Knitting as Coping: Fiber Arts and the Amelioration of Shared Trauma in Art Therapy

By

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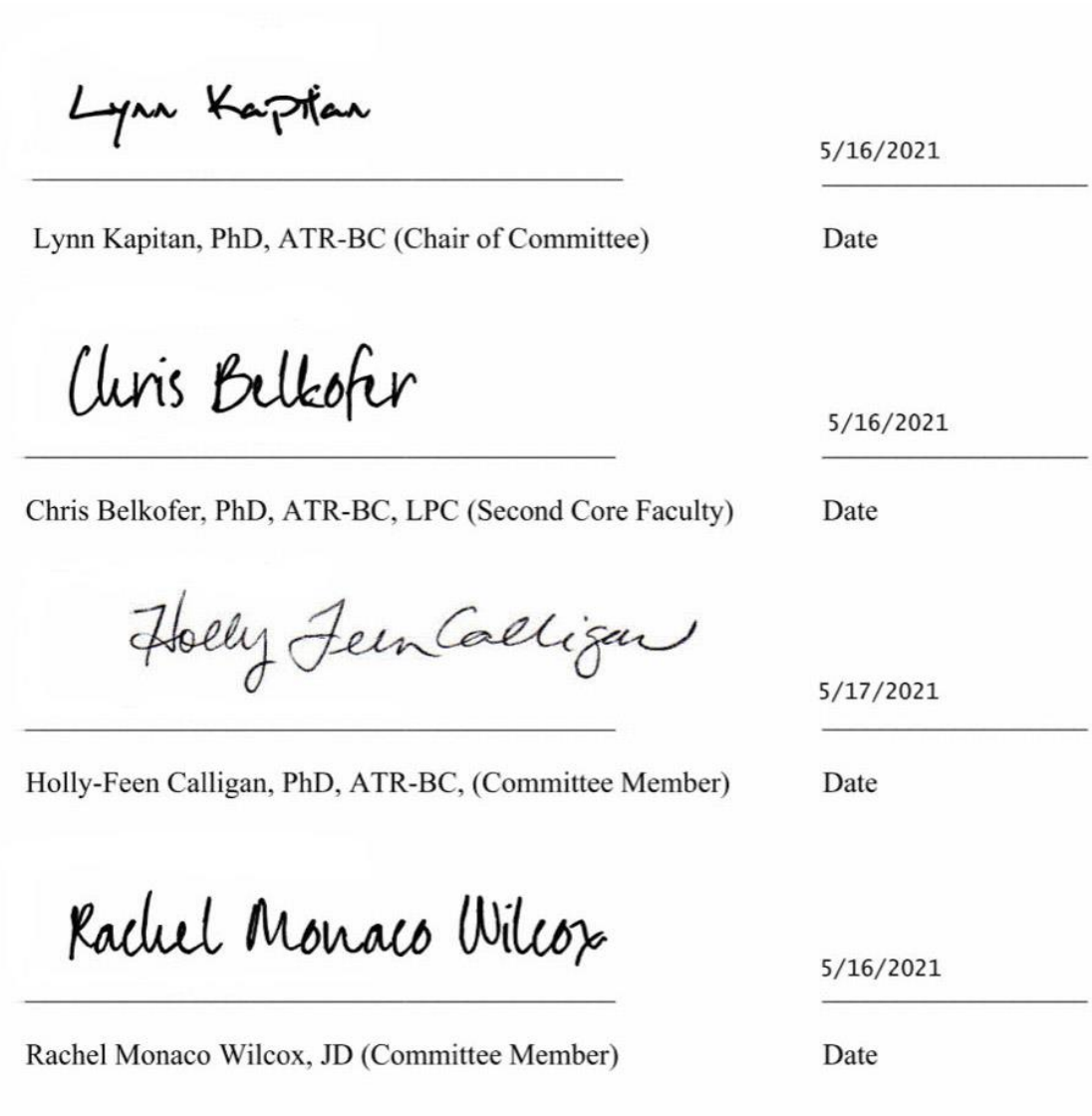

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Abstract

Traumatic events that happen in the community may profoundly impact people's lives and work. During such an event, clinicians are not only exposed to their clients' reactions, but they also share the same external reality on some level, a phenomenon known as shared trauma. This doctoral project resulted in *Knitting as Coping: Fiber Arts and Shared Trauma*, a training manual for art therapists from heuristic research into the challenges of sharing a traumatic reality. A qualitative study of the experiences of 11 participants who were practicing during the COVID-19 pandemic of 2020 identified six qualities of fiber arts that may provide therapeutic benefit both to therapists for self-care and to clients who have experienced trauma: rhythmic, grounding, tactile, structured, social, and practical. Fiber arts were highlighted as strategies for creative coping in a shared trauma that, consistent with trauma research, effectively address the needs of clinicians who must function while coping with trauma, establishing feelings of safety, reestablishing grounding and, eventually, being able to create amidst destruction. The results support findings from trauma-informed therapy, neuroscience, art therapy assessment, and research on the ameliorative experience of flow. The dissertation presents the study results and discusses them in the contexts of the research literature, art therapy discourse, and reflective analysis, and draws implications for future research, policy development, and practice.

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Table of Contents

List of Figures

CHAPTER 1: INTRODUCTION

Unreal City,

Under the brown fog of a winter dawn,

A crowd flowed over London Bridge, so many,

I had not thought death had undone so many.

Sighs, short and infrequent, were exhaled,

And each man fixed his eyes before his feet…

“That corpse you planted last year in your garden,

“Has it begun to sprout? Will it bloom this year?

“Or has the sudden frost disturbed its bed?

“Oh keep the Dog far hence, that’s friend to men,

“Or with his nails he’ll dig it up again!

“You! hypocrite lecteur!—mon semblable,—mon frère!” (Eliot, 1922)

Isolated from the people and places I love

by a virus that preys

on the most vulnerable of us…

“I’m drowning”

my patient tells me.

How her panic attacks are getting worse

how she sits in the shower, ten times a day

how she’s so scared, she throws up when she eats.

I try to think

of how to tell her

the department no longer takes public insurance

while she is telling me

how the walls close in on her

how she can't breathe

and I wonder if she sees

that neither can I.

(Rafla-Yuan, 2021)

Excerpts from T.S. Eliot's (1922) *The Waste Land* and Eric Rafla-Yuan's (2021) *I Can't Breathe* paint a picture of two pandemics separated by 100 years: the 1918 influenza and COVID-19. There was widespread community transmission of a novel virus for which there was no cure. Illness struck suddenly for millions of people across the globe. The climbing death count was a fixture of the nightly news and social media feeds. Hospitals and morgues were quickly overwhelmed by the growing number of deceased and used refrigerated trucks for temporary storage. Traditional mourning rituals were interrupted by restrictions on interacting with the deceased, regulations about the size of funerals and memorial gatherings, automatic cremations, and delays returning remains to families (Entress et al., 2020), making it more difficult to grieve. Governments enacted stay at home, shelter in place, and curfew orders for non-essential workers to slow the spread of the virus. Many businesses were forced to close, which left millions of people out of work. For survivors, such conditions can create what Outka (2014) described as a state of "living death" (p. 948)—an emotional numbness and physical exhaustion that leaves one feeling neither fully alive nor fully dead.

At the same time, healthcare workers in New York City and other places returned home to cheering as neighbors clattered pots and pans to thank them for another day of service on the front lines. Children hung pictures of rainbows in the windows of their homes to spread hope to passersby. Crafters took to their sewing machines to make masks to address the shortage of personal protective equipment in hospitals. Volunteers helped deliver groceries and medicine to elderly people who were more susceptible to infection. Although people were encouraged to be physically distant from one another, there was also a shared sense of being "alone together" through social media, crisis hotlines, and virtual meetings. The pandemic bared both the depths of human suffering and the heights of humanity's compassion.

During a shared community disaster, such as COVID-19, mental health providers who must continue to work and deliver therapeutic services face unique challenges in their overlapping roles as a person living through a traumatic experience, a helping professional, and a member of a community in crisis. The emotional impact of the disaster is felt across the domains of home, work, and community simultaneously. It is this confluence of roles that distinguishes *shared trauma* (Baum, 2010, Saakvitne, 2002) from other conceptualizations of traumatic experience. For therapists sharing a traumatic reality with their clients, their individual reaction to the traumatic event and witness to the suffering and stories of others is concurrent. In this way, shared trauma may describe the place where posttraumatic stress and vicarious trauma overlap.

How the therapist copes with their exposure to traumatic material both in and out of the session may increase the likelihood of developing symptoms of traumatic stress (Follette et al., 1994). Positive coping strategies, which are those that leverage the assistance of professionals, friends, family, and peer support, or an individual's inner resources, are essential. Personal therapy and analysis, supervision, consultation, training programs, and debriefing (Bell &

Robinson, 2013; Berger et al., 2016; Cohen et al., 2015; Dekel, 2010; Nuttman-Shwartz, 2015; Saakvitne, 2002; Tosone et al., 2012) are all suggested for coping when the therapist must continue to provide services after being exposed to community trauma. However, these interventions call for predominantly verbal processes and so rely on *top-down* processing of traumatic memory in one's brain that begins with thinking, to access feelings and then bodily sensations in the hope of integrating all three (Kahneman, 2011). As discussed in this dissertation, trauma research suggests that a very different strategy is needed.

When traumatic events overwhelm the individual's ability to cope, the memories of the events bypass the usual, verbal pathways in the brain. Instead, memories may be stored in fragments of sensory information (odors, sounds, feelings in the body) that may not have a clear story around them. The individual may continue to experience physiological hyperarousal and difficulties expressing and labeling emotional states. Bearing this in mind, top-down strategies, may not address the needs of clinicians in particular who, in order to function while coping with trauma, must establish feelings of safety, reestablish grounding and, eventually, be able to create amidst destruction.

Therapists who are struggling with the emotional strain of working in a shared traumatic reality with their clients may be less present in sessions and therefore less able to provide effective services. They are at risk of suffering the symptoms of posttraumatic stress or using negative coping strategies such as social withdrawal, aggression against a significant other, or excessive use of drugs and alcohol to try to forget about or numb their experiences (Follette et al., 1994). They may even leave the field to pursue other careers (Pearlman & Mac Ian, 1995). Students and new professionals are at even greater risk of these negative effects due to limited training and experience (Adams & Riggs, 2008; Kisley et al., 2020; Pearlman & Mac Ian, 1995).

Although these risks paint a grim picture of the potential consequences of shared trauma, there may also be potential benefits. Enduring traumatic experiences and using positive coping strategies may challenge an individual to mature and grow in unanticipated ways that ultimately benefit them moving forward—a phenomenon known as *posttraumatic growth* (Tedeschi & Calhoun, 1996). Clients may also benefit from changes in the relationship with their therapist that can become more compassionate, empathic, transparent, symmetrical, and connected (Bauwens & Tosone, 2010). Now more than ever, in the wake of the COVID-19 pandemic, international and domestic terrorism, armed conflict, and natural disasters, art therapists must be equipped with the training and skills to navigate a shared traumatic reality—both to mitigate negative consequences and to reap opportunities for growth.

To achieve this goal, coping strategies need to be matched to the strengths of the individual and the circumstances they face. If, as Gantt and Tinnin (2009) asserted, "trauma is a nonverbal problem" then "a nonverbal resolution is in order" (p. 151). Art making is used in the treatment of clients who have experienced trauma to support reintegration of body sensations, emotions, and thoughts that become disconnected during traumatic events. Visual art accesses nonverbal material, including fragmented traumatic memory, through kinesthetic and sensory pathways in the brain (Lusebrink, 2004). Activating these areas from the *bottom-up* (Kahneman, 2011; Lusebrink & Hinz, 2016) and linking visual and tactile sensory systems across the brain's hemispheres (Siegel, 1999; Talwar, 2007) are thought to support organized processing of sensory, emotional, and cognitive information, which is necessary for self-regulation and an integrated sense of self. In this way, art may serve as a feedback loop that helps a person to externalize, identify, and define their emotional experiences (King et al., 2019). Bilateral art making (Corkhill, 2014; McNamee, 2006; Talwar, 2007), including fiber arts such as knitting,

crochet, and weaving, may be particularly suited to facilitate re-integration of right and left hemispheric connection (Hass-Cohen & Carr, 2008) and restoration of the body's natural rhythms in the brainstem (Perry, 2006), and may interrupt patterns of hyperarousal or hypoarousal (Huotilaine et al., 2018).

Art therapists have applied the healing potential of art to themselves by making and reflecting on art in response to difficult emotions aroused by their work with clients (Fish, 2006; Gibson, 2018; Moon, 1999; Nash, 2020; Wadeson, 2003, 2010). Although there is an overlap between the dynamics involved in vicarious trauma and shared trauma, the literature on arts-based coping strategies to manage shared trauma remains sparse. There is a similar dearth of literature describing the application of the therapeutic benefits of fiber arts to the clinician. In the following chapters I will begin to address this gap between theory and practice. First, I will situate my study in the larger contexts of the literature, beginning with the history of trauma and posttraumatic stress, followed by the theoretical underpinnings of vicarious and shared trauma, and concluding with an examination of fiber arts as a therapeutic intervention. The methods chapter describes heuristic inquiry and its methodology applied to my study. Chapter 4 presents the results of the inquiry—including six therapeutic qualities of fiber arts—in the form of a training manual for art therapists and art therapy students. I conclude with a discussion and reflections about the study, training manual, artwork, and implications in Chapter 5.

CHAPTER 2: REVIEW OF THE LITERATURE

My study aimed to understand the phenomenon of fiber arts and their potential application for art therapists who work in a shared traumatic reality with their clients. The following review of the literature situates the study within historical, sociocultural, and practical context of the impacts and treatment of trauma. First, I review the parallel psychological and biological development of posttraumatic stress disorder. This history provides an important context for understanding how trauma impacts individuals and mental health professionals who work with them. Second, I define and describe the challenges of shared trauma as the combination of individual, interpersonal, and vicarious exposure to a community disaster. Third, I discuss the use of art materials in art therapy for the amelioration of emotional distress and consider the potential application of fiber arts as a coping strategy for trauma specifically.

How is Trauma Defined?

Human beings have documented their experiences with adverse, stressful, and traumatic events for over 4000 years, beginning with a description on cuneiform tablets of the attack by the Sumerians and Elamites on the city of Ur (Kucmin, et al., 2016). Historical and fictionalized accounts describe the emotional toll of exposure to extreme violence and horror. In antiquity *The Odyssey* and *The Iliad* illustrate the concept of survivor's guilt in Odysseus and Achilles; in the Victorian era Shakespeare's characters Hotspur, Mercutio, and Macbeth experience debilitating nightmares, flashbacks, and intrusive memories; in the modern era Goethe's memoir described the depersonalization and derealization of survivors of the battle of Valmy, and the contemporary character Billy Pilgrim of Kurt Vonnegut's *Slaughterhouse Five* demonstrates hypervigilance as well as other intrusive thoughts (Kucmin et al., 2016). All these writings predate the clinical definition of trauma, which first appeared in the third edition of the *Diagnostic and Statistical*

Manual of Mental Disorders (*DMS-III*) in 1980. A relatively recent development in the history of trauma, this definition has undergone numerous revisions to inform our current understanding of the definition of trauma, the clinical picture of posttraumatic stress disorder (PTSD), and how to best serve the needs of survivors.

Exposure to a traumatic event is the first criterion for a diagnosis of PTSD (American Psychiatric Association [APA], 2013) and is defined in the current edition (*DSM-V*) as exposure to "actual or threatened death, serious injury, or sexual violence" through direct personal experience, directly witnessing the trauma of others, indirect exposure through family members or a close associate, or repeated/extreme exposure to details of traumatic events (p. 213). Examples of traumatic events include but are not limited to natural disasters, severe motor vehicle accidents, terrorist attacks, kidnapping, sexual abuse, human trafficking, mugging, physical assault, rape, waking during surgery, and exposure to war. Life-threatening illnesses, the death of a loved one due to natural causes, or exposure to catastrophic events through media are specifically excluded from the list of stressors that comprise Criterion A.

According to the *DSM-IV* (2013), a diagnosis of PTSD requires symptoms to be present in each of the following categories: intrusion (Criterion B), avoidance (Criterion C), negative alterations in cognition and mood (Criterion D), and alterations in arousal and activity (Criterion E). At least one symptom from Criterion B must be present, such as unwanted or upsetting memories, nightmares, flashbacks, emotional distress, and/or physical reactivity after exposure to traumatic reminders. Criterion C refers to avoidance of trauma-related thoughts, feelings, or external reminders. At least two symptoms from Criterion D must be present, such as inability to recall key features of the trauma, overly negative thoughts/assumptions about oneself or the world, exaggerated blame of self or others for causing the trauma, negative affect, decreased

interest in activities, isolation, or difficulty experiencing positive affect. Finally, at least two symptoms from Criterion E must be present, such as irritability/aggression, risky/destructive behavior, hypervigilance, heightened startle reaction, difficulty concentrating, or difficulty sleeping.

The definition of *trauma*, a label used to describe symptom clusters, inclusion criteria, and possible etiology, has changed significantly over time (Crocq & Crocq, 2000; North et al., 2016; Weather & Keane, 2007). Identification of the locus of trauma has vacillated between that of the body and of the mind. Advancements in current scientific understanding suggest that trauma is an embodied emotional experience. In other words, it is situated in both the body and the mind (Kardiner, 1941).

Physicians Pinel and Briquet first began to describe the transformation of traumatic experiences into psychopathology in the 18th century, inspiring Pierre Janet to develop his theory of how this process occurred (van der Kolk & van der Hart, 1989). While studying hysteria at the Salpetrie asylum, Janet postulated that overwhelming or frightening experiences do not fit into existing cognitive schema and are therefore not integrated into memory the same way as benign experiences. As a result, the sensory experiences may be split off from consciousness or fragmented, resulting in pathological, subconsciously fixed ideas. In other words, traumatic experiences disrupt our worldview and create a failure in the processing of sensory information into memory, leading to the reexperiencing and fear response observed in contemporary descriptions of PTSD.

Elaborating on Janet's understanding of dissociation and traumatic memory, van der Kolk and Fisler (1995) identified four categories of memory disturbance. *Traumatic amnesia* refers to difficulty remembering information and feelings about the event itself, which may last hours,

days, or even years. *Global memory impairment* refers to gaps in both cultural and autobiographical information. *Dissociation* arises from failures of explicit memory; essentially, there are no words to describe what happened. This is considered a compartmentalization of experience that van der Kolk (2002) called a state of "speechless terror" (p. 150). The final category of disturbance is *sensorimotor organization* of traumatic memories. Effectively, traumatic memories may be stored as fragments of sensory components of the events, including bodily sensations, visual, olfactory, auditory, or kinesthetic stimuli. This type of memory differs from narrative memory in that it is experienced as images, sensations, affective states, and behavioral states rather than words and symbols. Such memory also usually does not change over time, is automatic and state-dependent rather than freely recalled, and there is no consolidation of time.

In his early work, Freud (1894/2014) regarded early childhood traumas as the root of psychiatric disorders in adulthood. He interpreted the emotional, behavioral, and cognitive symptoms of patients coming to treatment for hysteria as symbolic repetition of the trauma that had occurred earlier in life. The experience of puberty and awareness of sexuality in adulthood, he reasoned, brought salience to sexual trauma that occurred in childhood. Zepf and Zepf (2008) explained that as their sexual nature "can by now also be subjectively recognized, the reactivated flood of stimuli spreads out its traumatic sexual force and can lead to the formation of symptoms" (p. 332). In his later work, Freud shifted his focus from the impact of the external world to the conflicts within the interior world of the psyche. He suggested instead that psychiatric disturbances were the result of childhood fantasies and misinterpretations, rather than objective traumatic experience. This may have contributed to trauma falling out of favor within

psychoanalytic circles until the emergence of trauma theory in the 1960s and its revival in the 1990s.

Ferenczi (1933/1955) elaborated on Freud's original theory of trauma; however, his work was maligned until after his death. He believed his patients had suffered from actual abuse as children rather than ascribing their distress to fantasy as Freud did. Ferenczi posited that sexual abuse is damaging in children because it creates fragmentation in the psyche. The child must preserve the safety, security, and the image of their caregiver as a loving, protective adult and when that adult is an abuser, they identify with the aggressor, reframing the abuse as a deserved act of punishment. The *psychic shock* of the experience contributes to difficulty remembering and integrating the experience. Depending on the response of other adults towards the child, the experience can be worked through or remain split off from consciousness. Ferenczi advocated for closer, more empathic relationships with patients as part of the healing process in psychoanalysis.

The destruction and devastation of World War I from 1914–1918 brought significant physical as well as psychiatric casualties (Crocq & Crocq, 2000). Trench warfare introduced new and terrifying experiences into combat, including exposure to the existential threat of new war technology found in mortar attacks, land mines, tanks, poison gas, and machine gun fire, coupled with the immobility and vulnerability of sitting in the trench itself (Andreason, 2011). Military physicians speculated that the horror induced by these conditions and witnessing the maiming and deaths of fellow soldiers resulted in a form of psychological shock, termed *shell shock*. In World War II the terms *combat exhaustion* and *battle fatigue* replaced shell shock as well as earlier terms including *vent de boulet* (fear of the wind of passing cannon balls), *irritable heart*, *traumatic neurosis*, *war neurosis*, *combat hysteria*, and *combat neurasthenia*, which often

carried social stigma or even punitive consequences, such as dishonorable discharge or execution. Before the etiology was known, it was often assumed that soldiers who fell victim to psychiatric disturbance were moral failures or were malingering.

The number of soldiers who suffered psychological distress during battle generated interest and support for treatment and research into the etiology of the condition. Psychological first aid was developed by the military to address these issues (Ringel, & Brandell, 2011). By using brief interventions that addressed immediate physical needs, close to the site of the front, soldiers were often able to manage symptoms of shell shock and return to combat. The principles of psychological first aid have since been adapted for use in civilian populations and are now a front-line intervention in the wake of natural and man-made disasters (Schultz & Forbes, 2014). Contemporary psychological first aid has not been operationalized, so there is no standard protocol and relies instead on common sense to address the five key needs of survivors: safety, calming, connectedness, self-efficacy, and hope.

It was during World War I that the first references to *fight or flight* begin to appear in medical literature (Cannon, 1914, 1927). Cannon (1914, 1927) observed several physiological changes that occur during fear and rage that have the cumulative effect of mobilizing the body to flee from danger or to attack. Specifically, the adrenaline hormone is released into the bloodstream when the body experiences fear, rage, asphyxia, and pain. It has the effect of diverting the flow of blood from the abdominal organs needed for digestion to the heart, lungs, brain, and skeletal muscles. Additionally, blood sugar increases as glycogen is released from the liver into the bloodstream to restore fatigued muscles. Essentially, the body must prioritize its resources to meet the demands of an immediate threat.

Cannon (1927) theorized that the body could experience physiological changes that are separate from emotional experience, such as when a person's heart beats rapidly due to exercise rather than fear. Further, emotions can be so rapid that they can sometimes precede physiological changes, as when an individual notices that they are afraid before their heart beats rapidly to prepare them to run away. Collectively, Cannon suggested that the physiological and psychological experience of emotions occur simultaneously rather than being caused by each other. This theory runs counter to the James-Lange theory of emotion (1884) that dominated at the time, which suggested that psychological experiences of emotion are due to physiological changes in the body. In this model, one experiences symptoms of fear, such as trembling, that in turn makes one feel afraid.

Gallup (1977) described an alternative response to threats, which is to freeze. He observed the phenomenon of *tonic immobility* that occurs when animals are physically restrained. Sometimes, when an animal is held against a flat surface it may remain motionless, even after the restraint is lifted. Behavioral changes during this state of immobilization include reduced response to external stimuli, changes in core body temperature, and changes in respiration and heart rate. Gallup reasoned that an animal enters such a state after previous attempts to run away, fight, or struggle have been thwarted. The only remaining option is to play dead as a predator may inflict less damage or cease its attack under such circumstances. It was later proposed that similar phenomena occur in humans, particularly in instances where the individual is restrained, such as sexual assault (Marx et al., 2008). The freeze response is correlated with the emotional experiences of anxiety and panic (Schmidt et al., 2007). Therapies that encourage movement through previously thwarted body movements (i.e., physically

working through defensive movements) may help create feelings of strength, competence, and safety (Payne et al., 2015).

Schachter and Singer (1962) found that the emotional experience is further mediated by social context. Adrenaline intensifies existing emotional states. Increased adrenaline increases feelings of relaxation under enjoyable circumstances, such as going for run with a friend for exercise and leisure. In unpleasant circumstances, increased adrenaline increases anger and fear, such as running because you are being chased by an attacker. In one instance you are experiencing social support and affiliation, while in the other the social context is that of threat.

Later research would also situate the locus of trauma within the body. Pavlov (1927/1960) used the term *defensive reaction* to describe how nonthreatening stimuli could become coupled with recollections of trauma. For example, the sound of a helicopter overhead is not threatening in and of itself. However, for a veteran of the Vietnam War who had heard helicopters passing overhead while in combat, the sound of a helicopter can provoke feelings of fear. In this case the noise becomes a *conditional stimulus* capable of eliciting a *conditioned response*. Ultimately, this added to our understanding that sensory reminders of a traumatic experience can trigger the fight/flight or freeze response. Biochemical research added further credence to the hypothesis that conditioning leads to changes in the peripheral (cranial) sensory system, which depress the individual's ability to habituate to stimuli (Kolb, 1987). In other words, high-intensity stimulation reduces the individual's ability to adjust and adapt to stimuli, leading to continued fearful responses.

Porges (1995) elaborated further on the connections between physiology, behavior, and emotion when he introduced the *polyvagal theory.* The vagus nerves are a series of neural pathways originating in the brain stem that branches out into the heart, lungs, esophagus, larynx,

pharynx, soft palate, cranial nerves, and muscles of the autonomic nervous system. Structurally it is organized hierarchically into three systems with more primitive functions at the base (having evolved earlier to promote survival) and more complex functions at the apex (having evolved later) (Porges, 2007). These systems facilitate functioning in both safe and unsafe environments by working on the sympathetic nervous system in opposition. The *immobilization system* controls the freeze response, whereas the *mobilization system* is involved in the sympathetic nervous system's fight/flight response. The *social communication system* inhibits the sympathetic nervous system and supports proximity, reproduction, and pair-bonding through facial expressions, vocalizations, listening, and related behaviors (Porges, 1998). In an environment of safety, one branch of the vagus nerve is active and the other inactive. Social engagement does not occur in an environment that induces fear.

According to Porges' (2007) explanation, vagal tone refers to the inhibition or disinhibition of the sympathetic nervous system. It is highest during sleep and lowest during exercise, stress, learning, attention, and the emotional states of panic and rage. Vagal tone acts as a brake, preventing the fight/flight response and promoting resting behaviors. It is crucial for modulating arousal and maintaining homeostasis in that "the high NA vagal tone keeps mammals from literally bouncing off the walls" (p. 306).

Neuroception is the process of assessing risk and inhibiting or activating defenses accordingly (Porges, 2007). The ventral vagal complex produces an inhibitory effect on the sympathetic pathways. This supports engagement of the social communication system, allowing for prosocial and calming behaviors, self-soothing, visceral homeostasis, growth, and restoration. Openness and vulnerability to another person, including physical intimacy, requires the inhibition of the subcortical structures of the brain that serve as threat detectors. In other words,

for someone to let their guard down they need to feel that it is safe to do so. The social communication system is not engaged if a person feels threatened. In such circumstances, the mobilization or immobilization systems will be activated instead, promoting fight/flight or freeze responses. Problems with the vagal brake are associated with social difficulties as well as psychiatric conditions including autism, social anxiety, reactive attachment disorder, and PTSD (Porges, 2007). Activities that support improved vagal tone or engage the social communication system (such as talking, singing, breathing exercises, taking a hot shower, or wrapping one's self in a blanket) may help with emotional and physiological regulation (Dana, 2018).

