7-2-2021

Individualized Music Relaxation and Composition as a Coping Skill for Survivors of Intimate Partner Abuse in and out of the Therapeutic Setting

J. Juliet Weight
Illinois State University, jjweigh@ilstu.edu

INDIVIDUALIZED MUSIC RELAXATION AND COMPOSITION AS A COPING SKILL

FOR SURVIVORS OF INTIMATE PARTNER ABUSE IN AND OUT OF THE

THERAPEUTIC SETTING

J. JULIET WEIGHT

112 Pages

In one day in 2016, there were 41,195 domestic violence victims reported in emergency shelters or transitional housing units within the United States. Many of these victims struggle with PTSD, stress, and anxiety. There is a need for creating a coping skill that can address traumatic responses in and out of the therapeutic setting. Creating a musical representation of a survivor's internal safe space could be used as a coping skill to reduce trauma responses. The purpose of this study was to see if the creation of an individualized musical safe space as a coping skill could reduce stress of a person in and outside of the therapeutic setting. The researcher created a format to guide the composition process with the three participants. The researcher practiced using the coping skill with each participant. Stress levels were monitored using a STAI self-assessment while in-session, and showed statistically significant reduction of stress in the participants. The participants then used the coping skill outside of the therapeutic setting for 10 days. The participants self-reported through a survey and interview that the coping skill was helpful for reducing stress in their daily lives. Creating an individualized music and relaxation composition shows promise as a coping skill for reducing trauma responses, stress, and anxiety in domestic violence victims.

KEYWORDS: Coping skill; Trauma Treatment; PTSD; Music Relaxation; Intimate Partner Abuse; Domestic Violence; Safe Space; Music Composition

INDIVIDUALIZED MUSIC RELAXATION AND COMPOSITION AS A COPING SKILL

FOR SURVIVORS OF INTIMATE PARTNER ABUSE IN AND OUT OF THE

THERAPEUTIC SETTING

J. JULIET WEIGHT

A Thesis Submitted in Partial
Fulfillment of the Requirements
for the Degree of

MASTER OF MUSIC

School of Music

ILLINOIS STATE UNIVERSITY

2022

INDIVIDUALIZED MUSIC RELAXATION AND COMPOSITION AS A COPING SKILL

FOR SURVIVORS OF INTIMATE PARTNER ABUSE IN AND OUT OF THE

THERAPEUTIC SETTING

J. JULIET WEIGHT

COMMITTEE MEMBERS:

Andrea Crimmins, Chair

Cindy Ropp

Rick Valentin

ACKNOWLEDGMENTS

CONTENTS

TABLES

CHAPTER I: INTRODUCTION

Trauma is pervasive in our lives. According to the Center for Disease Control and Prevention (CDC), "more than 1 in 3 heterosexual women have experienced or will experience rape, physical violence, and/or stalking by an intimate partner during their lifetime" (Breiding, et al., 2014, p. 27). Since the beginning of the 21st century, it was estimated that there are 60 million survivors of childhood sexual abuse in America (Amir, 2004). In the United States, "the Centers for Disease Control and Prevention estimate that child abuse and neglect cost us $124 *billion* a year" (Bloom, 2013, p. 281). Additionally, looking at the Iraq and Afghanistan war, there have been as many as 500,000 U.S. troops diagnosed with PTSD, a diagnosis that has close ties to experiencing traumatic experiences (Reisman, 2016).

According to the Diagnostic Statistic Manual 5th edition (DSM 5), the definition of trauma disorders includes "psychological distress following exposure to a traumatic or stressful event" (American Psychiatric Association, 2013). Traumatic experiences can be the result of natural disaster, such as earthquakes, or man-made disasters such as war (Fragedakis, & Toriello, 2014; Yu, et al. 2010). It can also be the result of targeted aggression, such as sexual assault, or it can take on the form of being a victim of an overall systematic aggression, such as police brutality (APA 2013). Trauma effects individuals in many different ways and these effects usually persist long after the event itself (Carr, et al., 2010). Because of this, it is a logical conclusion that there are different stress responses that an individual can exhibit in diagnostic form. The following are the most common diagnoses for those who have been through traumatic experiences.

Diagnosis with Trauma

Post-Traumatic Stress Disorder (PTSD)

Of all the diagnoses associated with trauma, Post Traumatic Stress Disorder, or PTSD, has the most far-reaching effect on survivors of traumatic experiences. The Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5), specifies PTSD as having episodes of "recurrent, involuntary, and intrusive recollection(s) of the event" (American Psychiatric Association, 2013) Additional criteria for PTSD include some of the following: having reoccurring distressful dreams where the content is related to the trauma; and experiencing "flashback" memories to the event itself when triggered by a similar stimulus. These flashbacks can be any kind of somatic response, whether visual, auditory, or sensory in the body and can last hours, even days (Stewart, & Dadson, 2012, p. 335). This is in part because traumatic memories are often encoded in the brain differently than non-traumatic memories, creating a different outlook and recorded experience (Bayne, & Thompson, 2018; Dell, & O'Neil, 2009, p. 374; Steele, & Malchiodi, 2012, p. 85). Additionally, hypervigilance and avoidance tactics to protect oneself from stimulus that could possibly trigger one of these flashbacks is common. For example, an individual could experience feelings of stress and anxiety on a windy day if their traumatic event was associated with a natural disaster such as a hurricane. As they fear this, they may avoid going outside altogether when it is windy. Other side effects of PTSD include, "a markedly diminished interest or participation in previously enjoyed activities, feeling detached or estranged from other people, or inability to feel positive emotions" (APA, 2013). Different criteria also include negative mood and cognition after the traumatic event(s) happen. These changes include difficulty remembering important details about the traumatic event, negative beliefs of one-self or "self-blame," and a distrust of others, and an overall negative view of the

world (APA, 2013; Coffey, et al. 1996; Schrader, & Wendland, 2012; Stewart, & Dadson, 2012, p. 339-340). This negative outlook can also affect the social wellbeing of the individual (DeCou, et. al., 2018). "Highest rates (of PTSD) … (ranging from one-third to more than one-half of those exposed) are found among survivors of rape, military combat and captivity, and ethnically or politically motivated internment and genocide" (APA, 2013).

PTSD is a comorbid diagnosis (APA, 2013; Winter, 2019 p. 9). The DSM states, "individuals with PTSD are 80% more likely than those without PTSD to have symptoms that meet diagnostic criteria for at least one other mental disorder" (APA, 2013). Other disorders include depressive disorder, bipolar disorder, anxiety disorder, or substance use disorder. In a study conducted by Car et. al. (2010), adults who had suffered sexual abuse as children were studied to determine the lasting effects of surviving this traumatic experience. Many of the adults had developed negative coping skills such as substance abuse, or attachment issues later in their life.

Secondary Post-Traumatic Stress Disorder

Secondary Post-Traumatic Stress Disorder falls under the diagnosis of PTSD. What is different than primary PTSD is that the individual hasn't experienced the traumatic event themselves, but hears about it from the primary source who has experienced the traumatic experience. The symptoms for Secondary PTSD are similar to primary PTSD including hypervigilance, and avoidance of any stimuli that might trigger feelings of duress associated with the trauma. Other symptoms include: Inability to listen or work with trauma individuals, sleeplessness, fear, chronic exhaustion, physical ailments, and the re-experience of personal traumas from the past (NCTSN, 2000). Secondary PTSD is commonly found with social workers, therapists, nurses, and first responders (Greinacher, et al., 2019).

Dissociation

Dissociation is defined as "a disruption in the usually integrated functions of consciousness, memory, identity, or perception of the environment" (APA, 2013). Dissociation is a protective mechanism used to survive a traumatic experience (Bayne, & Thompson, 2018, p. 232; Dell, & O'Neil, 2009, p. 109). It is described as the splitting of consciousness, and dissociation results in alterations in perception, emotion, cognition, perception of self and body, and behavior (Dell, & O'Neil, 2009, p. 374). Dissociation within chronic cases of PTSD, are most often characterized when an individual is so hyper-aroused by a stimulus that it reminds the person of the traumatic event. This then leads the individual to splitting their consciousness which is marked by "numbness, detachment, resignation, and distance from their emotion"s (p. 374). The mind employs this method to save the individual from experiencing the high arousal states felt during the traumatic experience. Dissociation is often felt by those who feel like they can't escape from the traumatic experience (Amir, 2004).

Acute Stress Disorder (ASD)

Acute Stress Disorder, or ASD, shares the common characteristics of PTSD, including: flashbacks, nightmares, distrust towards people, hypervigilance, disinterest in previously enjoyed activities, memory impairment regarding the traumatic event, and negative beliefs of self. The critical difference between PTSD and ASD is that symptoms of ASD occur within the period of 3 days to a month after the disorder has occurred, but then the symptoms subside. If the symptoms continue to persist, then the diagnosis changes from Acute Stress Disorder, to PTSD (APA, 2013).

Other diagnoses are possible for those who have experienced traumatic events. For a full list of possible diagnoses, refer to the American Psychiatric Association (APA, 2013). Since this

list is extensive, they will not be fully reviewed by the researcher at this time. Of those listed, PTSD will be focused on as a main side effect for individuals who have survived traumatic experiences.

Domestic Violence or Intimate Partner Abuse and Trauma

Domestic Violence or Intimate Partner Abuse is abuse within the context of an intimate partner relationship, where one partner asserts dominance and control over the other partner (Victims of Crime, 2018). Domestic Violence includes five subsections: Physical abuse (hitting, choking, pushing); Sexual abuse (sexual assault, rape, control over reproductive health); Emotional abuse (name-calling, humiliation, manipulative behavior, social isolation); Economic abuse (controlling access to money); and Stalking (repeated, unwanted contact that intimidates or causes concern for personal safety via personal interactions, or online interactions) (MedlinePlus, 2020). Domestic violence is oftentimes under reported, and victims include both men and women of all different ages, races, and genders. Those at higher risk for domestic violence include the following racial identities: American Indian, Alaska Native, and African American peoples (Victims of Crime, 2018). In one day in 2016, there were 41,195 domestic violence victims reported in emergency shelters or transitional housing units within the United States (Symes, et al., 2018). Additionally, approximately 38.3 million heterosexual women will experience rape, physical violence, or stalking by an intimate partner in their lifetime. For heterosexual men, 30.3 million men will experience physical violence in their lifetimes. This number is not a reliable estimate of sexual violence or stalking for men, as men frequently underreport these crimes. These numbers exclude bisexual, gay, queer, and lesbians (Breiding, et al., 2014, p. 30-31).

Many of the individuals who seek help will go to shelters, or organizations that can help them with legal cases. Mental healthcare in these facilities is crucial, as those who come to shelters are most often experiencing ASD symptoms, and if not treated, those symptoms can turn into long-term PTSD (Hernandez Ruiz, 2005). Musical interventions designed to treat trauma have shown to be effective, yet research using music therapy interventions with this specific population is limited. While there has been ample research done with survivors of sexual trauma, there are many other types of abuse that can happen under the umbrella term of Domestic Violence. As such, there is a lack of literature in addressing individuals who have suffered from different forms of abuse under the term Domestic Violence.

Significance of the Study

Due to the variety of traumatic experiences, there needs to be a plethora of treatments. Of the music therapy research available working within this population, there have been effective treatments to decreases of stress and anxiety, and for processing traumatic experiences. In one study designed to increase relaxation before sleep in a Domestic Violence shelter, Hernandez-Ruiz found that playing relaxing music reduced stress and anxiety, allowing the survivors to sleep more deeply (Hernandez-Ruiz, 2005). While working with inner city adolescents who have suffered from sexual trauma, Mechelle discovered that improvisation was a way for the clients to express themselves in a healthy way, thus finding a sense of self while processing the experience (2013, p.160). Additionally, including musical preference and having knowledge using a variety of instruments is a way for the client to connect with the musical content more readily (Brehrens, 2012; Chlan & Heiderscheit, 2009; Curreri, 2016; & Mechelle, 2013, p.165). These elements of relaxation, improvisation, and musical preferences has shown to help individuals who have suffered trauma. Working with these elements specifically within this population of Domestic

Violence needs to be further explored, as tailoring to the needs of clients must happen (Arthur, 2018; Hiller & Gardstrom, 2018; Strauss, 2015).

<div align="center">**Theoretical Basis**</div>

Trauma has far-reaching impacts on people. As trauma can affect people differently, there have been a wide variety of ways people have treated trauma both musically, and non-musically. Of those treatments, a variety of key elements have shown to be foundational.

Physical Safe Place

The importance of a safe place comes up frequently in the treatment of trauma. It is a basic fundamental piece that allows the client to move forward with their healing process (Bayne, & Thompson, 2018; Beer & Bernhaum, 2019; Bloom, 2013; Lanktree & Briere, 2017; Rothschild, 2000; Schwarz, 2002; Steele, & Malchiodi, 2012). A safe space is where there are low somatic responses, which may include low internal dialogue or low flight or fight response (Schwarz, 2002, p.76). In order to work through the distressing experiences, the survivor will have to relax the defenses used to survive the trauma in order to heal. This must be done within a safe space for the individual or re-traumatization can occur (Rothschild, 2000, p.87). For survivors of Domestic Violence this can be difficult, as the places where most people feel safe are most often the very places where these individuals experienced their trauma, i.e., within the home.

Mental Safe Space

In addition to physical safety, a mental safe space is also important for the individual to develop (Bloom, 2013; Lanktree & Briere, 2017; Rothschild, 2000;). The mental safe space is a specialized anchor that can be used when working through traumatic memories (Bayne, & Thompson, 2018; Rothschild, 2000). By using the mental safe space, it can engage a low somatic

response within the body. It can be used to self-soothe the person when presented with triggering stimuli in daily living.

Music and Relaxation

Traumatic experiences often trigger fight or flight responses when reviewed by the victim. As such, coping skills that include elements of relaxation are crucial for reducing the effects of trauma. Music therapy has been shown to be an effective treatment in achieving this. In a study conducted in Cambodia at a shelter for children survivors of sexual exploitation, the music therapists used music and relaxation to "teach self-calming strategies, elicit relaxation, and aid in sleep induction" (Schrader, & Wendland, 2012). The selection of music chosen was mostly non-lyrical, with a slow tempo, with light instrumentation such as harp, piano, or strings. In another study conducted by Teague et al., music therapy was studied in conjunction with other expressive therapies for women who suffered intimate partner violence (2006). Among the interventions used was the intervention music and relaxation. It was found that the intervention reduced depression and anxiety.

Guided Imagery and Music (GIM)

Guided Imagery and Music, or GIM, is a technique that is commonly used by music therapists to induce relaxation for their clients and does not require special training or certification to implement in music therapy practice. GIM uses music to lead the direction of a mental imagery meditation to reduce stress (Lee & et al, 2016; Maack, & Nolan, 1999; Matto, et al., 2015). GIM has been shown to be a successful method in allowing clients who have traumatic experiences reduce the effects of the experiences on their daily living (Maack, & Nolan, 1999; Ventre, 1994).

