing as a way for the therapist to listen, observe and a way for the participants to become part of the group. When participants began engaging with the medium they appeared to begin to settle into the experience with a more relaxed body stance. Their bodies appeared calm, not moving very much. Their hands were engaged in the ingredients. They were listening to directions and appeared to feel the safety of the environment. Witnessing the group, the therapist could physically see their breathing relax as well as their bodies loosen up. When the yeast began to proof, the participants began to share what they were smelling, seeing, and feeling. I observed their thoughts to be calmer as they were able to give participants time to speak and their senses were engaged. They were also able to listen to each other's feelings. The participants began to focus on the dough with clear attention and concentration on creating their dough. Some participants expressed feelings of likeness and others with disgust and the “dough is gross”. Some said, "I have no idea what I am doing here”. Witnessing the group engage with the dough, it was clear that the physical experience of kneading the dough connected their muscles and physical energy to the dough, some participants said “this feels strange”, and others replied, “I love it, it is like slime”. As I listened I was able to understand they were experiencing the kinesthetic/sensory level. As the kneading continued for
fifteen minutes the participants appeared connected and active in the process of making bread and they responded to the dough with “I feel like my dough is ready to rest.”

Data

After engaging in the bread-making method, the findings support the method’s acceptability for working with children in need. Despite the challenges that children in need experience, they can learn and benefit from this method if it is facilitated in an engaging and non-threatening manner that supports their needs, and has the intention of therapeutic goals. The bread-making method has the potential for children to focus on their feelings and thoughts and promote the development of self-awareness. In turn, developing a foundation for children to explore themselves through bread-making can assist children to build aspects of resilience including improved coping and social skills, problem-solving skills, and feelings of self-esteem (Coholic, 2011). The findings show that children in the bread-making experiential experienced mainly sensory and reported it was fun, they didn’t think they could do it at first, they said being together made it fun, they liked the feeling of making the dough, they felt good about being able to make the bread and wanted to come back.

In recent years, more novel methods of data collection have been tried for research with children. As the facilitator, I chose to use an exploratory method when developing the method. I collected data with verbal questions to the group which provoked verbal responses. I collected data by observing the participant's physical reactions and observed their nonverbal responses. As the conversations developed, I was able to ask specific questions that were clear and concise but lacked measurability.

I began with a check-in with myself which included, mindfulness in that I made an intention to listen with more than one sense and pay attention to all the nonverbal cues that may
lead me to understand the interaction of the method with the population. I then proceeded with my prepared invitations to encourage the group to communicate with each other and with me.

To begin the therapeutic alliance, I observed by listening and witnessing where they were at as they came into the space. The space was organized and clean. It was set up with mixing bowls and tools for each child that was attending. I intended to make them feel at ease in exploring something new. I used methods that consisted of welcoming participants into the space with a warm tone and relaxed body. In addition, I used a verbal invitation to invite them to introduce themselves to each other. I asked if they were excited, nervous, or some other feeling to share with the group. These questions were clear, concise, and gave me meaningful insights into their emotional state.

I invited them to tell a story about making bread or eating bread. I was able to observe body language and write down their responses and stories. I made notes about their body language and eye contact including their ability to focus. Their sharing of stories provided an opportunity to develop a sense of belonging and community. The intention of building a connection is when learning begins. There was a nonverbal shift from anxious and nervous to being grounded when the children listened and shared stories. I was able to make meaningful insights from this part of the experiential and witness the sharing build the social skills that the children need.

The method began with adding warm water to the yeast and sugar. This process was a sensory experience in smell. I was able to invite each participant to take a minute and smell the yeast come alive. I asked questions “can you describe the smell”, If the smell had a name what would it be? These questions were intentional and provided a spark into their imaginations and
encouraged group involvement playfully. These questions also provided data that supported the connection with the ETC.