The first edition of the *DSM* was published in 1952 and included a precursor to PTSD in the form of the Gross Stress Reaction diagnosis (APA, 1952). This disorder was classified as a transient situational personality disorder, which was the category for disturbances in thinking and behavior thought to be caused by a distressing event. "Under conditions of great or unusual stress, a normal personality may utilize established patterns of reaction to deal with overwhelming fear" (p. 40). Unlike other psychiatric conditions, however, it was thought that the symptoms were reversible and fleeting. It was suggested that if symptoms did not resolve quickly it was evidence of neurosis. This definition was in alignment with the psychodynamic traditions that dominated at the time (Andreason, 2011). Whereas the *DSM* acknowledged that individuals exposed to overwhelming or fear-inducing situations would naturally have a response to these circumstances, it did not consider that the event could lead to long-term or even permanent changes to the body and mind.

When the *DSM* was revised and a second edition published in 1968, Gross Stress Reaction was removed, in part because the diagnosis related to the legacy of World War II, which had concluded over 20 years earlier, and the horrors of the Vietnam War were not fully

manifested yet. *DSM-II* replaced the diagnosis with that of Adjustment Reaction and differentiated it in categories based on stage of development: infancy, childhood, adolescence, adult life, and late life. These diagnoses were placed in the manual's section on transient situational disturbances (APA, 1968). They described a wide range of experiences that could be experienced as overwhelming or upsetting—from separation from caregivers, jealousy over the birth of a new sibling, school failure, unwanted pregnancy, and forced retirement, to exposure to war.

In practice, however, combat veterans who experienced severe symptoms of distress were often categorized under other psychiatric diagnoses, including schizophrenia, alcoholism, and depression (Scott, 1990). Advocates suggested that "soldiers disturbed by their combat experiences are not, in an important sense, abnormal; on the contrary, it is normal to be traumatized by the abnormal events typical of war," (Scott, p. 308). An adequate diagnostic label did not yet exist to describe their experiences.

The Vietnam War continued from 1955 to 1975 and the psychological difficulties experienced by soldiers greatly influenced the subsequent editions of the *DSM* (Crocq & Crocq, 2000). The *DSM-III* attempted to differentiate between adverse experiences to developmental stressors and acute reactions to alarming events at the magnitude of war, rape, violence, or disasters. Developmental stressors were categorized as adjustment disorders and stressful circumstances that could contribute to or exacerbate other psychiatric conditions (APA, 1980). The severity of stressors was evaluated by their quantity, the degree of disruption in the individual's life, and the extent to which the event was under the individual's control.

PTSD first appeared in *DSM-III* in 1980 to describe acute stress reactions to severe and life-threatening events (APA, 1980). The APA's formulation roughly mirrors the first description

of the effects of exposure to war by Kardiner (1941) who suggested that trauma survivors live with a lingering awareness of and sensitivity to threats in the environment. He identified five key features of the syndrome: persistent startle response and irritability, tendency towards explosive outbursts of anger and aggression, alterations in dreams, fixation on the traumatic experience, and difficulties in personal functioning. Dysregulation of the autonomic nervous systems leads to this constellation of both physiological and psychological changes, which he referred to as *physioneurosis*. In his work with soldiers returning from war, he helped them normalize their experience as expected reactions anyone might have to the horrors they witnessed, rather than blaming them or labeling them as moral failures.

Lifton (1973) and Shatan (1971) observed informal "rap" groups comprised of Vietnam veterans who had recently returned to civilian life. These groups provided an outlet for veterans to openly discuss the struggles they encountered due to their combat experiences. Although psychiatrists were permitted to sit in on these groups, they were expected to do so as peers rather than facilitators. The atmosphere was intended to be informal compared to other psychotherapy groups offered at the time. Lifton (1973) described the groups as "street corner psychiatry" (p. 80). The information gleaned from these groups was later leveraged to advocate for inclusion of a "post-Vietnam syndrome" in the upcoming revision of the *DSM* (Shatan, 1971). This syndrome was described as a delayed massive trauma reaction that encompassed rage, guilt, alienation, psychic numbing, and feeling scapegoated. Advocating for Vietnam veterans was considered controversial due to horrific actions committed by many soldiers against civilians during the war (Scott, 1990; Summerfield, 2001). However, the diagnosis succeeded in shifting attention away from the actions of the soldiers to the traumatic nature of war itself. Vietnam veterans in this context were "seen not as perpetrators or offenders but as people traumatized by roles thrust on

them by the US military. Post-traumatic stress disorder legitimized their 'victimhood,' gave them moral exculpation, and guaranteed them a disability pension" (Summerfield, 2001, p. 95).

As suggested by Kardiner (1941) and Lifton (1973), this formulation of PTSD has existed with changes, primarily to Criterion A, for the past 40 years. Weathers and Keane (2007) as well as North (et al., 2016) examined the specific language used to differentiate trauma from other forms of adverse experience. In the *DSM-III* Criterion A is described as a recognizable stressor that would evoke significant distress in almost anyone and is outside of the range of normal human experience. The revised edition, *DSM-III-R* (1987) changed the language of Criterion A from an identifiable stressor to an event that is outside of the range of human experience, would be distressing to almost anyone, and presents a threat to physical integrity.

Similar clusters of symptoms were observed in women who had experienced rape (Burgess & Holstrom, 1974) and/or intimate partner violence (Walker, 1984). The legitimization of PTSD as a label for veterans paved the way for recognition of the traumatic experiences of other groups. Herman (1992) argued that the marginalization and oppression of women is reinforced by gender-based violence, including intimate partner violence, rape, and incest. She further contended that "there is a war between the sexes. Rape victims, battered women, and sexually abused children are its casualties. Hysteria is the combat neurosis of the sex war" (p. 32). Consciousness-raising groups during the women's movement leveraged the intimacy, confidentiality, and truth-telling previously seen in the rap groups of Vietnam veterans to support survivors in speaking about experiences that were previously considered unspeakable, both for their own healing and to advocate for societal change.

The *DSM IV* (1994) and its revised edition, *DSM IV-TR* (2000) retained the emphasis on subjective emotional response found in the earlier editions. Although the criteria remained the

same (i.e., the patient must have experienced, witnessed, or been confronted with an event that involves actual or threatened death, serious injury, or threat to the physical integrity of self or others), the new edition also required that the traumatic event aroused intense fear, helplessness, or horror.

During this same timeframe, literature developed in the field to describe other adverse experiences that do not fit into the confines of Criterion A. Shapiro (1995) introduced the terms *large-T* and *small-t* with respect to traumatic experience. Large-T traumas, also referred to as *type I traumas* (Terr, 1995), are those one-time traumatic events that would fit into the category of Criterion A, such as natural disasters, car crashes, and violent assault. Their effects can be considered as a "sudden blow" to the system (Terr, 1995, p. 11) resulting in detailed memories, ruminative thoughts about whether the event could have been averted, and such misperceptions as visual hallucinations and distortions of time.

Type II traumas (Terr, 1995) and complex traumas (Herman, 1992) both refer to prolonged exposure to trauma, as in the case of childhood sexual abuse spanning several years. Rather than the surprise of a sudden blow, "the subsequent unfolding of horrors creates a sense of anticipation. Massive attempts to protect the psyche and to preserve the self are put into gear" (Terr, 1995, p. 15) including denial, dissociation, repression, self-hypnosis, self-anesthesia, identification with the aggressor, and self-directed aggression. These result in rage, profound sadness, and psychic numbing. In some cases, there may even be vacillation between extreme opposites of emotional numbing through dissociation or use of drugs and alcohol, and the need to bring back strong awareness of sensation by cutting, burning, or other bodily forms of self-harm (Herman, 1992). The dynamics of the relationship are that of coercive control, as the victim cannot express anger towards their perpetrator because the potential for retribution threatens their

survival (Herman, 1992). This is experienced as a betrayal and may be echoed later in life if institutions do not believe the individual, attempt to cover up the event, or align with the perpetrator (Lingiardi & McWilliams, 2017).

If large-T traumas are a sudden blow or prolonged dread, small-t or micro traumas (Shapiro, 1995, Straussner & Calnan, 2014) can be considered death by a thousand cuts. Examples include being bullied in school; experiencing discrimination based on racial, gender, or religious identity; living in poverty; or other patterns of painful life experiences repeated over time. Small-t traumas cause psychic pain and yield long-term ill effects through small but prolonged doses.

Prior to the publication of *DSM IV*, a field trial was conducted to investigate whether interpersonal trauma would meet the criteria for PTSD or be more accurately described by another diagnosis (van der Kolk et al., 2005). In 1990 and 1992 the group conducted structured interviews of 400 adults and adolescents seeking treatment in outpatient mental health clinics and 128 community residents to determine the degree of overlap between symptoms of PTSD and the diagnosis Disorders of Extreme Stress Not Otherwise Specified (DESNOS). The participants were divided into three groups based on the type and age of onset of their traumatic experience. Of those who had experienced interpersonal abuse before the age of 14/early onset, 16% met the criteria for PTSD only, whereas 61% met the criteria for both PTSD and DESNOS. In the group of participants with late onset interpersonal abuse 26% met the criteria for PTSD only and 33% for both PTSD and DESNOS. Finally, 15% of the participants who had experienced a disaster met the criteria for PTSD and only 8% for both PTSD and DESNOS.

The researchers extrapolated from their findings that younger onset interpersonal trauma increases the likelihood of developing both symptom clusters (van der Kolk et al., 2005). They

suggested that the focus of treatment for PTSD should be the impact of past events and processing of specific trauma memories. In contrast, the focus of treatment for DESNOS should be improving emotional regulation, reducing dissociation, and improving interpersonal relationships, as these are more immediate concerns. From this comparison, they concluded that the formulation for PTSD treatment may not lend itself to proper treatment of patients who have experienced interpersonal trauma, particularly at an early age of onset.

These findings echoed the stance of Herman (1992) who had suggested that the psychological experiences of survivors of prolonged and repeated trauma, such as prisoners, slaves, members of religious cults, and families suffering abuse or domestic violence, are distinctly different from that of PTSD. Specifically, the symptom picture is more diffuse and insidious, involves changes in identity and relatedness, and increases vulnerability to self-harm and further victimization. Survivors of this type of trauma are often falsely described as being dependent, masochistic, and self-defeating. They may be improperly diagnosed with personality disorders, which carry significant stigma. Herman argued that “complex PTSD” would be a more apt diagnostic category (1992, p. 378). van der Kolk (2015) similarly suggested and lobbied for a separate diagnostic category to describe the experiences of abused children under a diagnosis of developmental trauma. These proposals have yet to yield differentiation of diagnoses in the *DSM* by the APA.

Advancements in biomedical imaging and the availability of such technology have advanced scientific understanding of the neurological changes attributed to traumatic experience. Data from brain magnetic resonance imaging (MRI) scans of combat veterans and female survivors of childhood sexual abuse suggest that trauma may reduce the size of the hippocampus (Bremner et al., 1995, Stein et al., 1994), an area of the brain linked to explicit, verbal memories.

Reduced hippocampal volume may contribute to difficulties in developing a narrative memory about traumatic experience (Bremner et al., 1993). The reduction in volume is believed to be due to toxic effects of prolonged exposure to glucocorticoids, including cortisol, which flood the body during a stress response (Sapolsky et al.,1988).

Positron emission tomography scans have detected changes in the metabolism of regions in the brain associated with memory, visual processing, and speech in people diagnosed with PTSD as compared to healthy controls (Stein et al., 1994). The amygdala, part of the limbic system that serves as an alarm for arousal and anxiety, is activated by stress or threats. It is normally regulated by the anterior cingulate gyrus; however, it is less active in people who experience PTSD (Bremner, 1999). Dysregulation in this area of the brain may contribute to self-perpetuating physiological arousal. Flashbacks may be accounted for by greater activity in the right visual cortex of the brain (Stein et al., 1994). *Alexithymia,* which refers to difficulty expressing one's emotions using words, may be attributed to reduced activity in the region of the brain (Broca's area) associated with speech (Stein et al., 1994), increased activation of the posterior cingulate cortex, and reduced interhemispheric communication (Gantt & Tinnin, 2009).

Clinicians have used the information gathered from these studies to inform and modify the lens through which treatment is rendered. For example, the Neurosequential Model of Therapeutics (NMT) developed by Perry does not describe a particular intervention or technique but rather offers a "developmentally sensitive, neurobiologically informed approach to clinical work" (Perry & Hambrick, 2008, p. 39).

> The primary assumption of the NMT is that the human brain is the organ that mediates all emotional, behavioral, social, motor, and neurophysiological functioning. Therefore, therapeutic interventions seek to change a person by

> changing the person's brain. Without an appreciation of how the brain is organized and how it changes, therapeutic interventions are likely to be inefficient, or, sadly, ineffective. (Perry, 2006, p. 30)

The structures of the brain develop sequentially, from simplest and most necessary for survival (the brain stem) to the most complex (limbic and cortical areas) (Perry et al., 1995). The areas unfold in the order that they are ultimately needed. The central nervous system develops in response to internal and external cues. More frequent neuronal activation creates stronger patterns and networks that are more resistant to change (Cragg, 1975). During the process of human development, there are times when stimulation is needed (a *critical* period) or when the brain is more sensitive to stimulation (a *sensitive* period) to organize optimally. Lack of stimulation or disruptions due to extreme experiences, including abuse, disrupt the organizing brain.

An example of the effects of early deprivation and disrupted attachment during a critical period in development is the study by Spitz and Wolf (1946) of infants separated from their caregivers. The infants cried, lost weight instead of gained weight, had trouble sleeping, withdrew socially, missed developmental milestones, and were more vulnerable to illness. The term *anaclitic* means "to lean on"; in the absence of the mother to comfort and support the organizing brain, the infants displayed anaclitic depression— physical and emotional distress due to lack of stimulation and attachment.

Simply put, "the sensitive brain of an infant or young child is more malleable to experience than a mature brain" (Perry et al., 1995, p. 276). Comparably minor stressors can elicit a full-blown fight/flight or freeze response. The still-developing brain can organize around these responses. In a mature brain, hyper or hypoarousal are temporary responses to threat;

however, if the brain organizes around these responses they form the blueprint for the child's baseline state of being.

The NMT approach recommends that after assessing a traumatized child, interventions should be designed to address identified problems in a developmental sequence, from earliest stages of development to most advanced (Perry & Hambirck, 2008). This progression is intended to mirror the normal development of the brain and "can help the child re-approximate a more normal developmental trajectory" (p. 42). Problems related to brainstem and diencephalon disorganization include inattention, impulsivity, and poor self-regulation. Interventions that resonate with the person's biological rhythms provide patterned activation in these areas of the brain. Examples include yoga, breathing exercises, massage, and music. On the next level up, problems related to limbic system disorganization can be addressed through relational interactions that are experienced as safe and nurturing. These include play therapy and art therapy techniques. Such early developmental interventions pave the way for verbal or insight-oriented approaches that require use of abstract thinking in the cortical areas of the brain. Frequent, positive interactions with trustworthy peers, teachers, therapists, or other adults help to develop the capacity to bond with others.

In sum, NMT suggests "six Rs" to guide therapeutic interventions (Perry, 2006, Perry & Hambrick, 2008, Perry, 2014):

- *relevant* with respect to chronological age and developmental level,
- *repetitive* social engagement, making it patterned and predictable,
- *rewarding* or pleasurable,
- *rhythmic* by echoing the rhythms of the body,
- *relational* or safe and nurturing, and

- *respectful* of the child and the family.

The most recent revision of the *DSM* recategorizes PTSD from an anxiety disorder to a trauma and stressor-related disorder (APA, 2013). The *DSM-V* also removed subjective emotional experience of fear and horror from the diagnostic criteria in the previous edition. North and colleagues (2016) commended this development as a step towards greater objectivity and clarity. They argued that "the emotional response to trauma must be separated from the traumatic event itself, otherwise any negative emotional response to an event may be used as evidence that the event constituted a trauma" (p. 207). By differentiating between a trauma and a stressor it may be possible to avoid creating a diagnosis that it overly heterogenous and thus not a useful descriptor.

Critique of the PTSD Diagnosis

The path to defining trauma within a context of PTSD has been fraught with controversy and remains problematic even to this day. It is argued that the diagnosis of PTSD is too expansive to accurately describe the broad range of experiences encompassed within it (Herman, 1992; Smith & Whooley, 2015; van der Kolk, 2015). The diagnostic label may also pathologize and disempower traumatized people (Burstow, 2003; Root, 1992), ignore the deleterious effects of oppression on marginalized groups (Freire, 1970/2018), impose hegemony by exporting Western medical constructs into cultures where these ideas are incompatible (Marsella, 2010; Summerfeld, 1999), and minimize safety disparities between groups (Brown, 1995; Burstow, 2003). Further, affiliation and collusion with the medical model espoused in psychiatry may subject a person to increasingly intrusive practices as legitimated by a diagnostic label (Burstow, 2003).

The process of diagnoses is intended to provide a useful framework to conceptualize health care treatment of clients by professionals. However, diagnoses are increasingly connected to interests outside of this treatment, such as reimbursement for services, inclusion criteria for clinical trials, lobbying by the pharmaceutical industry, and professional training (Eriksen & Kress, 2005). As Eriksen and Kress asserted,

> Some might say that the DSM's original intent of helping mental health practitioners to better classify, and thus ultimately understand psychopathology, has been overwhelmed by its market uses, so much so that one wonders if the proverbial "cart" is now leading the "horse." (p. x)

Both patients who seek a diagnosis and advocacy groups lobby for the creation of one do so for three primary purposes: to understand and explain suffering in the context of a more clearly-defined problem, to provide legitimacy of and reduced stigma towards that suffering, and to support access to resources that often include financial relief, medical treatment, and social support (Smith & Whooley, 2015). Distinctions have been carefully made between the symptom presentation, psychodynamics, and treatment needs for survivors of single event traumas versus prolonged, interpersonal traumas in (Herman, 1992; Terr, 1995; van der Kolk et al., 2005). However, the *DSM* does not reflect this understanding. In contrast, the second edition of the *Psychodynamic Diagnostic Manual* (*PDM-2)* recognizes five types of primary trauma (Lingiardi & McWilliams, 2017): shock trauma (type I); interpersonal trauma (type II); identity trauma (type III, i.e., victimization based on immutable characteristics such as race, gender identity, or sexual orientation); community trauma (type IV, based on historical traumas experienced by marginalized groups, such as the Holocaust for people of Jewish decent or slavery for African American people); and cumulative trauma (type V, i.e., revictimization). Complex posttraumatic

stress disorder (CPTSD) is also recognized and describes the distinct experiences of individuals who grew up under conditions of chronic neglect, abuse, and trauma in childhood.

These distinctions support the critique that the PTSD diagnosis as described in *DSM-V* suggests "a clear story line": A person is "suddenly and unexpectedly devastated by an atrocious event and is never the same again. The trauma may be over, but it keeps being replayed in continually recycling memories and in a reorganized system" (van der Kolk, 2015, p. 159). As such, treatments like cognitive behavioral therapy, which seek to integrate thoughts, feelings, and bodily sensations in a top-down sequence (Kahneman, 2011), may be viewed as useful because there is a single narrative to be created. In the cases of prolonged traumatic experience, however, the integration is more difficult to achieve, due to the psychological impact of the number and nature of the events. Whereas the physiological response the body to traumatic experiences may be universal, the emotional experience and significance of the events are unique. In other words, neuroscience describes the machinery but not the subjective experience and meaning of traumatic events (King et al., 2019). If diagnosis is intended to guide treatment, then inaccurate descriptions and recommendations could lead clinicians down the wrong path to the detriment of the client.

Smith and Whooley (2015) argued that PTSD also does not serve the military veterans who had lobbied for this diagnosis in the first place. While medicalization of their experiences was intended to reduce stigma and increase access to treatment, it may have had the opposite effect. "Self-stigma, the internalization of prevailing prejudices against mental illness, continues to undermine treatment among soldiers" (p. 41). According to the authors, people who meet the criteria for a mental disorder are more likely to associate embarrassment and weakness with the

disorder than those who do not. Seeking treatment may be antithetical to the military cultural values of self-reliance and perseverance.

Smith and Whooley (2015) also noted that the expanded definition of PTSD, which now includes civilian experiences, makes the diagnosis seem less applicable to veterans. They proposed that a change in nomenclature, that of dropping the word "disorder," would help veterans recognize and accept the need for treatment. Calling PTSD "posttraumatic stress" or "posttraumatic stress injury" instead suggests that the condition is something that someone can be healed from rather than a permanent condition, which might encourage more veterans to seek treatment when needed.

Diagnosis creep is the term used to describe the expansion of diagnostic criteria for illness over time, making them more inclusive to more people (Moynihan, 2016). "We are labelling more and more healthy people as sick" (p. 30), which can lead to overtreatment of people with mild conditions as well as diversion of scarce resources away from those with greater need. Within the field of psychology, diagnostic creep runs the risk of pathologizing and medicalizing problems of the human condition. The diagnosis of PTSD may negatively influence the identity and personhood of individuals (Summerfield, 2001), particularly as their identity is in large part culture bound. Societal pressures may increase the conflation of distress and trauma while the traditions of resilience, composure, and self-reliance may be eroded as cultures are exposed to new ideas and change to accommodate them. According to Summerfield (2001) the global export of the *DSM* diagnostic system has produced a shift from people identifying as survivors to victims. He wrote,

> An individualistic, rights conscious culture can foster a sense of personal injury and grievance and thus a need for restitution in encounters in daily life that were

> formerly appraised more dispassionately. Post-traumatic stress disorder is the diagnosis for an age of disenchantment. (p. 96).

Human suffering in the form of loss, violence, and injury are ubiquitous and the body has developed responses to stressors. Although the physiological arousal of the body in response to stress appears to be universal, the interpretation of that experience is heavily influenced by culture (Marsella, 2010). This includes our understanding of the both the cause and the meaning of the experience. "Culture structures our perception and experience of reality, and it shapes, often in profound ways, the perceptual and experiential templates we use to describe, understand, predict, and control the world around us" (p. 19).

Trauma is used interchangeably as a word to describe wounds as well as the reaction to those wounds (Erikson, 1995). In the U.S. and many Eurocentric cultures, traumatic experience is often conceptualized through the lens of the medical model, whereas some Native American cultures, for example, may frame trauma as a soul wound (Duran & Duran, 1998). Marsella (2010) noted that culture influences the kind of treatment that is acceptable and who is qualified to provide such services. Therefore, "talk therapies" by professionals in psychology may not be effective or even approved if there are cultural expectations that personal problems are not to be shared outside of the family. The services of healers, shamans, clergy, and traditional medicine practitioners may be more aligned with a client's religious, spiritual, or related orientations. Expressive therapies, body-based treatments, dance, yoga, holistic remedies, sweat lodges, and other healing rituals may replace or compliment psychological intervention. There are no one-size fits all solutions for healing.

The description of PTSD in the *DSM* also has been criticized for centering on a list of symptoms that are decontextualized, which exacerbates the pathologizing effect on people living

with trauma (Root, 1992). The diagnosis suggests deficiencies as a problem with the person rather than adaptation to hostile or dangerous situations, which is a problem with the environment (Burstow, 2003). Professionals who impose the label of PTSD as a marker for their clients' experiences may disempower and rob them of the opportunity to name their experience for themselves. Further, diagnostic labeling can subject a person to intrusive practices such as the imposition of medication, institutionalization, restraint, or oversight by social service administrations. The perceived severity of the label helps to legitimize these actions.

In Summerfield's (1999) critique of how PTSD has been applied globally to war-affected populations, he contended that "for the vast majority of survivors, PTSD is a pseudocondition, a reframing of the understandable suffering of war as a technical problem to which short-term technical solutions like counseling are applicable" (p. 1449). He added, "There is no evidence that war-affected populations are seeking these imported approaches, which appear to ignore their own traditions, meaning systems, and active priorities." In other words, the diagnostic category of PTSD may promote hegemony when U.S. and Eurocentric practices that follow from the diagnosis are imposed on groups who neither need nor request such interventions. Implicit is the ethnocentric assumption that individuals and communities lack the resources to heal themselves and therefore require professional intervention (Kapitan, 2015).

Finally, the legacy of Criterion A that identifies trauma with an event outside of the range of usual human experience suggests that traumatic experiences are uncommon (Burstow, 2003). This begs the question: uncommon for who? When the normative group used as a basis for comparison is not representative of a diversity of populations, many experiences that could lead to traumatic symptoms are easily overlooked. As Brown (1995, p. 101) explained, this narrows the perspective to "what is normal and usual in the lives of men of the dominant class; white,

young, able-bodied, educated, middle class. Trauma is thus what disrupts the lives of these particular men but no other."

The Adverse Childhood Experiences Study (ACE) conducted by Southern California Permanente Medical Group (Kaiser Permanente) demonstrated that traumas are a quite common experience in the general population of adults in the United States (Felitte et al., 1998). The researchers conducted interviews with 9,508 adults who had completed medical examinations at a large health organization. During the interviews, participants identified whether they had been exposed to physical, psychological, or sexual abuse; parental divorce, substance abuse or mental illness in the home; had witnessed domestic violence, or had a parent who engaged in criminal behavior prior to the age of 18 years. They found that 52% of the respondents had experienced at least one of these adverse events.

Further, the study found a significant, positive correlation between the number of ACEs experienced and high-risk behaviors, medical comorbidities, and reduced life expectancy. The researchers suggested that ACEs bring about anxiety or depression in children, which impairs their social, emotional, and cognitive development (Felitte et al., 1998). This in turn may lead them to adopt health-risk behaviors to regulate mood, such as smoking, drinking, taking drugs, overeating, or engaging in risky sexual activities that all increase their exposure to disease, disability, and social problems. The cumulative effect of these health impacts may result in early death.

In a later study in the state of New York by the Council on Children and Families (2010), 807 participants were surveyed using ten items on the ACE questionnaire and one item that identified exposure to community violence, among other added questions. The community violence question was added because "children are negatively impacted by experiences of

violence, regardless of whether they or family members are the direct target of that violence," (p. 4). Roughly 59% of the sample reported exposure to at least one of the ACE items. This increased to 69% with the addition of community violence. Approximately 38% of all respondents had been exposed to community violence during childhood. This was significant as it was the most prevalent event type—even more common than having parents who were separated or divorced or who had experienced verbal abuse. What this study suggested is that if community violence had been included as an ACE in the original Kaiser Permanente survey, the prevalence of ACEs would be higher, implying a greater percentage of ACEs in the general population than originally suggested.

A survey conducted by Kessler et al. (2017) for the World Health Organization attempted to estimate lifetime exposure to potentially traumatic experiences as compared to PTSD. The survey inquired about 29 trauma types across seven categories (trauma related to war, physical violence, intimate partner or sexual violence, accidents, unexpected or traumatic death of a loved one, traumas that have happened to other people, and other traumas, including private traumas which the participant did not want to specify). It was administered across 24 countries with a total sample size of 68,894 people. From these data, the researchers estimated the risk that exposure to different types of trauma would have in developing PTSD. They posited that approximately 70% of the world's population has been exposed to potentially traumatic experiences at some point during the lifespan. Certain types of trauma—particularly those that are interpersonal in nature, including rape, sexual assault, intimate partner violence, and being stalked—were more likely to result in PTSD.