Improvisation

The intervention music improvisation is when "…clients and therapist relate to one another through the process of extemporaneous music-making with voice, instruments, or other media" (Hiller, 2009). The use of improvisation can "transform feelings of helplessness and avoidance to feeling like being an active agent in one's life" (Beer & Bernhaum, p. 142, 2019). A sense of control over one's life and decisions is crucial in the treatment of trauma (Christenbury, 2015; Pavlicevic, 2002, p.111-113; Sutton, 2002, p. 31; Tony, 2004). In a study working with clients who had suffered sexual abuse, Amir (2004) used improvisation to process trauma. The intervention was foundational in the client talking through their traumatic experiences and finding relief from it. Improvisation was also used as an intervention in the treatment of active military personnel suffering from PTSD and TBI (Traumatic Brain Injury). The use of improvisation was found to increase familial bonding, and social engagement with others (Bronson, et al., 2018).

Emotions are complex, the instrument options to express those feelings should also be varied for the client (Robb, 1996). In a study done in Bethlehem, Brehrens (2012) brought a variety of instruments into a session for children who had suffered traumatic experiences in a warzone. The instruments brought were western (such as a guitar), and eastern (such as a tabla), and Brehrens (2012) taught the children how to play each of the instruments as an option to express their individual voices. In a study in Germany, Strehlow worked to discover an instrument that represented security for her young client who had been sexually abused. The client chose the recorder as this instrument was familiar, and had clear rules (2009, p. 175).

Relevant Literature

There is little research that has combined elements of each treatment method. The creation of a mental safe space can give the client a coping skill to use in daily living when presented with triggering stimuli. However, without a guide in creating that mental safe space, it can be difficult for the person to effectively use that intervention, especially when survivors of Domestic Violence have rarely been in a physical safe space. Music can be a way to lead the client to access a mental safe space through the use of relaxation and guided imagery to induce relaxation when confronted with triggering stimuli. The creation of a musical safe space would need to be unique for each client. What is calming to one person can be triggering to another person, as our life experiences and personal preferences are different (Chlan, & Heiderscheit, 2009). In having the client participate in creating a musical representation of a safe space, the person would be able to tailor the creation to represent exactly what they need for their lives. Inherent within the process of creating is the process of healing. Working with the client to create a unique musical representation of a safe space has not been done before within music therapy.

Purpose Statement

The aim of this study was to create a music therapy intervention that can help reduce stress and anxiety for survivors of domestic violence. The goal was to create with the client an individualized musical representation of a safe space that calms the client and reduces stress. This musical representation was then used as a foundation for teaching the client how to use this musical representation as a coping skill when confronted with stress and anxiety inside and outside of the therapeutic setting.

Research Questions

The research questions for this study are as follows:

1. What is an effective way to make an intervention that is a personalized representation of a musical safe space for the client?

2. Would the creation of such an intervention reduce stress with the client while making and using it during a music therapy session?

3. Is the musical representation of a safe space effective in reducing stress outside of a therapeutic setting?

CHAPTER II: REVIEW OF LITERATURE

History of Music Therapy and Trauma Treatment

Musical treatment of trauma has extended back many years. Notably, in both World Wars, Music Therapists worked clinically to treat veterans when they came home 'Shell Shocked' (Mechelle, 2013, p.160). We now know that these soldiers were exhibiting symptoms of PTSD. Further training was needed to help these soldiers suffering from trauma, and the first academic program for training Music Therapists was created at Michigan State University in 1944. From there, the professional field of Music Therapy has grown considerably, with the foundation of the National American Music Therapist (NAMT) in 1950, and the foundation of the American Association for Music Therapy (AAMT) in 1951. In 1983 the Certification Board for Music Therapists (CBMT) was founded to maintain a standard of evidence-based practices for Music Therapists to use clinically. In 1998, NAMT and AAMT associations merged to form the current American Music Therapy Association (AMTA). AMTA has advocated for Music Therapists to work with all types of clients and populations in need, including those who have suffered the effects of trauma.

Domestic Violence and Trauma

On September 16th in 2015, there were 71,828 victims of domestic violence that asked for services from 1,752 Domestic Violence shelters in the United States (National Network to End Domestic Violence, 2016). Of those that asked for assistance, 40,302 of them found refuge in shelters and transitional housing. Additional services provided by local programs on this day included: Individual support or Advocacy, Children's support or advocacy, Emergency Shelter services, Transportation, Court Advocacy, Education Programs, and Group Support. The need

for a safe space for these individuals was critical. Many of the safe spaces people think of outside

of this population are the exact spaces where people in *this* population are being traumatized. As

such, providing shelter for physical safety, as well as therapeutic services that can help the

individual form a mental safe space should be considered (Wigram, 2006, p. 136).

Another unique consideration is that this population has recently suffered traumatization.

If not properly treated, these individuals may return to the environment where they were being

traumatized in the first place, without meaningful change (Hernandez-Ruiz, 2005). Thus, they

may fall victim to the same trauma multiple times. There are many who seek help from shelters

who are already exhibiting the signs of PTSD (Symes, et al., 2018).

While the needs of Domestic Violence survivors vary depending on the type of trauma(s)

they have experienced, the treatment of trauma does have similar strategies regardless of the type

of trauma experienced. With this in mind, looking at a variety of treatment strategies for trauma

both inside and outside of the Domestic Violence population can be effective to learn from.

Nonmusical Interventions

Hypnotherapy

There are many uses for hypnotherapy in treating trauma. Some of the main points, are to

diminish the side effects of the traumatic experience, and "reduce or suspend habitual conscious

thought and activity" (Lankton, 2010, p. 99-107). The therapist has to be trained and certified in

hypnotherapy, and as they put the client into a trance-like state, which Lankton (2010) describes

as "a heightened state of internal concentration", the client can then access parts of the mind that

are from early childhood to adulthood (p. 99). The therapist with then help the client process

those memories to find relief in present circumstances. Creation of a mental safe space can be

created with the client to refer to when the client is feeling too triggered (Rothschild, 2000, p.

95). Lankton (2010) used hypnotherapy with clients to help them with "redecision" (p. 105). This is to help the individual believe and say more positive self-statements, and to have confidence in their ability to succeed and do hard things.

Eye Movement Desensitization and Reprocessing (EMDR)

Eye Movement Desensitization and Reprocessing, or EMDR, has shown to be effective with many different populations who have suffered a variety of traumatic experiences (Leeds, 2016, p. 18; Stewart & Dadson, 2012, p. 336). Examples include: survivors of man-made disasters, motor vehicle, train, and airplane crashes, war, combat trauma, terrorism, sexual assault, childhood abuse, diagnosis of terminal illness, phantom limb pain, chronic substance abuse, and somatoform disorders (Leeds, 2016, p.18).

This method originated in hypnotherapy, however the client is fully awake during treatment. EMDR is a technique employed by a certified therapist who uses movement to allow unprocessed memories or experiences to surface for the client, and allows the client to process the event, and to reduce the stimulation or trigger responses associated with the memory or experience. It is a somatic method, as the therapist often asks the client to explain where they are feeling their hyperarousal, or the negative memory/emotion in their body. As the client focuses on that spot, the therapist asks the client to focus their eye movements on the ends of the therapist's fingers as the therapist rapidly moves their fingers in different directions. Another form of EMDR is using low beeps in headphones with the client. This allows the client to access the memory and follow its effect in the mind. The client and the therapist then process what memories, emotions, or body responses surface (Leeds, 2016 p. 8-13). In an overview of the development of music therapy in mainland china, Wu (2018) talks about how Gao, a certified EMDR therapist, combined the idea of using music entrainment and imagery with EMDR to

create a one-of-a-kind method of treating PTSD symptoms. "This technique has been suggested to be an effective method in 'eliminating the influences of traumatic events on many clients'" (Wu, 2018, p. 91). Further research needs to be conducted in the combination of EMDR practices and music.

Musical Interventions

In addition to these different therapeutic approaches, music therapy has shown to be beneficial in treating trauma (Amir, 2004; Arthur, 2018; Beer & Bernhaum, 2019; Day, 2005; Leeds, 2016, p. 18; Schrader & Wendland, 2012; Steele, 2019, p. 77; Strehlow, 2009). According to the American Music Therapy Association, music therapy is "the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program" (AMTA, 2019, para. 1). Taking a musical approach to treating trauma can access a new set of strengths, as music is a way of expression that doesn't rely on words alone (Beer & Bernhaum, 2019; Dixon, 2002, p.124-128; Steele, 2019, p.85). Traumatic memories contain somatic responses within the body because they have been processed differently than non-traumatic experiences within the brain (Day, 2005; Leeds, 2016, p. 18; Levine, 1997, p. 20, 47; Schrader, & Wendland, 2012; Staples, et al., 2011). As such, when treating trauma, involving the body in treatment has a far-reaching effect on the individual as it can teach the individual to pay attention to the sensory signals within the body (Steele, 2019, p. 77). Playing instruments and singing can accomplish this sensory connection (Robb, 1996).

Music and Relaxation

Relaxation techniques that incorporate music have been some of the most effective and widespread uses of music therapy for trauma victims (Chaln & Heiderscheit, 2009; Hernandez-

Ruiz, 2005; Jespersen & Vuust, 2012; Madson & Silverman, 2010; Schrader, & Wendland, 2012). The need to reduce stress and anxiety in clients suffering from traumatic experiences is incredibly important, as doing so allows the individual to have control over themselves and how they react to others. With regard to clients that suffer from PTSD, relaxation techniques can calm the client if and when they are experiencing flashback moments. It can also assist to help induce sleep if they are afraid of traumatic experiences reoccurring in their dreams.

In a review of a women's shelter, Hernandez-Ruiz (2005) discovered that women who had suffered from domestic violence had higher levels of stress and sleep disturbances while in the shelter. Hernandez-Ruiz (2005) stated that this can turn into symptoms of PTSD if left untreated, as the environment where the person recovers is important to influence lasting change in the individual. Hernandez-Ruiz (2005) used a music therapy intervention that included muscle relaxation to reduce stress levels in the clients and to assist in a higher sleep quality. The study was shown to be effective in helping the women have a higher sleep quality and to feel calmer.

Relaxation and music have also shown to be effective in treating sleep problems for refugees. Similarly, Jespersen & Vuust (2012) conducted a relaxation and music intervention at bedtime in a camp for refugees. The music selected was chosen for its ability to induce calming and positive emotions (Jespersen & Vuust, 2012). The results showed that sleep quality was greater for the refugees, as well as an increase in well-being was found in the group that had the relaxation and music intervention. "When considering the debilitating effect of sleep problems…music provides a safe and pleasant intervention that is easy to implement" (Jespersen & Vuust, 2012, p. 227).

Recovering a sense of control over one's life during recovery is important (Smyth, 2002, p. 57). Finding ways to relax the body can be empowering for the clients. In an ICU unit,

effective calming techniques were used with patients who were receiving mechanical ventilatory support and struggling with pain. The ventilator machines didn't allow the individual to speak while in use, thus adding more stress for the patient. The Music Therapist guided them through relaxation exercises which grounded the patients and allowed them to feel more in control over a situation where they felt helpless.

Chaln & Heiderscheit (2009) explained that it is easier for the clients to relax when the Music Therapist uses music that is familiar to the client as they already have a connection with the music. This connection to music can be an important element in selecting music to work with the client, as it is individually treating the Client's needs. In the case of treating clients dealing with a traumatic past, music selections that induce positive memories, or have self-expression can encourage the client to feel positively about oneself.

In addition to an ICU unit, Madson & Silverman (2010) used relaxation techniques to reduce pain for organ transplant patients. The music was shown to reduce stress and distract from anxiety and pain perception in adults, and to increase optimism about their recovery (Madson & Silverman, 2010).

Music Therapists have also combined relaxation techniques with improvisation interventions, as Brabant & Erkkila did, and it has shown to be effective (2018). Brabant & Erkkila (2018) used resonance frequency breathing exercises at the beginning of music therapy sessions as an opening exercise to help the client relax and to clear their minds of unwanted stresses. This allowed the clients to move into an improvisation session that was much freer and full of expression for the clients. Using relaxation and improvisation was also used with women in a shelter who suffered from intimate partner violence (Teague et al., 2006). The combination

of relaxation and improvisation fostered self-expression and reduced anxiety (Teague et al., 2006).

Guided Imagery and Music (GIM)

Guided Imagery and Music, or GIM, is a technique that is commonly used by music therapists to induce relaxation for their clients and does not require special training or certification to implement in music therapy practice. Guided Imagery is similar to a guided meditation where the therapist will prompt the client to relax their body and mind incrementally and then will create a relaxing imagery experience in the mind of the client that they can enjoy. Throughout this experience is the use of music, which allows for further relaxation and can help clients better process negative events, experiences, and emotions (Lee & et al, 2016; Maack, & Nolan, 1999; Matto, et al., 2015). GIM has been shown to be a successful method in allowing clients who have traumatic experiences reduce the effects of the experiences on their daily living (Maack, & Nolan, 1999; Ventre, 1994). GIM can also be used in a group setting, known as GrMI. Torres et al. (2018) showed the positive effects of GrMI in treating women with fibromyalgia in the hospital. With their study, it was shown that there was a positive change in psychological well-being, pain perception and reduced depressive mood for the patients.

Bonny Method of Guided Imagery and Music (BMGIM)

The Bonny Method of Guided Imagery and Music, or BMGIM, method has been utilized for the client to explore their subconscious psyche and to discover the inner needs of the client. In order to use this method with clients, Music Therapists receive special training and certification. There are many benefits of this approach (Blake & Bishop, 1994; Choi & Lee, 2014; Horn & Klessmann, 1983). It is a way to bring up the traumatic experience(s) and process it more fully so it can have less power over the individual. In order to process these needs, the

therapist guides the client through a relaxation period using classical music, that evokes imagery for the client to explore their psyche to. "BMGIM may be a powerful uncovering process in exploring levels of consciousness not usually available to normal awareness" (Bonny, 2002, p. 141).

The music therapist uses special selections of different classical music that are used to induce the relaxation and to explore the subconscious level with the client. While listening, the client explores the mental psyche and connects to past memories, daydreams, feelings, kinesthetic and sensory reactions that are connected to a deep inner self (Bonnny, 2002, p. 161). Where BMGIM is very introspective, it can also be used for a variety of ailments, from pain and stress management, to other deeper introspective needs (Burns, 2001). "…BMGIM has since proved its clinical effectiveness with eating disorders, dissociative and anxiety states, autistic adults, Post-Traumatic Stress Syndrome, and victims of sexual abuse, violent crimes, and trauma" (Bonny, 2002 p.161).

Physical Safe Place

The importance of a safe place is crucial in the treatment of trauma, as it is a basic fundamental that allows the client to move forward with their healing process (Bayne, & Thompson, 2018; and Beer & Bernhaum, 2019; Bloom, 2013; Lanktree & Briere, 2017; Rothschild, 2000; Schwarz, 2002; Steele, & Malchiodi, 2012). In the book *Tools for Transforming Trauma,* Schwarz (2002) teaches that a safe space should be a place where the person can experience a feeling of calm and peace, where internal dialogue is limited, and where the body's nervous system can relax fully. Schwarz explains that creating an internal sense of security and safety can be independent of what is happening outside of the mind, but can be a way to influence the person's behavior positively (Schwarz, 2002, p. 76).