As the method developed with the children kneading the dough. I was able to write down each participant's verbal response to touching the media and also from observing their physical bodily shift during the dough kneading. In this process, I was also able to ask specific questions related to the sensory experience to gather data to understand bread-making within the ETC framework. How did the dough feel? How did your hands feel? Where are your feet right now? Do you feel calm? Excited? Or something else? Is your breathing relaxed or is it hard to breathe? All of these questions were intentional and provoked responses I was looking for to compile enough information to gain some insights into the process of breadmaking and its value as a method in art therapy.

Post experiential, I asked each participant for feedback. Did they like the experience? Did they have any challenges they wanted to share? How did being part of the experiential help them? I asked them if they wanted to make bread together again. I also included in my data analysis, the completion of each part of the method. I recorded a list of the children’s responses, an account of what happened in each part of the experiential, notes about what I observed, and, any comments from the children, on how the overall experiential went. I also kept a log of what I saw, heard, felt, and experienced as the facilitator.

The patterns and relationships that came from the group interviews and creative interviewing with children gleaned information that provided insights into the process of bread making and its relationship with art therapy.

Discussion
Art therapists have knowledge and history of the medium's properties to use with children to encourage exploration. Baking with children offered many opportunities for the development of the mind, skills, and emotions. The medium of creating a bread dough substance much like working in clay as art therapy consequently showed many possibilities for therapeutic methods to connect with children. This method with the art therapist’s presence links the research of Bowlby's attachment theory providing insights as to the importance of a caregiver who tunes into the child and gives them the message that they matter are important, that they are loved, and it is the connection that increases children's self-esteem.

When I asked questions to the group regarding the smell and feel of the dough as the children added ingredients to their bowls, relationships with the process of bread-making and with the other participants were demonstrated by the children and supported by Malchiodi (2021), research of TIC opportunities to utilize mindfulness arts-based techniques to connect with yourself, the group, and something larger as the children sought to learn new skills, problem-solve, manage frustration, and develop a sense of community as they collaborate and share their bread.

In consideration of the setting, Kinder, (2017) talks about the importance of moving stress from toxic to tolerable for children to increase the number of protective relationships in children’s lives to help them learn how to regulate their nervous system. This skill allows children to manage their internal world regardless of what comes at them externally.

Lusebrink, (2004) and Hinz, (2009) informed the method with research in neuroscience highlighting the sensory component which focuses attention on a sensory exploration of materials, surfaces, and textures of the bread dough linking the areas of the brain which experienced information processing. The data also informed the method by providing the
insights from the children when they expressed their experience with the sensorimotor as a bottom-up approach from the ETC levels encouraging the awareness of the implicit felt sense; how the muscles, the heart rate, and breath shape our sense of being. With this heightened awareness of their embodied self, they expressed how the dough felt when they touched it. Specifically, how their new awareness of the dough had an effect on their physical bodily state, their sensory and motor connections, and when they experienced a connection or disconnection to the experience all played an instrumental role in information processing. The data also indicated that media held the potential to influence how the children felt while experiencing the process without cognition intervening in the process. Their movement impulses and their sensory feedback “like it feels gross” defined their core relationship with themselves with their world. Research by Lusebrink, (2010) also informed the psychopathological variation of the sensory component being manifested in an over-absorption in the sensory experience, extreme sensory sensitivity, and marked slowing down of movement involved in the expression. The sensory component appears to reflect an emphasis on the involvement of the primary somatosensory cortex (Lusebrink, 2010). The somatosensory cortex is a region of the brain which is responsible for receiving and processing sensory information from across the body, such as touch like the wet dough, and the temperature of the warm water during the bread-making process (Lusebrink, 2010). It is also responsible for actions such as balancing, walking, and even reaching.