These studies suggest that adverse and potentially traumatic experiences are prevalent; however, the distribution of exposure and impact on survivors are unequal across different

groups. Trauma is political in that it occurs within societal structures (Burstow, 2003). Who trauma happens to, how it happens, and the response from others are mediated by such contexts as homophobia, ableism, capitalism, patriarchy, racism, misogyny, anti-Semitism, and other oppressive forces (Burstow, 2003). For example, gender-based violence is most likely to impact women and transgender or nonbinary people due to their marginalized status in misogynist, patriarchal, and transphobic societies.

The notion that the world can be expected to be a benign and safe place (Herman, 1992) —and that traumatized people come to develop a less realistic, distorted, or shattered world view— reflects a position of privilege (Burstow, 2003). The world is not equally safe for everyone. Traumatized people may actually have a more accurate view of the world because their experiences force them to remove the "cloak of invulnerability" (p. 1298) that people who have not survived a trauma are able to wear.

Criterion A in the *DSM* definition of trauma also ignores the negative impact of the daily onslaught of oppression, making it all the more obvious that "tying trauma to a physically dangerous event or events per se is inadequate, especially in the case of oppressed people" (Burstow, 2003, p. 1296). Microaggressions, including microassault, microinsult, and microinvalidation, can all cause harm by transmitting harmful, implicit messages that cause emotional upset and drain a person's psychic and spiritual energy (Sue et al., 2007). Structural inequality refers to the institutions, social structures, systems, policies, laws, and business practices that privilege one group over another and limit the social mobility of marginalized groups (Logan, 2014). Societies are arranged in these structures to keep the dominant group in power by limiting access to resources and opportunities needed to improve one's life. Structural inequality is observed particularly in the domains of education, healthcare, media, gender, race,

and housing. For example, severe illness and morbidity disproportionately fell on communities of color, particularly Black and Latinx (Hooper et al., 2020), during the COVID-19 pandemic. This is thought to be due to factors including access to healthcare, underlying health conditions, economic disadvantage, racism, and discrimination. Members of these communities were more likely to have public-facing occupations, such as service and transportation workers, which put them at greater risk of exposure to the virus. Maintaining physical distance from others is not always possible in such circumstances making the ability to social distance a matter of privilege (Yancy, 2020). COVID-19 highlighted systematic racism in the social safety net as unemployment benefits, food and housing assistance, and medical care were more difficult to obtain.

Direct acts of violence or oppression against members of a marginalized group are harmful to everyone, whether experienced directly or not, by virtue of their threat to our collective humanity. As Curtis (2005) asserted:

> These atrocities are suffered not only personally and culturally, but by all, regardless of the fact that they happen to one person at a time… the collective Mind, Body, and Spirit is wounded as each person is directly and indirectly harmed and changed. (p. 174-175)

Freire (1970/2018) similarly argued that oppression traumatizes everyone in a society—both those receiving and dispensing oppression—by dehumanizing them. “It is not those whose humanity is denied them who negate humankind, but those who denied that humanity (thus negating their own as well)” (p. 55). The combined effects of microaggressions, structural inequality, and acts of violence may all contribute to traumatic experience stemming from oppression.

Shared Trauma and its Amelioration

Advances in research and practice within the field of mental health have produced abundant knowledge about trauma and effective treatment approaches. This body of research has contributed to greater understanding of how art therapy can be used effectively in treatment; consequently, art therapists are better trained to recognize various kinds of trauma in their clients, from child abuse to the impacts of combat. Although a survey of this body of literature is beyond the scope of this review, what is most relevant to my study is shared trauma and its overlap with vicarious trauma. Even though the word "disaster" brings to mind natural and man-made calamities, I will use the term in this section to refer as well to any traumatizing event, such as a mass shooting, riot, or public health emergency, which affects an entire community or a sub-community.

Much less attention has been paid to the effects of trauma on the art therapist despite an understanding that witnessing the suffering of other human beings directly or hearing first-hand accounts can be painful and distressing. Therapists are not immune to the stories their clients bring to session and as Figley (1995) stated, "there is a cost to caring" (p. 1). For therapists who make deep, empathic connections with their clients this cost may include fear and emotional pain that mirrors that of their clients. *Vicarious traumatization* is the "transformation that occurs within the therapist (or other trauma worker)" as a "result of empathic engagement with clients' trauma experiences and their sequelae" (McCann & Pearlman, 1992, p. 558). This includes changes in world view, relationships, and emotional dysregulation. Therapists may have negative responses to clients during session including inattentiveness and dissociation as well as lack of empathy (Follette et al., 1994). *Compassion fatigue* is a "deep physical, emotional and spiritual exhaustion accompanied by acute emotional pain" (Pfifferling & Gilley, 2000, p. 39) that also

can lead to decreased interest in and capacity for empathy (Figley, 1995). Both conditions may produce signs of posttraumatic stress, such as intrusive thoughts and feelings; increased sense of personal vulnerability, avoidance, anxiety, and depression; and emotional numbing or flooding (Adams & Riggs, 2008; Pearlman & Mac Ian, 1995). Therapists may be deeply impacted by their exposure to shocking, horrifying, and disturbing events through their work with people who have experienced trauma.

How the therapist understands and responds to the traumatic material presented by their clients is mediated by interactions between three factors: the personal characteristics of the therapist, the specific circumstances and context of the trauma work, and use of positive or negative coping strategies (Follette et al., 1994; Pearlman & Mac Ian, 1995). For example, therapists who have their own history of traumatic experience and are new to the field (two years of experience or less) are at greater risk of developing vicarious trauma (Pearlman & Mac Ian, 1995). Robust social support, training, and ability to ascribe meaning to traumatic experience, however, are protective factors that may buffer against traumatic stress.

Contextual factors that influence the experience of the therapist include the nature of the traumatic material, the working environment (e.g., number of clients, percentage of clients on caseload who have been traumatized, pace of the work), and socio-cultural climate (Pearlman & Mac Ian, 1995; Shauben & Frazier, 1995). For example, during the COVID-19 pandemic, bias against Asians and Pacific Islanders (AAPI) increased significantly due to xenophobia and misinformation about the virus (Tessler et al., 2020). Almost 1,500 hate crimes against AAPI individuals and businesses were reported in the United States between March and April of 2020 alone (Jeung & Nham, 2020). Such a hostile environment would undermine people’s feelings of safety as they are more likely to be targeted for victimization.

Follette et al (1994) suggested that for therapists working with clients who have experienced trauma the most significant factor predicting the severity of vicarious trauma was the coping style of the therapist. They classified coping strategies into two main categories: negative and positive. Negative coping strategies included social withdrawal, aggression against a significant other, or excessive use of drugs and alcohol to try to forget about or numb their experiences. Positive coping strategies included seeking professional assistance (e.g., supervision, consultation with a colleague, psychotherapy, speaking with a member of the clergy), seeking assistance from others (e.g., friends, family, partner, support group), cultivating inner resources (e.g., meditation, yoga, prayer), engaging in social action (e.g., advocacy), educating one's self and others, and humor. What this suggests is that the most influential factor in predicting the severity of vicarious trauma symptoms is also the most amenable to change. Follette et al. (1994) suggested that education and training about these effects and strategies may better prepare clinicians for working with clients who have experienced trauma.

Although therapists working with trauma are at greater risk for developing vicarious trauma or compassion fatigue, not all of them will develop symptoms of traumatic stress. McCann and Pearlman (1992) asserted that although all therapists are impacted by their exposure to the traumatic material their clients present in session, it is the "extent to which the therapist is able to engage in a parallel process to that of the victim client" that may predicate the process of "integrating and transforming these experiences of horror or violation" (p. 138). Pearlman and Mac Ian (1995) even suggested that therapists may develop meaningful understanding of their own traumatic experiences through their work with clients. This parallel growth and healing may contribute to personal and professional development.

Although psychotherapy is focused on the emotional and psychological experience of the individual, it does not exist within the silo of the therapeutic encounter and therefore is "not immune to the influence of the culture, language, and events that occur in the world around us" (Kretsch et al., 1997, p. 28). Events that happen in the community, such as natural disasters (e.g., floods, earthquakes, tornados, viral outbreaks), acts of domestic or international terrorism (e.g., the raid on the capital by former president Trump's supporters in 2021 or the attacks on the World Trade Center on September 11, 2001), war, and mass shootings (e.g., Sandy Hook Elementary School in 2012, Pulse nightclub in 2016, Bronx Lebanon Hospital in 2017) impact the people living and working within those communities. During a trauma or disaster that affects an entire community, clinicians are not only exposed to their clients' reactions, but they also share the same external reality on some level. They may replay the same violent images in their own minds as they go to work, for example, or struggle with the same lack of resources. *Shared trauma* refers to the specific emotional and vocational challenges that occur for clinicians working with clients who are experiencing the same communal disaster or traumatic event (Saakvitne, 2002).

The concept of shared trauma arose from therapists in the wake of armed conflicts in the 1990s, the September 11th terrorist attack in 2001, and natural disasters in the 2000s. Following the introduction of PTSD as a diagnosis in the *DSM,* humanitarian aid organizations started allocating funds to provide mental health support to survivors of war and other disasters (Kalmanowitz & Lloyd, 2005). Although some agencies' intentions were misguided or misinformed by ethnocentric bias, there was nonetheless an influx of financial resources available that brought attention to art therapy around the globe. However, as Kalmanowitz and Lloyd (1999, 2005)) noted in their own account of working with survivors of the war in Bosnia,

traditional psychotherapy techniques needed to be adapted to the new environment. For example, the profound and multilayered losses of friends, family, sense of self, and even faith in humanity experienced by many of the refugees left them feeling alienated and distrustful of others. Emotional overwhelm created by the external environment collapsed their mental space, making it difficult to reflect and live in the present moment. Kalmanowitz and Lloyd (2005) reasoned that due to these losses and the time-limited nature of their interventions, the development of an individual therapeutic alliance was "neither tolerable nor sustainable" (p. 107) for the participants. Instead, it was more appropriate to address isolation by harnessing the collective healing potential of community groups. Groups may help heal the loss of communality, which is "the network of relationships that make up their general human surround" (Erikson, 1976, p. 187), by creating opportunities to forge new connections.

Another challenge for therapists working in war-torn regions is the difficulty of creating physically, psychologically, and emotionally safe places for participants within a general lack of safety in the environment. While an entirely safe space may not be possible, art therapists can offer a space that is safe enough for the moment (Kalmanowitz & Lloyd, 2005) or what Kretch (1997) calls a *good enough environment,* drawing from Winnicot (1966). For example, Beagley and Miller (as cited in Kalmanowitz & Lloyd et al., 2002) transformed a seemingly inhospitable, partially destroyed school into an improvised art studio. They worked around the blown-out windows and set aside the broken furniture, situating an old piece of carpet on one end of the room to mark where art making would take place. The carpet served as an anchor to the space to such an extent that participants were upset by its disappearance when the school's reconstruction efforts were completed.

The art studio can be a retreat from the world or a means to attend to its realities, but when working in a community disaster the studio is often both (Kalmanowitz & Lloyd, 2005). Within their construct of the *portable studio,* Kalmanowitz and Lloyd (1999, 2005) learned to rely on their internal resources, including their training and primacy of art making, as the structure around which they could apply art therapy for a wide range of settings, including a bedroom, bakery, refugee camp, and even a garbage dump. The therapists offered containment, for example, by reducing drawing paper to the size of a postcard, which allowed individuals to use their own internal resources and resiliency through creative expression without becoming overwhelmed. Kalmanowitz and Lloyd (2005) also recognized that the other therapists and aid workers also needed containment and support in their ongoing work.

Baráth (2000) adapted art therapy models as mutual aid to children and their caregivers in Croatia during war in the region. Their program was implemented in three phases: first as a series of workshops for children at the beginning of the war, then as art therapy for the caregivers, and finally as a series of workshops to address ongoing needs after the war. Self-help principles were incorporated into each phase, and at times the steps in Alcoholics Anonymous (W., 1939/1976), such as in admitting one's powerlessness and acknowledging how life has become unmanageable. Baráth (2000), however, modified the step to explore what is within the individual's locus of control in the traumatic situation. The workshops were designed in such a way that they could be facilitated by paraprofessionals including teachers, artists, and librarians. Doing so allowed the project to be scaled up to reach a large group of participants across the country and to be sustainable, continuing after the team left.

Kretsch et al. (1997) and Baum (2004) conducted therapy in Israel during the Gulf War and the second Intifada respectively. Their work differs from other accounts in the literature in

that they were not outsiders but were living and working in the community where the conflict was occurring. Kretsch et al. (1997) needed to adopt a flexible approach by working with evacuee families in their temporary homes rather than in a mental health clinic. This was particularly challenging as both the therapist and client were pulled "in opposite directions—action and introspection" (p. 32). In other words, the realities of the external environment required therapists to work with both the concrete and emotional needs of their clients in crisis, while simultaneously attending to these needs in themselves.

Baum (2004) observed that working amidst ongoing terror attacks created distinct challenges for the social work students she supervised. First, the students felt a conflict between addressing their personal and professional needs. They wondered how they could make emotional space for others when they were struggling to contain their own emotions. Some grappled with finding a balance between carrying on therapy as usual and acknowledging collective suffering, particularly if the armed conflict was not the central concern for the client. Others were challenged by feelings of guilt when they tried to set aside time for themselves to cope. The students often doubted their professional competence or that of their colleagues. They expressed doubt about whether they were suited for the emotionally challenging and potentially dangerous work that laid ahead of them.

Accounts from therapists responding to disasters both internationally and in their home countries have contributed to an increased understanding of what interventions are appropriate and important in a time of crisis. Jensen (2001) summarized this literature in his 7 Cs of crisis intervention:

1. *Culturally* sensitive and contextually appropriate interventions
2. *Coordination* of all services

3. *Community* oriented public mental health approach
4. *Capacity* building: training, support and supervision
5. *Clinical* services
6. *Care* for the caretakers
7. *Comprehensive* data collection, analysis, and evaluation

One of the common threads running through each of the previous accounts is the need to care for the caretakers. In a broad sense, the term *caretakers* refers to parents, teachers, medical personnel, and other relief workers who contribute to recovery efforts during the community disaster. Following the September 11th terrorist attacks in the U.S., mental health professionals recognized that they, too, were included in this category and needed additional support (Jensen, 2001). With respect to recognition of shared trauma and its impacts on the clinician increased, Baum (2010) sought to operationalize the definition with four criteria: The nature of the event is such that it can traumatize the community at large; it is current rather than historical, and therefore being experienced acutely; both the client and the clinician are members of the community where the disaster occurred; and finally, the clinician is dually exposed to the disaster both as a helper and a member of the traumatized community.

Shared trauma differs from PTSD and other forms of trauma in that clinicians are exposed to the disaster on multiple levels simultaneously, as a person living through a traumatic experience, a helping professional, and a member of a community in crisis (Saakvitne, 2002; Tosone, 2012; Tosone et al., 2012). Saakvitne (2002) referred to these three types of exposure to the disaster as primary, secondary, and vicarious. Tosone et al. (2012) identified them as intrapsychic, interpersonal, and community. Primary/intrapsychic exposure refers to the specific events that happen to the individual, not in the role of therapist but as a person who is surviving

and living through these events and their emotional reaction. Secondary/interpersonal exposure occurs with the therapist's witnessing of the event happening to people that they care about—friends, family, neighbors—and/or feel responsible for, including their clients (Saakvitne, 2002). Vicarious exposure occurs when the therapist's selfhood is transformed as a result of engaging with their clients' therapeutic work with descriptions of the disaster in the session (Saakvitne, 2002). Community exposure refers to the collective experience of the traumatic event (Tosone et al., 2012). Primary/intrapsychic and secondary/interpersonal exposure mirrors criterion A in the *DSM-V* diagnosis of PTSD (APA, 2013), whereas vicarious/community exposure seems to reflect the concept of vicarious traumatization (McCann & Pearlman, 1992). Shared trauma occurs in the overlap between PTSD and vicarious traumatization. It is the combination of these different levels of exposure that increases the clinician's risk of developing symptoms of traumatic stress (Tosone et al., 2012). Taken together, this formulation describes the inescapable risks of trauma as echoing across the domains of home, work, and community without respite.

The therapist's personal experience of the disaster increases self-awareness of their personal vulnerability (Saakvitne, 2002). As a helping professional who is not only trained with skills to help but finds personal satisfaction when their clients are able to work through trauma with their guidance, the sudden feeling of vulnerability may be disorienting or confusing. As someone whose role is to help others, not knowing what to do can lead to feelings of guilt and shame, which may reduce the likelihood of the therapist asking others for help.

Uncertainty is another significant stressor (Shamai, 1998) clinicians face during a shared community disaster. Uncertainty is the dread that something bad will happen (e.g., a second wave of viral outbreak) and other fears that accompany unfamiliar situations. Intense worry or fears that last for a long time increase the impact of uncertainty as a stressor. For example,

COVID-19 caused significant distress for many people not only due to the potential for severe illness and death but also because the pandemic lasted for over a year. Lockdowns, curfews, and business closures that were initially thought to last for a few weeks were extended in many places for months. People worried about how they would support themselves financially when they were laid off, the developmental impacts of remote learning on their children, and when they could safely visit loved ones again.

Circumstances that suddenly increase awareness of one's own mortality, *mortality cues* and *mortality salience* respectively, may increase feelings of anxiety (Grant & Wade-Benzoni, 2009; Harmon et al., 1997). The eventuality of death is not usually a part of conscious awareness in a person's day-to-day life and activities, with the notable exception of people who work in professions related to the dead and dying (e.g., nurses, morticians, and hospice workers) or risk injury and death themselves (e.g., police, military, and fire fighters) (Greenberg et al., 1986). Exposure to disasters increases the salience of mortality in one's thoughts when confronted with real existential threats (Baum, 2010). To reduce such awareness, the psyche often must mobilize first-order defenses, such as denial, avoidance, distancing, self-distraction, and suppression (Baum, 2012). These defenses serve the purpose of psychological self-preservation; however, they also may create an internal conflict for a therapist who needs to be attentive both to themselves and the needs of their clients to do their work. In other words, the need to reduce anxiety about real threats to safety temporarily reduces their ability to be emotionally present for clients, which in turn may lead to feelings of guilt and shame over unsatisfactory performance.

Presence refers to the ability of the therapist to be physically, emotionally, cognitively, and spiritually open to clients during the session (Geller & Greenberg, 2002). Bugental (1983) described presence as availability and openness to one's own experience of the client, the client's

experience, and the capacity to respond to the client from these experiences. Such awareness and attunement are so vital to the process of therapeutic change that he considered it an absolute necessity. Presence is not only a state of mind, however, but rather an effortful process that extends into the therapist's life immediately before, during, and after the session (Geller & Greenberg, 2002). Thus, it becomes clear how important it is for a therapist to recognize and understand the potential impacts of shared trauma on their capacity and effectiveness.

For the therapist, presence begins with preparing for the session, including attending to personal wellness. Prior to the session, preparation includes putting aside self-concerns, setting an intention to be present, and bracketing judgments to approach the client with openness, acceptance, interest, and nonjudgment. Outside of the session, the therapist prepares for their work through practices like self-care, meditation, and adopting a commitment to presence. Within the session, presence involves receptivity, inward attending, and extending (Geller & Greenberg, 2002). This means using oneself as an attuned instrument to receive the messages communicated by the client through all available verbal and nonverbal channels. The therapist receives the sights, sounds, smells, and other sensory information, attends to bodily sensations arising in themselves, and looks for the meaning underneath the actual words that are spoken in the session, also called listening with the third ear (Reik, 1949). All this information forms a basis for intuitively responding to the client with congruence, transparency, and accessibility. On the other hand, when this information contains traumata, whether in the form of disturbing images, thought fragments, emotional flooding, or triggering sensations, the therapist's presence can become vicariously affected. With their nonverbal attending skills, art therapists may be particularly receptive to the affects experienced by their clients, particularly through engagement with their visual imagery (Franklin, 2010).

Attending requires immersion in the therapeutic encounter, which means remaining alert, present-centered, and connecting deeply on an emotional level while maintaining an attitude of nonattachment. In other words, “The therapist is as close as possible to the client’s experience while maintaining a sense of self as separate and whole,” (Geller & Greenberg, 2002, p. 84). However, for therapists who are working within a shared traumatic reality the psychological distance between the client’s experience and their own is reduced (Kretsch et al., 1997). This means that it is more difficult to differentiate between their experiences, which could lead to overidentification.

To attend to the needs of clients who have experienced trauma, the therapist needs a stable emotional anchor. This helps prevent the therapist from sinking down into the depths of the client’s despair, being bowled over by the force of their rage, or drifting away alongside their dissociation. *Grounding* is a term used to describe this emotional anchor. It captures the feelings of safety, stability, and composure that help the therapist and client feel settled and connected to the world, as well as the centering activities and processes that support these feelings. To be grounded is to feel “at home” in your own body and mind (Meekums, 2002). A person who is grounded feels supported as well as attuned to the thoughts, feelings, and sensations that arise in their consciousness without becoming afraid of or judging them. Emotions—even unpleasant ones—can arise and then subside without throwing them off balance. They are also aware and responsive to what is happening in the surrounding environment. The intensity of shared traumatic experiences may shatter the therapist’s sense of grounding and stable sense of self.

Strategies used in treatment for clients who have experienced trauma may also be applicable to clinicians who experience shared trauma. Grounding exercises help reestablish the person’s awareness of and connection to their surroundings and the present moment (Knox,

2017). In the case of flashbacks or intrusive thoughts, a trauma can feel as though it is happening again in the present. These feelings and sensations can occur even in the absence of physical danger. For example, hearing an ambulance passing by can trigger memories of people falling seriously ill during the pandemic. To the clients I worked with employed in the medical field at the time, the sound of an ambulance signaled another severely ill patient coming to the intensive care unit. This was distressing not only because the patient's symptoms could be so profound that they might pass away very quickly, but also because the virus was so contagious that the patient posed a risk to the life of the healthcare worker. A sense of safety can be re-created by refocusing attention on the objective reality of the physical environment, such as by recitation of an anchoring phrase: "I'm [full name]. I'm [x] years old. I live in [city, state]. Today is Wednesday, March 24th. It's 10:04 in the morning. I'm sitting at my desk at work. There's no one else in the room." The body scan technique (Kabat-Zinn, 1991), or engaging in sensory activities, such as holding a piece of ice or smelling a pleasant scent, also may be grounding. These activities can help reduce emotional dysregulation and regain a sense of control by differentiating between physical sensations and emotional distress caused by thoughts or reminders of the trauma (intrusion) and actual threats that could stimulate the same response.

The dance/movement therapy literature is a great source for understanding how grounding helps ameliorate the effects of trauma, given its attention to the body and movement. Different movements are used to down-regulate or up-regulate levels of physiological arousal, keeping the individual within a functional window of tolerance (Siegel, 2010). Exercises that reinforce the connection to the ground, such as dancing barefoot (Margariti et al., 2012), pressing the feet into the floor (Dieterich-Hartwell, 2017, Lowen, 1995), sitting on the floor (Lowen, 1995), and self-referential movements (e.g. rubbing one's hands together, clapping, or tapping

one's arms) (Pierce, 2014) reduce hyperarousal, physically calming the body's fight/flight response. Vigorous movements, on the other hand, are more activating and reduce hypoarousal, interrupting dissociation (Koch & Harvey, 2012). Feeling connected to a stable base like the earth or floor can be comforting and, as a counterforce to feeling untethered or able to blow away, can reinforce feelings of safety. Thus, it makes sense that movement exercises promote grounding by strengthening the body and its connection to the ground, improving awareness of its position in space (proprioception), fueling the energy that helps improve psychological well-being, and supporting social connections with others moving in space with us (de Tord & Brauninger, 2015).

For the therapist, exposure to traumatic events, personally or through work with clients, can lead to a loss of grounding (Lewis, 1999). Precisely the type of thinking required to conduct therapy effectively may be disrupted by the challenges of shared trauma, as Boulanger noted:

> Psychic trauma and apocalyptic anxiety disrupt the ability to rely on memory, to think clearly and flexibly, to use thoughts constructively, to imagine different outcomes to different situations, the kinds of thinking that clinicians depend on in their work to make meaning of experience. (2013, p. 32)

What Boulanger is referring to here is that traumatic experience can lead to changes that temporarily disrupt the individual's capacity for cogent, adaptable thinking necessary to sensitively respond to complex problems, support clients, or even perform routine tasks without making mistakes.

In her elaboration on the progression of shared trauma, Baum (2010) identified a period at the beginning of a disaster than can be particularly disruptive to the therapist. The *emergency stage* is characterized by sudden changes in or loss of that which is familiar, blurred boundaries,

and tensions experienced between the personal and professional self. For example, therapists may need to report to work and also be called to stay home with their children to keep them safe, to facilitate remote learning if schools are not open, or to provide daycare because facilities are closed. Thus, professionals may feel torn between their professional commitments and their personal responsibilities. Greater needs in the community may require extended or on-call hours that increase time away from home and family. They may be worried about how their loved ones are faring (Baum, 2010) or grapple with such personal losses as the death of a friend, destruction of a home, or an injury or illness (Cohen et al., 2015). The professional identity or role in shared trauma also overlaps with the personal, as internal and external reality are collapsed (Boulanger, 2013). The "words themselves become the experience" (p. 37) as there is no longer a separation between what is talked about in session and what is lived in the real world. In other words, the stuff of nightmares may become reality when the client's lived experiences overlap with that of the clinician. During the pandemic, for example, clients related how frightened they were to see once busy city streets empty as people stayed home for quarantine. New York City's Times Square, normally a teeming transfer point for subway commuters, was eerily empty. In my own experience, I was not only listening to my clients' accounts of the city seeming like a post-apocalyptic wasteland, I was walking through it on my way home from work each day.

The working environment itself may also contribute to increased stress on clinicians (Boulanger, 2013; van Heugten, 2013). The *therapeutic frame* is a set of rules and agreements that structure how the therapist and client work together, the nature of the relationship, and the physical and psychological environment where the work will take place (Cherry & Gold, 1989; Freud, 1912/1959; Gray, 2013; Warburton, 2014). Concretely, the frame includes practical details like meeting dates, times, and locations (Gray, 2013) as well as the physical arrangement

of the room (Warburton, 2014). Psychologically, the frame dictates how the therapist interacts with the client based on their theoretical orientation. In the psychodynamic tradition this includes *abstinence* (not acting out, with, or at the expense of the client), *anonymity* (focusing on the client rather than the self of the therapist), and *neutrality* (not having a vested interest in the choices the client makes on their own behalf) (Cherry & Gold, 1989). The therapeutic relationship serves as a safe, secure holding environment where growth and development can take place (Modell, 1976). Taken together, the therapeutic frame is intended to help the client and therapist feel physically and emotionally safe enough to explore even the most intense experiences, emotions, and fantasies the client may bring to the encounter.

Disaster may lead to literal breaks in the therapeutic frame if the office or workspace has become damaged or unusable (Boulanger, 2013; van Heugten, 2013). As a result, sessions typically must move and be conducted in improvised spaces, temporary offices, or online. Such makeshift spaces may lack privacy and the personal touches that make therapeutic spaces familiar and comfortable for both the client and clinician. Alternatively, the clinician may be asked to work from home, as has been the case in the coronavirus pandemic, which blurs the boundary between home and workspace. Not only do clients get a glimpse of the therapist's home, but they may also have trouble distinguishing these virtual house calls from more casual calls from a friend or family member (Sasangohar et al., 2020). Whereas the physical environment of a clinic or office space lends formality to the therapeutic encounter, therapists working in virtual or improvised space need to expend more effort to intentionally create a structured holding environment for their clients.