The safe space can be applied physically to the client's home environment, work, school setting, etc. and at the therapist's office (Steele, & Malchiodi, 2012, p. 95). Rothschild in his book *The Body Remembers,* discusses how the body has used inner defenses to protect the mind and body to survive the traumatic experience. Working through trauma requires the individual to let down those defenses to process what has happened. If the individual is still in an environment where they are unsafe, they run the risk of re-traumatization (2000, p. 87). Rothschild (2000) goes on to describe what can be done if the client is still in an unsafe environment. He advises to remove any potential trigger from the life of the client and to implement any strategy necessary to increase the safety of the client such as locks on the house, a reliable car, and having a place to live (Rothschild, 2000, p.87). Looking at creating a safe space for the client in a therapeutic setting, Bloom (2013) developed seven "Sanctuary Commitments" to be applied in the therapist's space. The first commitment is Safety: "attaining physical, psychological, social, and moral safety in self, relationships, and environment" (Bloom, 2013, p.278). Therapeutic work cannot be engaged in effectively if the client doesn't feel like they are safe, whether that is physically, emotionally, or mentally. Lanktree & Briere (2017) approached this need in a different way. Lanktree & Briere encouraged their young clients to bring things from home that helped them feel comfortable. Among some of the examples given were a stuffed toy or a CD that the Clients listened to frequently (Lanktree & Briere, 2017, p. 72). Music is something tangible that the client can use to produce feelings of "safeness" in new and unfamiliar environments for children and adults alike. Beer & Bernhaum (2019) talks about this as she describes teenagers' use music as a source of strength, pride, and identity. Their musical selections are under their control and allow them to have a sense of regulation over the world around them (Beer & Bernhaum, 2019, p. 141). "This in turn can lead to an increase in resilience

as he (or she) becomes better able to respond to the lingering effects of trauma" (Beer &

Bernhaum, 2019, p. 141).

Mental Safe Space

In addition to physical safety, a mental safe space is also important for the individual to

develop (Bloom, 2013; Lanktree & Briere, 2017; Rothschild, 2000;). The mental safe space is a

specialized anchor that can be used when working through traumatic memories (Bayne, &

Thompson, 2018; Rothschild, 2000). Basing the mental place off of a safe physical place that the

client has been to or has known in life is the first step in creating this coping skill (Lanktree &

Briere, 2017; Rothschild, 2000). The reasoning behind this is that it will allow the client to

connect to the place not only visually but through sound, touch, smell, etc. which makes it a

more powerful mental image for the individual. "The client can imagine his safe place during

times of stress and anxiety, or it can be used as any anchor is used, to reduce hyperarousal during

a therapy session" (Rothschild, 2000, p. 95). This safe space can be used outside of the

therapeutic setting when the client is feeling too activated by a traumatic stimulus, or memory.

The one possible con in using a physical place that the client has been to is that it can no

longer become a safe space for the client in real life. If this happens, Rothschild recommends

explaining "the fantasy safe place…can be controlled in ways that real life places…cannot"

(Rothschild, 2000, p. 93). When this happens, additional imagined embellishments can be

created to make it a safe space in the mind again. For example, if the individual is worried that

their room is no longer safe, they can imagine multiple locks on the door and windows that they

only have access to. Lanktree & Briere also talk about how visualization of this mental place can

be utilized outside of the therapy setting. "It may be helpful for a child to take home a narrated

version of this exercise, recorded by the clinician during the therapy session" (Lanktree & Briere,

2017, p. 101). It is interesting to note that there is evidence from neuroimaging that suggests that mental imagery is "encoded similarly to actual perception" in the brain (Blackwell, 2019, p. 235). As such, creating a mental image of a safe space can have perceptional effect on the body. As these examples show, mental safe spaces can be an accessible coping skill that clients can use in and outside the therapeutic setting.

Technology in Music Therapy

As both Mental and Physical safe spaces are unique to each individual, finding the proper musical representation is critical. This can be done with the help of using a wide variety of instruments (Brehrens, 2012; Strehlow, 2009). It can also be done with the help of technology (Knight, 2013; Knight, & Krout, 2017). Using digital sounds creates a whole new variety of sound representations, especially for abstract ideas and emotions. Another way that technology can be used is the way it can capture sounds through the use of recording (Knight, & Lister, 2018). Recording can be used to create soundscapes or auditory spaces. For example, crowd sounds, river sounds, or wind through the trees are soundscapes that can be used to enhance a mental safe space for the client. Using technology creates many opportunities for the client to choose what it is that they want to have happen within the recording or composition. This musical achievement creates a sense of ownership and can be a source of pride during the creation process (Oklan, 2017, p. 41; Soshensky, 2011). While it is common practice for music therapists to use elements of technology within their practice, such as the use of recording devices, CD players, etc., the representation of using technology to create music within a music therapy setting is less documented (Oklan, 2017, p. 41; Cevasco & Hong, 2011). Along with the need for additional research with the use of electronic music's therapeutic applications in music therapy literature, there is a need for additional training and competency with using technology

within a clinical setting. Using recording devices, music software, and electronic instruments such as MIDI controllers and drum pads should be approached with practice and care as with any acoustic instrument (Crooke, & Mcferran, 2019). This requires preparation and practice before the sessions on the part of the music therapist and a thorough knowledge of the equipment, along with a basic knowledge on how to troubleshoot if something goes wrong during the session. In doing so, this allows the client to connect with the music in a wholistic way (Ward, et al., 2019, p. 152).

Ableton Live

There are many different types of music software and technology that can be used within a therapeutic setting (Knight, & Krout, 2017). One such example of a music making software is *Ableton Live.* This program was developed in 1999 and released its first version of Live in 2001. *Ableton Live* is primarily used by DJs and music producers to make electronic music such as Rap, EDM, Hip Hop, and Dubstep. As with most music software programs, the variety of ways a person can use the software is up to the imagination of the user (Ableton, n.d.). As such, this program's uses can be modified to create interventions meeting therapeutic needs. The program can be used as a software to edit and master music prerecorded, or to mix music created in live time. The program offers a variety of sample packs with sound effects, synths, and other electronic and acoustic instruments that can be modified extensively with the audio effects offered within the program. The software connects well with external instruments such as electronic keyboards, MIDI controllers, and drum pads to create music easily. The creation of samples and loops can be used to create small sound effects, or they can be edited to create soundscapes that could be used to create auditory safe spaces. For the purposes of composition of safe spaces, the program can be used to record and edit music, and to create a digitalized format

for the client. It can also be used for its audio effects such as tempo control, looping capabilities, and mixing functions.

In a study working with bereaved teenagers in Australia, Crooke, & Mcferran used *Ableton Live* along with other external electronic controllers and devices as the main instruments within a therapeutic setting for the youth to process their grief of losing parents or family members (2019). Crook & Mcferran used a variety of different interventions with the musical selections, with the aim that by using electronic music, it would be easy to create music, and the type of music would resonate with the clients as it matched more of what the clients were listening to outside of the sessions (2019). In using the program, the use of the variety of sound effects, instruments, and editing capabilities creates an ideal method for creating music with clients.

Creating a digital copy of the composition allows the auditory safe space to become portable as the client can take a copy of the created space with them. This is also ideal for those in shelters, as their stay at the shelter varies from days to weeks, and when they leave, they may never come back again. As such, having a digital copy for them to take can be used after leaving the shelter as a coping skill.

Coping Skills

Coping skills for clients is an important way for clients to self-regulate and deal with triggering stimuli (Saxe et al 2007). In the book, *Collaborative Treatment Of Traumatized Children And Teens The Trauma Systems Therapy Approach*, Saxe et al. (2007) explains that there are many children (and adults) who are in situations where it is very likely that they will become retraumatized. As such, utilizing coping skills is the best way to help the clients (p.239). One common coping skill is the use of relaxation, as it counteracts physiological arousal, and can

allow the individual to pause and think things through before reacting. In using a coping skill that induces relaxation, it can teach an individual how to pick up on the internal cues for when they are feeling overstimulated, hyper aroused, or triggered. In bringing awareness to these sensations in their early stages, it gives the individual more autonomy over how they will react to triggers (Saxe, et al., 2007, p. 239).

Coping skills are a necessary part of healing that the client needs to implement regularly inside and outside the therapeutic setting. Visualization during meditation is one method that narrows the mind to focus on slowing down, thus inducing relaxation (Blackwell, 2019; Staples, et al. 2011; Wigram, 2006. p.128) There are many different types of coping skills, but all should have the ability to help the client deal with stressful stimuli.

Technology and Coping Skills

Technology has been used to help individuals relax whether they are trauma victims or not (Knight, 2013). There are many resources that have been created for people dealing with stress in order to induce relaxation (Jaycox, et al., 2019). Elements of these resources could easily be applied with the client to treat trauma by inducing relaxation within and outside of the therapeutic setting. Susan Kaiser Greenland (2016) has a series of mindfulness exercises for parents and children listed on her website that include podcasts, guided meditations, and mindful exercises that are age appropriate for children. In addition to Greenland's site, there are different apps that can be used to help with sleep, guided meditations, and the creation of relaxing soundscapes. One example is the app *Relax Melodies* which was designed with sleep inducing relaxations for people to listen to (Ipnos Software Inc, 2009). Another example of an app is called *Headspace,* which includes statistics, podcasts, sleep music, and guided meditations to reduce stress (Headspace, 2020). Within the music selections available is the use of soundscapes

or mental spaces that can help induce relaxation. One example within *Headspace* is a desert campfire where the sound of a fire is in the background along with other musical stimulation and a narration to help induce relaxation (Headspace, 2020). In a study conducted by Mandel et al. (2010), music assisted relaxation and imagery tracks were burned onto a CD for cardiac rehabilitation patients to use in their home care. "The findings suggest a relationship between the MARI CD and the health-related outcomes immediately after listening" (Mandel et al., 2010, p.18). This could be applied to trauma clients implementing relaxation music listening outside of the therapy setting.

Theoretical Approach

There is a need to provide services for victims of domestic violence. In reviewing the different approaches in treating trauma, finding a way to incorporate successful elements of treatment is the next step. Treatment strategies that incorporate the use of relaxation techniques, technology, music composition, and mental safe spaces can be used to create individualized safe spaces for victims of domestic violence which these individuals can then use in and out of the therapeutic setting.

CHAPTER III: METHOD

Participants

There were three participants who participated in the study (N=3). Upon agreeing to participate in the research project, each participant completed a demographic questionnaire (see Appendix A for sample) for the researcher. The content of information included elements for why the participants were seeking aid from a domestic violence shelter, what kind of intimate partner abuse they had suffered, their age, and if they had children (ACF, 2019, & Lyon, et al., 2008). The participants were all recruited through a non-profit organization for domestic violence victims in an urban area in the mid-west. The research study was IRB approved before data collection began. All participants were over the age of 18. Of those who participated, two out of three participants declined to indicate their age. The third participant was 70 years old. All of the participants identified as female. At the time of the research, each participant had contacted the domestic violence shelter for off-site aid. The most common reasons for aid from the shelter were: counseling services (n=3), civil court assistance (n=1), health purposes (n=1), child protection/welfare (n=1), custody/visitation (n=1). See Table 1 for a full list of available aid at the Domestic Violence Shelter. Participant 1 had two children, Participant 2 had one child, and Participant 3 had three children at the time of data collection. The children were not present during the research. There are many different types of abuse under the term Intimate Partner Abuse. Examples of these different forms of abuse can be found in Appendix B, in the Power and Control chart (*National Domestic Violence* Hotline, 2021). Of the different types of intimate partner abuse, the 3 participants stated they had experienced the following: physical abuse (n=3), emotional abuse (n=3), sexual abuse (n=3), humiliation (n=3), financial limitation (n=2). See Table 2 for additional details. Each participant stated they had access to listening equipment and

were willing and able to commit to three 50-minute sessions with the researcher, and were willing to use the skills learned in the study outside of the sessions for a period of ten days. No participants dropped out part-way through the data collection process.

Table 1.

Available Aid at Domestic Violence Shelter

Shelter Aid Type	Participant Frequency
Divorce Custody/Visitation	1
Immigration Concerns	0
Job Training	0
Child Protection/Welfare	1
Health Purposes	1
Criminal Court Assistance	0
Civil Court Assistance	1
Counseling Services	3
Housing	0

Table 2.

Types of Domestic Violence the Participants Have Previously Experienced

Types of Violence	Participant Frequency
Homelessness	0
Physical Abuse	3
Emotional Abuse	3
Sexual Abuse	3
Humiliation	3
Financial Limitation	2
Human Sex Trafficking	0
Human Labor Trafficking	0

Measures

The participants were referred to participate in the research project through a domestic violence shelter in an urban area in the mid-west. Once the names of the potential participants were received, the researcher contacted them via email and met with the individuals either at the company site or via online on the platform Zoom. The participants were given the option to meet online due to COVID-19 restrictions and to reduce chances of exposure to the virus. Participant 1 and 2 chose to meet with the researcher via Zoom, and Participant 3 met with the researcher in person at the shelter's site. Upon meeting the researcher, the potential participants filled out the demographic form (found in Appendix A). The researcher then verbally explained the participation consent form which included explaining: the length of the study, the number of sessions the person was committing to, and the general work that would be done inside the sessions. The researcher also explained that each participant was committing to using the coping skill over a period of ten days outside of the sessions. The potential participants then signed a copy of the participation consent form (which can be found in Appendix C).

The State-Trait Anxiety Inventory (STAI), developed by Spielberger, Gorsuch, Lushene, Vagg, and Jacobs (1983), was given to the participants before the first and second session. After completion of the first and second sessions this instrument was used to compare anxiety and stress levels for participants. The STAI consists of 40 statements that the participant answers to assess their current levels of anxiety in the moment, and their connection to anxiety in general. In responding to the statements about anxiety, the clients rate themselves on a scale: 1= "Not at all," to 4=" Very much so." Due to the length of the test, the researcher used a shortened standardized version of the assessment which included 10 self-rating questions instead of 40. Examples of the assessment used can be found in Appendix D. This test was used to answer both aspects of the

second research question: if creating the composition reduced stress, and if using the composition reduced stress. To analyze the data, the researcher used a Paired T-test to compare the results of before and after treatment for each session.

In the third session, the researcher used a survey that included more qualitative questions to determine the effectiveness of the research. Due to the uniqueness of the research project, the researcher designed the questions for the survey. The questions asked in the survey focused on where the participants used the music, how effective was the music in reducing their anxiety, and which version of the music was more effective: music without the narration, music with the narration, or meditation without the music coping device. A sample of the survey questions can be found in Appendix E. All three meetings with each participant were recorded with video consent, and was transcribed afterwards and analyzed for data elements.

Research Design

This research, due to the untested nature of this intervention, and the number of participants, was considered three individual case studies, using mixed methods. All participants met in one-on-one sessions with the researcher, and their responses, questions, and participation were carefully documented. Each session was approximately 50 minutes in length. Before the sessions began, the participants met with the researcher and signed a consent form to allow the sessions to be video recorded for data collection. The researcher verbally explained the research project and the consent form, and answered any questions the participants had. After signing the consent forms, the participants were encouraged to keep a copy for their personal records.

At the beginning of all three sessions, the participants filled out the STAI assessment (see Appendix D) as a pretest to determine current levels of anxiety and stress. At the end of both the first and second sessions, the participants also filled out the STAI assessment as a posttest to

determine current levels of anxiety and stress. In the third session, the participants filled out a survey about the research experience and were interviewed by the researcher using questions that were prepared before meeting with the participants (Appendix E and F). The survey and interview questions were used by the researcher to document the research project.