The outcome of the method of art therapy bread-making aligned with levels of the ETC and arts-based mindfulness practices. The immediate outcome of this method was that children were able to communicate their emotions through the bread-making method. The context of the residential setting allotted for the need for therapeutic goals, a safe space, and the opportunity to witness the experiential of breadmaking to provide clinical insight into working with children
who have experienced complex trauma. In this context, the therapist was able to work with
cchildren who have difficulty identifying, expressing, and managing their emotions and may have
limited language for their feelings. The breadmaking experience provided an interactive
experience with the medium that allowed children to express themselves in a non-threatening
atmosphere non-verbally and verbally. For children who have experienced trauma, emotional
responses may be unpredictable or explosive. They may have difficulty calming themselves
down, or self-soothing. Research by Malchiodi, 2019 regarding her mindfulness arts-based
techniques support that the bread-making experience for children was both grounding and
self-soothing because of the medium's properties. In light of the evidence that trauma may
negatively impact children’s self-regulation and social skills, MBAT provides the opportunity to
address these symptoms. If the research provides us with a lens of what trauma looks like
physically, emotionally, and developmental for children, then addressing their needs through
creative interventions like the process of making bread dough which holds mindfulness
arts-based benefits and addresses the therapeutic goals. In addition, the art product or bread loaf
in many ways not only has viewers admire it but also more participants in eating it, sharing it as
a way of building relationships into potential relationships within the community.

**Limitations**

To utilize the concept of bread-making in art therapy, more research is needed for a better
understanding of the method. A broader grasp of the process and product could promote accurate
findings with a more developed and comprehensive account of the nonverbal observations that
this method may hold. Another factor that may restrict the findings is the concept of safe space.
Creating a safe space depends on the participants' mutual agreement. I was able to introduce the
idea of feeling comfortable by opening a dialogue with each group and its participants are factors
that determine if a space feels space and maybe a limitation. This limitation is an important factor in the engagement in the process and if the children feel supported, safe, and empowered to take part in the experiential. Also, if the children didn’t have to worry about their safety, they could explore themselves more deeply, including emotional connection, validation, and empathy.

Cultural and socio-economic limitations of the method include the meaning and value of making bread that could affect human behavior and culture in different ways. One limitation was that I came into developing this method with my own bias because of my love and own experiences making bread in my home growing up. I also came into this experiential that bread making aligned with the ETC framework and is art therapy. This limitation could be a place for this population and other populations that is not a positive experience thereby the results would be different possibly because of their cultural differences or their personal experiences. Another area of restriction besides the cultural considerations could be the associations for children in this population have with the home. Home and the lack of secure attachment may hold painful associations with breadmaking and the product which would skew the results in a different direction. Socioeconomic considerations could trigger responses because of multiple physical and psychosocial stressors associated with poverty.

Conclusions

A goal of exploring bread making as art therapy was to provide data that would likely apply to other children and adults with a wide range of mental health issues. The author hoped to learn that the experience of bread making was enhanced and supported with arts-based mindfulness concepts to provide an additional way of being present and to connect the concept of bread making as art therapy through the research from the Expressive Therapies Continuum.
Bread makers often become part of the neighborhood’s family traditions with an influence that reaches multiple generations. Children desire a sense of belonging that connects them to the many relationships they develop. Building everyday life skills for children is essential in helping children develop themselves and their relationships for long-term health, wellness, and becoming part of a community. Their community connectedness is fundamental together with the making and sharing of bread as one example to utilize for growth. Social awareness is another avenue to explore with future studies in therapeutic settings along with incorporating these ideas that making bread can offer therapeutic benefits to populations that are experiencing mental health issues. Bread making is both culturally and socioeconomically sensitive with open for exploration to benefit many populations that do not have opportunities with therapeutic resources. Being an observer during the bread-making sessions allowed me to see the potential contribution that bread-making holds in the clinical practice of art therapy.

Amid the current pressure for evidence-based practice, and a culture of separation and disembodiment, the most powerful evidence is that which comes from hundreds of separate cultures across thousands of generations independently converging on rhythm, touch, storytelling, and reconnection to the community, as the core ingredients to coping with healing from trauma (Malchiodi, 2021). For that reason, the knowledge gained from developing this method constitutes effective and neurodevelopmentally appropriate interventions for creative arts therapists. Baking bread is a way of contributing to a growing effort to reconnect people with the source of their food and to re-humanize the food growing and preparation process. Creating a baking environment that is sociable, emphasizes compassion, a place children want to be part of with the intention that we interact to inspire children to thrive (Rising Up, 2017).
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