Changes in the volume and nature of therapeutic work can also contribute to greater stress (Freedman, 2018; van Heugten, 2013). A community disaster often increases the demand

for mental health services as well as makes the needs of those already engaged in treatment more acute. This can lead to increased caseloads and clients who may suddenly or unexpectedly become more difficult to support effectively. As a therapist who experienced the Canterbury earthquake, van Heugten, (2013) observed that "working with more distressed people, whether customers, clients, or students, requires work to be better paced with more breaks and places to escape to rest and reflect before focusing on the next task" (p. 38). However well-considered this recommendation may be, it may not be possible if therapists must leave the workplace and other service providers close.

The World Health Organization found that 93% of member countries surveyed had experienced these and other disruptions in mental health services during the coronavirus pandemic. The most heavily impacted service areas were mental health programs in schools and workplaces and services for children and adolescents, older adults, and caregivers. When more people require services than there are programs or places to receive them, therapists can feel greater pressure to see more clients. In short, community disasters may require clinicians to do more with less. For example, the therapist may have to perform other roles that would normally be outside of their daily work (Baum, 2010), as in Gibson and Iwaniec's (2003) account of interviewing survivors of a terrorist attack about their experience but also distributing food to them as part of the relief effort. During the pandemic I spent considerable time providing basic public health information to clients and helping them secure appointments to receive their vaccine. Although these tasks are necessary contributions to help clients and the community recover from a shared disaster, they also expand the role and blur the boundaries of the professional's job which can be stressful (Lev-Wiesel et al., 2009).

Working in the context of a disaster can change the therapeutic relationship (Baum, 2010; Boulanger, 2013; Kretsch et al., 1997; Nuttman-Schwartz, 2015; Saakvitne, 2002; Tosone et al. 2012) particularly for therapists working from the traditional psychodynamic perspective mentioned earlier. Although methods and orientations used by therapists have changed over time, with person-centered, relational, or eclectic/integrative approaches gaining in popularity (Cook et al., 2010), the therapeutic relationship arguably remains the primary vehicle for change in psychotherapy regardless of therapist's orientation (Martine et al., 2000). The therapeutic frame is in place not only for the client's benefit but for the therapist as well. As Cherry and Gold (1989) explained, "even the well-trained, experienced therapist requires guidelines that enhance his or her ability to set aside personal subjective experience in order to develop respect, appreciation, and empathy for the client's subjective experience" (p. 163). This means that changes to the therapeutic relationship can have significant positive or negative impacts on both the client and the therapist.

Disasters present challenges to maintaining the anonymity of the therapist. In traditional psychodynamic relationships the therapist limits the personal information they share about themself to keep the focus of the encounter on the client and their emotional healing (Cherry & Gold 1989). Cherry and Gold (1989) argued that when the therapist brings their "own world into the treatment room, the therapist is now likely to be as personally reactive there as anywhere else" (p. 165). By this they mean that self-disclosures by the therapist make it more difficult to maintain the objectivity and emotional grounding that is needed to focus on the client's needs rather than one's own. Therapists from humanistic orientations offer a different perspective about self-disclosure, arguing that it may actually serve the client by demonstrating the therapist's positive regard (Robitschek & McCarthy, 1991), helping clients to feel understood

and not alone in their suffering (Cornett, 1991), and providing models for personal growth (Lane & Hull, 1990).

Working during a shared community disaster can lead to involuntary self-disclosure. Because the therapist and client are living through a similar crisis, the choice about disclosing disaster is taken away (Tosone et al., 2012). On the one hand, this creates opportunities for therapists to use themselves in service of the client by normalizing feelings of fear or modeling appropriate coping strategies (Kretsch et al., 1997). On the other hand, therapists who are not used to sharing personal information within the context of the therapeutic relationship may find themselves in unfamiliar territory. As they become aware of their personal vulnerability and the therapeutic frame changes, they can experience their loss of control as confusing or even humiliating (Boulanger, 2013). Both the clinician and the client may perceive the therapist as less able to help, as they too are a victim of the disaster (Baum, 2010). Saakvitne (2002) explained that expectations about maintaining therapeutic neutrality are not only unrealistic during a shared trauma but that these expectations reinforce feelings of shame. Instead, Baum (2010) suggested that therapists be mindful of their countertransference reactions and to remember that they are involved in a simultaneous working through of the traumatic events alongside their clients.

Sachs (2020) noted that there can be tension between the person as the therapist—the clinician as a helping professional—and the person of the therapist as an individual. Failures in the role of the therapist can be experienced as personal failures. Shared trauma may increase the likelihood of these failures due to increased emotional, physical, and environmental demands. In the face of failure, the therapist is confronted with the task of mourning their fantasies of omnipotence, their sense of efficacy, their being adored or idealized by their client, as well as

influence, authority, and control. Though painful, the task of mourning may ultimately be growth promoting by helping clinicians temper arrogance, embrace vulnerability, and face fear and anxiety openly, which helps to increase the depth of and appreciation for their emotional life.

Greater use of self and self-disclosure changes the balance of power in what is usually an asymmetrical relationship (Baum, 2010, Boulanger, 2013). Tosone et al (2012) observed greater intimacy within their relationships with clients following the attack on the World Trade Center in New York. The work was deepened by shared memories from September 11th that created mutual understanding and appreciation of experience. As therapists work through their shared trauma alongside their clients, they can experience respite from their role as the expert in the relationship (Boulanger, 2013), Nuttman-Schwartz (2015) suggested that "the shared reality might help therapists understand that these mutual, symmetric relationships, especially empathic bonding are the basis for positive responses to reality that can help them be aware of shared resilience," (p. 5). Thus, working through a shared community disaster is not a solitary activity, but rather one that occurs in the context of supportive relationships, shared understanding, and mutual aid.

The benefits of working through shared traumatic events may extend beyond the therapeutic relationship to the personal and professional growth of the therapist (Bauwens & Tosone, 2010; Tosone et al., 2016). Tedeschi and Calhoun's (1996) conception of posttraumatic growth encompasses positive changes in three domains following recovery from traumatic events: enhanced interpersonal relationships, greater sense of personal strengths and acceptance of weaknesses, and vulnerability and change in life philosophy. Paradoxically, the challenges of working during a traumatic event are precisely what drive the process of growth (Tedeschi & Calhoun, 2004). Traumatic experience increases awareness of personal vulnerability through

suffering and loss of control, yet living through this circumstance also increases awareness of resilience and capacities to survive (Calhoun & Tedeschi, 1999). As Tedeschi and Calhoun (2004) noted, the need to talk about traumatic experience can test the strength of interpersonal relationships, weeding out superficial connections and strengthening others through greater intimacy. “Reflections on one's traumas and their aftermath are often unpleasant, although necessary in reconstructing the life narrative and establishing a wiser perspective on living that accommodates these difficult circumstances” (p. 59). In other words, enduring traumatic experiences may challenge an individual to mature and grow in unanticipated ways that ultimately benefit them moving forward.

Bauwens and Tosone (2010) observed a similar paradox when they conducted open-ended surveys of Manhattan clinicians who had worked during the September 11th terrorist attacks. They noticed that positive and negative consequences often existed concurrently, in that the “rewards of helping” were “juxtaposed with feelings of towering grief,” (p. 499). Participants described how the events challenged them to develop new clinical skills such as educating themselves about trauma to better support their clients. The events highlighted the need for greater self-care, such as attending to exercise and sleep, or adjusting work/life balance. The therapists also reported valuing their relationships with friends and family more and having more compassion for as well as connection and transparency with clients.

Coping with Shared Trauma Through Art

Among the factors that protect any person from developing a traumatic response, whether community member or helping professional, having a strong social network of support (Cohen & Wills, 1985) and a culture that is oriented toward resilience (Konner, 2007) appear to be most important. Social support is important in coping with shared trauma, despite that its quality and

access may be limited due to conditions created by the disaster itself (Hapern, 2016). Further, these supportive people may be less capable of helping due to the own suffering and stress. This poses an important question, “Who heals the healers when we ourselves are frightened?” (Bauwens & Tosone, 2010, p. 510). Professionals know that self-care in the wake of shared trauma becomes an ethical matter if it interrupts the therapist’s capacity to care for clients safely (Bell & Robinson, 2013). Self-monitoring of one’s internal state is imperative (Bell & Robinson, 2013; Saakvitne, 2002). A therapist who is feeling the effects of emotional and physical exhaustion and social withdrawal, and has started to devalue their work, feel less empathetic or anger towards clients, or are avoiding dealing with their client’s trauma material in therapy, is experiencing the early warning signs of traumatic stress (Bell & Robinson, 2013).A review of the research on strategies for coping with the effects of trauma on the therapist include personal therapy and analysis (Bell & Robinson, 2013; Saakvitne, 2002), supervision (Bell & Robinson, 2013; Cohen et al., 2015; Tosone et al. 2012) and case consultation (Cohen et al., 2015), trauma-specific training (Berger, 2016; Cohen et al., 2015; Nuttman-Schwartz, 2015; Tosone et al., 2012), and debriefing (Dekel, 2010). The common thread running through each of these strategies, however, is a reliance on verbally processing the trauma with others. Although this may be helpful in some cases, we know from the literature discussed earlier on how PTSD presents clinically that verbal strategies are limited in dealing with fragmentation or interruptions in narrative memory and sensory, embodied effects. Thus, it follows that creative, body-based interventions utilized in art therapy with clients also can help art therapists cope with their own effects of shared trauma.

Bell and Robinson (2013) offer some research support for the above suggestion, noting that increasing self-care across mind, body, and spiritual realms of wellness may be helpful to

clinicians. In the cognitive and affective realm, journaling, creative writing, sand play, psychodrama, and art therapy all offer supportive practices. Keeping a healthy diet, getting sufficient sleep, and maintaining an exercise routine can be effective biobehavioral interventions, and relational strategies might include spending time with family, friends, and pets. Therapists who cope through spiritual self-care seek opportunities to connect with others through prayer groups or houses of worship, or spend more time in nature.

Art therapists specialize in the use of art making materials and processes to help express emotion, manage symptoms of mental illness, process traumatic experiences, and reduce stress. In the context of shared trauma, the experiences of existential dread, social isolation, loss, and changes in routine exacerbate feelings of anger and create a greater need for an outlet to sublimate these feelings. Without such an outlet, anger can become internalized, contributing to feelings of depression or externalized leading to outbursts or feelings of hostility (Bridewell & Chang, 1997). Robbins (1987, 1994) advised art therapists to deploy their knowledge of art materials as a form of therapeutic mastery in service of regaining their own and their client's sense of presence, grounding, and centering in the therapeutic relationship. For example, an art material's tactile qualities, such as grittiness, wateriness, softness, and hardness, may evoke "the touching emotional experience of being touched" (Robbins, 1994, p. 147), whereas the degree to which an image fills the space on the paper can reflect how the client and therapist are occupying and inhabiting their environment, or shed light on their exposure to physical and emotional dangers surrounding them, such as leaping into the unknown or experiencing vulnerability.

Another model for understanding and applying art materials that is highly relevant to this discussion is the Expressive Therapies Continuum, which Lusebrink (1990, 2004, 2010, 2014; Kagin & Lusebrink, 1978, Lusebrink & Hinz, 2016) developed over several decades in parallel

to emerging neuroscience. Lusebrink considered the interactions between the physical properties of the materials and the emotional and psychological experiences of the artist using them, positioned on three distinct levels between pairs of opposing qualities: *kinesthetic/sensory*, *perceptual/affective*, and *cognitive/symbolic*. Art materials and processes that "release tension, awaken the senses, elicit pre-verbal bodily memories, and establish healing rhythms" (Lusebrink & Hinz, 2016, p. 45) tap the kinesthetic/sensory level, which relates to emotional expression through the motion and sensations of the body. Materials on the kinesthetic end of this level support vigorous movement or resistance, whereas art materials on the sensory end of the continuum are fluid in that they yield easily. The perceptual/affective level relates to feelings of safety through structured, organized, or multi-step processes and with affective materials that evoke emotional responses to visual forms. On the cognitive/symbolic level, art materials can promote problem solving, understanding of techniques and processes, and meaning making, which are thought to activate brain functions involved in integrative working memory and emotional regulation. Together, these processes support memory work (Fuster, 2003), development of a coherent trauma narrative (Gantt & Tinnin, 2009), cognitive restructuring (Ford et al., 2013), and learning new coping skills (Crenshaw, 2006). The ETC provides a valuable conceptual understanding of how art materials support recovery in shared trauma, and with fiber arts specifically, as detailed in the next section.

A forerunner to shared trauma in the art therapy literature appears in early attention to vicarious trauma (Sweig, 2000) and the use of response art to process "strong reactions to the horror of their client's lives" (Wadeson, 2003, p. 208). For example, Wadeson described supervising a student who worked with clients who had experienced sexual abuse. The intern contained her anger, fear, and increased awareness of her vulnerability through the materials

used in quilting that she found to be “intrinsically soothing, both visually and tactilely” (p. 503) as well as rhythmic, methodical, and ritualistic. The quilt making’s clearly defined steps helped structure the processing of her emotions and countertransference.

One of the first accounts of using art to support therapists working within a shared traumatic reality is by Sherebrin (1991), who described how she assisted art therapists in Israel struggling with the anxiety and fear of ongoing missile attacks in the Persian Gulf War. During the workshop she conducted, participants made a drawing to represent their personal shield and a magazine collage on a folio envelope. These interventions were meant to depict the strengths that the therapists wanted to project to the world while also having a private, inner space (the inside of the envelop) for personal thoughts and feelings.

Jones (1997) provided another early account of shared trauma, though he did not use this term, when he responded to the Oklahoma City bombing in 1995. In the immediate aftermath, he and a team of therapists provided debriefing groups to survivors and families of the deceased. Jones (1997) recounted, “I felt the emotional stress immediately because, in the face of the breadth of emotional pain and devastation experienced by these individuals, the usual therapeutic responses seemed mundane and hollow” (p. 93). The overwhelming degree of loss by injury, death, and destruction necessitated new ways of working, using unconventional workspaces, focusing on one trauma or feeling at a time, and cultivating capacities for self-healing, self-direction, self-participation, comfort, and sharing. Not only did Jones suggest a number of art directives to help the survivors (including feeling maps, exercises to bridge pre -and post-trauma experiences, stress management techniques, grief and loss, survivors’ guilt, and self-esteem and confidence) but he completed them himself to manage his anger and sadness. Jones passionately

asserted the importance for art therapists to use their creativity to take care of themselves, “In your pursuit of self-care, always remember your ART!” (p. 93).

In the past 10 years, two studies have been conducted regarding the application of art therapy techniques to address shared trauma experienced by clinicians. Both studies were conducted in Israel with mental health professionals in the shared trauma of the Gaza–Israel conflict, ongoing since 2006. Huss et al. (2010) conducted research on the use of drawing for stress reduction with a sample of 22 female social workers (ages 25–38). They were asked to draw one of their experiences of the war in oil pastels, write a brief written reflection on it, and share this in a group discussion where they identified the main stressor, indicators of the stress response, and evidence of positive coping strategies and resilience. The researchers concluded that this process supported the participants in gaining a sense of control over their difficult emotions, promoted self-monitoring of their stress, and instilled hope through positive reframing and problem solving.

In 2014 a similar study conducted by Segel-Engelchin et al. (2020) combined cognitive behavioral and art-based interventions. The sample was somewhat larger and more diverse, with 51 mental health professionals, the majority of whom were female social workers. Participants made three oil pastel drawings: first a stress-related drawing expressing current thoughts and emotions regarding the war, then a drawing depicting personal and social resources for coping, and finally a drawing that integrated the stressor and resources into one image. The research suggested that the integration of stressors and resources into the same drawing may have reduced perceptions of threat and increased perceptions of the individual’s ability to cope.

The Value of Fiber Arts in Treating Shared Trauma

Dissanayake (2009) posited that artistic practices and rituals have been passed down generationally for centuries because they are needed for well-being, social cohesion, and emotional bonding. She emphasized that artistic behavior is especially important during trying times and periods of uncertainty and its accompanying anxiety regarding the unpredictably of life. Art and craft practices may similarly offer a source of comfort when such uncertainty and anxiety escalate into emotional distress. The accounts of refugees and survivors of war who turn to needlework and other textile craft making, finding formal art therapy not as amenable to their needs, offer a present-day example of such healing (Kalmanowitz & Lloyd, 1999; Kira et al., 2012).

Kaimal et al. (2016) analyzed data from 18,444 adults who responded to the U.S. National Endowment for the Arts surveys (2008–2012) and found that fiber arts, defined in the survey as weaving, crochet, quilting, needlepoint, knitting or sewing, was the most common form of craft for nearly all age and ethnic groups. The authors suggested that craft-based expression rooted in historical and cultural traditions "might be particularly helpful in reducing some of the resistance or anxieties around artistic competence of patients and clients" (p. 7), creating a safe entry-point into art therapy where appropriate.

Various surveys support this conclusion, including from people suffering from long-term illness (Collier 2012; Collier & von Károlyi, 2014; Kaimal et al., 2016; Pöllänen, 2015; Reynolds, 2000, 2002; Riley et al., 2013); individuals suffering from anxiety, depression, or eating disorders; community crafters; art therapists engaging in self-care (Burt & Atkinson, 2011; Clave-Brule et al., 2009; Corkhill, 2014; Dickie, 2011, 2019; Maidment & Macfarlane, 2009; Reynolds, 1999; Thomas et al., 2019) and survivors of trauma (Homer, 2015; Kalmanowitz & Lloyd, 1999; Kira et al., 2012). Some of this research comes from the field of art

therapy, whereas others are from related professions including recreation therapy, occupational therapy, social work, and nursing. Taken together, these surveys suggest that participating in knitting, textiles, needlecrafts, or other fiber arts may have numerous benefits including relaxation, autonomy, concentration, grounding, increased self-esteem, social support, and positive feelings, and reduced negative feelings. Although no causal relationship can be drawn from these collected findings, the authors have proposed that repetitive, rhythmic, creative activity may induce flow states which are experienced as pleasurable. Further, it likely that being in flow state distracts from problems such as illness, pain, or other stressors.

Research on the Benefits of Fiber Arts

The above research suggests that participating in knitting, textiles, needlecrafts, or other fiber arts may have numerous benefits, including relaxation, autonomy, concentration, grounding, social support, among others. From my review of a body of research literature on therapeutic uses of fiber arts, I identified six main categories of benefits: (a) to repair mood and/or process stress and anxiety, (b) to provide distraction from distress, (c) to support self-esteem, (d) to support well-being, (e) to reduce social isolation, and (f) to rejuvenate and produce a restorative state. Those who participate more or have a greater level of skill may reap the most benefits (Riley et al., 2013).

Fiber arts help process stress and anxiety. Within the topic of stress reduction, one pre/post random controlled trial by Abbott et al. (2013) evaluated four types of coping strategies for reducing stress: active artistic (drawing), passive artistic (art appreciation), active nonartistic (map puzzles), and passive nonartistic (viewing and answering questions about a map). Although all strategies reduced stress to some degree, the artistic tasks reduced stress the most. Further, even brief intervals of activity were found useful to reduce stress. However, the study only

involved mild stressors and may not generalize to more profound stress, such as shared trauma or PTSD.

In the realm of fiber arts, Reynolds (2000) examined the written narratives and interviews from 39 women needlecrafters (quilting, sewing, embroidery, and textiles) who had experienced depression. Most of the participants had taken up needlecrafts as an adult after experiencing a stressful event that necessitated finding a "meaningful escape from worry" (p. 110). The respondents identified needlecrafts as promoting mental, emotional, and physical relaxation through distraction from negative thoughts. They developed a new, positive experience from their crafting and found the process of slow, repetitive movements to be healing.

Another study by Reynolds (1999) poignantly detailed the case of a woman who engaged in counseling for her ongoing, unresolved grief after moving to a new home. In the initial stages of treatment, she identified the most to least distressing photographs of her former home and family that reminded her of the loss. Between sessions she studied the photographs with the understanding that this would habituate her to the images and eventually lessen the strong affect they induced. The client then decided to modify the task and selected a photograph to recreate as a tapestry. Stitching the image little by little exposed her to the image for many hours, allowing her to feel and process her anxiety, sadness, and grief. When she completed the image, she was able to have closure, observing that "the physical frame held much more than stitches. The stitching process permitted disengagement from yearning and regret while creating a physical marker of the past," (p. 170).

Reynolds (2002) extended understanding of the function of symbolic meaning in needlecraft with women coping with a long-term illness. Analysis of the data revealed the themes of suffering, changed feelings about the experience of illness, and a shift from an "empty

present" to a fulfilled life with mastery over the effects of the illness, as well as religious or spiritual values, transcendence, and a new, positive self. Corkhill (2014) traced the metaphorical value of knitting in her study, finding that the process "visually reflects the ethos of breaking tasks down, of taking one step at a time—each stitch you make represents a successful step towards the end of the row and each row is a step towards your goal" (p. 51).

Fiber arts provide distraction from distress. A beneficial source of distraction has been reported by fiber and textile crafters (Collier, 2014; Reynolds, 2000). Clave-Brule et al. (2009) studied the effects of knitting in 38 inpatients being treated for eating disorders. A large majority of the participants (74%) reported increased relaxation and distraction from eating-disordered thoughts and feelings. Knitting also appeared to prevent eating-disordered behaviors as another benefit. This is significant because anxious preoccupation with weight, body shape, and eating, is a central feature of anorexia nervosa (Sunday et al., 1995). If preoccupation can be disrupted it may support improved treatment outcomes.

Fiber arts increase self-esteem. Seeing projects through to completion may also increase confidence and self-esteem (Corkhill, 2014). Respondents in Reynolds' (2000) study described the process and product of needlecrafts as providing them with evidence of a healthy self-identity even in the face of illness or disability. The products of their craft provided a visible record of achievement, self-expression through creative decision-making, praise from others, and functional skills that transferred to in other meaningful contexts such as charity work or teaching. Crafting processes that facilitate flow states may distract from physical pain, daily stressors, and other challenging circumstances (Dickie, 2011).

Fiber arts support well-being. The use of fiber arts to enhance well-being is a major finding in the literature. Burt and Atkinson (2011) studied the positive impact of quilting on

well-being in a study of 29 women participating in quilting groups in the Glasgow area. The sample consisted of women who were primarily British, White, middle class, and middle aged or older, with 1 to over 30 years of experience as a quilter. In addition to improved mood and increased confidence, well-being was noted through affirmation by members of the group and having a purposeful end product. Maidment and Macfarlane (2009) studied whether participating in crafting groups in a small sample of older Australian women affected their well-being. Findings suggested numerous benefits to well-being, including providing mutual aid, learning new skills, reducing isolation, affirming individual and collective strength and wisdom, and normalizing concerns around health and family. The "formation of new friendships around their love of craft engendered a much-needed sense of belonging at times when they had felt isolated during important life transitions" (p. 21).

Contributing to charitable endeavors is another common outcome of fiber arts practice, such as making comfort cushions for cancer patients undergoing chemotherapy, created opportunities to matter to others. Altruism is thought to shift an individual's perspective from the one who receives help to that of a helper (Holmes & Kivlighan, 2000). Altruistic behavior may provide the giver with access to social support and other resources, which may act as a buffer against stress, engender empowerment, and provide emotional gratification (Hinterlong et al., 2007). These benefits may in turn improve health and well-being.

In 2001 and 2002 Dickie (2011) observed, from a 2-year ethnographic study of 18 quilters in North Carolina, two distinct types of therapeutic quilting: *mundane therapy* and *exceptional therapy*, each with different precipitants and purposes. Mundane therapy was used without much thought, primarily to smooth over daily concerns, keep one's hands busy and pass the time, and provide a break from tension. In contrast, exceptional therapy utilized the process

of quilting as a direct response to distressing events, particularly as an attempt to express feelings and share a story or to help others who had been similarly affected. The researcher suggested that the flexibility of quilting as both a mindless daily routine and at other times purposeful and expressive can provide well-being and a sense of control. Quilting groups appear to support well-being by meeting three basic needs: competence, autonomy, and relatedness (Ryan & Deci, 2000).

In her work as a physiotherapist Corkhill (2014) started using knitting as a means to motivate her patients to move their whole bodies and engage in wellness activities. She anecdotally noted improvements in her patients' overall well-being and began to collect and analyze narratives from those who participated in knitting. She identified several areas that participants said were improved by engagement in therapeutic knitting: reduction of social isolation and loneliness, worry, fears, stress, and feelings of worthlessness; provision of rewarding occupation, improved self-esteem, and confidence; and changed or recovered identity. Central to her theory is the idea that wellness comes from active engagement rather than passivity and engagement in the process of knitting is more important than the product.

Fiber arts reduce social isolation. Art therapists Thomas et al. (2019) described their participation in a group process called "#stitchaday" for self-care and a means to maintain social connection with each other remotely. #Stitchaday is a hashtag popular on the social media platform Instagram and refers to visual journaling through embroidery, usually every day for one year. Although such crafting is often solitary in nature, hashtag users find others engaging in a similar artistic process for both inspiration and social support. After a year of engagement, the researchers observed that daily stitching had encouraged them to connect with themselves and

each other, held them accountable to sustain self-care, and helped them process difficult experiences in order to let them go.

Reynolds (2000) identified social support among fiber artists in the study who used the process to connect with groups, classes, friends, and family. According to Watson and Hall (2001), craft group members often build social capital though their participation in neighborhood and community activities. Likewise, they build human capital by developing new skills and psychological capital by making friendships and strengthening relationships. Crafting in a group may also reduce isolation, create a sense of belonging (Yalom, 2005), increase confidence through affirmation, which provide opportunities to feel as though one matters.

On this latter point, Corkhill (2014) described how the qualities of knitting may facilitate group participation among participants who have experienced interpersonal trauma and have difficulty trusting others due to past injury or betrayal. By being able to have eye contact or not, as when one looks at or up from fiber art making without stopping, the participant may feel a greater sense of safety in the group setting. Additionally, the soothing qualities of knitting may allow patients to feel more comfortable around people whom they have not met before, such as members of a group. “Knitting not only enables those first steps in socialization but it enables people to access the therapeutic groups they may need” (p. 40). When fiber arts incorporate familiar, culturally accepted activities within a marginalized group, shame and guilt from stigma may lessen (Kira et al., 2012).

Some of these benefits of group participation through fiber arts may be explained by the phenomenon of coregulation (Butler & Randall, 2013). Coregulation refers to the use of one individual’s capacity to self-soothe in the service of another, which helps keep the intensity of emotional arousal within a person’s “window of tolerance” (Siegel, 2010). That is, the nervous

system of one person helps to calm the nervous system of another. Coregulation often occurs in parent-child relationships, friendships, romantic partnerships, and other close relationships. Over time, people in coregulating relationships can experience a sense of comfort just by being in proximity to one another, resulting in greater emotional stability (Sbarra & Hazan, 2008).

Fiber arts are restorative and rejuvenating. A study by Riley et al. (2013) found a positive correlation between frequent knitting (at least three times per week) and feeling calm and happy, as well as being able to organize thoughts, forget problems, and concentrate. They concluded that knitting produces such benefits because, as a "rhythmic yet skilled process," it "has the potential to induce flow, free up thinking and promote reflection" (p. 56). Knitting also provides an outlet for creativity and opportunities for self-sufficiency. Handcrafters who responded to a survey (N = 435) by Collier and von Károlyi (2014) that compared personally expressive and non-expressive activities found that activities that were more engaging and arousing were more likely to be experienced as restorative and rejuvenating.