Materials

For the first and second sessions, the researcher provided virtual copies of the STAI assessment for the clients to complete as a pretest and posttest. All answers were saved on one password-protected hard drive, and one password-protected computer that only the researcher had access to.

For the main platform used to create and record the musical composition of a safe space, the researcher used *Ableton Live 10 Suite* on a MacBook Pro laptop. The use of this program also supplied the researcher with a wide array of sound effects including: samples, electronic instruments, wavetables, and audio effects such as reverb, EQ, and Compression (Ableton Live, n.d.). The researcher went through each of the instruments available in *Ableton Live* and created a folder of instruments and sounds that could be used for the purposes of this research project. See Appendix G for a complete list. In addition to these electronic sounds, the researcher had the following instruments to use with the client: 1 acoustic guitar with strap, 1 native American flute, 1 violin with bow, 1 piano keyboard, 1 mini launchpad MIDI keyboard, 1 frame drum, and 1 metallophone (Novation, n.d.). The researcher also used the following equipment to record into *Ableton*: 1 Scarlett interface, 1 1/2" microphone cable, 1 SM58 microphone, and 1 boom mic stand.

Along with these instruments, the researcher had available the use of soundscapes that had been previously recorded by the researcher, and short samples of instrument improvisations.

Examples of soundscapes included: rain, ocean waves, bird calls, fountain sounds. For a sample

of list of possible sound effects, see Appendix H. Examples of the instrument improvisations

included: short improvisation on GuZheng (Wen, 2017). To send the music composition to the

participant, the researcher used the online platform Soundcloud, and uploaded the music

compositions as private files, with only the participant being allowed access to the file via their

email (Soundcloud, 2021).

For the second session, after the music had been created, the researcher met with the

participants to practice using the music as a coping skill. During the session, the researcher

recorded herself giving a guided narration over the participant's music (See Appendixes I, J, and

K). This was saved as a second version. Participants 1 and 2 met with the researcher via

telehealth. During the session the researcher shared the music using the share sound option

through Zoom. The third participant chose to meet in person and the music was listened to using

a Bluetooth Speaker.

For the third session, the researcher met with the three participants online through Zoom,

and provided virtual access to the survey that the participants completed. During all of these

sessions, a MacBook Pro computer was used as a video recorder for each session, and each file

was saved to a password-protected file on one computer and one password-protected hard drive.

Procedures

Before any of the sessions were conducted, the researcher prepared the equipment and

Ableton Live to reduce the likelihood of errors and troubleshooting with the client during the

sessions. The researcher prepared and organized each of the files of instruments and sound

effects within *Ableton Live* for easy access (See Appendix G and H). Time spent organizing

these parts was approximately 2 hours.

Practice setting up the recording equipment and troubleshooting was utilized before the sessions to create efficiency and to reduce set-up time before the sessions. Mock sessions with 2 volunteer participants were practiced for troubleshooting, time management, efficiency in creating the musical representations of safe spaces, and use of appropriate questions during the creation process.

Session one was dedicated to creating the musical safe space with each participant in one-on-one sessions. At the beginning of the session, the researcher instructed the participant to fill out the Spielberger Self-Assessment Inventory for stress and anxiety (STAI) assessment. The researcher retained the copy of the assessment and marked it as "before treatment" followed by the session number.

Then the Researcher used the following questions to help create a base for what the client considered a safe space: "Do you have a safe space you think of? Describe it to me." Each participant had a specific place in mind where they felt safe. This space was recreated musically with the use of soundscapes (such as birdcall, forest sound effects, and ocean sounds) and music (such as melodies on acoustic or electric instruments).

In creating the music composition, the researcher started by asking if there was a specific song that helped the individual calm down. This question also gave the researcher an idea of the participant's musical preference. Participant 1 stated she liked listening to electronic synths and low voices. Participant 2 stated she liked to listen to classical music, and acoustic guitar. Participant 3 stated she felt calm when listening to heavy metal rock songs. Each participant was asked if they wanted to use a specific song for their composition. Each one chose to create an entirely new composition. In the case of Participant 3, the researcher asked if she would prefer using an electric guitar and a drum set to compose a rock-based song. Participant 3 decided to

forego recreating a heavy metal rock song and chose to recreate one of her favorite places she liked to visit instead.

After the instruments, soundscapes, and genres were explored with each participant, the researcher started facilitating composing with the participant. The researcher asked the participant to select a grounding tone that could remain constant throughout the piece as a foundation for the composition. This sound was based on the conversation of musical preference. Electronic sounds were explored, as well as acoustic instruments depending on the participant's preference. Participant 1 chose an electronic drone with reverb at a higher frequency with a descending melodic line. Participant 2 chose a consistent chord progression played with a plucking pattern on the acoustic guitar. Participant 3 chose an electronic drone that was in the mid to lower register. All participants chose to have consistent soundscapes in the background of their compositions. Participant 1 chose sounds of the forest with birdcall and the sound of a running brook and the crunch of leaves underfoot. Participant 2 chose the sound of the ocean, a brook nearby, and distant forest sounds. Participant 3 chose wind through the grass and the splashes of fish in a pond.

Improvisation was critical for the creation of melodies within the composition process. Whenever the participant didn't know what sounds they wanted to use, the researcher used other compositional prompts to promote creation. For example, the researcher asked the participant to describe their safe space in detail. The researcher played short motifs for the participant that reflected the idea of what the participant wanted. The participant had the final say for accepting or rejecting the melody, structure, and chosen motifs for the composition. During the composing process, the participants chose specific sounds to represent elements that were important to the participant. For example, Participant 1 played a Guzheng during childhood and wanted that

instrument to be included in the composition as a reminder of a better time in her life. Other sounds were symbolic to participants. Participant 3 wanted the sound of a frame drum to mirror her steps walking and to represent her ancestors protecting her. Participant 3 also stated she struggled with getting her thoughts to focus during a meditation. Participant 3 also stated she had a hard time focusing her mind on one thing at a time. Using the iso principle, the researcher recorded dialogue of the participant and layered the conversations to make a cacophony of inner dialogues. This eventually faded away as the music became more audible, making an auditory cue to fade out distractions and to hone the composition.

Before ending the session, the researcher made final notes about what the participant wanted for the compositions and scheduled the next time to meet. Then the researcher finished the first session by giving the participant the STAI assessment to check their current stress levels. The researcher retained a copy of the results and saved them onto one password-protected hard drive and one password-protected computer.

Between sessions one and two, the researcher completed the started compositions. The researcher completed the melodic lines created with the participants and added in the selected instruments for supporting lines and solos for different instruments that the participants selected. The soundscapes were further developed with placing each soundscape in the listening scape. For example, in Participant 1's composition, the researcher lowered multiple tones of birdcall and panned each birdcall to different locations to mimic multiple birds calling to one another. See Appendix L for an overview of the *Ableton Live* setup. In Participant 2's soundscape, the researcher lessened the sound of the ocean waves and increased the sound of the forest while placing the sound of a brook closer center in the soundscape to create the auditory image of a distant ocean, a forest to the right, while sitting next to a brook that ran into the ocean. See

Appendix M for the *Ableton Live* setup. In Participant 3's soundscape, the researcher edited and placed the sounds of splashing fish at random intervals during the soundscape to mimic the sporadicity of fish in a pond. For a sample of the *Ableton Live* setup, see Appendix N.

The researcher recorded each acoustic instrument and edited the recordings. For the electronic instruments, the researcher used the Launchkey mini-Midi keyboard to play the notes into the program *Ableton Live* (Novation, n.d.). Panning each instrument and mixing the sound levels were finalized, along with adding equalizers to bring out different frequency ranges in each instrument. To complete the compositions, the researcher added additional reverb to the whole track, along with compression and a limiter. Each track was exported for playback for the second session. The time spent to complete each composition outside of the therapeutic sessions without the participants was approximately 5 hours. The length of each composition varied. Participant 1's composition was nine minutes and twenty seconds, Participant 2's composition was six minutes and twelve seconds, and Participant 3's composition was five minutes and forty seconds.

Session two was dedicated to using the created auditory safe space to induce relaxation and to reduce stress. At the beginning of the session, the client was given a copy of the STAI to assess their current levels of stress and anxiety. The results were kept by the researcher on the password-protected hard drive and computer, along with the session number.

The researcher then let the participant listen to the auditory safe space and verify that there were no additional changes that needed to be made to the composition. In the case of Participant 2, she wanted to quiet the sound of the ocean to hear the music better. Participant 3 also wanted to add her reading a poem that she had written to the ending of her composition. The researcher added the new elements or adjusted the composition as requested for each participant.

When each participant was satisfied, the researcher asked the participant to think of specific times where they were most likely to feel high levels of stress in their lives. Each participant had recent examples of stressful situations in their current lives. The researcher asked the client to imagine themselves coming out of that stressful situation. Then, the researcher stated they were going to use the composition to help reduce their stress.

Before beginning the meditation, the researcher invited the participant to go into a secluded area where they could be comfortable and undisturbed for at least ten minutes. The researcher invited the participant to sit in a comfortable position either in a chair or on the ground. Before beginning the music, the researcher set up recording equipment to record her voice as she provided a guided narrative relaxation with the created composition. The researcher then started the musical representation of a safe space. The researcher then guided the participant through the relaxation process by using the following techniques in her narration: focus on breathing, release any tension or anxiety within the body by mentally releasing the tension within the body with every exhale; asking the participant to imagine themselves entering their safe space by visualizing in their mind the space in detail; asking them to focus on the details; the researcher included positive statements such as: you are safe, you are whole, you are heard, etc.; Each of the narrated elements that the researcher used were based off of research that included relaxation and grounding techniques (Bayne, & Thompson, 2018; Brabant, & Erkkila, 2018; Lanktree & Briere, 2017, Rothschild, 2000, p. 95, Schwarz, 2002, p.71; Stewart & Dadson, 2012, p. 338; Wigram, 2006, p. 132). For full text of each Guided Narrations, see Appendixes I, J, and K. During the music listening and relaxation, the researcher assessed relaxation levels in the participant from body language. The researcher was prepared to stop the music if the client showed increased signs of agitation. All participants did not show outward signs of increased

agitation. When the composition was nearing its end, the researcher slowly brought the client out of their relaxed state as appropriate for each composition. For Participant 1, this included inviting movement back into her body. For Participant 2, it was a review of positive affirmations to a sense of inner worth and calm. For Participant 3, the composition ended with the narration of her poem. Once the composition came to a close, the researcher stopped the meditation and saved the narration as a second version of the composition. Because of time restraints, the researcher only played through the composition and recorded the narration once with each participant.

Before ending the second session, the researcher had the participant fill out the STAI assessment again and saved the results onto the password-protected hard drive and laptop. The researcher then explained that she would send both the music and the music with narration to the participant either digitally using a private link on SoundCloud or on a burned CD (Soundcloud, 2021).

After the second session, the researcher exported the compositions with and without narration for the participants to use as coping skills for ten days. Participants 1 and 3 wanted the audio files sent via Soundcloud with a private link. Participant 2 wanted a burned CD, which the researcher left for her at the shelter to pick up. The researcher explained that the participant was welcome to use whichever version of the composition that would help them reduce stress more effectively, whether that was with the narration or without. Each participant acknowledged via email when they were ready to start their ten days of using the composition as a coping skill. The researcher said she would set up the final appointment after they completed ten days of use. After receiving this email confirmation, the researcher didn't contact the participants until the ten days had concluded.

Since it was not necessary to meet in person with the participants for session 3, the researcher met with all participants virtually to reduce in-person risks of unneeded exposure to the COVID-19 virus. Upon entering the third session, the participant was given a copy of the survey created by the researcher (see Appendix E). The researcher retained the copy of the survey filled out by the participant. The researcher then conducted an interview to assess the effectiveness of the musical representation outside of the therapeutic setting (See Appendix F for samples of questions used). Among the questions asked by the researcher, the participants were asked: When did you use the music the most? Did you fully understand how to use the music to help you relax? Was it easy for you to imagine your safe space with the music as a cue? Which version was most successful in helping you relax: the version with the narration, or without the narration? Did you let others listen to the music? If so, how did that change your experience? If you could do the study again, what would you like to do differently? All responses were video recorded and transcribed later for data analysis.

The researcher also used a survey that was created to gauge the effectiveness of the coping skill outside of the therapy setting. Questions varied to Likert scale questions with double negatives (for example: "After listening and meditating with the music, I felt my stress level go down," and "I saw no difference in my stress or anxiety after listening and meditating to the music." The survey posed questions to gage the overall effectiveness of the composed music. The responses included: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree. The researcher also included questions that were multiple choice to gain insight as to where and how the music was used in the participant's daily lives. An example of one of the questions included: "The music was helpful in the following circumstances: Trying to sleep, cleaning, while at work, commuting, while exercising, while meditating, other (fill in the blank)." Participants were able

to share where they used the music. Other questions focused on the effectiveness of using the music in different situations or places such as: while trying to sleep, cleaning, while at work, commuting, while exercising, while meditating, or other (fill in the blank). The participant's responses were recorded and documented for comparison.

Data Analysis

The questions this research study was designed to answer include the following:

1. What is an effective way to make an intervention that is a personalized representation of an auditory safe space for a client?

Based off of the previous research done on Guided Imagery and Music, meditation apps, and coping skills that have been used in non-musical treatment, the following outline points were created for an effective way to guide the compositional process.

   a. Identify or create a mental safe space desired to musically represent (Bayne, & Thompson, 2019, p.235)

   b. Identify participant's preferred music genre (Hillier, et al., 2016, p.483)

   c. Select instruments based off of preferred music genre

   d. Select a sound anchor, or a continuous sound that can be used to ground the listener (Ipnos Software Inc, 2009 & Rothschild, 2000, p. 71)

   e. Create motif or melody ideas based off of Participant's preference (Stewart & Dadson, 2012, p. 338)

In order to create a musical representation of a safe space, the participant first needed to have an idea of a mental safe space that they wanted to create. Then, the participant's preferred music genre was explored. Focusing on preferred genre was done as Hillier et al. showed in their study in 2016 that clients have improved physical responses of relaxation when the music played

40

in music therapy uses client preferred music (p.483). Selecting the instruments for the composition, in addition to having the participant choose the final melody lines apply the participant preferred music to the composition process. It also enables the participant to feel in control and empowered (Stewart & Dadson, 2012, p. 334). Selecting an anchor of some sort has been used as a base in meditations both musically and non-musically (Headspace, 2021, para. 9, & Ipnos Software Inc, 2009). It is used as a way to channel the person's mind to focus on the task at hand, and to use it to help you come back to the meditation when the mind has wandered. In many meditations, inviting the participant to focus on their breathing is used as an anchor.

Preparation of the process to create the musical representation, along with the verbal prompts used by the researcher were documented, and each session was video-recorded to assess for effectiveness of the method of the intervention. The researcher practiced using the equipment and instruments used during the sessions and created easy access to specific instruments in *Ableton Live* that could be used to help promote relaxation. The researcher also prepared a file of soundscapes that could be used with sound effects from inside and outside to help promote the creation of a specific safe space.

2. Would the creation of such an intervention reduce stress with the client while making and using it during music therapy sessions?

There were two parts to this research question. The first aspect was if the creation process would help reduce stress (session 1), and the second aspect was if practicing using the composition would reduce stress (session 2). To answer both parts of this research question, the researcher administered the STAI assessment at the beginning and end of sessions one and two, in order to measure current stress levels of the participants. The first session's results focused on answering if the creation process reduced stress, while the second session's results answered if

using the composition would reduce stress. The answers of each participant for these sessions were collected. To analyze the data, the researcher used a paired t-test to compare the summation of the mean pre-test scores and the summation mean of the post-test scores to determine if there was a statistically significant difference between the test results.

       3. Is the musical representation of a safe space effective in reducing stress outside of a therapeutic setting?

       In the final meeting together in session three, the researcher used a survey and interview questions to assess the effectiveness in reducing stress outside of the therapeutic setting for each participant. This final session was video recorded, and the responses to the answers were transcribed and compared to find similar themes of effectiveness among participants.

CHAPTER IV: RESULTS

Participant 1

Research Question 1 Results

The first research question was the following: What is an effective way to make an intervention that is a personalized representation of an auditory safe space for a client? The researcher used different steps to create Participant 1's musical representation. The participant chose to meet for the study via telehealth only. After filling out the demographic information, the researcher confirmed that the participant had a safe space that she would like to create musically. During the first session, the participant shared her safe space, which was a grove of trees with a small brook. The researcher recreated this atmosphere using recordings of footsteps in the leaves, the sound of a small brook, bird calls, and the sound of wind through the leaves. The participant approved each sound that was put into the final composition.

Next the researcher inquired what kind of sounds and instruments the participant would like to use. The participant shared that she enjoyed electronic synth sounds as she commonly listened to pop music in her free time. The participant also had musical training in her first year of college, and stated she wanted to have an overarching theme of all the sounds building up to a triumphant crescendo before coming back down to a soft ending. The participant chose a minor key for her composition but stated that during the climax of the piece she would like the key to switch to major.

Using the participant's musical preferences and outline for the piece, the researcher picked a few different synth sounds from a pre-saved list that the researcher prepared before the session. The participant chose the instrument and the range that it was played in. The researcher

played different melody themes, and the participant chose the preferred motif that was later turned into the melody for the piece.

Since the piece was also meant to invoke relaxation, the researcher wanted to have one sound or instrument that would be an ongoing anchor that the listener could focus on when other instruments changed or when the melody dynamics fluctuated. After explaining this, the researcher gave different examples of possible sound anchors to use including: the sound of water running, a bass synth sound (such as a drone), or a chord progression on a chosen instrument that was simple and repetitive. The participant chose the sound of the running water as the anchor that would be continuous throughout the piece.

The researcher then played short excerpts on live and electronic instruments and found the accompanying voices to use in the composition, with the participant approving or disapproving each instrument. The participant chose the following instruments: flute, violin, metallophone, a recording of a Guzheng, and four different synth sounds found in *Ableton Live*. Once this was decided, the researcher completed the session.

The researcher then expanded the motif into the main melody of the piece, and used the chosen instruments to accompany the melody. The researcher recorded the live instruments and edited them into *Ableton Live*. The researcher also expanded the sounds chosen for the soundscape within the composition. The researcher duplicated the sound of a bird call and lowered the pitch of one of the copies of birdcall to create two different sounds. The researcher then placed one bird call sound on the right side of the soundscape, while placing the other bird call on the left side of the sound scape to mimic the sound of two birds calling to each other. The researcher did similar panning and editing techniques with the footsteps, and with the fade ins of the forest and water sound effects at the beginning and end of the composition. Time spent

completing the composition was five hours. Participant 1's composition ended up being nine minutes and twenty seconds long.

During the second meeting, the researcher gave the participant time to listen to the recording all the way through and to give feedback on things that could be changed to properly fit her unique safe space. The participant didn't have anything extra she wanted to add, and titled the composition, "The Little Forest". For an excerpt of the completed composition, see the attached sound excerpt titled, "The Little Forest Excerpt".

After reviewing the musical excerpt, the researcher recorded herself speaking a guided relaxation narration with the music (See Appendix I). The participant listened to the music and the narration as the researcher narrated. There was no prescribed script used, as the researcher wanted to make the narration individualized. General relaxation themes that have been shown to be successful in reducing stress in other studies were reviewed by the researcher beforehand to guide the direction of the narration (Bayne, & Thompson, 2018; Brabant, & Erkkila, 2018; Lanktree & Briere, 2017; Rothschild, 2000, p. 95; Schwarz, 2002, p.71; Stewart & Dadson, 2012, p. 338; Wigram, 2006, p. 132). By the end of the second session, there were two versions of the composition: one of the music *with* narration, the other with the music *without* the narration. For an excerpt of the composition with the narration, see the attached sound excerpt titled, "Guided Narration The Little Forest Excerpt".

With Participant 1, the researcher found that asking questions about ideas, themes, and personal preferences for the composition were critical to contributing to creating an effective way of creating a piece of music that was reflective of the participant's specific internal safe space. In addition, having reference points throughout the composition process helped the researcher build a structure for the piece. For example, asking about the location of the safe

45

space led to choosing the right nature recordings. Introducing the sound of an anchor allowed the piece to not vary from its original purpose as a soothing piece, despite the melody's development and resolution. Preparation was also critical to the composition process. Before meeting with the participant, the researcher had created folders of possible sound effects to use. This reduced time spent searching amongst *Ableton Live's* instruments during the sessions with the participants. The researcher also learned that cultural heritage could be explored by letting the participant choose the instruments used in the composition. The participant stated that she had played the Guzheng when she was a child, and that the sound brought positive memories back for her.

Research Question 2 Results

The second research question was as follows: would the creation of such an intervention reduce stress with the client while making and using it during music therapy sessions? To answer the question, the researcher used the STAI assessment at the beginning and end of sessions 1 and 2 in order to answer both aspects of the research question. The first aspect focused on if the creation process would reduce stress. The test results for session 1 were used to analyze this aspect. The second part of the research question focused on if using the composition would reduce stress. The test results for session 2 were analyzed to answer this part of the research question.

The individual test results were analyzed to see the changes that had happened within the treatment period. In session 1, there were seven positive changes in test scores, and three same test scores for Participant 1. For questions four (I am presently worrying over possible misfortunes) and nine (I am worried), the positive changes went from the test score answer of "Moderately so", to "Not at all" for the fourth question, and from "Very much so", to "Somewhat" for the ninth question. In session 2, there were only two positive changes in test

scores, seven test scores that remained the same, and one negative test score. The negative treatment question was number ten, "I feel steady", which went from a three ("Moderately so") to a two ("Somewhat"). For full review of the raw test scores, see Table 3.

Table 3.

Participant 1 Raw STAI Test Results

	Frequency Response			
STAI Question	Session 1 pre-test results	Session 1 post-test results	Session 2 pre-test results	Session 2 post-test results
1: I feel calm	2	3	2	2
2: I am tense	4	3	3	3
3: I feel at ease	1	2	3	2
4: I am presently worrying over possible misfortunes	3	1	2	2
5: I feel frightened	1	1	1	1
6: I feel nervous	2	2	2	2
7: I am jittery	3	3	3	3
8: I am relaxed	1	2	2	2
9: I am worried	4	2	3	2
10: I feel steady	1	2	3	2

The researcher also compared the average of the pre-test and post-test answers for sessions 1 and 2 in order to determine if they were statistically significant (Shier, 2004; *Statistics Kingdom,* n.d.). Given that the ordinal ranking of answers to questions falling between 1 and 4 was not normally distributed, by taking the differences between the pre-test and the post-test responses the paired t-test generally can be applied (Shier, 2004). Session 3 was not evaluated as the creation and use of the coping skill was done in the first two sessions only.

Before running the paired t-test, the researcher first needed to determine if there was a positive change in direction from the responses for each question. For example, some of the questions on the test reflected a positive change when the participant chose a smaller number response (i.e., "I am tense," moving from a 3 to a 2), while other questions needed a larger number to reflect a positive change (i.e., "I feel calm" moving from a 2 to a 3). To reflect all the positive changes, the answers were arranged to reflect a singular direction for a positive change. Once the pre-test and post-test response columns correctly reflected the same positive direction of change, the researcher ran the numbers using a paired t-test (*Stats Kingdom*, n.d.). In the paired t-test, the researcher placed the positively adjusted responses from the pre-test in column one, and the post-test adjusted responses in column two. The responses were then calculated. All tests were run at a significance level of 0.05.

In session 1 with Participant 1, the p-value was .0039. This number was smaller than .05, meaning that the session was statistically significant in reducing stress during the creation process of the coping skill (*T Distribution Table,* n.d.). Session 2 for Participant 1 showed a p-value of .5911, which is a larger number than .05. This reflects that the participant's emotional changes in stress during session 2 was not statistically significant during the use of the coping skill.

These results show that for Participant 1, the making of the composition reduced her stress levels in a statistically significant way, whereas practicing using the coping skill in session 2 did not reduce her stress levels in a statistically significant way. It is important to note that there were outside factors that influenced Participant 1's experience during the second session. This will be discussed in further detail in the discussion section.

Research Question 3 Results

The third research question for the study was the following: Is the musical representation of a safe space effective in reducing stress outside of a therapeutic setting? According to the answers to the survey and the interview questions, the coping skill was effective in reducing stress for Participant 1.

The number of times Participant 1 used the intervention was 12 times. The participant used the coping skill during meditation, while trying to sleep, commuting, and with her children while putting them to bed. It was found in each of these situations that the coping skill reduced the participant's stress and anxiety. With a series of Likert scale questions, the participant strongly agreed that the music was engaging, interesting, and relaxing and that it wasn't boring, disengaging or repetitive. The participant strongly agreed that it was easy to visualize the safe space while listening to the music, and she wasn't easily distracted while listening to the music. The participant agreed that the music *with* narration was effective in reducing stress and anxiety. The music *without* the narration was effective in reducing stress and anxiety for the participant when she was listening before going to bed. Participant 1 let her children and her boyfriend listen to the music. Participant 1 did not feel like her level of concentration went up while listening to the music, but she did agree that her stress levels went down while listening to the music. The participant was not confused on how to use the music to meditate, nor did she have any problems accessing the files at the beginning of the ten-day trial. The participant listened to the music most commonly at night while putting her children to bed, and during the afternoon after encountering a stressful situation.

Table 4.

Summary of Participant 1's Responses to Survey Questions

Survey Question	Response
Times listened to coping skill	12 times
Situation the coping skill was used	Meditation, putting children to sleep, commuting
Preferred method of using coping skill	Both with and without narration
Other people who listened to coping skill	Children, and boyfriend
Confused on how to use the coping skill	No
Additional Sessions wanted	None, unless creating more music
Would recommend the intervention to others	Yes

The participant stated she would not need any additional sessions with the researcher in order to understand how to use the coping skill. However, she would like additional sessions to make more music. She felt that making additional compositions would also help keep this coping skill from becoming repetitive with excessive use. The participant strongly agreed that she would recommend this intervention to others.

At the end of the interview and survey, the participant was asked what she learned about herself during the research project. Participant 1 stated that it was easier to visualize her safe space with the help of the music to help her calm down. She was grateful to have a coping skill that she could use for reducing stress in her busy daily life as a mother. She stated that at times it was difficult to use other coping skills that were given to her by her therapist because she was so busy, but even thinking about using this coping skill helped reduce her stress in the moment.

Participant 2

Research Question 1 Results

The first research question was: What is an effective way to make an intervention that is a personalized representation of an auditory safe space for a client? The researcher used the same steps that she used with Participant 1 to answer this research question. Participant 2 chose to meet via telehealth, due to COVID-19 restrictions. After filling out the demographic form and the permission form, the researcher confirmed with the participant that she had a safe space in mind to recreate musically. The participant shared that her safe space was sitting on a hill overlooking the ocean, with a large pine tree forest to one side, and a brook of water running on her other side.

During the first session, the researcher set about recreating this environment with the input of the participant. Ocean sounds were explored, as well as forest and brook sounds. The participant didn't want any one sound to overpower the other, and didn't want much bird call in her forest sounds as they were too distracting for her. The researcher enquired about her favorite music genres. The participant stated she preferred folk music and classical music. This influenced the participant's choice in instruments. The participant chose acoustic guitar, piano, and flute for her instruments. Any experimentation with synth sounds were not used in the final composition. The participant chose the guitar as the main instrument, and as the anchor sound for the composition. Because of this, the researcher needed to use a chord progression that could be played throughout the duration of the song. Different styles of playing were explored, and the participant chose a finger plucking style along with a simple chord progression. The session then ended because of time restraints, but the participant titled the composition, "Spring Has Finally Come".

The researcher's recording equipment became critical to the completion of Participant 2's composition, as all instruments were acoustic, apart from the nature soundscapes. The researcher recorded and edited the guitar track, while adding in a second leading line with the guitar over the plucked chord progression. See Appendix O for a sample of the editing. The flute was used as an accompaniment. The researcher didn't have access to a real piano, so a Midi piano was used from *Ableton Live's* instruments, as it had better sound quality than the keyboard the researcher had access to. The notes were played and recorded using a Launchkey mini-Midi controller (Novation, n.d.) While the melody was simple, finding balance between the instruments and final edits took a large portion of the researcher's time. With the additional edits that were made after the second session, the final time spent creating the composition was approximately four to five hours. Participant 2's composition was six minutes and twelve seconds long. For an excerpt of the completed composition, see the attached audio file titled, "Spring Has Finally Come Excerpt."

During the second session, the participant stated that she had tinnitus in one of her ears and that the sound of the ocean waves was too loud and made her tinnitus feel worse. She also stated that she didn't want the piano chords down in the lower register. Audio levels were adjusted for the ocean sounds, and the researcher re-recorded the piano accompaniment for the participant after the second session.

Once these final changes were noted by the researcher, the rest of the second session was spent practicing using the recording, and creating a narration that the participant could use with the music (see Appendix J). The researcher recorded the narration with the participant, and used relaxation methods found from previous studies (Bayne, & Thompson, 2018; Brabant, & Erkkila, 2018; Lanktree & Briere, 2017, Rothschild, 2000, p. 95, Schwarz, 2002, p.71; Stewart &

Dadson, 2012, p. 338; Wigram, 2006, p. 132). Once the session was complete, the participant stated she would like the music available to her via CD instead of in an online format. For an excerpt of the composition with the narration, see the attached audio file titled, "Guided Narration Spring Has Finally Come Excerpt".

The researcher learned with Participant 2 that using specific questions was important in creating an effective way to create an individualized composition with the participant. Questions about music genre eliminated the use of electronic instruments, and allowed the researcher to focus on what the participant would show greater response to (Hillier, et al., 2016, p.483). Explaining about the purpose of an anchor in the composition not only helped the participant choose an instrument, but it also taught her which instrument to focus on if she started feeling overwhelmed during the music and relaxation exercise. Editing software within *Ableton Live* was important to recording the final takes for the composition. The use of midi instruments available in *Ableton Live* was an important substitute for the desired instrumentation for the composition.