Art makers who experience flow, mood repair, and self-realization of values as an outcome of their craft making have been described as undergoing *textile rejuvenation*: a feeling of being "restored, renewed, and ready to start anew" that continues well beyond the immediate participation in textile activity (Collier and von Károlyi, 2014, p. 475), although whether this is a result of greater than average levels of mastery in textile techniques has not been tested. The Collier and von Károlyi (2014) survey also suggests that fiber arts are a *restorative occupation* (Howell & Pierce, 2000). Restorative or restful occupations support rest, relaxation, and renewal of energy reserves, which may have physical, cognitive, and mental benefits. These restorative qualities may derive from the combination of focused attention and engagement with pleasant, tactile sensations along with the symbolic and social significance of finished pieces. Sleeping

under a quilt, wearing a hand-knit sweater, or donning a crocheted hat may promote feelings of safety, security, and feeling cared for. There is satisfaction in being able to engender these feelings in another person, as when one gives their quilt away as a gift.

The use of needlecrafts as a form of self-soothing at home was reported in a group of Sub-Saharan African women (Kira et al., 2012) that combined psychoeducation, group discussion, and knitting, crochet, quilting, and sewing activities. The facilitators reasoned that the calming, soothing, and normalizing processes of culturally expressive fiber arts would be beneficial. They observed that while the women were crafting, they interacted with one another "just as one might on a visit to a friend. Within this context, the shame and guilt they might otherwise feel when thinking or talking about many issues are diminished" (p. 81).

With the exception of the Kira et al. (2012) study, a limitation of the above cited research is that the samples were primarily composed of participants who identify as White, female, and of North American or British ethnicity. As such, the same benefits may or may not be found in more diverse populations, including people of color, people from the Eastern and Southern hemispheres, and individuals identifying as male. The surveys also rely primarily on self-report data, which have the potential to be inflated (Chan, 2009).

Why do People Knit?

In her survey of almost 900 women who participate in textile and fiber arts, Collier (2012) sought to discover why so many people, particularly women, choose to engage in textiles or fiber arts. As validated by the studies reviewed above, the main reasons the women offered were that textile crafts fulfilled aesthetic needs, helped them feel grounded, reduced negative feelings and increased positive feelings, provided distraction, promoted social engagement, and connected them to a cultural heritage. A subset of the respondents reported that they never

engaged in textiles when upset, however, because “the making of textiles should only be done when positive energy and thoughts could be transferred to the object being made” (p. 53). This distinction challenges the common assumption that textiles are universally accepted as a coping strategy to manage stress or improve mood.

Similarly, Pöllänen (2015) asked Finnish crafters (ages 19–84) to describe the meaning of craft making in their lives and whether and how it increased their well-being. Consistent with the research on the benefits of textile arts, seven elements were identified: it promotes a sense of achievement and personal growth, developed skills, helped to control the crafter’s emotions and body movement, provided soothing sensations from the raw materials, the artefacts produced, and the connection to the social/cultural dimensions of their craft. “Crafting helped the writers to calm down or adapt to stressful situations that were beyond their control” (p. 68) and this may provide an emotional escape during periods of illness and lead to a sense of empowerment through self-management. The processes in fiber arts that ameliorate these stress responses will be examined next.

How Fiber Arts Reduce Shared and Other Traumas

Studies of fiber arts have suggested that induction of *flow states* may be a key therapeutic quality of fiber arts (Burt and Atkinson, 2011; Collier & von Károlyi, 2014; Dickie, 2011; Riley et al., 2013). While no causal relationship can be drawn from these collected findings, their authors have proposed that repetitive, rhythmic, creative activity may induce flow states, which are experienced as pleasurable. Further, it is likely that being in flow state distracts from problems such as illness, pain, or other stressors.

Huotilainen et. al (2018) proposed a model for understanding how artmaking and crafting promote flow while controlling traumatic stress. Physiological arousal can be mapped on a U-

shaped curve: at the top left is the fight or flight response, juxtaposed by the beneficial flow states at the top right; in the trough at the bottom of the U is the low-arousal state of sleep. Both the negative arousal of trauma and the positive state of flow require highly energetic states. The authors posited that engagement in simple, repetitive craft activities, such as knitting, maps onto the model in that they are activities that foster physiological regulation by helping the maker move up or down along the U-curve.

As an example, keeping the hands engaged in a simple activity while listening has been shown to support learning and focus (Andrade, 2010). It appears that working with the hands maintains a continuous level of arousal and prevents hypoarousal or falling into the trough of the U-curve (Huotilainen et al., 2018). Alternatively, in stressful situations where the body is hyperaroused, engaging is familiar, simple, repetitive activities may help the individual move from a high state of energy to a lower one that is farther down the U-curve. Embodied cognition may be regulated by such activity. As Huotilainen et al. explained, “the body knows how to relax” with fiber craft activity, as it can “override the negative, arousing, threatening thought loops circulating in the conscious mind” (p. 12).

Achieving a state of flow, however, may take practice (Huotilainen et al., 2018). To maintain flow, the brain activates two systems of information process, one explicit and one implicit (Dietrich, 2004). According to Dietrich (as cited by Chilton, 2013), the *explicit information processing system* involves higher order thinking in the prefrontal region and medial temporal lobe of the brain. These structures support the acquisition, representation, and implementation of knowledge processed with words in conscious awareness; they are dominant when first learning a new skill because each step requires conscious attention. In contrast, the *implicit information processing system* involves regions of the brain that store skills and

experience-based information nonverbally. This system is dominant while engaging in activities that seem automatic, such as walking, driving to a familiar location, or engaging in a familiar hobby. The implication for fiber arts is that the capacity for flow states comes with practice, making the shift from conscious involvement in complicated steps to automatic movements. Novice knitters, in contrast, "need to apply conscious effort and engage in less demanding tasks to be able to reach flow and to avoid the anxiety and frustration that may arise from overwhelming challenges" (Huotilainen et al., 2018, p. 11).

Considering Houtilainen's U-shaped model in response to a threat or traumatic event, we know that the individual first attempts to use their logical reasoning to respond to the situation (Tinnin et al., 2002). If this fails, automatic processes take over the highly aroused state by activating the fight or flight response. If this also fails, the freeze response takes over. During this process, one's state of mind is altered to such a degree that "verbal consciousness fails," resulting in fragmentary memory that may be out of temporal sequence and without coherent narrative (Tinnin et al, 2002, p. 150). Increased activation of the posterior cingulate cortex is implicated in this response (Frewen, & Lanius, 2006) as is reduced interhemispheric communication (Parker et al., 1999). Emerging from the freeze response, the individual may display submissive or automatically obedient behavior. This state can persist long after the event has ended, appearing as depression, depersonalization, or compulsive behavior. Following the traumatic event, emotions, memories, and perceptions may remain disorganized and without a verbal narrative; there are simply no words available (Gantt & Tinnin, 2009). Gantt and Tinnin (2009, p. 151) explained that "trauma is a nonverbal problem; hence a nonverbal resolution is in order."

Although the trauma response, thus, is rooted in the earliest, most primitive areas of the brain, established procedures tend to focus on higher-level cognitive processes as the starting point for treatment. For example, cognitive behavioral intervention (CBI) utilizes not only physical relaxation but psychoeducation, learning of rational self-talk, cognitive restructuring, and imaginal exposure. Imaginal exposure is the process of recalling memories of feared events in vivid detail. Exposure to anxiety producing stimuli, along with guided prompts to lessen the severity of the stimuli through rescripting, is designed to help a person habituate and lessen their emotional response over time (Arntz et al., 2007). The goal is to temper and restructure traumatic memories so that they are more tolerable and integrated.

There are art therapy correlates to CBI interventions but they are achieved through different neural pathways (Hass-Cohen & Carr, 2008; Sarid & Huss, 2010). First, manipulation of such materials as found in fiber arts provides sensory engagement through tactile and visual stimulation. This activity correlates with imaginal exposure in CBI; however, instead of imagined sensory cues experienced primarily in the mind, art materials provide actual sensory stimulation that can be manipulated in the real world. Second, modulation and reframing of traumatic memories occurs primarily through imagination in CBI, such as changing the size or position of elements of the memory during rescripting. In art therapy this happens through adjustments in the physical piece of artwork. Whereas in CBI reframing and modulation can be a back and forth process, in art therapy the process is more sequential. An image is made, discussed, and physically adjusted as needed. The art provides sensory stimulation, which supports emotional expression, and later cognitive restructuring. In this way, CBI functions from the “top-down” in terms of brain functions that are engaged in processing trauma (Safran & Greenberg, 1991), whereas art therapy works from the bottom-up (Albright, 2017).

Top-down processes proceed from cognition or using thoughts to accessing feelings and then to accessing bodily sensations (Kahneman, 2011). This sequence may prove difficult in the case of trauma. Because the traumatic events overwhelm the individual's ability to cope, the memories of these events bypass the usual cognitive and verbal pathways in the brain. Instead, memories are believed to be stored in fragments of sensory information (odors, sounds, feelings in the body) that may not make coherent sense or have a clear narrative to explain and integrate them (van der Kolk, 2002, 2015). Bottom-up processing, in contrast, accesses body sensations from the sensorimotor cortices first and then proceeds to emotions in the parietal cortices, and finally thoughts in the prefrontal cortex (Kahneman, 2011; Lusebrink & Hinz, 2016). Changes in the brain due to the trauma may also lead to alexithymia. Art making, particularly fiber arts, support bottom-up processing, which takes the opposite route.

Art making and especially modes that require touch are valuable in integrating the fragments of the trauma narrative because they appear to access memories encoded in the body through physical sensations and movement (Sholt & Gavron, 2006). Before we as human beings develop the ability to use words, our sense of touch is our primary language and means of experiencing the world. The gentle touch of a caregiver in early life contributes to feeling protected, accepted, comforted, and loved (Bowlby, 1952; Harlow, 1971). Although physical maturation during puberty may limit opportunities for physical contact due to sex roles, the need for contact comfort does not disappear with age. Deprivation because of isolation and societal taboos around touch may cause *skin hunger*, a profound need for human contact (Hall, 1966). Thus, tactile materials that engage one's sense of touch often bring into awareness earlier memories of being touched. If these memories are positive, feelings of calm or self-soothing are activated. If they are negative, they will at least be available for expression, processing, and

catharsis (Sholt & Gavron, 2006) rather than buried within the incoherence of trauma. The risk with clay and other fluid materials, however, is the possibility of eliciting overwhelming affect without sufficient containment, leading to emotional flooding.

Art therapists have also developed trauma treatment protocols based on Herman's (1997) triphasic model for trauma recovery and the neurobiology of fear and resilience. For example, Hass-Cohen et al.'s (2014) *Check* protocol achieves three tasks crucial for trauma recovery: (a) establishing safety, (b) remembering and mourning the event(s), and (c) reconnecting with self, others, and ordinary life (Herman, 1997). The first directive of the protocol, that of drawing an autobiographical timeline of the traumatic event, addresses the primary need of the trauma survivor to establish safety by beginning to situate the events in the past rather than the present. The next tasks, in which the participant creates an art image of the traumatic event or part of the event, titles the work, and then alters the image, address the task of remembering and mourning the events. Hass-Cohen et al. also posited that this process helps clients develop a greater internal sense of control and emotional awareness while reducing arousal and/or dissociative responses. The final tasks, in which images of personal strengths and an optimistic future, are drawn, are intended to promote resiliency crucial for reconnecting with self, others, and ordinary life.

Another aspect of art therapy that is deployed to treat trauma incorporates neuroscience-based protocols to promote bilateral integration of right and left hemispheres of the brain (Hass-Cohen & Carr, 2008; McNamee, 2006; Talwar, 2007) to which fiber arts may be particularly well suited. The process of using both hands may "stimulate memories and experiences that reside in both sides of the brain" (McNamee, 2006, p. 232). Linkage of visual and tactile sensory systems across the hemispheres is thought to support organized processing of sensory, emotional, and cognitive information necessary to self-regulation and an integrated sense of self (Siegel,

1999). Likewise, integration of traumatic experiences requires bilateral connections between the frontal lobes, especially within the prefrontal cortex (van der Kolk 1994 as cited in Talwar, 2007). Nonverbal expressive therapies, such as art, poetry, drama, dance, and music, support this achievement through different pathways.

Certain visual art media accesses nonverbal material through kinesthetic and sensory pathways (Lusebrink, 2004). According to Corkhill (2014, p. 30), knitting is one such "bilateral, rhythmic, psychosocial intervention." Due to the complexity of neural activity required by this process—the incorporation of sensory information, bilateral movements crossing the midline of the body, counting, and following a pattern—it leaves little capacity for other thoughts, including negative, ruminative thoughts associated with anxiety, depression, and trauma. Once knitting is learned, many of these movements become automatic, which may also help displace negative ruminations and allow patients to "switch off self-monitoring," allowing for deeper conversation when knitting in groups (p. 36).

Relatedly, tactile materials work on the kinesthetic/sensory levels of the Expressive Therapies Continuum (Kagin & Lusebrink, 1978) described earlier. Knitting, for example, is a kinesthetic process involving repetitive, physical movements of the hands and eyes (and even limbs in the case of arm-knitting). Knitting's sensory component on the continuum is dictated by the unique properties of the fibers being used that includes the texture (soft, smooth, rough, etc.), color or colors, and even the smell, particularly with homespun yarns and natural fibers. The sensory qualities of the yarn may prompt an affective or emotional response, which may be mediated by the kinesthetic motion which helps to lower tension and release energy. Moon (2011) highlighted this paradox of fiber arts, noting that they are quiet, controlled, ordered activities associated with femininity, domesticity, and nurturance while also involving aggressive

movements with sharp tools. This duality may provide latitude for promoting either restorative flow experiences or more energetic release.

Knitting is also a highly structured process with multiple steps and a clearly defined form. As such, it can promote movement throughout the ETC, engaging brain functions that support trauma work. The balance between kinesthetic/sensory, perceptual/affective, and cognitive/symbolic qualities may provide access to difficult affect in a structured, contained manner that prevents emotional flooding. Access to sensory, visual, and kinesthetic pathways may support both creative expression and re-integration of neurological structures.

Finally, fiber and textile arts can be applied to Perry's (2006) Neurosequential Model of Therapeutics in the treatment of trauma. Homer (2015) facilitated collaborative fabric collage making with a young adult survivor of childhood sexual trauma along these principles. Although the model was originally designed to treat traumatized children, she reasoned that, as a neurodevelopmental intervention that addresses self-regulatory needs, it does not apply only to children; "untreated developmental interruptions caused by trauma do not disappear with age" (p. 26). The process of creating the fabric collage addressed early developmental experiences, making it *relevant* to the client's needs. It was *repetitive* in the context of their long-term therapeutic relationship and work across multiple sessions. The soft, tactile materials used, the *patterned* and *rhythmic* process of hand-sewing, and one-to-one collaboration with the therapist all provided nurturing attunement, the sum of which may have helped reorganize dysregulation in the brainstem. By addressing the earlier developmental needs of the client through the collaborative process, Homer suggested that they developed improved capacity for self-regulation, which would support development of narratives, social experiences, empathy, and interpretation of nonverbal cues moving forward.

Summary

Taken together the literature suggests that fiber arts can be leveraged across both community and clinical contexts to treat trauma along a number of different needs and pathways. They are used in the context of self-care to manage daily stressors as well as the distress caused by significant life events, loss, and trauma. The rhythmic, bilateral processes required in fiber arts may support healing from trauma by reducing ruminative thought, supporting greater tolerance of negative affective states, and reorganizing critical brain structures impacted by traumatic experiences. Participation in fiber arts may also induce healing though a flow state, which can distract from stress while integrating brain functions and processing systems. Such qualities as flexibility, control, and familiarity with the material, can be tapped to support engagement in therapeutic groups, where anxiety, introversion, or internalized shame may otherwise create a barrier to seeking help. Crafting in a group may also reduce isolation, create a sense of belonging (Yalom, 2005), increase confidence through affirmation, and provide opportunities feel as though one matters. Therefore, fiber arts may be an ideal intervention for art therapists working within a shared traumatic reality to help self-regulate disrupted physiological states, manage stress, and process their experiences both for their wellness and support ongoing work with clients during the crisis.

CHAPTER 3: DESCRIPTION OF THE RESEARCH PROJECT

As an art therapist who has experienced multiple shared traumas firsthand, I observed that the immediate impacts of a shared community disaster are highly disruptive both personally and professionally. It is challenging to be emotionally present for clients when, as the clinician, you are also feeling unsafe, ungrounded, and dysregulated. As the research literature on shared trauma makes clear, therapists who are struggling with the emotional strain of working in a shared traumatic reality with their clients risk suffering the symptoms of posttraumatic stress, using negative coping strategies, or even leaving the field to pursue other careers. However, current treatment recommendations for shared trauma have focused primarily on verbal modes of processing experiences. The few studies that shed light on how the use of art materials may mitigate shared trauma did not ask for participant involvement or their perspective on whether their art making was effective. Thus, in an environment where shared community disasters may be more likely to occur, art therapists need a thorough understanding of shared trauma and coping strategies tailored to the creative strengths of clinicians and the nonverbal core of trauma to maintain. Such preparation will support their personal well-being as well as their efficacy and longevity in the profession.

Research Problem Statement

The purpose of my study was to understand the phenomenon of fiber arts and their potential application for art therapists who work in a shared traumatic reality with their clients, which would provide first-hand data from which to develop a training manual for clinician self-care. I reasoned that art therapists who had experience with shared trauma were in the best position to research what works and why, giving the training manual a foundation in evidence from the field. This insight was particularly timely, given that the COVID-19 pandemic of 2020–

21 was creating the conditions of shared trauma for practicing art therapists, art therapy students, and educators at the onset of my doctoral dissertation year. I posited that shared trauma may be more readily processed through the use of tactile materials, and fiber arts in particular. The following questions guided the project:

1. What is the experience of fiber arts during shared trauma?
2. What are the strategies that art therapists can use to reduce the signs of shared traumatic stress in themselves in order to continue working with clients who share the trauma?

Research Design

To conduct the study, I used a heuristic methodology (Moustakas, 1990) that would focus on the participants' own experiences with the properties of fiber arts in the context of their shared trauma. The defining characteristic of heuristic inquiry is the intentional use of self-awareness to discover new, in-depth meaning about an intensely experienced phenomenon (Kapitan, 2018), which was especially appropriate for the context of the pandemic that encompassed the study. Although in-depth meaning is derived from an internal frame of reference, where all of one's sensory, emotional, perceptual, and critical experiences come into play, "it is the combination of *shared* reflections on personal experience and intensity that creates new discoveries and essential understandings" (Moustakas, 1990, as cited in Kapitan, 2018, p. 193). Thus, the study methodology offered an opportunity not only for a meaningful exploration of an important experience but also for a collective experience that could be experienced as healing for the participants.

There are typically six phases in the heuristic research process (Moustakas, 1990): (a) initial engagement (asking the question), (b) immersion (participation), (c) incubation (reflection), (d) illumination and explication (gathering and analyzing data), (e) creative

synthesis (putting together the information in a new way), and (f) dissemination (sharing the findings), detailed below. In this heuristic study, the participants were regarded as co-researchers in their mutual exploration of the research question as equals.

Another consideration in the research design was trauma-informed care. Given the subject, I needed to incorporate two key principles from the trauma literature: the fact that emotional expression without containment can lead to flooding and even re-traumatization, and that building an individual therapeutic alliance may not be appropriate during a time-limited intervention. Therefore, the heuristic structure had participants begin with a bodily and emotional experience in their individual art making and then translate this experience as a group into a cognitive product, thereby mirroring the bottom-up processing necessary to trauma treatment.

Participants

The Institutional Review Board of Mount Mary University reviewed and approved all procedures before the study began. The inclusion criteria for the study's small convenience sample were: (a) art therapists or art therapy educators, (b) who were currently working with clients or students, and (c) who self-identified as experiencing the shared trauma of the COVID-19 pandemic. To bound the art therapy practitioner perspective on the study topic, individuals who were not working with clients, did not identify as having a shared trauma, or were working in other mental health fields such as social work or psychiatry were excluded from the sample. Mental health professionals without art therapy training were excluded because the use of art materials for therapeutic purposes is outside of their scope of practice. Students were excluded from the sample due to their vulnerable status and the limited support that could be offered to them remotely. This decision concerned students' limited training or practice experience with

trauma and the possibility of distress when exposed to the trauma narratives of practitioners in the study sample.

Participants were recruited through calls for participation that were sent to email list-servs of local chapters of the American Art Therapy Association (AATA) and a national message board sponsored by the AATA. Of the interested responders, 11 individuals met the inclusion criteria and committed to participate. Participants were located in the West, Pacific Northwest, Midwest, and Mid-Atlantic regions of the United States, and Ontario and Quebec provinces in Canada. Participants ranged in age from their 20s to their 60s. They all identified as cis-gender women.

Informed Consent Procedures

Prior to beginning the study, consent was obtained after participants were informed of their rights and responsibilities (Appendix A). Because the participants in the study were clinicians experiencing shared trauma, I also provided them with the contact information for crisis hotlines in the event they required further mental health support. Prior to the start of the focus groups, I obtained consent, scheduling preferences, and demographic information from the participants. Specifically, I sent the participants the consent form via email, which they signed and returned it to me (also by email). I then assigned participants to a morning, afternoon, or evening focus group based on their rank-ordered preference at the time they provided consent. Participants completed a demographic survey about their age, gender identity, professional status, and geographic location through Google Forms. Users completed the survey without providing identifying information (e.g., name or email address) in order to maintain anonymity.

Data Collection

Data collection in a heuristic research study typically begins with initial engagement with the study question, which the recruitment and consent procedures facilitated in this case. I then primed participants for creative immersion stage of the research by sending an email with the following instructions for their media exploration:

Art Making. "For the next five to ten days you will be engaging in art making. The exact amount of time you spend is up to you. To immerse yourself in in this process, it may be helpful to schedule a set time and place that is free of distraction. If this is not possible, you may choose to break up the art making time into shorter blocks during your day or minimize distractions as much as possible given your particular circumstances (closing the door, listening to music with headphones, etc.). When you are ready to begin, take a moment to bring your attention inward. You might do this by gently stretching, taking a few deeps breaths, or simply setting an intention for your art making today."

Reflection. "After you have completed the art making experience, please set your pieces aside for one week to allow yourself an opportunity to gather your thoughts. Then, setting aside some time and space for reflection, please consider the following questions and journal your responses:

"What was your experience of creating in fiber arts for this study?

What qualities of the experience stand out for you?

What feelings and thoughts arose for you during fiber art making?

What were you aware of that was happening in your body when you were creating? Were there any shifts in your body that occurred and, if so, what were they?"

After their art-making period and before the start of the focus groups, the co-researchers completed another Google Form responding to the prompt:

> "Now step back from the moment and reflect on the entire experience. If you were to identify six qualities or characteristics of fiber arts that are important for this time of shared trauma during COVID-19, what would they be? For this last question, please limit your response to one word or a brief phrase."

Again, the participants submitted their responses anonymously as they did not submit identifying information (name, email address, etc.) along with their answers.

I engaged in the same data collection procedures, described above, in the role of co-researcher. I designed the instructions to encourage consistency in their engagement in artmaking, although the exact duration was left open to accommodate the working schedules of busy professionals. I also reasoned that this flexibility would better approximate the actual experience of creating art for self-care outside of a research setting.

To encourage the incubation phases of the inquiry I asked the co-researcher participants set their art making aside for 1 week. Illumination and explication phases of heuristic research were primed by instructing them to review and reflect on the body of artworks they had made in response to their shared trauma and to identify six qualities of fiber arts that they experienced as characteristic of their process. I collected these qualities via a Google Form and compiled them by typing all of the properties onto a single page, omitting duplicates, prior to the first round of focus groups.

Data Analysis

Data analysis was facilitated with a focus group format, which I conducted online via the Zoom platform and video recorded for later review. For the first round of focus groups, I assigned each of the 11 participants to one of four sessions that took place at a time convenient to them. To begin the focus group session, participants introduced themselves to each other and

either showed or briefly described the artwork they had made during the immersion phase. Next, we completed a *card sorting task* (Nielson, 2004; Tullis & Wood, 2004; Wood & Wood, 2008). Specifically, I shared my screen with a list of all the characteristics of fiber arts that I had collected from the co-researchers' written reflections sent before the focus group session. I read aloud the list on the screen. Next, I asked the participants to identify their top six characteristics that most accurately described their heuristic experience. To do this, I asked them to type the most important quality in the chat box. Once all the participants responded, I asked them to type the second most important quality in the chat box. We proceeded in this fashion until the participants had identified six qualities from the aggregated list. As a data analysis method, card sorting is used to organize disparate data into hierarchies; in this case, the qualities of fiber arts that the participants found to be most important to them in the context of shared trauma. Finally, everyone read through each other's lists and brainstormed art therapy directives that fit with the identified characteristics. For example, for the tactile characteristic participants in one group thought of papermaking and papier mâché.

Following each focus group, I reviewed the recordings of the sessions against my written notes to ensure their accuracy. To organize the data from the card sorting task into a rank-ordered top ten list, I assigned to the responses a numeric value that was calculated as follows:

6 points each time the quality was listed as the most important by participants.

5 points each time the quality was listed as the second most important by participants.

4 points each time the quality was listed as the third most important by participants.

3 points each time the quality was listed as the fourth most important by participants.

2 points each time the quality was listed as the fifth most important by participants.

1 point each time the quality was listed as the sixth most important by participants.

0 points if the quality was not brought up by participants during the focus group. After calculating the values for each quality, I ordered the qualities from those with most to the least points. The ten qualities with the most points were presented to the subsequent focus groups.

For the second round of focus groups, only eight co-researchers were able to attend, due to illness or family emergencies. Therefore, I assigned participants to one of only three sessions. First, to begin the session, I presented the results of the card sorting data from the previous session. This information was displayed on a screen share, read aloud, and typed into the chat box. Next, we reviewed the art directives that each focus group had suggested at the end of the first session. This was achieved by displaying a typed list of the art directives on a screen share. Group 1 reviewed the suggestions from Groups 2, 3, and 4. Group 2 reviewed the suggestions of Groups 1, 3, and 4. Group 3 reviewed the suggestions from Groups 1, 2, and 4. As participants read through the lists they matched the directives produced by the other focus groups with the quality or qualities that they felt best matched. This process provided triangulation in the data analysis and supported the heuristic inquiry principle of shared reflections as the basis of a study's valid findings.

Following the second round of focus groups, I reviewed the recordings of the sessions against my written notes to ensure their accuracy. In the initial data sort, I divided the lists of directives into three broad categories: media-specific interventions (i.e., a particular media was specified, such as knitting or painting), general interventions (i.e., a way of working with many types of materials, such as working within a tray), and non-art interventions (e.g., baking, assembling puzzles). Within the media-specific interventions category, I grouped interventions by media type (e.g., "hoop art," "stitching on a painted surface," and "stitching on a photograph"

were placed under the category of "embroidery"). Once the directives were in the broad categories, I added the matched qualities of fiber arts suggested in the focus groups. From here, I looked for patterns and similarities across media. This resulted in the formation of further categories including piecing (quilting, collage, mosaic, beading, and puzzles), process (e.g., folding fabric, ripping/cutting fabric), recycling, and regressive media.