Research Question 2

The second research question the researcher focused on was: would the creation of such an intervention reduce stress with the client while making and using it during music therapy sessions? The STAI test results for session 1 were analyzed to determine if there was a reduction of stress levels while creating the composition, while the test results for session 2 were analyzed to determine if there was a reduction of stress in using the composition as a coping skill. Session 3 was not included for data collection as the sessions 1 and 2 were the primary sessions where the coping skill was created and used with the researcher.

The same methods used for Participant 1 were used to discover individual changes in test score results for sessions 1 and 2. The researcher started by analyzing the raw data responses

given by the participant to see individual test score differences either positive or negative. In session 1, Participant 2 showed three positive changes between test scores, five same test scores, and two negative changes between test scores. Two of the positive test scores included questions one ("I am calm") and nine ("I am worried"). For question one, she moved from a one ("not at all") to a two ("Somewhat"). For question nine, she moved down from a four ("Very much so") to a three ("Moderately so"). The negative test results were questions five ("I feel frightened") and six ("I feel nervous"). Both questions moved from a two ("Somewhat") to a three ("Moderately so"). In session 2, the participant showed five positive changes in results, three same results, and two negative changes in results. Two of the positive changes shifted two points in the four-point scale. These questions were six, ("I feel nervous") and seven ("I am jittery"). These test scores shifted down from a three, ("Moderately so") to at one ("Not at all"). The negative shifting test scores were five ("I feel frightened") and nine ("I am worried"). Both questions five and nine shifted from a one ("Not at all") to a two ("Somewhat").

Table 5.

Participant 2 Raw STAI Test Results

STAI Question	Frequency Response			
	Session 1 pre-test results	Session 1 post-test results	Session 2 pre-test results	Session 2 post-test results
1: I feel calm	1	2	1	2
2: I am tense	2	2	2	2
3: I feel at ease	2	2	2	2
4: I am presently worrying over possible misfortunes	3	3	3	3
5: I feel frightened	2	3	1	2
6: I feel nervous	2	3	3	1
7: I am jittery	1	1	3	1
8: I am relaxed	1	2	1	2
9: I am worried	4	3	1	2
10: I feel steady	1	1	1	2

To compare the average of the pre-test and post-test responses to determine if there was a statistical significance, the researcher used a paired t-test. Before running the data in the paired t-test, the researcher needed to make sure that all the data points correctly reflected one direction for positive change (Shier, 2004; *Statistics Kingdom,* n.d.). This was needed because the questions in the STAI assessment reflected different directions for a positive change (i.e., "I am tense," moving from a 3 to a 2 versus "I feel calm" moving from a 2 to a 3). Once all positive changes correctly reflected the data, the researcher used the paired t-test to run the positively adjusted pre-test responses against the positively adjusted post-test responses (*Stats Kingdom*, n.d.). All tests were run at a significance level of 0.05.

Participant 2 did not show a statistically significant reduction of stress for making, or practicing using the coping skill in session. In session 1, the p-value was .6783, and in session 2 the p-value was .1773. Each of these responses were not smaller than .05, thus making the difference between pre-test and post-test responses not significantly significant (*T Distribution Table,* n.d.). It is important to note that the difference in the p-value from session 1 to session 2 is moving in a positive direction towards becoming statistically significant.

Research Question 3

The third research question for the study was the following: Is the musical representation of a safe space effective in reducing stress outside of a therapeutic setting? For Participant 2, the coping skill helped reduce her stress in specific ways.

Through answers to the survey questions and interview during session 3, it was discovered that the participant listened to the coping skill 8 times. The participant used the coping skill while meditating and while trying to relax. According to the participant, the coping skill was successful in reducing stress in this setting. The participant strongly agreed that the music was engaging, interesting, and relaxing. She did not find it repetitive, boring, or disengaging. The participant strongly agreed that it was easy to visualize the safe space while listening to the music. Since the participant had both versions of the coping skill on a CD, the participant often listened to both versions of the coping skill together. She found that both versions reduced her stress and anxiety, but that the music *with* the narration helped her focus her thoughts on something besides her worrying thoughts. The participant didn't let anyone else listen to the music, as she thought it would be too much to explain to friends and family and she wanted to keep the coping skills intention private. The participant strongly agreed that her level of concentration went up, and her stress level went down while listening to the music.

Table 6.

Summary of Participant 2's Responses to Survey Questions

Survey Question	Response
Times listened to coping skill	8 times
Situation the coping skill was used	Meditation, Panic Attack
Preferred method of using coping skill	With the narration
Other people who listened to coping skill	None
Confused on how to use the coping skill	No
Additional Sessions wanted	At least one
Would recommend the intervention to others	Yes

The participant shared that she had a panic attack during the ten-day period. During her panic attack, she used the coping skill and it reduced her level of stress enough to where she could manage her stress and panic until her fear dissipated. The participant used the music in the early afternoon, after completing her morning chores and before her afternoon nap. The participant stated she was not confused on how to use the music, and that she found the music to be easily accessible. The participant would have liked one additional session with the researcher to practice using it with the researcher, and to try overcoming any technological problems she had with making the coping skill accessible beyond CD format. The participant strongly agreed that she would recommend this intervention to others.

The participant was asked what she learned about herself during the research process. She stated that she was surprised at how effective the music was in helping reduce her stress when she was in extreme duress. Before she had her panic attack, she had been triggered by a book she was reading. She hadn't been able to stop ruminating on the content of the book and it eventually led to her panic attack. She hadn't found anything to be helpful in successfully reducing her

stress and anxiety before using the coping skill. With her reduction of fear, it allowed her to control her fear until it finally dissipated. She was grateful to have the coping skill to help her with through this difficult time.

Participant 3

Research Question 1

The researcher addressed the following research question: What is an effective way to make an intervention that is a personalized representation of an auditory safe space for a client? The researcher met with Participant 3 in-person at the Domestic Violence Shelter for the study. Before beginning session 1, the researcher spent time talking about the ideas that Participant 3 had for her composition. The participant's preferred music genre was heavy metal. She stated that it helped calm her mind because it outwardly expressed what she was feeling inside. When asked if she had a specific safe space, she stated she enjoyed a space in a park where there was a willow tree next to a pond of water with koi fish. The researcher started by asking if the participant wanted to create a rock song, or if she wanted to reflect the park and pond. The participant chose to forego a heavy metal song for her safe space. The researcher then explored different sound effects to represent the nature sounds. The participant chose sounds for the willow tree, the pond, and an ambiance track that represented the wind. The participant wanted to use many instruments in her composition, and she attached different meanings to each instrument. The instruments Participant 3 chose were: guitar, four different synth tracks, violin, metallophone, frame drum, recordings of her voice, and a recording of her narrating a poem.

There were many symbolic uses of each sound in Participant 3's composition. The participant stated that she struggled with focusing her thoughts whenever she meditated. The beginning of the track is full of a cacophony of voices that represent that internal dissonance. To

create that cacophony, the researcher used five tracks with overlapping narration of someone speaking. Using the iso principal, the researcher reduced the overlapping voices with the steady beat of a frame drum (the participant's idea), until all the voices were muted. The participant stated she wanted the frame drum to represent her footsteps down the path to her safe space, and also the call of her ancestors for inner peace. Each synth voice had different purposes as well. The first synth sound was used as the main melody. The second synth was at a lower frequency and supported the main melody as the bass. The third synth voice was an arpeggio chord with a randomized pitch simulator. This meant that the notes played were within a set scale that was randomized, producing a jumping and sporadic effect. The participant chose to use this voice to represent her thoughts as they jumped around. To see the modifications the researcher applied to the track, see Appendix P. Whenever this track entered the composition, she would take it as a cue to bring her distracting thoughts back to focus on the meditation. The fourth synth track was used at the end of the piece, along with an accompanying guitar. The synth track reminded the participant of her grandmother's organ. The guitar reminded the participant of time spent with her father. Both of these instrument's complement each other over her poem narration at the end. Before ending the composition process, the participant titled her piece, "Bloom Where I May".

The chosen anchor was the ambiance of wind which remains throughout the duration of the piece. The recording was originally a recording of forest ambiance. The researcher slowed the track down and lowered the pitch frequency to produce a more consistent low rushing noise. Instead of giving an overarching direction for the composition, the participant talked about what each instrument could symbolize for her. The researcher kept this in mind as she completed the composition outside of the first session. Time spent to complete the composition was approximately five hours. For an excerpt of the composition, see the attached audio file titled,

"Bloom Where I May Excerpt". It is important to note that the excerpt doesn't include the Participant's poem or beginning cacophony of voices for confidentiality purposes. Participant 3's composition was five minutes and forty seconds long.

In the second session, the participant didn't have anything she wanted to edit, but she did add in the poem narration at the end of the piece. The researcher recorded the poem narration into a new track. Once the process was complete, the researcher and the participant practiced using the composition to relax. The researcher recorded herself narrating a guided meditation over the composition using relaxing themes that had been shown to be effective in previous research studies (Bayne, & Thompson, 2018; Brabant, & Erkkila, 2018; Lanktree & Briere, 2017, Rothschild, 2000, p. 95, Schwarz, 2002, p.71; Stewart & Dadson, 2012, p. 338; Wigram, 2006, p. 132). For a text of the guided narration recorded, see Appendix K. Once the recording was complete, the researcher finalized two recordings: one *with* the narration and music, and one *without* the narration. To listen to the excerpt of the composition with the narration, see the audio file titled, "Guided Narration Bloom Where I May Excerpt".

With Participant 3 the researcher learned it was important to have a variety of instruments available for use when creating an effective individualized composition. The researcher found that this was an important element to include because of how it helped the composition become truly individualized. The song composed with Participant 3 held many elements of symbolic significance that was represented within each instrument. The challenge was incorporating each of the instruments into one coherent composition. As the participant was an artist and a writer, her poem reading also added another element that made the composition uniquely her own. This level of individuality could not be achieved with a generic relaxation song. It is possible that this

investment of symbolism and personal preference contributed to the participant's frequent use of the composition in the 10-day trial.

Research Question 2

The researcher addressed the following research question: would the creation of such an intervention reduce stress with the client while making and using it during music therapy sessions? The researcher followed the same methods to answer this research question as she did with the previous participants. The researcher administered a STAI assessment at the beginning and end of the first two sessions in order to answer both aspects of the research question.

The researcher analyzed the test results to see the differences in test answers in the before and after treatment. For session 1, the researcher found there were no positive differences in test scores, six same test scores, and four negative changes in test scores. Two of the negative test scores shifted two points on the four-point scales. These questions were two ("I am tense") and nine ("I am worried"). The shifted from one ("Not at all") to three ("Moderately so"). Session 2 however, showed many positive changes in test scores. There were five positive changes, and five test scores that were the same. The first test score ("I feel calm") shifted up two points from a two ("Somewhat") to a four ("Very much so"). Other questions such as ten ("I feel steady") shifted up one point. In the case of question ten, it shifted from a two ("Somewhat") to a three ("Moderately so").

Table 7.

Participant 3 Raw STAI Test Results

	Frequency Response			
	Session 1 pre-test results	Session 1 post-test results	Session 2 pre-test results	Session 2 post-test results
STAI Question				
1: I feel calm	2	2	2	4
2: I am tense	1	3	1	1
3: I feel at ease	3	3	3	3
4: I am presently worrying over possible misfortunes	1	1	1	1
5: I feel frightened	1	1	1	1
6: I feel nervous	2	2	2	1
7: I am jittery	2	3	2	1
8: I am relaxed	3	2	3	4
9: I am worried	1	3	1	1
10: I feel steady	2	2	2	3

The researcher then prepared the data to be calculated by a paired t-test (Shier, 2004; *Statistics Kingdom,* n.d.). In order to find the mean of the results for the pre-test and post-test results, the researcher first needed to make sure all the data points reflected one direction of positive change. This was needed as the questions on the STAI assessment varied in direction for positive change. For example, "I am tense," reflected positive change if the difference between the pre-test and the post-test moved in a negative direction (i.e., moving from a 3 to a 2). While other questions needed an increase to show a positive change such as: "I feel calm," (i.e., moving from a 2 to a 3). Once each data point showed the same direction for positive change, the researcher placed the pre-test data into one column, with the post-test data into the second column and ran the results of a paired t-test in order to compare the mean of both columns for

statistical significance (*Stats Kingdom*, n.d.). All tests were run at a significance level of 0.05 (*T Distribution Table,* n.d.).

For Participant 3 in session 1, the results barely failed to not be statistically significant with a p-value of .051. By session 2, however, the p-value did show to be statistically significant with the value of .0239.

Research Question 3 Results

The third research question the researcher address was: Is the musical representation of a safe space effective in reducing stress outside of a therapeutic setting? With Participant 3's responses to the survey and her responses to the interview, the researcher surmised that the coping skill was effective in reducing stress for the participant outside of the therapeutic setting.

The number of times the participant used the intervention over the course of ten days was 30 times. The participant used the coping skill in the following circumstances: trying to sleep, while at work, and while meditating. The participant stated the intervention was helpful in each situation. The participant strongly agreed that the music was engaging, interesting, and relaxing and did not find it repetitive, boring, or disengaging. The participant agreed that it was easy to visualize her safe space, and she wasn't distracted while listening to the music. Both the music with the narration and the music without narration helped her reduce her anxiety equally.

The participant let many others listen to the composition including: her children, her sister, other family members, her friends, and her friends in her exercise group. The participant strongly agreed that her level of concentration went up, and that her stress levels went down. The participant used the coping skill in the morning, the afternoon, and in the evening. The participant found the coping skill easily accessible. She stated that the music *without* the narration was helpful when meditating, going to bed, and during work. The music *with* the

narration was helpful when she was waking up in the morning. The participant stated she would

like many more sessions (at least ten) to create additional tracks and to practice using the music

for relaxation. The participant would highly recommend this intervention to others.

Table 8.

Summary of Participant 3's Responses to Survey Questions

Survey Question	Response
Times listened to coping skill	30 times
Situation the coping skill was used	Meditation, at Work, Trying to Sleep
Preferred method of using coping skill	Both with and without narration
Other people who listened to coping skill	Friends, Her children, Family members, Sister, Exercise group
Confused on how to use the coping skill	No
Additional Sessions wanted	At least 10
Would recommend the intervention to others	Yes

When asked what she learned about herself through the research process, the participant

stated that she liked to use the composition to measure the level of understanding her peers had

of her way of thinking. Since the composition was so individualized, she would explain the

purpose of the different voices and she could tell who truly understood her intentions and inner

mind, and those who didn't care about her musical intentions. In doing this, it helped her know

who she could feel safe enough to be vulnerable and open with.

Additional Findings for Research Question 1

While each composition was unique, the process in creating them followed the same

pattern, which helped guide the researcher in the composition process. This was possible with the

use of the following outline points:

- Identify or create a mental safe space desired to musically represent (Bayne, & Thompson, 2019, p.235)

- Identify participant's preferred music genre (Hillier, et al., 2016, p.483)

- Select instruments based off of preferred music genre

- Select a sound anchor, or a continuous sound that can be used to ground the listener (Ipnos Software Inc, 2009 & Rothschild, 2000, p. 71)

- Create motif or melody ideas based off of the participant's preference (Stewart & Dadson, 2012, p. 338)

These points were chosen by the researcher based off of research done to find effective ways of reducing stress. Creating the composition with a mental safe space in mind would allow the participant to think of a specific predetermined safe space that could reduce her somatic responses of stress and anxiety (Bayne, & Thompson, 2019, p.235). To create the space musically and to motivate the participant to use the composition, the researcher needed to know what their preferred genre of music was as this would influence the instrument selection and melody ideas. Using client preferred music in music therapy treatment has been shown to increase treatment response (Hillier, et al., 2016, p.483). Directing the participant towards selecting a sound anchor was a way to not only teach the participant what they could focus on when they have straying thoughts during the meditation, but it also focused the intention of the composition to being calming, and meditative in nature. Many meditations incorporate this element of an anchor, such as focusing on the breath (Headspace, 2021, para. 9, & Ipnos Software Inc, 2009).