In a second round of sorting, I recategorized the directives using the qualities of fiber arts as the headings. During this process, I found that some of the qualities overlapped almost completely. For example, all of the activities that participants identified with the quality of being natural were also identified as being grounding. As a result, I was able to consolidate the categories down to a final list of six qualities of fiber arts, listed below with the category in bold and the collapsed qualities following it:

1. **Grounding** / Natural
2. **Tactile** / Soft / Touchable
3. **Rhythmic/** Repetitive / Meditative
4. **Structured** / Methodical / Holding / Slow / Focused
5. **Social** [Community Building / Invoked Memories]
6. **Practical** / Productive / Satisfying

The final phase of heuristic inquiry is a creative synthesis, which brings the researcher's emergent, tacit knowing of the study concern into alignment with the rich data and findings to produce a coherent presentation of their in-depth meaning (Kapitan, 2018). As the primary researcher, I produced creative synthesis by reflecting on the study as a whole and created artwork to represent the findings. This synthesis continued as I integrated the findings into the training manual presented in the next chapter.

Validity and Ethical Considerations

The study design presented some particular challenges with regards to research ethics and the rights of human subjects. Conducting research through an online format requires added precautions to protect confidentiality. To mitigate this risk, I took steps to ensure participant anonymity, including sending individual rather than group emails to the participants and utilizing the confidential mode in Gmail that prevents participants from forwarding, copying, printing, or downloading the message. This also prevents unintended disclosure of their participation to others, and not including descriptors about the research study in the subject line of email. I also collected demographic data separately from any identifiers, such as name or email address, to maintain anonymity. I safeguarded the recordings of the focus groups by storing them on a separate, password-protected hard drive.

Another, less apparent risk, included the potential for emotional discomfort while making art or talking about the experience of shared trauma. Although the hypothesis of the study is that fiber arts may help mitigate the emotional burden of shared trauma, the emotional response elicited by tactile media could have been distressing. To manage this risk factor, all participants were alerted to the potential negative consequences and provided with the contact information for the Disaster Distress Helpline and SAMHA's National Helpline for immediate assistance if they did not already have professional supports in place.

To ensure an equitable risk-benefit ratio, I considered how participants might benefit from their participation both during and after the study. I reasoned that immediate benefits of participating in the study were the opportunity to set aside time to attend to self-care and to connect with other art therapists who had similar experiences. The focus groups also provided opportunities for participants to learn from each other by sharing art directives and ideas.

Following the study, the participants will have access to this dissertation, which synthesizes their collective knowledge and experience into practical suggestions for managing their response to shared traumatic reality.

With respect to validity, the main criticism of heuristic research is the potential for a narrow, self-referential interpretation of the phenomenon in question (Kapitan, 2018). Validity in heuristic methodology is defined as a question of meaning. According to Moustakas (1990), a study is valid if "the ultimate depiction of the experience derived from one's own rigorous, exhaustive self-searching and from the explications of others present comprehensively, vividly, and accurately" depicts the "meanings and essences of the experience" (p. 32). In other words, even though the researcher uses themself as a source of knowledge in the study, meaning is not achieved in isolation. Validity is increased when the data is revisited and triangulated.

Additionally, to enhance the validity of this study I adopted a co-researcher role with my participants. I compared my experience of fiber arts to cope with shared trauma to those of 11 other art therapists. There were also several check points within the group process. Participants identified six qualities of fiber arts based on their experience and compared this against qualities identified by the larger group. The focus groups also cross-checked the art directives developed by each of the other groups. I explored these results and further explicated them by developing an artistic response piece and a training manual, presented in Chapter 4.

In summary this heuristic inquiry sought to explore the therapeutic application of fibers arts for art therapists coping with shared trauma. Meaning is derived from individual art making, reflection, discussion, triangulation, and data sorting. Through this process, six qualities of fiber arts emerged and are explicated in the training manual presented in the next chapter.

CHAPTER 4: "KNITTING AS COPING" TRAINING MANUAL

This chapter presents the results of my doctoral research study in the format of a training manual about the therapeutic potential of fiber arts as a coping strategy to address the stresses of shared trauma. I reasoned that by involving research participants in heuristic inquiry into their own intensely felt experiences of shared trauma, they could identify specific qualities of fiber arts that they found to be effective. Further, by sharing art therapy strategies with fellow therapists in the study sample, participants could add to their repertoire other activities that resonated with their own ways of coping. Disseminating the results as a training manual would increase their practice value and multiply the benefits for others, whether art therapists, educators, clinicians, students, and/or clients.

The training manual leads with an introduction that provides didactic, background information about the body's response to stress, descriptions of the challenges and vulnerabilities of therapists and clients who are exposed to shared trauma, and information from the literature about the therapeutic use of fiber arts. Intended audiences and a description of how the manual was developed, why it is needed, as well as the heuristic prompts used by the study participants are included, the latter of which gives readers a model for how they might engage a similar process on their own or with others. The rest of the manual then introduces the six qualities of fiber arts that were collectively identified by the participants in the research study. Each quality is discussed in the context of fiber arts practice and supporting literature, along with suggested concrete coping strategies. The appendix at the back provides additional art directives from other art media that appear to share similar properties as fiber arts, which I included for those readers who need diversity in their media choices for whatever reasons.

The coping strategies featured in the manual were primarily derived from the brainstorming sessions with the focus groups. Additional suggestions derived from the literature where relevant.

The manual presents the therapeutic qualities of fiber arts in an informal, second-person voice to relay information directly and clearly to its audiences. I intended that this style would make the material more approachable to art therapy students and professionals alike who may be unfamiliar with the topic and/or have difficulty processing information due to their current experiences with shared trauma. The purpose of the manual is to educate art therapists about shared trauma and equip them with a broad range of coping strategies to manage this situation when it occurs. I propose that readers of the manual will be able to use it to achieve the following objectives:

1. To describe the body's response to stress and threats
2. To differentiate the characteristics and contributing circumstances of shared trauma, vicarious trauma, and posttraumatic stress disorder
3. To appreciate some of the challenges of working during a community disaster and the need
4. To practice self-care
5. To identify six properties of fiber arts that may be therapeutic
6. To identify coping strategies that may be effective in cases of shared trauma

The manual is formatted in a copy-heavy, two-column layout in the style of Figure 1. Key points that summarize didactic material are highlighted in colored text boxes to aid in comprehension. To maintain readers' focus on user-friendly, accessible information, I decided to

use the American Medical Association's AMA-style for in-text citations instead of APA style (American Psychological Association, 2019). In AMA style, in-text references are cited with

TACTILE ACTIVITIES

•**Ripping or Cutting Fabric**- Many woven fabrics can be easily ripped once a small snip is created along the edge. There is a small bit of resistance and a satisfying sound with each pull. You could gather your pieces to incorporate into an art piece for another time, or simply enjoy the process. Old t-shirts can be cut apart to make t-shirt yard for knitting, weaving, crochet, or macrame projects.

•**Stitching**- Most fabrics accept a needle very readily as the fibers separate to make space. Non-traditional materials including paper or photographs require greater force to push the needle through. The same is true of thicker fabrics or those treated with paint. These tougher surfaces add just enough resistance to help let out a bit of aggression.

•**Finger Knitting**- You do not need knitting needles to knit. You can use your fingers in place of needles. Working with the yarn, without needles as a mediator, can be quite soothing.

Begin by holding one end of your yarn between your thumb and forefinger in your non-dominant hand. Using your dominant hand, weave the yarn between your fingers, back and forth until you have two loops around each finger. On a right-handed person this means making one pass left to right, coming around the pinkie finger, coming back right to left, coming around the index finger and repeating the process. Carefully lift the bottom loop up and over each finger, one at a time. As you repeat this process, a strand will develop on the back of your hand. This is your knitting. When you decide that you are finished, lift the loop from your pinkie and place it on the adjacent finger. Lift the bottom loop up and over to your middle finger. Lift the bottom loop up and over to your pointer finger. Cut a tail approximately six inches long and pull this through the last loop. Once you have mastered the basic steps you can use two or more strands of yarn at a time to create a multicolored effect. Shorter strands can be turned into bracelets or headbands. They can also be sewn into simple shapes to make creatures or fabrics. Longer strands can be incorporated into weaving projects or braided together to make scarves and statement jewelry.

•**Arm Knitting**- Arm knitting amplifies the connection between the artist's body and the yarn. The yarn touches more of the body, almost like wrapping yourself up in your project. Larger projects require more strength as the weight of the yarn hangs from your arms.

Starting with a slip knot, putt your right arm through the loop you have just made. Make a loop in the yarn and place this loop onto the same arm to cast on another stitch. Continue making loops and placing them on the same arm until you have cast on enough stitches for your project. To make the first row, and each odd numbered row, put your left hand through the loop nearest your right hand, grab the working yarn, and pull a loop through. Slip the new stitch onto your left arm and drop the stitch you just worked off your right arm. Repeat this process until all the stitches are on your left arm. Reverse this process for all the even numbered rows. Continue working in this way until your project reaches the desired length. Bind off by working one loop through the next across the row and pull the tail of the yarn through the last loop.

•**Folding Fabric**- Working with textiles and fibers does not need to result in a permanent piece of art. Processes like folding fabrics, allow you to enjoy the textures of the materials and the experience of making without the pressure of a formal piece. Many tutorials exist online for decorative napkin and towel folding. Even the routine task of folding laundry can achieve similar effects, especially when it is fresh out of the dryer.

•**Wet Felting**- Wet Felting is the process of combining wool with water and soap with the pressure and friction of your hands to form flat or sculptural pieces of art. The soap helps the fibers of the wool adhere to one another. While wet, the wool fibers are slick and sticky but once they are dry, they return to their more familiar soft texture, though more densely packed.

TACTILE

Before we develop the ability to use words, our sense of touch is our primary way of communicating with the world (Sholt & Gavron, 2006). The gentle touch of a caregiver in early life helps us feel protected, accepted, comforted, and loved (Bowlby, 1952, Harlow, 1971). Our need for contact comfort does not disappear with age, however, barriers like social isolation, cultural taboos around physical touch, or social distancing measures (such as those required during the COVID-19 pandemic) can interfere with fulfilling this need. These scenarios can result in skin hunger, a profound need for physical human contact (Hall, 1966). Though not a substitute for human contact, tactile materials may help ease the burden of social isolation by reminding us of soothing touch. Soft items, like the wools, cottons, and silks used in fiber arts, are inviting of touch and remind us of home, comfort, and warmth.

Tactile materials are not always soft, warm, or pleasant to the touch, however. Two other categories of tactile materials in fiber arts are wet and resistive. Like other Materials that are malleable and often wet -fluid media- help lower defenses and connect with unconscious processes. When our guard is down, we can be more flexible, creative, and playful. This is called regression in service of the ego. Fluid processes in fiber arts include wet felting, hand-dyeing yarn, and blocking.

Resistive materials have greater action potential than fluid ones, which means they can stand up to (resist) strong, forceful, and aggressive movements. This allows for creation through what would otherwise be destructive activities. For example, stabbing holes into canvas or paper is constructive while embroidering a sampler. Ripping apart old clothing is the first step in making t-shirt yarn for bulky knitting or crochet. Fiber arts can hold two, seemingly incongruent realities. On the one hand they are quiet, controlled, ordered activities associated with femininity, nurturance, and the home, while on the other hand they involve aggressive movements with sharp tools. In this way, resistive materials in fiber arts support sublimation -the process of channeling of aggression into socially accepted activities. This process directs built up energy into creative action, transforming frustration, anger, anxiety, and other emotions into artistic communication. Achieving this transformation can be both satisfying and a buffer against depression, hostility, or angry outbursts (Bridewell & Chang, 1997).

To use tactile materials the artist coordinates the movements of the body with information from the senses. This can help us retrieve memories encoded in the body that has been stored through non-verbal pathways. For people who have experienced trauma, this can give access to sensory memories that may not be accessible through verbal means. The structure of fiber arts processes and the comforting qualities of the materials themselves, balances the emotions stirred up by exposure to the memory with pleasant sensations. This creates a sense of safety and may support the process of integration.

KEY POINTS:

- Touch is a vital part of the human experience across the lifespan.
- Fiber arts cover a range of tactile experiences: soft, fluid, and resistive.
- Tactile materials can support a healthy release of anger or frustration through sublimation and support trauma work by eliciting memories and supporting self-soothing.

Figure 1. Sample layout for the training manual

Arabic numbers in superscript, which aid readability within the more informal voice of the manual. In this chapter, I have moved to Appendix B the list of references (i.e., end notes) to which the superscript numbers refer. Additionally, because an explication of the research method and many of the same concepts from the literature are included in the training manual, excerpts that focus on the six qualities of fiber arts, rather than the manual's full text, are presented below to reduce redundancy and to highlight the study results.

Knitting as Coping: Fiber Arts and Shared Trauma

1. Rhythmic

We begin with rhythm as a primary quality of fiber arts. Our bodies are rhythmic in our patterns of functioning and behavior, both in motion and at rest. Our hearts beat by pumping blood throughout the body, our lungs inflate and deflate with each breath, our gaits have a unique cadence, and we sleep and wake according to our circadian rhythms. Problems arise when these rhythms get disrupted, producing arrhythmia, dyspnea, and insomnia, to name a few. The vagus nerve is a critical part of the nervous system that is responsible for regulating both resting and aroused states. Approximately 80% of the connections along the vagus nerve are afferent,[i] meaning that they convey information inward, toward the central nervous system from all over the body, which regulates its rhythms.

Most of these rhythmic bodily processes are so critical that they are autonomous and outside of our conscious control. Imagine having to consciously remind your heart to beat. Yet they are nevertheless influenced by our behaviors. Consider how "breathing is an efficient and easily accessible voluntary behavior to systematically reduce and increase the influence of the

vagus on the heart."[ii] Slow, even breaths help to reduce the arousal of the parasympathetic nervous system, which in turn helps return the body to a calmer, more relaxed state.

Our sensitivity to rhythms may very well begin in utero. During prenatal development, the maternal heart rate is felt through auditory, motor, and tactile activity, at a rate of 80 beats per minute. This information is encoded in a part of the brainstem called the diencephalon, creating associations for the infant with felt sensations of safety, satiety, warmth, and soothing.[iii] Activities that stimulate the brainstem at this particular frequency, conveyed through dancing, drumming, music, EMDR, and patterned massage can actually mirror our earliest experiences of soothing rhythm.

Patterned, predictable, and repetitive activities and interactions have been demonstrated to promote healthy neurodevelopment in children[iv] as well as reduce stress and anxiety in adults.[v] Conversely, a person's sense of safety in their own body, in the world, and in relationship to other people can be shattered following traumatic experiences.[vi] For example, following the active shooter incident at my hospital I felt disconnected from my physical body and it was difficult to concentrate and be present. For months after the event, I would feel nervous when someone knocked on my door because that was how we were alerted to the incident. The illusion that I was completely safe at work, particularly in a hospital that is meant to be a sanctuary for healing, vanished. I felt vulnerable and more aware of my own mortality. I was more suspicious and fearful of others as I remember thinking that if a former doctor could do something like this so could someone else. As I became more aware of the hazards around me, I felt anger and distrust towards the hospital administration. Although they had not pulled the trigger, I felt there were measures they could have enacted to improve safety in the hospital. I felt abandoned when I

had these feelings, as though I could not trust my employer to take appreciable measures to protect my safety both before and after the incident.

To reestablish trust, gradual, repeated interactions that are experienced as safe are helpful.[vii] A return to healthy rhythm is not limited to physical movement; it can be achieved through repetition across therapy sessions with such elements as starting and ending on time, scheduling appointments on a predictable schedule, starting or ending rituals, or creating interventions in music and art. As Perry explained, "Patterned repetitive sensory input will begin to provide the kinds of experiences that may influence brainstem neurobiology to reorganize in way that may lead to smoother functional regulation."[viii] In other words, repetition helps create predictability that, in turn, supports feelings of safety and control.

Interestingly, repetition is an important component of many religious and spiritual practices offered to bring comfort in times of unrest. Prayer, chanting, and restating a single mantra or series of intentions promote the kind of meditative state that supports emotional stability, relaxation, and clearer patterns of thought.[ix] Focused-attention meditation is a practice that involves fixing on an object or thought to narrow the scope of awareness. A classic example is focusing in on the quality and sensations of the breath. The purpose is to gradually develop the ability to engage and sustain attention with minimal distraction. Another type of meditation does not require a focal object but instead encourages observation of moment-to-moment experience. For example, you might witness the thoughts and feelings that arise during quiet moments. Thus, your body's emotional and physiological states can develop a heightened awareness within a non-reactive perspective.

The rhythmic movements of knitting are thought to produce a release of serotonin, which is a chemical in the brain that delivers a sense of calm and well-being.[x] Because knitting has

been reported to promote a meditative state[xi] for some people, as an activity it may support deep relaxation. Knitters say that with the rhythmic movements of their hands they feel happiness and calm, even among individuals with a history of depression.[xii] There is also some research to suggest that repetitive eye-hand movement may reduce the incidence of flashbacks in people living with PTSD.[xiii] The rhythmic quality of fiber arts leverages the strength of self-regulation to help you feel safe and grounded.

Key Points:

- Internal feelings and sensations from the body influence our emotional state.
- Rhythmic, repetitive activities may help promote feelings of safety and calm.
- The repetitive, rhythmic nature of fiber arts may create a meditative state of relaxation.

Activities to Enhance Rhythm

Sewing: Whether by hand or on a machine, sewing is a rhythmic activity. A pattern emerges as evenly spaced stitches are placed, one by one, on the cloth. Your eyes follow the thread as your hands pull it into, through, and away in a repeating ritual. Sewing with a machine adds the dimension of sound along with physical vibration as the parts move back and forth under your hands. You might use these techniques in the service of making a garment or just for the beneficial process itself.

Unraveling: Imagine yourself knitting, the needles moving back and forth and row by row as you are building up your fabric. You look down at your work only to notice a tiny imperfection—imperceptible to most but glaringly obvious to you. You have dropped a stitch, purled when you should have knit, or made an extra stitch. While you could just keep going, ignoring the mistake, you might be inclined to pull back the stitches to a row before the mistake

was made. For some, this unraveling process feels disappointing and frustrating. However, if you slow down to notice what you are doing, there is an oddly satisfying rhythm to the unraveling of the yarn. A subtle noise, a tiny bit of resistance to each pull, and an opportunity to start again.

Though we often associate fiber arts with a finished product, the process of creating is just as important. There may be times, such as when you need an emotional reset, when you want to experience the process fully by knitting a swatch for the express purpose of unraveling it later. You can practice your skills in this way without the pressure of having to "make something," and then get the pleasure of gently pulling the piece apart. Knit as many rows as you can in 15–20 minutes and then cut the yarn and ball it back up.

Needle Felting: Needle felting is the process of making a three-dimensional form by repeatedly stabbing a ball of wool with a special kind of needle.[xiv] The stabbing motion pulls the wool fibers together, locking them into a firm form. This process is relatively simple and involves minimal equipment (usually only wool, a barbed needle, and a piece of foam or a mat to protect the table). Like any repetitive process, you may find that your hand movements fall into a natural rhythm. Although the aggressive aspect of needle felting may seem ideal if you are feeling agitated, take care that you needle felt only so far as you can maintain a sense of control. The last thing you need if you are already angry is to accidentally stab one of your fingers!

Safe Place: If you are working soft wool with needle felting and end up making people or creatures, consider making a "safe place" for them to live. You could use felting or another medium for this process. This might be a nest for a bird, a burrow for a fox, or a cave for a bear. Think about what your creature needs to be safe and comfortable. Reflect on the insights the emerge that you can apply to adjusting your space to make it feel safer for you.

Stress Ball: The compacted fibers of felt can make a decorative and functional stress ball. Notice the pressure in your hands as you squeeze the ball and the relaxation as you let it go. Keep your stress ball in a place where it will be readily available to you whenever you need it, such as your purse, backpack, desk drawer, or coat pocket. Consider adding a few drops of essential oil in your favorite scent.

Repurposing: Needle felting does not require you to buy new wool. You may already have items at home that can be repurposed for needle felting, such as wool sweaters or socks with holes in them or that no longer fit.[xv] Likewise, you can bring new life to fiber and fabric items by repurposing their materials for knitting and sewing. Launder your items with regular detergent and, if planned to be used for needle felting, a tennis ball to create more agitation and to encourage the fibers to stick together. Essentially, you are using the washing machine to turn your sweater into a piece of felt. Felted clothing can then be cut apart and needle felted to make new things.

2. Grounding

For a helping professional, the work of fostering a positive therapeutic relationship, creating a sense of safety for the client, and maintaining your own sense of balance and stability can be challenging under the best of circumstances. Clients usually come to see you because they are struggling emotionally. Because bearing witness to their pain and suffering can be upsetting, a sturdy, resilient, and integrated sense of your own self as a therapist is essential.

When both you and your clients are experiencing a trauma in the community you share, the task of being physically, emotionally, cognitively, and spiritually present for the client can be difficult. Shared worries and fears can intrude on the session and distract your focus on the client. After all, how can you bring your whole self to the session when you are worried about

where your next meal will come from or if your child has been exposed to a potentially deadly virus on their way to school? Your clients' experiences, although distinct, may closely mirror your own. When this occurs, you may find it difficult to separate yourself from their experiences. You may overidentify with their suffering.

Grounding is a term used to describe feelings of safety, stability, and composure that helps you feel settled and connected to your world, as well as the centering activities and processes that support these feelings. To be grounded is to feel "at home" in your own body. You are feeling supported as well as attuned to the thoughts, feelings, and sensations that arise without becoming afraid of or judging them. Emotions—even unpleasant ones—can arise and then subside without throwing you off balance. You are also aware and responsive to what is happening in the surrounding environment.

Grounding may start with the feet and a person's connection with the ground.[xvi] We can be reminded that the earth serves as our physical support and supplies needed resources and nourishment for the body. Feeling connected to a stable base like the earth or floor can be comforting and, as a counterforce to feeling untethered or able to blow away, can reinforce feelings of safety. Thus, it makes sense that movement exercises promote grounding by strengthening the body and its connection to the ground, improving awareness of its position in space (known as proprioception), fueling the energy that helps improve psychological well-being, and supporting social connections with others moving in space with you.

Fiber arts may promote grounding in four particular ways. First, the color and texture of the yarn or fibers stimulate the senses that, when they bring your attention to them can connect you to what is happening in the here and now. Second, movements of the hands and eyes throughout the process of art making may increase proprioceptive awareness. Third, fiber arts

usually requires you to sit, either in a chair or on the floor, which physically reinforces your connection to the ground. Fourth, the use of natural fibers, like wool or cotton, connects you to the natural world.

Key Points:

- To be grounded is to feel at home in your own body and mind.
- Shared trauma can make you feel ungrounded. This makes it harder to work as a therapist and to feel safe in the world.
- Activities that stimulate the senses and reinforce your physical connection to the ground help promote feeling grounded, stable, and in greater control.
- Fiber arts may support grounding by activating the senses, improving proprioception, and reinforcing connections to the ground and to natural materials.

Activities for Grounding

Knitting in the round is the process of using needles connected by a cable to work continuously in a circle. This differs from flat knitting in that it does not require turning the work at the end of each row. Working this way creates a stockinette pattern (the characteristic "v" shape in knitting) without having to alternate between knit and purl stitches on each row. Practically, this allows you to make round objects such as hats, mittens, socks, and stuffed animals without visible seams. The uninterrupted flow from one row to the next, the repetitive movements of your hands, and the feeling of the yarn, all may promote feeling grounded.

Crochet in the round: This process differs from knitting in the round in that you typically begin from the narrowest point and work outwards, rather than starting at the widest point and working inwards.

Weave in the round: You can work on a round loom made from cardboard (such as a cake round), an embroidery hoop, or even a hula hoop. Begin by stringing the warp threads across the circle, then weave outwards from the center. Like knitting in the round, you can work continuously without having to change directions at the end of each row. This creates an uninterrupted, grounded sense of flow.

Knit, crochet, or weave a mandala: Begin by sketching a circle shape on a rigid support like a piece of cardboard. Draw or paint a design within the circle shape using simple, abstract shapes and colors. Then select similar yarn colors and knit, crochet, or weave, following the patterns of your design.

3. Tactile

Before we develop the ability to use words, our sense of touch is our primary way of communicating with the world.[xvii] The gentle touch of a parent or caregiver in early life helps us feel protected, accepted, comforted, and loved.[xviii] Our need for contact comfort does not disappear with age, however, barriers like social isolation, cultural taboos around physical touch, or social distancing measures (such as those required during the COVID-19 pandemic) can interfere with fulfilling this need.[xix] These scenarios can result in *skin hunger*, a profound need for physical human contact.[xx] Though not a substitute for human contact, tactile materials may help ease the burden of social isolation by reminding us of soothing touch. Soft items, like the wools, cottons, and silks used in fiber arts, are inviting to touch and may remind you of home, comfort, and warmth.

Tactile materials are not always soft, warm, or pleasant to the touch, however. Two other categories of tactile materials in fiber arts are wet and resistive. Like other materials that are malleable and often wet, *fluid media* help lower defenses and connect you with unconscious

processes. When a person's guard is down, they can be more flexible, creative, and playful. This is called *regression in service of the ego.*[xxi] Fluid processes in fiber arts include wet felting, hand-dyeing yarn, and blocking.

Resistive materials have greater action potential than fluid ones, which means they can stand up to (resist) strong, forceful, and aggressive movements. This allows for creation through what would otherwise be destructive activities. For example, stabbing holes into canvas or paper is constructive while embroidering a sampler. Ripping apart old clothing is the first step in making t-shirt yarn for bulky knitting or crochet. Fiber arts can hold two, seemingly incongruent realities. On the one hand they are quiet, controlled, ordered activities that are often associated with femininity, nurturance, and the home, while on the other hand they involve aggressive movements with sharp tools.[xxii] In this way, resistive materials in fiber arts support sublimation, which is the process of channeling of aggression into socially accepted activities.[xxiii] This process directs built-up energy into creative action, transforming frustration, anger, anxiety, and other emotions into artistic communication.[xxiv] Achieving this transformation can be both satisfying[xxv] and a buffer against depression, hostility, or angry outbursts.[xxvi]

To use tactile materials, you must coordinate the movements of your body with information from your senses. This can help retrieve memories encoded in the body that have been stored through nonverbal pathways. For people who have experienced trauma, tactile materials can access sensory memories that may not be available through verbal means. The structure of fiber arts processes and the comforting qualities of the materials themselves, balances the emotions stirred up by exposure to the memory with pleasant sensations. This creates a sense of safety and may support the process of integration.

Key Points:

- Touch is a vital part of the human experience across the lifespan.
- Fiber arts cover a range of tactile experiences: soft, fluid, and resistive.
- Tactile materials can support a healthy release of anger or frustration through sublimation and support trauma work by eliciting memories and supporting self-soothing.

Tactile Activities

Ripping or cutting fabric: Many woven fabrics can be easily ripped once a snip is made into the fabric along its edge. There is a small bit of resistance and a satisfying sound with each pull. You could gather your pieces to incorporate into an art piece for another time, or simply enjoy the process. Old t-shirts can be cut apart to make t-shirt yard for knitting, weaving, crochet, or macramé projects.

Stitching: Most fabrics accept a needle very readily as the fibers separate to make space. Nontraditional materials including paper or photographs require greater force to push the needle through. The same is true of thicker fabrics or those treated with paint. These tougher surfaces add just enough resistance to help let out a bit of aggression.

Finger knitting: You do not need knitting needles to knit. You can use your fingers in place of needles. Working with the yarn, without needles as a mediator, can be quite soothing.