The importance of preparation before the sessions could not be understated. The reduction of technical difficulties and having a collection of sound effects ready to use saved vital time during

the composition process with the participants. The variety of instruments available was also a helpful tool in properly representing the sounds and ideas that each participant had. Proper technological equipment was critical to recording, editing, mixing, and mastering the tracks for completion. This was universal for the composition process for all three participants.

CHAPTER V: DISCUSSION

Summary

The purpose of the study was to observe and evaluate the effectiveness of a new music therapy intervention that was designed to reduce stress and anxiety for survivors of domestic violence. This intervention involved the creation of an individualized music composition that represented the participant's inner safe space, a period of teaching the participant relaxation skills to use with the music to cue relaxation, and a testing period of the participants using the coping skill in their daily lives.

The method of preparing the recording equipment, selecting possible instruments, soundscapes, and offering possible music melodies to the participants to choose from was a successful way of creating a piece of music that was unique to each participant. In doing so, it allowed the researcher the flexibility to adapt the musical composition to the preferences and needs of each participant. It also allowed space for the participants to add individualized elements that would make the composition uniquely their own.

Using the coping skill to reduce stress and anxiety both in creating it, and using it also showed mixed results for reducing current stress levels for participants. In reviewing the raw data for all the participants, there were positive, negative, and no shifts with the STAI test results. This allowed for a detailed look at how the participants were feeling in each session, and how that varied between sessions. In general, Participant 1 showed many positive changes in session 1, while more negative than positive shifts in session 2. Participant 2 demonstrated mixed results with both positive changes and negative changes in her results in treatment for both sessions 1 and 2. Participant 3's results in session 1 showed a negative shift in test results, while showing a much more positive shift in test scores in session 2.

In taking a larger view of the collective scores to determine if there was an overall statistically significant difference between the means of the pre-test scores and the post-test scores, the participant used a T-test and modified the data to reflect one direction of positive change. This showed some sessions being statistically significant, while others were not. Creating the coping skill showed mixed statistical results for reducing the current levels of stress for the participants. For Participant 1, the paired t-test results showed that session 1 was statistically significant in reducing her stress levels. For Participant 2, session 1 didn't show statistically significant changes to her stress levels. Participant 3's responses were barely not statistically significant. For session 2, Participant 1 didn't show statistically significant changes. Neither did Participant 2. In evaluating what was happening in the sessions, there were outside factors that influenced these participant's results such as technology concerns, and environmental factors. Participant 3 did show statistically significant changes in her STAI results.

In evaluating the effectiveness of the coping skill outside of the therapeutic setting, it was discovered that the coping skill was an effective method of reducing stress and anxiety for the participants. The participants used the music in a variety of situations, times of day, and with different people within their daily lives. With each use of the music or the music and narration, the participants reported feeling a decrease of stress and anxiety in the moment. While reflecting on their experience participating in the research study, the researcher asked if they would recommend the intervention to others, and if they would like to continue making music as a coping skill to reduce stress and anxiety. All three participants stated yes to both questions.

With the results of this study, it was discovered that this intervention of creating a musical safe space showed promise in reducing stress and anxiety for survivors of domestic violence outside of the therapeutic setting. The sessions that focused on making and using the

coping skill showed mixed results with reducing the statistically significant stress levels of the participants at the 0.05 level. The coping skill still shows promise even with such a small number of participants and treatment sessions. This researcher suggests that using an individualized music composition to reduce stress and anxiety for domestic violence survivors shows promise for additional research.

Limitations

As this was the first case study for this music therapy intervention, there were a variety of limitations with the research project. The following suggestions are to be considered in recreating the research project.

Number of Sessions

As there was a limited amount of time in each session to complete all the desired tasks, there wasn't a sufficient amount of time to focus on treating the Client's stress in the moment during the sessions. Because of this, it could have affected the participant's current stress levels' post-test scores. During the first session, the majority of time was spent creating the music rather than focusing on its therapeutic applications. If the study was to be repeated, having more than one session to explore musical ideas, and to have additional time to make choices about the composition could reduce stress levels more effectively for the participants.

In the second session, there was an insufficient amount of time to practice using the music intervention more than once. This was in part due to the changes that needed to be made to each composition at the beginning of the session. If there had been additional sessions with which to practice using the music to relax, it could have positively affected the post-test scores for each participant.

Technological Concerns

Participants 1 and 2 both chose to participate in the research project via telehealth due to COVID-19 concerns. While this allowed them the comfort of participating in the research from their homes, there were technological problems. For Participant 1, this negatively affected session 2, while practicing using the music to help the participant relax. At the end of the session, the participant stated that her children were pounding on her closed door and were being extra loud during the practice using the music and narration. The researcher didn't hear these distractions because the participant had headphones on. This coupled with the fact that she had lost her phone and needed it before meeting with her ex-husband which was going to take place right after the session created a high degree of stress for the participant. Before finishing the session, the participant voiced her concerns and how she couldn't concentrate on the music because of these factors.

For Participant 2, she considered herself to be technologically challenged. During the second session, she struggled with hearing the music and the researcher's narration at the same time due to audio sharing problems via Zoom. She did not voice her concerns about lack of hearing until the end of the session. Participant 3 did not have the same concerns and the difference between pre-test and post-test results for session 2 reflect this with a statistically significant decrease in stress.

Time Commitment Creating the Compositions

The time spent creating each composition outside of the therapeutic setting was approximately 5 hours for each composition. There were many elements that went into each composition such as recording, editing, mixing, mastering, and adding in pre-recorded tracks. This would not be an ideal time commitment for full-time music therapists. It is possible that

with time and practice, the researcher could shorten the amount of time it took to create each composition. It is also possible that the time spent creating the composition could be done with the participant within music therapy sessions. This would require more of a time commitment from each participant, and additional sessions.

Unknown Exact Measurements of Stress Reduction Outside of the Therapy Setting

The researcher was unable to measure the exact levels of stress the participants had as they used the coping skill outside of the therapeutic setting. The researcher had to rely on a survey and interview after the fact to measure the results in the last session. While the survey and interview questions provided an overview of the effectiveness of the coping skill, it did not provide detailed results of its effectiveness outside of the therapy setting. It was also reliant on the participant's memory of their experiences using the coping skill for the past ten days.

Participant Size

There were only three participants for the research project. More participants are needed to test the effectiveness of this intervention and to collect additional numerical data. With more participants, additional insights and correlations could be gathered into the differences between people for what constitutes a safe space for each person, what instruments or sounds are most calming, and what musical options should be offered in the composition process. To see this intervention's full effectiveness, it would be best to repeat the study with a larger subject pool of participants. There would need to be a team of approximately five or more researchers for a larger subject pool to assist in completing the compositions.

<div align="center">

Recommendations for Future Research

</div>

Upon review of the results, conclusions, and limitations of the research study, the following recommendations were created for future research studies.

Individualized Stress Measuring Tool

For a future study, it is recommended that the researchers create a self-assessment tool that is based off the STAI questions to be used outside of the sessions. This would provide detailed data on the effectiveness of the coping skill in the moment outside of the session. Creating an assessment could also make it specific to the population of domestic violence victims. Other possibilities include using an electrocardiogram to measure the heart rate for stress during the sessions. That way it could include more than just a participant's self-report, but their biological response to the intervention during treatment.

Larger Test Pools

It is recommended that the research project be repeated with a larger subject pool to see the effectiveness of the intervention. Doing so would allow for stronger numerical data collections of pretest and posttest scores to see the effectiveness of the intervention. Additional insights could also be gained for themes of safe spaces, instruments, sounds, or narration content with more participants.

Allow for Longer Time Commitments to Complete Compositions

Completing the compositions outside of the therapy sessions with each participant takes additional time and must be planned for accordingly. To change this, the researcher can complete the composition with the participant in additional sessions. Or, if time was spent outside of the sessions, the researcher could limit the amount of time spent on each composition. The researcher can limit the number of musical options for the composition. However, in doing so, it could limit the ability to express the safe space of the participant. The researcher needs to be mindful of finding the right balance of offering possible ideas, versus time spent completing the composition.

Consistency in Treatment Method: Telehealth vs. In-person

Repeating the research and requiring the sessions to be only conducted online, or only in-person could provide clearer data results. Having the sessions online for Participants 1 and 2 seemed to reduce the effect of using coping skill. To further explore this, the researcher can compare the effectiveness between the two modalities of treatment. One group of participants could receive the intervention strictly in-person, and another group could receive the intervention only via telehealth. Results of each group could then be compared. As this type of comparison was not the purpose of this study, this was not analyzed further by the researcher.

Comparison to Traditional Music and Relaxation Interventions

This intervention can be compared to traditional music and relaxation interventions with music therapists. A study could be conducted with two different test groups, one with a traditional music and relaxation intervention such as GIM, while the other test group used the individualized coping skill. Each group could be led by a music therapist. The researcher can use music that is clinically proven to be considered relaxing to clients. An example of clinically proven relaxing music is Pachelbel's Canon in D (Hillier, et al., 2016). To conduct a comparison between interventions, the researcher would need a larger pool of participants. Another option is to use a smaller subject pool, but have each participant come in for more sessions: ones that offer traditional music and relaxation, and other sessions that use the individualized coping skill. The researchers can then compare stress levels between interventions.

Use of the Intervention with Different Populations

It is also possible to use this intervention with a variety of populations to see if it would be effective in other areas of treatment. For example, research could be done on its effectiveness on panic attacks, or anxiety attacks. This showed promise as the intervention reduced Participant

2's stress during a panic attack during the trial period. The intervention could also be used with war veterans who struggle with PTSD, or with a younger population such as adolescents with mental health concerns such as social anxiety, or eating disorders. A comparison could be drawn between populations to find similarities or differences in the intervention's effectiveness for treatment goals.

Conclusions

The use of a mental safe space has shown to be successful as a coping skill inside and outside of the therapeutic setting (Bloom, 2013; Lanktree & Briere, 2017; Rothschild, 2000;). Pairing that method with music to become fully immersed in the experience showed to be a successful tool to cue the mind and body to switch from focusing on worrying thoughts, to internal relaxation. The variety of places and times of day the participants used the coping skill varied, depending on their needs and uses throughout their day, showing versatility and easy integration into daily living with this coping skill. All participants stated that the music composition (either with or without the narration) helped reduce their stress and anxiety in the moment.

Preparing a method of creating a composition that was adaptable to each participant was vital to individualize the coping skill. It allowed the researcher to have guide posts that could be used if the participant wasn't sure how to create their safe space. It also allowed for each composition to develop uniquely to reflect the needs of each participant. Using a combination of electronic and acoustic instruments and electronic software was a positive way of representing what each participant wanted to create for their safe space.

Creating an individual safe space showed the variability and versatility in what each participant defined for themselves to be relaxing and safe. It allowed for self-expression and for

the person's needs to be met within the music. There was a common theme of nature used in each composition but beyond this, there were many more differences in preference. For example, Participant 3 considered making a heavy rock metal song. With her final choice in creating her composition, her way of inducing relaxation was unique to her. Participant 3 used overlapping voices at the beginning, followed by the rhythm of a frame drum that helped center her thoughts to focus them within the music. According to the participant, when she shared her composition with others, this opening theme was distracting and not at all relaxing for the other listeners, yet for her it was what she needed to relax. This same theme came across for Participant 1 who shared her composition with her boyfriend. Close to the end of her composition, the music introduces a solo part for the instrument Guzheng. This instrument's timbre is very different from the other sounds found in the composition. For the Participant, this was a positive effect that helped her remember positive times of when she used to learn to play the instrument, adding to a feeling of ease. Yet, for her partner, this was distracting and brought him out of a relaxed space.

The use of technology within this research project was critical to the success of creating and sharing individualized music compositions. Each participant chose to use prerecorded nature sounds that were foundational elements within each composition. These sounds provided structure and auditory cues for the participants to use to visualize their safe space. Electronic instruments were used as the main voices in two out of the three participant's compositions. If the music software hadn't been an option, their compositions would have been radically different. All the compositions included acoustic instruments which were recorded and incorporated into the compositions using software and recording equipment. Editing, mixing and

placing each instrument and sound within the space was possible with the use of the music software, *Ableton Live.*

Two of the three participants reported taking pride and ownership in the music they created. Participants 1 and 3 used their music to share with close friends and family to express themselves. When others didn't understand sections of the music, the participants used it as an opportunity to explain their intentions behind each voice or choice within the composition. Participant 3 chose to go so far as to use the music as a measuring tool to see how well her friends and family knew her, and who she could trust to understand her thinking process. Participant 2 chose not to share her composition because she didn't want to explain the purpose of the musical composition to others.

To see if the coping skill was effective in reducing stress with the participants, the researcher used the known instrument STAI assessment for current levels of stress. With this assessment, a pre-test and post-test response was recorded for each participant for the sessions 1 and 2. A paired t-test was used to evaluate if there was a statistically significant difference between the pre and post-test responses. To compare the pre and post-test responses, the researcher used an analysis of the differences between the pre- and post-test responses. After this evaluation was done, the order of some of the responses had to be rearranged to reflect any positive change. The rearranged responses were run through a paired t-test calculator where the pre-test answers were placed in the first column and the post-test responses were placed in the second column. Out of the six sessions 1 and 2, there were two sessions that were statistically significant at the 0.05 level. A third session showed a p-value of 0.051 indicating that approximately half of the sessions showed statistical significance. This is remarkable given the small number of participants and the limited number of sessions used to create and practice using

the coping skill. Because of these findings, further research is warranted to test this coping skill within the music therapy setting.

Each composition created space for the participants to represent themselves in unique ways that would not have been possible had they all used the same premade relaxing music. Participant 3 chose to narrate one of her poems, and in doing so, she found a sense of accomplishment in her own talents. The poem used helped remind her of who she was as an individual apart from the abuse that had taken place in her life. Participant 1 chose to use instruments that expressed her cultural upbringing with the use of the Guzheng instrument. Participant 2 used the composition as an opportunity to remember and capture the feelings of peace that she had during one of the best vacations in her life. While creating the compositions, each participant shared different details with the researcher for why a particular sound or element was important to have within the composition. This created opportunities for self-expression and a sense of individual accomplishment for each participant that was separate from the abuse they had endured.

Each participant used the music in a variety of settings including: at work, during commute, while meditating in the morning, and in the home while putting children to bed. Each participant used the composition in ways that were adaptable to their schedules and for situations in their lives. For Participant 1, she would often play music to help her children go to sleep. She chose to use the composition to help her children relax and to help herself calm down after the stress of the day. Participant 3 used the music on her break during work to help recenter herself after her job's stresses. Participant 2 used it after suffering from a panic attack. Each situation was unique, but according to the participants, the composition did reduce their stress and anxiety in each situation.