Arm knitting: Arm knitting amplifies the connection between your body and the yarn. The yarn touches more of the body, almost like wrapping yourself up in your project. Larger projects require more strength as the weight of the yarn hangs from your arms.

Folding fabric: Working with textiles and fibers does not need to result in a permanent piece of art. Processes like folding fabrics allow you to enjoy the textures of the materials and the experience of making without the pressure of a formal piece. Many tutorials exist online for

decorative napkin and towel folding. Even the routine task of folding laundry can achieve similar effects, especially when it is fresh out of the dryer.

Wet felting: Wet felting is the process of combining wool with water and soap with the pressure and friction of your hands to form flat or sculptural pieces of art. The soap helps the fibers of the wool adhere to one another. While wet, the wool fibers are slick and sticky but once they are dry, they return to their more familiar soft texture, though more densely packed.

4. Structured

Adhering to routines structures and activities may improve your resilience.[xxvii] *Primary routines* address biological needs like sleeping, eating, and personal hygiene. *Secondary routines* describe the use of leisure and vocational time like work, exercise, hobbies, and making progress towards goals. Both minor disruptions to your routines, like the start of daylight savings time, or major interruptions, like a community disaster, can have negative impacts on your mental health.[xxviii]

It can be difficult to find time to attend to personal and professional obligations, including self-care. Four strategies have been suggested to restore a sense of normalcy when familiar routines are disrupted[xxix]:

1. Prioritize primary routines, for example, by getting dressed every day, even if you are not leaving the home, and going to bed earlier to get enough sleep.
2. Consolidate two activities into one, such as knitting on the bus during your commute or making art together during family time.
3. Find creative replacements for activities, such as using video chat instead of visiting friends in person or attending a virtual craft group.
4. Augment your coping strategies by learning new skills.

Routines can also be created through structured, daily art practices such as “stitch a day,” visual journaling, or morning pages.[xxx] These activities allow for a quick burst of creativity each day, which is often more manageable and approachable than working on a single, large project. Art challenges, such a *Stitch Along*, provide daily prompts to jumpstart the art making process and share your creativity with an online community.

Journaling is another daily practice that can be done any art form, not just writing. A stitch journal, for example, uses fabric and embroidery to document and reflect on experience.[xxxi] The stitches might make pictorial forms or abstract ones through various thread colors, density, and patterns. Stitch journals can be used for personal expression, response art when working with clients, or to gain research insights. Leone[xxxii] used a stitch journal to reflect upon and respond to women in her embroidery group that was seeking to combat gentrification in their neighborhood. She responded to each session in a stitch journal, which the participants later incorporated into the larger collaborative piece the group had created together.

Structure can also be created by using planned, organized art processes with multiple steps.[xxxiii] Weaving is an example of a material and process that is inherently structured. The loom holds the warp threads making a container within which to weave. The process of weaving follows a pattern, usually alternating the weft over and under the warp. There are clear start and end points, as the weaving is complete when the warp is full.

Another example of a structured process is quilting. Quilting involves organizing and assembling scraps and pieces of fabric to form a decorative design. The designs themselves may be freeform, representational, or geometric, either from the maker’s imagination or from historical and cultural traditions. Because the process of quilting parallels that of making a collage with other materials, it may have similar benefits, such as making connections to

personal experience[xxxiv] and expressing thoughts and feelings.[xxxv] The structured process balances and contains the emotional expression, which can help a person feel safe.

Structure is also created by limiting the quantity of a material, size of the art piece, or setting a time limit. Working small can be more approachable and manageable, particularly if you are feeling overwhelmed. The challenges of working during a shared community trauma can engender feelings of being ineffectual or out of control. Working small allows you to see a project to completion in a shorter amount of time, which is satisfying and supports a sense of agency.

A grid can be used to create structure within an art making process. Grids appear in fiber arts practices like knitting, crochet, quilting, weaving, and counted cross-stitch. When placed as an overlay to an image, a grid helps break the image down into smaller, manageable pieces. You can tackle one piece at a time yourself or divide the pieces among members of a group. For example, have each member of a knitting group complete one square to make a larger quilt.

In times of uncertainty, having a set of instructions to follow can be comforting. A pattern serves as a guide when making a new project. The written directions, diagrams, and materials list take much of the guesswork out of the process, allowing the maker to focus on their practice instead. Research suggests that creative blocks may be associated with changes in the brain that occur due to depression, anxiety, and trauma.[xxxvi] Working from a pattern may help a person to work through creative blocks they might otherwise experience when trying to make art from a blank page.

Corkhill suggested that knitting patterns can be matched to the emotional needs and goals of the knitter.[xxxvii] *Automatic* projects, for example, are simple enough that the maker does not have to think too much while working; their hands seemingly move on their own. This frees up

the mind to wander, much like daydreaming, which can serve as a "mini-break from life's problems."[xxxviii(p124)] As the name suggests, *square* projects are completed in a rectilinear form without shaping. The simple structure allows the knitter to focus on the stitches, either learning how to knit for the first time, trying a new stitch, or experimenting with new combinations. *Bag* projects are small and portable that can be easily picked up and put back down as needed for emotional support. These can be used to alleviate feelings of anxiety or panic, stress, and boredom.

In contrast, *intricate* projects are so complex they require one's full attention. These projects distract the knitter from pain or stressors through focused attention on the challenging task at hand. *Novelty* projects stimulate learning and the growth of new neural connections using previously unknown skills. *Free knitting* focuses on the process of knitting while ignoring any mistakes. It is essentially knitting for knitting's sake and is meant to be enjoyable and reduce perfectionism.

Quick fix projects are projects that are relatively small in scale. There is visible progress or completion in a short period of time which may improve mood. *Big* projects, such as a blanket, sweater, or large yarn bomb, require significant work over time. There is a sense of comfort in being able to pick up where you left off and a great feeling of accomplishment when the project is finally finished.

Key Points:

- Routines are important for well-being and support resilience.
- Structured art materials and daily art making help promote feelings of safety during uncertain times.

- Patterns provide a guide for engaging in art making when a blank page might be too daunting.
- Patterns of different complexity support different goals. Simple projects may help with emotional regulation, intricate projects with focused attention, novelty projects with breaking up monotony, quick fix projects with immediate gratification, and big projects with accomplishment.

Structured Activities

#Stitchaday is a hashtag popular on the social media platform Instagram that motivates visual journaling through embroidery, usually every day for one year. While the stitching process is often solitary in nature, the hashtag allows users to find others engaging in a similar artistic process, for both inspiration and social support.

Stitch a square: Adapted from Wellesley-Smith,[xxxix] in this process you cut a piece of linen into a square and mark out a border. Select a contrasting color of embroidery thread and fill the area with running stitches, focusing on the rhythm of the stitches. Consider how pattern and rhythm reflect how you are feeling or what you experienced today. Consider repeating this process at regular intervals (daily, weekly, monthly) and notice similarities and differences that arise. If you have difficulty with making small stitches, you might consider using burlap, yarn, and a plastic tapestry needle rather than embroidery thread. Consider applying the stitch diary technique to an item of clothing such as a t-shirt, pair of jeans, or apron.

Knit or crochet a heart: A heart is a relatively simple shape that can be made with knitting or crochet and would fall into the quick fix category. The knitted version uses the basic garter stitch as well as simple increases and decreases. Once you get the hang of it you can

complete a heart in under an hour. This project does not require a lot of yarn, so it is a good way to use up extra yarn in your stash.

Sampler: A sampler in fiber arts is a collection of pieces made using different stitch patterns and assembled together. Often this takes the form of a blanket or afghan made of squares featuring unique patterns. In embroidery, a sampler may be a single piece highlighting different skills (cross-stitch, French knots, satin stitch, chain stitch, etc.) and forms (lines, figures, letters). A sampler challenges the maker to learn new skills or use less common ones.

Amigurumi: The term amigurumi comes from a compound of the Japanese words *ami*, *kurumi*, and *nuigurumi* and loosely translates to crocheted or knitted stuffed toy.[xl] Amigurumi takes a medium that typically makes flat forms and moves them into the realm of sculpture. You will probably find patterns for nearly any subject you can imagine, though whimsical forms, animals, characters from popular cartoons, and food are common. Following U.S. President Biden's inauguration in 2021, amigurumi patterns of Sen. Sanders in attendance, seated with arms crossed and wearing his now iconic mittens, circulated the internet. These projects are typically small, so they can be completed quickly once the basic skills are mastered. They share many qualities with commercially available stuffed animals and thus can be a source of comfort for both children and adults. Many patterns are also worked in the round, which allows you to sustain a steady rhythm during much of the work.

Memory quilt: In addition to commercially available fabrics you can use fabrics that hold special meaning for you. Many people have t-shirts from events that they no longer wear but cannot seem to throw away because of the memories attached. These can be cut apart and quilted together. Clothing items from friends or loved ones who have passed away, or baby clothes a child has outgrown, could also be incorporated into a memory quilt.

Group quilt: Although quilting can be a meaningful, solitary activity, it has historically been a social pastime. Groups of people, usually women, would get together in a *quilting bee* to work on quilts together, a practice that continues in many communities today. Dividing labor among the group means more quilts can be made in less time. Quilting bees also offer opportunities for like-minded individuals to come together and socialize. In response to the COVID-19 pandemic, many quilting bees moved online through video conference platforms, allowing quilters to work on their squares at the same time while maintaining social distancing.

Box: String a warp on the outside of larger boxes and weave each side to create bags or baskets. Miniature weavings can be made inside of match boxes.

5. Social

Making and maintaining close social connections is important both for one's mental health and physical well-being. Loneliness and social isolation can contribute to poor sleep and high blood pressure.[xli] The cumulative effects of loneliness over time may even contribute to early mortality, as with other known health risk factors like cigarette smoking, obesity, and lack of physical activity.[xlii] In contrast, social support reduces stress and improves cardiovascular, endocrine, and immunological functioning.[xliii]

One possible explanation for the relationship between health and social relationships is *coregulation*.[xliv] Using your own capacity to self-soothe in the service of another is at the core of this concept and helps to keep the intensity of emotional arousal within a more tolerable range. In other words, the nervous system of one person can help calm the nervous system of another. We can see this happen in parent-child relationships, friendships, romantic partnerships, or among other close relationships. Over time, people in coregulating relationships can experience a sense of comfort just by being near one another, resulting in greater emotional stability.

Coregulation may support better health by reducing the daily wear and tear on the body normally caused by stress.

Talking and laughing may also contribute to the positive effects of socializing with others. The breath control required for articulate speech helps improve the tone of the vagus nerve which promotes relaxation.[xlv] Conversation activates the social engagement system, which helps people feel safe and willing to be close with others. *Social laughter*, laughing together in a group, releases the neurotransmitter β-endorphin that may increase a person's pain tolerance.[xlvi] This neurotransmitter is also involved in social bonding. In short, laughing together helps strengthen relationships.

Knitting in groups likely predate the first English-language written accounts about hand-knitting, dating back to 1615.[xlvii] Whether you call it a guild, bee, frolic, or Stich n' Bitch, knitting groups create opportunities to socialize, release stress, learn new skills, and make positive contributions to worthy causes. Knitting groups support the making of friendships and reduce loneliness even for people who may struggle with shyness, depression, anxiety, physical pain, or a history of trauma.[xlviii] The complexity of the hand and eye movements involved in knitting actually may lower self-monitoring that can get in the way of feeling comfortable when socializing.[xlix] In other words, keeping your hands busy helps you feel less self-conscious, which allows you to be more open.

After you have mastered the basics of knitting, you can easily look up from your work and maintain eye contact with others if you choose.[l] Looking at your work, however, is not considered rude in a knitting group, again, due to the complexity of the task. This dynamic creates an opportunity to exercise choices about eye contact that help you feel safer around others.

Groups support interpersonal learning and create a sense of belonging.[li] In a knitting group, this extends beyond learning new stitches and patterns. Altruism, or giving to others, is an important part of being in a group and is a cornerstone of charity knitting. It is widely known that giving to others has positive impacts on both the giver and the receiver. Giving gifts and donating to charity activates the mesolimbic system, increasing levels of the neurotransmitters dopamine and oxytocin that is associated with rewards and attachment.[lii] This may help explain why giving to others can feel like a gift we give to ourselves.

In group therapy altruism helps shift a participant's perspective from the one who receives help, to that of a helper.[liii] There is a sense of empowerment that comes from applying your skills to help improve the lives of others, "There is something powerfully symbolic about wrapping a vulnerable person in something warm and cozy, and the knowledge that you have improved a life will improve your life too."[liv] Knitting gifts for family and friends can strengthen and maintain ties with them, which is especially important when barriers like social distancing keep people physically separated.[lv]

Although charity knitting can be done alone, you might consider a knitting circle. A group of like-minded individuals not only increases your social support but can help you raise awareness about important causes. Charity organizations can be viewed "as extensions of our knitting circle. When we identify with a group that is trying to make a difference… we can start to feel less alone and helpless in our desire to create positive change."[lvi(p88)] When knitting moves from solo making into activism, it is called *craftivism*. This practice takes many forms—from charity knitting to "yarn bombs" (a form knit graffiti installed in public places and displays).

If you are interested in donating knit, crocheted, woven, or sewn items to charity, check your local area first. Hospitals, animal rescues, homeless shelters, churches, and veteran's

organizations may be looking for donations. This will save you a trip to the post office and help create an immediate impact in your own community.

Key Points:

- Social support is important for both our physical and mental health.
- People in close relationships can help each other maintain emotional stability through the process of coregulation.
- Talking, laughing, exchanging gifts, and knitting together are all ways to reinforce social connections.
- Altruism can be both personally rewarding and empowering.

6. Practical

Fiber arts and other crafts have their origin in the practical need to make items for daily living. Historically, the members of the household were responsible for making most of their own clothing and personal items. As Western societies became larger and more complex, labor could be outsourced to the community. Artisans and other skilled workers were paid to make items that required advanced skill or specialized equipment. As industrialization continued in many areas of the world, fewer items needed to be made or repaired in the home. Although this development created more opportunities for leisure, it may have had unintended psychological consequences. “A decline in tool use would seem to betoken a shift in our relationship to our own stuff; more passive and more dependent,”[lvii] with the result being a struggle for autonomy. A systematic lack of opportunity to productively use our own hands may reduce self-reliance, sense of personal responsibility, and sense of meaning in our work.

The Do It Yourself (DIY) movement was started in response to the dehumanizing effects of mass manufacturing. DIY encompasses the ethos of self-reliance by encouraging amateurs

and hobbyists to make, modify, repair, or build without direct influence by experts. Born out of Situationist International, a European avante garde artist collective, DIY critiqued capitalist consumer culture.[lviii] Their ideas and imagery were later adopted in the U.S. by progressive movements in the 1960s and 1970s including civil rights groups, anti-war protesters, feminists, and LGBTQ rights advocates as well as counterculture groups of hippies, punks, and mods. This continued into the 1990s and beyond with the Riot Grrrrl movement that was an underground, punk, feminist movement originally based in Olympia, Washington.

The DIY ethos continues in the present day, in part supported by the widespread availability of information online. With a cursory internet search, you can find tutorials about how to make just about anything. From baking your own bread to knitting a sweater, you can learn to do almost anything through trial and error, practice, and determination. During a community disaster it can feel frivolous and even selfish to make art for your own enjoyment; practical projects might feel more acceptable and important. Making items by hand may no longer be the most efficient way of obtaining goods but it may be more meaningful and rewarding.

Key Points:

- You do not need to be an expert to learn new things.
- Making or repairing with your own hands can be empowering and meaningful.
- You might feel the need to justify making art for self-care during a community disaster. Choosing practical projects may help you to feel that your art making is more useful and important.

Practical Activities

Wearable art: With the widespread availability of garments you might not think about where your clothes come from. Fast fashion— clothing that is produced en masse in response to immediate trends, quickly, and cheaply—exploits both human and natural resources and creates significant waste. Although it is not practical to make every garment you will ever own, consider making some of your clothing by hand. Not only will you have a garment that is uniquely yours, but you can ensure that it fits perfectly.

Mending: Clothes are meant to be worn and eventually might start to show signs of wear. Socks get holes in them, buttons fall off, and the knees of your jeans start to fray. Rather than throwing them out and buying new, consider mending them. Consider using visible mending techniques such as sewing patches, darning with a different color yarn, or decorative stitching. Stitching in this way may be both soothing and support a sense of accomplishment.[lix]

Making pillows: Pillows are soft additions to any room, supporting a sense of comfort. They can be easily made from new or repurposed fabric, as well as hand-made textiles from knitting, weaving, or crochet. Their shape is simple enough for beginners to make with a sewing machine or by hand.

Recycling: Repurpose found materials into something new. You can knit or crochet with ribbon or strips of fabric. Cut apart plastic bags to make *plarn* (plastic yarn). Plarn can be useful for outdoor projects or items that get wet or soiled. Upcycle old clothing into other useful items like bags or pillows. Create your own textile by adhering duct tape to itself. The resulting fabric is stiff and durable, making it suitable for items like wallets, phone cases, or sculptural garments.

Use scraps of ribbon or yarn leftover from other projects by fusing them together with water soluble stabilizer (normally used for embroidery). Assemble the scraps between two layers of stabilizer and hand or machine sew the piece together. Then use water to dissolve the

stabilizer. The resulting textile will be one of a kind, and highlight the beautiful colors and textures of your scraps as well as remind you of past projects.

Other Strategies

Not everyone is able to use fiber art or enjoys working with this medium. Everyone has different preferences, needs, and strengths when it comes to self-care. This section provides alternative activities that share similar properties with fiber arts. For further recommendations consult Rashid and McGrath's list of 101 strengths-based actions to practice during physical distancing.[lx]

Grounding: Sand Art, Movement, Breathing

Rhythmic: Labyrinth, Body Scan, Nondominant Hand, Photography, Beading, Printmaking. Repetitive Imagery, Scribbling

Structured: Puzzles, Mosaic, Collage, Follow a Recipe

Tactile:

Resistive: Scratch Board, Texture Rubbings

Fluid: Chalk Pastels, Paper Making, Papier Mâché, Pottery Wheel

The appendix of the manual continues in the style above, providing suggestions for alternative activities in media that share some of the same qualities as fiber arts. In Chapter 5 that follows, I step back and reflect on the whole of this doctoral project and discuss its results in the context of shared trauma.

CHAPTER 5: DISCUSSION

The following chapter explores the heuristic research inquiry and dissertation project as a whole. First, I will reflect on the results of the study that includes the six qualities of fiber arts and how these relate to the Neurosequential Model of Therapeutics (NMT; 2006), the Expressive Therapies Continuum (ETC; Kagin & Lusebrink, 1978), and flow (Csíkszentmihályi, 1990). Next, I will consider how my personal experiences as a researcher and a clinician sharing a traumatic reality with clients informed my understanding of fiber arts and shared trauma. Both practical and research implications of the study will be explored. Finally, the limitations of the research will be reviewed.

Reflection on the Study Results

Heuristic in design, in which 11 participants took the time to pause in the midst of the shared trauma of the pandemic to study their process of creating, the study captured particular qualities of fiber arts that they found essential. From a structured process of consensus making, they identified six major qualities: Fiber arts are (a) rhythmic, (b) grounding, (c) tactile, (d) structured, (e) social, and (f) practical. Interestingly, these qualities largely overlap with Perry's "six Rs" that form the basis of the NMT (Perry, 2006, 2014; Perry & Hambrick, 2008), the ETC (Kagin & Lusebrink, 1978; Lusebrink & Hinz, 2016), and factors conducive to flow (Csíkszentmihályi, 1990; Huotilainen et al, 2018). Taken together, it would also appear that these qualities support Corkhill's (2014, p. 30) claim that knitting is "a bilateral, rhythmic, psychosocial intervention," which I will elaborate below.

Participants identified fiber arts as being *rhythmic* and *repetitive*. In some cases, this meant that they found themselves pulled into a meditative state while also becoming more tuned into their body and its soothing motions. The repetitive movements of knitting indicate the

activation of the kinesthetic polarity on the ETC having to do with release of tension, rise of preverbal memory, and healing rhythms (Lusebrink & Hinz, 2016). Patterned, repetitive interventions in the NMT model, likewise, are thought to help restore the body's natural rhythms in the brainstem (Perry, 2006), which supports the need for self-regulation that is often disrupted during a crisis. From the trauma literature, we know that repetitive movements modulate arousal, which may help to interrupt the person's hyperarousal of fight/flight responses and/or hypoarousal (Huotilaine et al, 2018).

Three sub-themes identified by participants with the quality of *grounding* were movement, nature, and circles. Circles referred both to making circular movements and to working in the round. Participants observed that knitting in the round, in particular, allowed for a completely uninterrupted workflow as the work does not need to turned over at the end of each row. One row leads directly into the next, creating rhythmic and repetitive movements within the confines of the circle. The participants associated working in the round to making mandalas, which is a well-known centering and contemplative activity in art therapy. Their awareness of movement and connection to nature were both in alignment with Lowen's (1995) conception of grounding as an energetic process that reinforces an individual's connection with the earth, as well as de Tord and Brauninger's (2015) levels of well-being. The importance of reestablishing a sense of grounding in the context of the COVID-19 pandemic was discussed in nearly every focus group.

The participants identified the value of the *tactile* properties of fiber arts in multiple forms. They emphasized that, contrary to common assumptions, fiber arts are not always "soft" and they made a distinction between those materials that are touchable (warm, soft, and inviting) and those that are rough, course, wet, or slimy (e.g., felting, papermaking). Having made this

distinction, the sub-themes of resistive, soft, and fluid were identified. Raw wool can be transformed into yarn or felt but must be carded and cleaned first, removing debris and oil; wet felting evokes very different responses compared to other forms of fiber arts. These qualities correlate with the sensory/kinesthetic level of the ETC (Kagin & Lusebrink, 1978). The soft or wet fibers are closer to the sensory side of the continuum, whereas resistive materials and processes are closer to the kinesthetic polarity. The ability to move across the continuum in the course of one project may support the neurological goal of bilateral integration in response to trauma, as well as access to nonverbal material (Lusebrink & Hinz, 2016; Talwar, 2007). Soft materials may also be especially relevant and developmentally appropriate for supporting self-soothing as they may recall early body memories (Homer, 2015; Perry, 2006; Sholt & Gavron, 2006).

The quality of *structured* included aspects of "containment," "incremental or daily practice," "piecing together or assembling," and "working from a pattern." All of these observations of the co-researchers aligned with the ETC on the perceptual/affective and cognitive/symbolic levels (Kagin & Lusebrink, 1978) in that they offer form potential, given that they are organized, multi-step processes that may encourage feelings of safety. Structured activities provide set of satisfying, control-oriented guidelines to work within, such as working small, using a grid, working on frame (containment), working in short increments (incremental daily practice), creating order out of disorder (assembling), or having a direction (working from a pattern). All these practices may help contain the affect elicited by the sensual or kinesthetic properties of fiber arts. Mastery of a skill may also support engagement in flow states by facilitating the shift from explicit information processing to implicit information processing (Chilton, 2013; Dietrich, 2004; Huotilainen et al., 2018).

The *social* quality was considered from the perspective of what it is like to engage in a group of fellow knitters or crafters in the context of shared trauma, and their connection to memories and traditions, as in quilting circles or cherished handmade sweater. Fiber arts are often used to support social relationships through gift giving or altruism. The participants noted that, although the pandemic limited in-person gatherings due to social distancing requirements, their process in the study would at times recall previous involvement in groups, either as a facilitator or group member. Moreover, their fiber arts provided a way for them to stay connected to family from a distance as they connected to memories and traditional practices. Fiber arts, thus, might support Perry's (2006) notion of respect as a crucial component in recovery from trauma, whether that of the individual, their family, and/or culture.

Several participants described feeling fulfilled when giving handmade items away to friends, family, or charity. Their descriptions and suggested activities are in alignment with Hinterlong et al.'s (2007) position that giving is not only beneficial to the recipient but also to the giver. By giving, the individual's social support and access to other resources increase, which in turn may empower, gratify, and reduce stress. Predictable, safe, and relational interactions may support greater capacity for forming healthy relationships (Perry, 2006). As groups become closer over time they may also serve a coregulating function for its members (Butler & Randall, 2013). This dynamic may support greater emotional stability as the group uses its innate capacities for self-soothing to help one another.

Personal Reflections and Insights on the Project

The study was conducted in October and November of 2020 which, in the New York metropolitan area, was about 4 months after the initial surge of COVID-19 cases in the area, and right before a second wave would begin. In contrast to earlier months, the refrigerated trucks

were no longer parked outside of the hospital where I worked, masks and face shields were readily available, and the overhead speakers that had previously played an excerpt from “Here Comes the Sun” when a COVID patient was released from the hospital, were largely quiet. I was still reporting to work in-person, but most of my sessions with clients were conducted over the telephone. We even had started offering small art therapy groups again, with four participants at a time. We sat around the table in my office with masks on our faces and knitting in our laps, happy to see one another for the first time in nearly 6 months. Although I was still exhausted at the end of each day, my nightmares were less frequent and the cycles of irritability, anger, despair, and numbness were less intense. Was this the “new normal”?

Although life felt like it was calming down in some respects, there were still reminders of looming danger. My clients shared stories of friends and family members who were sick or had passed away. Several coworkers retired early, to ride out the rest of the pandemic at home, leaving the clinic critically understaffed at times. Reports about surging cases cropped up across the country and even in “hot spots” around the city. Although there was promising talk about the race to find a viable vaccine, nothing would be available until the end of the year. We were on unsteady ground.

When I started my heuristic contribution to the study as a co-participant in the middle of September, I struggled to find the energy and motivation to even get started. Knowing that nothing would get done once I got home, I used my commuting time on the bus home instead. That gave me a solid hour each way to get the needles moving. Once I found a time of day that worked for me, my knitting felt more easeful. I could relax into the rhythm of my hands and was excited about what I was making. During the day I would notice that my jaw would clench; on the way home as I started knitting, the tension released.

It was satisfying to see a piece coming together. Row by row, the more I worked the longer my scarf became. There was a direct relationship between effort and reward. This was often in contrast to the frustrations of the workplace I was enduring. Sometimes I felt as though I was running myself into the ground. Many of my clients were struggling to get their basic needs met, yet the offices for public assistance were physically closed and operating online. Many needed outlets for vocation and recreation, yet most of the day programs remained closed. On good days the barriers were daunting and on bad days they felt downright impossible. When my knitting was going well, I had a mini-break from the frustration.

There was also something special about holding something soft in my hands. Throughout the pandemic we had to adhere to social distancing guidelines that encouraged everyone to be six feet apart when interacting. Physical contact, like handshakes and hugs, were discouraged with people outside of one's "bubble," to avoid spreading the virus. Many stores and restaurants moved to contactless payment methods, requiring one to use an app on a phone rather than a credit card or cash. Water fountains in public places were disabled or wrapped in plastic to prevent people from touching them. The use of gloves and frequent hand washing was encouraged as we were reminded to avoid touching our face. The message was loud and clear: don't touch anything! This seemingly hostile environment made it that much more important to have something comforting to touch; in this case, the knitting I was making for myself.

Taking time out on the bus to knit worked best with simple projects that I was already familiar with, like a scarf with a repeated pattern. I noticed, however, that I was making beginner mistakes when I tried new patterns. I would forget details like making a test swatch to check my gauge or checking the yardage on my yarn. Although I was motivated and excited to try new techniques, I was frustrated that I was not picking them up quickly. I would have to take them

apart and try again. It was as though my brain was not communicating with my hands and I was literally recreating the tangled mess that I felt around me. Unlike the frustration at the office, however, I could more readily frame my foibles in knitting with a sense of humor, which took some of the sting out of the experience. The stakes were much lower in knitting than for my clients' welfare.

As I was recruiting participants for my study, I had a close call. One of my co-workers had tested positive for COVID-19. We had been talking together in my office a few days before she started showing symptoms. With the amount of time that I spent on public transportation and working in the hospital I was sure that she was not the only person I had come into contact with the virus, but she was someone that I know and am close with. Before the pandemic, we co-led groups together and had offices across the hall from each other. She taught me how to use the electronic medical records system on my first day at the job. Not only was I deeply worried about her well-being, but I was scared she might have passed the virus to me. I also worried, in turn, about getting my partner sick. We agreed that he would stay with his family until my test results came back. Over the weekend, I spiked a fever and was an absolute nervous wreck. Fortunately, my results came back on the following Monday and the nurses attributed my fever to the flu vaccine I had received at employee health services.

The pandemic continued across the globe during the study with deadly surges in several states including Texas, Florida, Wisconsin, Ohio, Georgia, and Alabama (The New York Times, 2020) where many of the study participants lived. The total number of cases in the United States surpassed 11 million (Davis, 2020) by the time the focus groups ended. This meant that some of the study participants were living and working in areas where COVID-19 was rapidly spreading. A few participants even fell ill during the study but have since recovered. Our experiences of the

pandemic were mediated as much by geography as they were by demographic, personal, social, and vocational factors. There was a sense, however, that we were all in this together. We shared in the struggle to find time and energy to make art and to justify its importance in the face of so many other pressing demands. We missed our work of facilitating groups and of seeing people face to face away from a computer screen. We also shared in the excitement of finding creative, passionate others who seemed to understand both the struggles and small victories in this new normal we found ourselves occupying.

During the study, I broke the elbow of my left arm in a running accident. My usual outlet for managing stress—running and knitting—were temporarily off the table until my bones could knit themselves back together. I reviewed the data from the focus groups and tried to make sense of it intellectually. Although this data analysis process yielded some initial categories, the visceral experience of knitting was missing for me. I was able to knit by resting one of the needles between my splint and sling and using my left hand, but this adaptation was mostly a protest against feeling vulnerable and broken. It was not until I started physical therapy that I was able to start knitting in earnest. I began with a pair of socks that I knitted flat, in stockinette stitch. It was simple and automatic, helping me feel productive until I could return to work.

The transition back to the office after my medical leave was jarring. Many of my clients were worried that I had been out because of COVID-19 and were relieved to know that I had been injured rather than ill. Most clients did not want to meet with my colleagues who were covering for me while I was out. Meeting together again, we felt as though we were trying to make up for lost time. I was back in the world outside of my apartment, now during a second wave of new infections. I was grateful to have that pair of socks to return to so that I could unwind on the weekends.

It was not until the new year began in January that I felt grounded enough that I could deeply process the research study. *Softening the Grid* (Figures 2 and 3) represents a creative

Figure 2. Softening the Grid, 24" x 36" (stretched canvas, acrylic, arm knitting from silk, acrylic, and cotton fibers)

Figure 3. Detail of images of Softening the Grid, 24" x 36" (stretched canvas, acrylic, arm knitting from silk, acrylic, and cotton fibers)

synthesis of the data, which marked the final stage of the heuristic study. I started by making a white grid (seen underneath the knitting in Figures 2 and 3), squeezing lines of paint directly from the tube onto a large canvas. Next, I added dots of magenta, yellow, blue, and cyan paints into the squares of the grid. The white reminded me of dissociation and disconnection, going on autopilot, or going through the motions in the face of existential threat. The dots of color reminded me of my intense feelings of fear, rage, sadness, and hopelessness that would bubble to the surface when I least expected it. I used a wide palette knife to blend the white and color together, allowing them to visibly integrate. I considered that when I am feeling more grounded, I do not need to rigidly compartmentalize experience; I can take in the texture and color as it happens in the moment.

This part of the process recalls Baum's (2010, 2012) ideas about mortality salience and psychic defense. During the surge in the spring of 2020, I was confronted with constant reminders of death. To get through the day and to protect myself from overwhelming anxiety, my mind mobilized denial, avoidance, distancing, and suppression. By the fall, when I was conducting this inquiry, enough time had passed that I was not as easily upset by such reminders. I was able to relax some of these defenses and feel more useful and grounded.

In the next step of the creative synthesis, I used the painting's colors to select my palette of yarns for arm knitting. I chose arm knitting so that I could immerse myself in the textures of the yarn, work quickly and intuitively, use the full movement of my body, and create an open fabric. Each of the three sections used multiple strands of yarn in different weights and textures. Some of the yarns were softer and more elastic; others were thinner and less yielding. The textiles—one magenta, one yellow, and one blue/green—resemble a net or web. This image made me think about the interconnectedness of the body and the mind. Emotions are as much a

psychological experience as a physiological experience (Cannon, 1927) and a social experience (Schachter & Singer, 1962). Being immersed in the yarn can, on the one hand, be a physical representation of being tangled and feeling stuck and, on the other hand, working through and organizing chaos. One could be alone in the mess or supported to untangle. In my experience it was not until I felt settled, safe, whole, and grounded in my body, and supported by friends, family, partner, and colleagues, that I felt free in my mind to create.

The process of making my own textile by arm knitting was also informed by what I often had experienced as a lack of direction and institutional leadership. There was a parallel process at times between the lack of certainty and clarity in my workplace and at a national level in response to the pandemic. Regulations about PPE, telehealth, and outreach were constantly changing along with schedules and staffing in the hospital. Planning was difficult as no one had definitive answers to our questions. At a national level, the U.S. president delegated many responsibilities about economic relief, health and business guidelines, and travel restrictions to the governors of the states instead of implementing consistent federal policies for the entire country to follow in the emergency. Each state established its own laws and executive orders about mandating masks in business, public transportation, government buildings, and other areas. In some states, mask wearing was encouraged but optional, while in others it was required. The study participants' reactions to the varied responses in their states raised my level of exposure to this conflicting reality. In the absence of clear guidance and centralized leadership, I found a need to physically make my own structure.

In the finished image of the creative synthesis, the nets are sewn to the top of the canvas and drawn across. The underpainting peaks through the holes in netting. When viewed in person, the piece invites the viewer to touch and interact with it by gently lifting the nets back or peering

through the holes to see the image underneath. With the pandemic still ongoing at the time of this writing, this interactive aim of the piece is somewhat frustrated. People in my household can interact with my piece directly and I can display images of it online or in this dissertation; however, physical interaction will have to wait until widespread transmission of the virus has sufficiently slowed.

Implications

The results of this study suggest several practice implications for the therapeutic use of fiber arts as well as the specific needs of clinicians experiencing shared trauma. First, the study made clear that art therapists using fibers arts, either with clients or for their own self-care, should tailor the level of difficulty and complexity to the client and situation. To enter relaxing, enjoyable, and restorative states of flow, a person must be able to switch from explicit information processing to the implicit, and this requires practice and mastery (Chilton, 2013; Dietrich, 2004; Huotilainen et al., 2018). Beginners may not reap the same benefits as compared to fiber artists with greater levels of skill (Collier & von Károlyi, 2014). The stress of working in a shared community disaster also appears to interfere with this shift in processing the effects of trauma. Simpler and more familiar tasks such as repeated patterns, finger or arm knitting, wet felting, and weaving, for some people may be more appropriate than intricate or novel tasks, in the need to promote flow and restoration of natural rhythms.

Learning and practicing fiber arts before a crisis occurs may be beneficial so that their maximum benefit can be experienced when they are needed. To that end, art therapists should consider creating fiber arts groups for people who are working in professions that are more likely to experience traumatic events or mortality cues. Nurses, hospice workers, social workers, and

first responders, for example, may benefit from ameliorative opportunities to learn a practical, relaxing coping strategy alongside their peers.

Art therapy educators and supervisors may also consider incorporating the therapeutic use of fiber arts as well as information about shared trauma into educational and supervisory programs, both within art therapy and the professions exposed to trauma mentioned above. Students and new professionals are at greater risk of vicarious trauma and, by extension, the negative effects of shared trauma (Adams & Riggs, 2008; Kisley et al., 2020; Pearlman & Mac Ian, 1995). This risk is mitigated in part by training and supervisory support. Students and new professionals in particular need both the knowledge and tools to manage their response to shared trauma when it occurs.

Another implication of the study is that interventions with clinicians working in a shared community disaster need to be flexible and highly adaptable. Because of the disruptions in routine, working environment, and demand for services, clinicians may find themselves pressed for time to make art for self-care or to commit to participating in groups. Projects that are portable can be worked on opportunistically and independently, whenever there are a few spare moments. Although making art together supports comradery, peer support groups may also benefit from a structure wherein participants can make art on their own schedule, and then come together later to check in with each other and discuss their work.

It is also important to be flexible and adaptable, as the needs of clinicians experiencing shared trauma may change over time. The research participants and I each had different experiences with the pandemic, in part because the initial surges of viral outbreak hit our regions at different times. In reflecting on my experiences before, during, and after the study, it seems that during the acute phase of the crisis, what I needed most was to attend to my basic survival

needs (food, shelter, and safety) first. Because my response to extreme stress tends more toward dissociative/freeze than fight/flight, I found that I knitted between sessions, during meetings, and on the phone to maintain my attention and to stay grounded. By the time I got home, I was so exhausted that all I could do most nights was make dinner and go to bed. This experience echoed that of some of the research participants who were experiencing a surge in their state at the time of the focus groups. As the pandemic continued for weeks and later months longer than had been anticipated, the strain of the pandemic was no longer acute; it was chronic. What had been shocking before was now merely frustrating. In our focus groups we discussed our hopes that our circumstances would improve even as we prepared for them to continue.

The shift over time from an acute to a chronic stressor recalls Shaprio's (1995) distinction between large-T and small-t traumas. Both types have the potential for harm; the former through sudden impact and the latter by accumulation. Knitting helped stave off the dissociative effects of the initial shock while it also provided an outlet for the frustrations of the ongoing strain. For clinicians experiencing shared trauma and institutions supporting these workers, there must be awareness of how the response to a community disaster changes over time. At an individual level, this may mean adjusting specific coping strategies. At an institutional level, this means providing both crisis interventions and addressing the concrete needs of workers during the acute stage of a disaster. As the threat passes but challenges remain, interventions that provide ongoing support of the emotional and psychological strain of the events are more appropriate.

This study considered the impact of the shared trauma of the COVID-19 pandemic, which is a type of natural disaster. In contrast, Sherebrin (1991), Huss et al. (2010), and Segal-Engelchin et al. (2020) studied shared trauma from an art therapy perspective in the context of war, which is a type of human-made disaster. The literature has shown that there are differences

in the dynamics of the trauma and needs of those who experience it when the event is interpersonal (Herman, 1992; Lingiardi & McWilliams, 2017; Terr, 1995). Further research is needed to tailor interventions to specific types of disasters, such as naturally occurring events (flood, fires, earthquakes, pandemics) as compared to human-made (war, active shooter events, bombings). Additionally, as imaging technology continues to advance, more is learned about the brain and its emotional, behavioral, and artistic correlates. The field of art therapy would benefit from studies that explore how shared trauma impacts the brain in comparison to other forms of trauma (PTSD, complex trauma, acute stress disorder). Studies utilizing biomarkers and imaging that measure the biological impacts of knitting and other fiber arts may elucidate the therapeutic methods further.

Another implication of the study is the importance of applying bottom-up approaches—already used with clients who have experienced trauma—to professionals struggling with shared, vicarious, or primary traumatic exposure. This process respects needed defenses (e.g., avoidance, distraction, and distancing) by focusing on the art material rather than the traumatic experience directly, as was demonstrated by participants in the study. Bottom-up processing helps create connections which may link body sensations, emotions, and thoughts with meaning where previously words might not be accessible to describe a person's experience. In this way, despite living and working in a shared traumatic reality at the time of the study, all of the participants were able to make thoughtful, reasoned, and creative contributions to group discussion that ultimately lead to the development of the six qualities of fiber arts described in Chapter 4. This study lends further support to the claim that the physical movements and sensations of art making help prompt emotional responses which in turn open opportunities for cognitive connections and the making of meaning (Albright, 2017; Kahneman, 2011). Applying a bottom-

up framework to the research design also seemed to mitigate a common pitfall of the heuristic paradigm, specifically that of getting mired in personal feelings and self-reference (Kapitan, 2018;McNiff, 1998). The participants translated creative, emotional, and somatic responses into discrete concepts that could be validated through consensus.

Although the study focused on shared trauma, the results suggest that fiber arts may support a broad range of purposes from coping with daily stressors through self-care/mundane therapy or difficult life events/exceptional therapy (Dickie, 2011). The results' overlap with NMT (Perry, 2006) suggests that qualities of fiber arts may be compatible with treatment for children and adults who have experienced disrupted neurodevelopment due to trauma. Fiber arts may also provide a novel means for graded exposure as useful in working with grief and anxiety as well as trauma (Marks, 1987; Reynolds, 1999).

Although art making is beginning to be studied as an intervention for shared trauma, consideration of a broad range or materials is necessary to determine what may be more culturally appropriate and will reduce potential barriers to seeking help when needed. In cultures where psychotherapy is not accepted, gathering to knit, embroider, quilt, or weave may be received more readily (Kalmanowitz & Lloyd, 1999; Kira et al., 2012). This consideration leverages the strengths of individuals and communities to heal themselves rather than impose ethnocentric practices that might not be relevant or helpful (Kapitan, 2015; Summerfield, 2001).

It is hoped that the training manual produced from this study will provide greater awareness about the challenges of working in an environment of shared trauma and provide art therapists and other mental health professionals with practical, effective tools to cope with the stress that results. Greater awareness about shared trauma may encourage practitioners to advocate for training, resources, and policies within their workplaces in order that institutions are

prepared for and responsive to crises rather than react without efficacy. For example, clinics may prepare by developing programs that focus on staff wellness and the practice of concrete coping skills. These programs can adjust the frequency and types of interventions to meet the changing needs of staff providing clinical services. Likewise, people in private practice may seek out supervision or consultation from art therapists specializing in shared trauma for added support. Mental health providers could shift from unilateral to collaborative decision making about how to continue providing services safely. Decisions about whether to close or remain open, offer services in person or remotely, and whether to accept new clients have impacts that extend throughout the community. Collective decisions may prevent parts of the mental health system from becoming overloaded during a crisis, which could help ensure accessibility of care for clients and reduce the burden of shared trauma in workplaces that remain open.

Although local and global catastrophes have always challenged generations of people, increasing awareness of shared trauma is crucial at this point in history. Public places, such as houses of worship, schools, businesses, government buildings, and healthcare facilities, have become potential targets for active shooter incidents in the U.S. Extremist ideology is contributing to a greater risk of domestic and international terrorism, and the forced migration of large populations. Global warming is producing more frequent and intense natural disasters of hurricanes, tsunamis, and forest fires. The question is no longer if clinicians will have to manage the challenges of working in a shared traumatic reality, but when.

Limitations

There are several limitations regarding this doctoral project and study. The first limitation to be noted is the small sample size. Although qualitative research that is designed to produce in-depth understanding is necessarily small scale, this study also included a card-

sorting procedure. There are different recommendations regarding the ideal number of participants when utilizing card sorting. Tullis and Wood (2004) recommended a sample of 20 to 30 participants as ideal, whereas Nielsen (2004) suggested that only 15 are needed. These recommendations are based on usability studies in the arena of web design, however. Tullis and Wood (2004) observed that after the sample size grew beyond 20 to 30 users, there were diminishing returns. Similar results were achieved with a sample of 168 users as in a sample of 20 to 30. Nielsen (2004) compared the correlation across sample sizes and found a correlation of 0.75 could be achieved with as few as 5 users; increasing the sample to 15 achieved a correlation of 0.9, 30 achieved a correlation of 0.95, and 60 achieved a correlation of 0.98. He reasoned that the increase in accuracy beyond 15 users is not worth the added expense and effort.

In this study, there were 11 participants in the first set of focus groups. The sample reduced to 8 participants in the second set of focus groups, as some participants were unable to attend due to illness or other obligations. This fell short of the lower limit of the ideal sample sizes identified by Nielsen. Although the sample was small for a study with a card-sorting task, the purpose of the project was to gain exploratory knowledge about the potential application of fiber arts to cope with shared trauma and not to generalizations of the results. Moreover, the initial insights gathered by each of the participants in their heuristic inquiry were assessed and validated by others in the group, with additional elaborations from their expertise as fiber artists. Such validation occurred at two points in the research: first, when the participants used card sorting to review and identify the most salient characteristics of fiber arts with respect to therapeutic qualities, and again when participants reviewed the art directives and activities brainstormed by the other groups. Nevertheless, I had originally hoped for at least 20 participants

to make the results more robust. Replication studies with a larger sample or different shared traumas may help determine whether the same or different qualities of fiber arts are observed.

Additionally, the sample was diverse with respect to age and geographic location but not in terms of gender identity. All the participants identified as cis-gender women. Therefore, the perspectives of people identifying as male, nonbinary, or gender nonconforming were not represented and would be important to include in any future studies. Although fiber arts are commonly associated with femininity and traditional gender roles of women, women are not the only people who knit. Commercial knitting publications are often targeted to women and straight men; however, this excludes gay men who make up a larger proportion of the male knitting population (Myzelev, 2009) as well as transgender people. Such cultural conditioning creates an environment in which gender-normative women are encouraged to embrace their interests and strengths while doing little to promote recognition of the diversity of gender expression and sexual orientation. Future researchers may address this gap by seeking out participants in partnership with organizations that provide services and advocacy to members of LGBTQIA communities.

I recruited the participants through chapters of the American Art Therapy Association (AATA). This was a conscious decision because the chapters have direct lines of communication with their members, including email list servs, social media pages, and websites. For example, it is common practice to post recruitment information for employment and research studies on the New York Art Therapy Association's group email. I thought that using existing channels of communication would increase the chances that prospective participants would see and respond to the study promotion. One of the downsides of this method, however, is that AATA membership is a largely homogenous with respect to gender, racial identity, and socioeconomic

status (Elkins & Deaver, 2018). In the United States, the related professions of social work and psychology have similar demographic patterns (Lin et al., 2015; Salsberg et al., 2017). It is unsurprising that recruiting participants affiliated with AATA would also yield a sample that reflects these demographics. To obtain more diverse samples in future studies, researchers might collaborate with affinity, mentoring, and advocacy groups working with mental health professionals with more diverse social and group identities. Future researchers might also consider conducting research in collaboration with communities of color with strong craft traditions such as the Gee's Bend quilters or the Navajo weaving schools.

Another limitation of the study concerns the relatively narrow window of time for the immersion phase of the heuristic inquiry. I selected the 5-to-10-day period for art making so that busy professionals could reasonably accommodate the study into their schedules. On the one hand, this time frame may have encouraged more participation than if the study had required an extended commitment. On the other hand, the data describe the experience of fiber arts at a particular moment in time. Because the study was time-limited, we did not get to explore how the participants' experience of fiber arts might have changed with extended engagement over several weeks or months.

The online format of the focus groups presented opportunities as well as challenges. Meeting virtually allowed participants from across the United States and Canada to participate in discussion and brainstorming together. This process bypassed barriers like travel time and expense that might normally preclude such meetings. Meeting virtually allowed participants to work from home, offering a glimpse into their personal environment. Discussions were peppered with the sounds of one participant's pet bird, for example. For participants who provide services to clients remotely, we shared their working environment as well. With the prevalence of Zoom

in professional and now personal culture due to the pandemic, the online format mirrored many of our experiences.

There were limitations with the online format, however. First, there may have been prospective participants who were fatigued by too many virtual interactions and decided not to participate in the study as they did not want yet another online meeting to attend. Second, the online format limited some of the nonverbal cues that serve as vital communication during in-person interactions. Third, although participants were able to discuss their artistic process and share pieces they had made on their own, the design did not provide opportunities to make art in the presence of others. They had the flexibility to work as much or as little on their projects before the group started, but it was a solitary endeavor. This experience may have limited some of the interpersonal learning and bonding that often happens in groups who make art together.

Conclusions

This heuristic study and resulting training manual explored the phenomenon of fiber arts as a coping strategy for art therapists experiencing a shared traumatic reality with their clients. Through engagement with knitting, conducting focus groups with fellow fiber artists, and reflecting on our shared experiences, together we developed insights about the therapeutic qualities of fiber arts. Synthesizing the results into a training manual and creative art piece situated these qualities within the emerging discussion of shared trauma in general and the COVID-19 pandemic in particular.

Despite the small sample size, the research design provided opportunities for participants to cross-check their results. There was consensus among the groups with respect to which qualities of fiber arts resonated with their experiences. They were also able to situate suggested directives and media within the framework of these qualities. Their responses corroborate

previous research studies by Reynolds (2000, 2002), Burt and Atkinson (2011), Dickie (2011), Riley at al. (2013), Collier and von Károlyi (2014), and Pöllänen (2015) that fiber arts help to promote flow, relaxation, and improve mood, which may serve as a buffer against difficult life circumstances.

Taken as a whole, the results suggest that fiber arts provide strengths-based opportunities for active coping both individually and in groups. Fiber arts can be used flexibly to adapt to the changing needs that arise during a shared community disaster and may therefore be useful when moving from the acute phase of response through chronic or ongoing stressors, such as the extended disruptions of a global pandemic. Fiber arts may help makers self-regulate during periods of stress, which may in turn enable therapeutic presence with clients. Feelings of helplessness and inadequacy may be worked through and ultimately promote growth by making meaning of difficult experiences.

Overlap of the six qualities of fiber arts with the NMT and ETC suggest that fiber arts may support other populations who benefit from bottom-up neurobiological processing of experience. This includes adults and children who have experienced neurodevelopmental dysregulation due to childhood traumatic experiences, individuals who have been diagnosed with acute stress disorder, PTSD, or adjustment disorder, and students and professionals experiencing vicarious trauma. Because fiber arts may require significant practice in order to switch from explicit information processing to implicit information processing of traumatic experience, early education and opportunities to practice this skill before a disaster occurs are needed.

Further research could help explore the phenomenon of using fiber arts with more diverse groups of people including people of color and people who identify as men, gender non-conforming, transgender, or nonbinary individuals. Studies exploring the difference between in-

person and virtual group participation may further clarify the benefits and limitations of art therapy research and services conducted through digital means. Further research about extended engagement in fiber arts as coping over time may illuminate how the use of fiber arts for coping may change over time, particularly in parallel with the developments of community disaster.

Finally, living, working, and conducting research during a shared community reminds me of Emily Dickinson's (1935/1970) poem about grit and courage to overcome adversity, *We grow accustomed to the Dark*.

We grow accustomed to the Dark —
When Light is put away —
As when the Neighbor holds the Lamp
To witness her Good bye —

A Moment — We Uncertain step
For newness of the night —
Then — fit our Vision to the Dark —
And meet the Road — erect —

And so of larger — Darkness —
Those Evenings of the Brain —
When not a Moon disclose a sign —
Or Star — come out — within —

The Bravest — grope a little —

And sometimes hit a Tree

Directly in the Forehead —

But as they learn to see —

Either the Darkness alters —

Or something in the sight

Adjusts itself to Midnight —

And Life steps almost straight.

(Dickinson, 1935/1970)

When disaster strikes it can feel as though the world is entrenched in darkness. Death, destruction, loss, fear, and overwhelming uncertainty abound. People are stumbling around in the dark, not knowing what to do or relying on their instincts to guide them. After the initial shock, the eyes start to adjust, and forms begin to emerge, blurry and colorless at first but clearer as time goes by. Those who are courageous enough to venture further into the dark, explore, and try new things risk making mistakes or failing. If they can learn from the darkness and their foibles they adapt and may even thrive.

Working in a shared traumatic reality is at times frightening, overwhelming, humbling, and gratifying. Just as the risk of posttraumatic stress looms, so too does the potential for posttraumatic growth. Knitting for me has been a way of being gentle with myself when the world has been harsh. It is my hope others maintain the courage to continue serving their community and consider picking up their knitting needles or crochet hooks to create moments of compassion for themselves.

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Appendix A

Mount Mary University
AGREEMENT OF CONSENT FOR RESEARCH PARTICIPANTS
Fiber Arts and Shared Trauma Project
Bethany Altschwager
Art Therapy

You have been invited to participate in this research study. Before you agree to participate, it is important that you read and understand the following information. Participation is completely voluntary and you may withdraw from the study at any time. Please ask me questions about anything you do not understand before deciding whether or not to participate.

PURPOSE: I understand the purpose of this research study is to learn what art therapists have experienced as the potential healing role of fiber arts during the shared trauma of the COVID-19 pandemic. I understand that I will be one of approximately 18 participants in this research study.

DURATION: I understand that my participation will consist of 5 to10 days of independent art making, one week of reflection, and two 90-minute focus groups held over the course of one month. This will be a commitment of 9 to 24 hours of my time in total.

PROCEDURES: The two focus group meetings will be conducted to gather information relevant to the use of fiber arts to relieve symptoms of shared trauma. I understand that I will be audio- and video-taped during the meeting to ensure accuracy. Anonymous written excerpts from the recordings may be used as part of the raining manual made to instruct art therapy education programs and institutions providing mental health services about shared trauma. I understand that I may refuse to have images of my artwork included in the training manual and that my likeness will not appear in the training materials.

RISKS: I understand that the risks associated with participation in this study include feeling discomfort while making art or talking about my experiences during the focus groups. I understand that while my participation in the research group may feel supportive it is not intended as mental health treatment. If I require mental health treatment, I understand that I can contact Disaster Distress Helpline (1-800-985-5990) for crisis intervention and SAMHSA's National Helpline (1-800-662-4357) for assistance locating a mental health counselor, psychiatrist, or therapist.

BENEFITS: I understand that the benefits associated with participation in this study include setting aside time to attend to my own self-care and connecting with other art therapists who have similar experiences to myself. Additionally, participation in this study may increase

understanding of this topic and provide education to others about the phenomenon of shared trauma.

CONFIDENTIALITY: I understand that all information I reveal in this study will be kept confidential. When the results of the study are published, I will not be identified by name. I understand that any data/video files will be deleted from electronic files or shredding paper documents three years after the completion of the study and my contribution will be identified only by number and classification. All data will be kept in a locked file and/or hard drive with the researcher for three years after the completion of this project, then destroyed. It is not anticipated that data from this project will be used in future studies.

VOLUNTARY NATURE OF PARTICIPATION: I understand that participating in this study is completely voluntary. I may withdraw from the study and stop participating at any time without penalty or loss of benefits to which I am otherwise entitled. I understand that I simply need to state to the researcher that I no longer wish to participate. In addition, if I request it, I can withdraw all of my data from the project. If I do not request the withdrawal of my data, I understand that they will be used as part of the project and will be kept and destroyed along with all other project data.

CONTACT INFORMATION: If I have any questions about this research project, I can contact Bethany Altschwager at *[redacted]* or *[redacted]*. If you have any questions regarding your rights or privacy as a participant in this study, please contact Dr. Tammy Scheidegger, Mount Mary University Institutional Review Board Chair, 2900 North Menomonee River Parkway, Milwaukee, Wisconsin, 53222-4597, telephone *[redacted]* or email *[redacted]*.

I have had the opportunity to read this consent form, ask questions about the research project and I am prepared to participate in this project.

_____ _____

Participant's Signature Date

_____

Participant's Name (Print)

_____ _____

Researcher's Signature Date

Appendix B

End Notes as they appear in the Training Manual

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