Each participant was given two versions of the music, one with the narration and one without; both forms of music helped reduce anxiety in different situations. Participant 1 preferred listening to the music without the narration as she often used the music in the evening while putting her children to bed. Participant 3 used both the music and narration and the music without the narration in different situations. When first getting out of bed, Participant 3 listened to the music and narration to help her prepare herself mentally for the day. She stated she used the music without the narration more often during the afternoon while at work during her break. Since she worked in customer service, she wanted a break from listening to people speak. For Participant 2, she often used the music while meditating in the late morning after brunch. She used both the music and narration, and the music without the narration. She stated both allowed her to calm down before having an afternoon nap. For each participant, the uses of the music varied to fit the needs of the participant in their own lives. The accessibility of the coping skill could have positively affected the variety of situations the Clients chose to use the coping skill.

Traumatic experiences take on many forms within our society. For people who have experienced intimate partner abuse, many have to deal with specific types of trauma, and many of these individuals have had to endure traumatic experiences over a long period of time. Because of this, it is important to have different methods of treating the effects of trauma with this population. The use of a safe space has been shown to be effective in reducing stress and anxiety, even when discussing triggers or traumatic experiences. Coupling this safe space with a musical representation has shown to reduce anxiety and stress for the participants of this study. It has shown to be versatile in the lives of the participants as they have used it at varying times of day, with or without other people, and for different reasons. While trauma has had a large hold on the lives of individuals, we do have ways to combat the effects of trauma in our lives. In using

these different coping skills, we can reduce the effects of trauma within our own lives, and by

extension, the effects of trauma within our society.

REFERENCES

Ableton Live. (n.d.) About. https://www.ableton.com/en/about/

Administration for Children and Families (ACF). (2019). Domestic violence and human

    trafficking: Advocacy at the intersections. https://www.acf.hhs.gov/fysb/news/domestic-

    violence-and-human-trafficking-advocacy-intersections

American Music Therapy Association (2020). What is music therapy.

    https://www.musictherapy.org/about/musictherapy/

American Psychiatric Association (2013). Post traumatic stress disorder. *In Diagnostic and*

    Statistical Manual of Mental Disorders (5th ed.),

    10.1176/appi.books.9780890425596.dsm07

Amir, D. (2004). Giving trauma a voice: The role of improvisational music therapy in exposing,

    dealing with and healing a traumatic experience of sexual abuse. *Music Therapy*

    Perspectives, 22(2), 96-103. 10.1093/mtp/22.2.96

Arthur, M., H. (2018) A humanistic perspective on intersubjectivity in music psychotherapy.

    Music Therapy Perspectives. 36(2), 161-167. 10.1093/mtp/miy017

Bayne, H. B., & Thompson, S. K., (2018). Helping clients who have experienced trauma gain

    emotional literacy. *Journal of Creativity in Mental Health. 13*(2), 231-242.

    10.1080/15401383.2018.1425173

Beer, L. E. & Birnhaum J. C. (2019). *Using music in child and adolescent psychotherapy.*

    (Malchiodi, C. A. & Crenshaw, D. A. Eds.) The Guilford Press: New York, London

Blackwell, S. E. (2019). Mental imagery: From basic research to clinical practice. *Journal of*

    Psychotherapy Integration. 29(3), 235-247. 10.1037/int0000108

Blake, R. L. & Bishop, S. R. (1994). The bonny method of guided imagery and music (GIM) in the treatment of post-traumatic stress disorder (PTSD) with adults in the psychiatric setting. *Music Therapy Perspectives, 12*(2). 125-129. 10.1093/mtp/12.2.125

Bloom, S. L. (2013). The sanctuary model. (Ford, J. D. & Courtois, C. A. Eds.), *Treating complex traumatic stress disorders in children and adolescents scientific foundations and therapeutic models* (pp. 278-292) The Guilford Press: New York.

Bonny, H. L. (Summer, L. Ed.) (2002) *Music and consciousness: The evolution of guided imagery and music*. Barcelona publishers, 133-134.

Brabant, O., & Erkkila, J. (2018). Enhancing improvisational music therapy through the addition of resonance frequency breathing: Common findings of three single-case experimental studies. *Music Therapy Perspectives, 36*(2), 224-233. 10.1093/mtp/miy009

Brehrens, G., A. (2012). Use of traditional and nontraditional instruments with traumatized children in Bethlehem, West Bank. *Music Therapy Perspectives. 30*(2), 196-202. 10.1093/mtp/30.2.196

Breiding, M. J., Chen, J., & Black, M. C. (2014). Intimate partner violence in the United States: 2010. *National Center for Injury Prevention and Control, Centers for Disease Control and Prevention,* p. 27.

Bronson, H., Vaudreuil, R., & Bradt, J. (2018). Music therapy treatment of active duty military: An overview of intensive outpatient and longitudinal care programs. *Music Therapy Perspectives, 36*(2), 195-206. https://doi-org.libproxy.lib.ilstu.edu/10.1093/mtp/miy006

Burns, D. S. (2001). The effect of the bonny method of guided imagery and music on the mood

and life quality of cancer patients. *Journal of Music Therapy, 38*(1). 51-65.

10.1093/jmt/38.1.51

Carr, A., Dooley, M., Flanagan, E., Flanagan-Howard R., Tierney, K., White, M., Daly, M., &

Egan, J. (2010). Adult adjustment of survivors of institutional child abuse in Ireland. *Child

Abuse & Neglect, 34*(7), 477-489. 10.1016/j.chiabu.2009.11.003

Cevasco, A. M., & Hong, A. (2011). Utilizing technology in clinical practice: A comparison of

board-certified music therapists and music therapy students. *Music Therapy Perspectives,

29*(1), 65-73.

Chlan, L., & Heiderscheit, A. (2009). A tool for music preference assessment in critically ill

patients receiving mechanical ventilatory support. *Music Therapy Perspectives, 27*(1), 42-

47. 10.1093/mtp/27.1.42

Choi, B., & Lee, N. B. (2014). The types and characteristics of clients' perceptions of the bonny

method of guided imagery and music. *Journal of Music Therapy, 51*(1), 64-102.

10.1093/jmt/thu001

Christenbury, K. R. (2015). I will follow you: The combined use of songwriting and art to

promote healing in a child who has been traumatized. *Music Therapy Perspectives. 35*(1),

1-12. 10.1093/mtp/miv005

Crooke, A. H. D., & Mcferran, K. S. (2019) Improvising using beat making technologies in music

therapy with young people. *Music Therapy Perspectives. 37*(1), 55-64.

10.1093/mtp/miy025

Coffey, P., Leitenberg, H., Henning, K., Turner, T., & Bennett, R. T. (1996). Mediators of the

    long-term impact of child sexual abuse: Perceived stigma, betrayal, powerlessness, and

    self-blame. *Child Abuse & Neglect. 20*(5), 447-455. 10.1016/0145-2134(96)00019-1

Curreri, E. (2016). Connecting to self and other through electroacoustic composition and

    performance: A case study. *Music Therapy Perspectives, 35*(2), 209-218.

    10.1093/mtp/miw007

Day, T. (2005) Giving a voice to childhood trauma through therapeutic songwriting. In Baker, F.

    & Wigram, T. (Eds.), *Songwriting methods, techniques and clinical applications for music*

    therapy clinicians, educators and students (1st ed. pp.82-96). Jessica Kingsley Publishers:

    London and Philadelphia.

DeCou, C. R., Mahoney, C. T., Kaplan, S. P., & Lynch, S. M. (2018). Coping self-efficacy and

    trauma-related shame mediate the association between negative social reactions to sexual

    assault and PTSD symptoms. *Psychological Trama: Theory, Research, Practice, and*

    Policy, 11(1), 51-54. 10.1037/tra0000379

Dell, P., & O'Neil, J. (2009). *Dissociation and the dissociative disorders DSM-V and beyond.*

    Routledge.

Dixon, M. (2002). UK music and human rights. (Sutton, J. P. Ed.). *Music, music therapy and*

    trauma (p.124-128) Jessica Kingsley Publishers London and Philadelphia.

Fragedakis, T. M., & Toriello, P. (2014). The development and experience of combat-related

    PTSD: A demand for neurofeedback as an effective form of treatment. *Journal of*

    Counseling & Development. 92(4). 481-488. 10.1002/j.1556-6676.2014.00174.x

Greenland, S. K. (2016). Listen mindfulness exercises, mindful music, podcasts, and guided

    meditation. *Susan Kaiser Greenland.* https://www.susankaisergreenland.com/listen-

    mindful-audio

Greinacher, A., Derezza-Greeven, C., Herzog, W., & Nikendei, C. (2019). Secondary

    traumatization in first responders: A systematic review. *European Journal of*

    Psychotraumatology, 10(1), 1-11. 10.1080/20008198.2018.1562840

Headspace. (2020) *Mindfulness for your everyday life.* Headspace. https://www.headspace.com

Headspace. (2021). *Types of meditations used in the headspace app.*

    https://www.headspace.com/meditation/techniques

Hernandez-Ruiz, E. (2005). Effect of music therapy on the anxiety levels and sleep patterns of

    abused women in shelters. *Journal of Music Therapy, 42*(2), 140-155.

    10.1093/jmt/42.2.140

Hiller, J. (2009). Use of and instruction in clinical improvisation. *Music Therapy Perspectives,*

    27(1), 25-32. 10.1093/mtp/27.1.25

Hiller, J., & Gardstrom, S. C. (2018). The selection of music experiences in music therapy. *Music*

    Therapy Perspectives, 36(1), 79-86. 10.1093/mtp/miy001

Hillier, A., Kopec, J., Poto, N., Tivarus, M., & Beversdorf, D. Q. (2016). Increased physiological

    responsiveness to preferred music among young adults with autism spectrum disorders.

    Psychology of Music, 44(3), 481-492. 10.1177/0305735615576264

Horn, H. L. G., & Klessmann, E. (1983). *Guided affective imagery with children and adolescents.*

    (Richards, W. A. Trans.) Plenum Press: New York.

Ipnos Software Inc. Support (2009). Relax Melodies (Version #1) [Apple & Google Play]

Jaycox, L. H., Ayer, L., Vona, P., Hehman, C., & Stein, B. D. (2019). Development and

    preliminary evaluation of a self-guided internet-based tool for coping with stress and

    trauma: Life improvement for teens (LIFT). *Psychological Services. 16*(1), 85-94.

    10.1037/ser0000277

Jespersen, K. V., & Vuust, P. (2012). The effect of relaxation music listening on sleep quality in

    traumatized refugees: A pilot study. *Journal of Music Therapy, 49*(2), 205-229.

    10.1093/jmt/49.2.205

Knight, A. (2013). Uses of iPad applications in music therapy. *Music Therapy Perspectives, 31*(2).

    189-196. 10.1093/mtp/31.2.189

Knight, A., & Krout, R. (2017). Making sense of today's electronic music technology resources

    for music therapy. *Music therapy perspectives, 35*(2), 219-225. 10.1093/mtp/miw025

Knight, A., & Lister, E. (2018). Music technology in therapeutic and health settings. *Music

    Therapy Perspectives, 36*(1), 133-134. 10.1093/mtp/miv023

Lankton, S. R. (2010). Using hypnosis in redecision therapy. *Transactional Analysis Journal,

    40*(2), pp. 99-107. 10.1177/036215371004000204

Lanktree, C. B., & Briere, J. N. (2017). *Treating complex trauma in children and their families an

    integrative approach.* Sage: Los Angeles.

Lee, S. E., Han, Y., & Park, H. (2016). Neural activations of guided imagery and music in

    negative emotional processing: A functional MRI study. *Journal of Music Therapy, 53*(3).

    257-278. 10.1093/jmt/thw007

Leeds, A. M. (2016). *A guide to the standard EMDR therapy protocols for clinicians, supervisors,

    and consultants* (2nd ed.). Springer Publishing Company: New York

Lyon, E., Lane, S., & Menard, A. (2008). Meeting survivors' needs: A multi-state study of

domestic violence shelter experiences, final report. *U.S. Department of Justice.*

https://www.ncjrs.gov/pdffiles1/nij/grants/225025.pdf

Levine, P. A., & Frederick, A. (1997). *Waking the tiger.* North Atlantic Books Berkely, CA.

Maack, C., & Nolan, P. (1999). The effects of guided imagery and music therapy on reported

change in normal adults. *Journal of Music Therapy, 36*(1), 39-55. 10.1093/jmt/36.1.39

Madson, A. T., & Silverman, M. J. (2010) The effect of music therapy on relaxation, anxiety, pain

perception, and nausea in adult solid organ transplant patients. *The Journal of Music*

Therapy, 47(3), 220-232. 10.1093/jmt/47.3.220

Mandel, S. E., Hanser, S. B., & Ryan, L. J. (2010). Effects of a music-assisted relaxation and

imagery compact disc recording on health-related outcomes in cardiac rehabilitation.

Music Therapy Perspectives, 28(1). 11-21. 10.1093/mtp/28.1.11

Matto, H. C., Tompkins, C. J., Ihara, E., Inoue, M., Byrd, A. (2015). Results from a

music, imagery, and movement treatment intervention in a long-term care facility. *Families*

in Society: The Journal of Contemporary Social Services, 96(4), 277-283. 10.1606/1044-

3894.2015.96.32

Mechelle, C. (2013). Hearing myself: songs and improvisation with inner-city adolescents dealing

with sexual abuse history. (Sana, L. Ed.). *Expressive Therapies for Sexual Issues* (p. 157-

179) Springer Science and Business Media, New York.

MedlinePlus. (2020). Domestic violence. *U.S. National Library of Medicine.*

https://medlineplus.gov/domesticviolence.html

National Domestic Violence Hotline. (2021). Power and control: Break free from abuse.

https://www.thehotline.org/identify-abuse/power-and-control/

Novation. (n.d.). Launch key: Made to create. https://help.soundcloud.com/hc/en-

    us/articles/115003450427-Sharing-a-private-track-or-playlist-within-SoundCloud

Oklan, A. M. (2017). Reauthoring narratives with alternative education students using recorded

    music expressive arts. *ProQuest.*

    https://search.proquest.com/eric/docview/2011262578/8770428DBAD44213PQ/11

Pavlicevic, M. (2002) South Africa fragile rhythms and uncertain listenings: Perspectives from

    music therapy with South African children. (Sutton, J. P. Ed.). *Music, music therapy and*

    trauma (p.111-113). Jessica Kingsley Publishers: London.

Reisman, M. (2016). PTSD treatment for veterans: What's working and what's next. *P&T: A*

    Peer-reviewed Journal for Formulary Management, 41(10), 623-634.

Robb, S., L. (1996). Techniques in song writing: Restoring emotional and physical well-being in

    adolescents who have been traumatically injured. *Music therapy perspectives, 1*(14), 30-

    37. 10.1093/mtp/14.1.30

Rothschild, B. (2000). *The body remembers the psychophysiology of trauma and trauma*

    treatment. W. W. Norton & Company: New York.

Saxe, G. N. & Ellis, B. H. & Kaplow, J. B. (2007). *Collaborative treatment of traumatized*

    children and teens the trauma systems therapy approach. The Guilford Press: New York.

Smyth, M. (2002). The role of creativity in healing and recovering one's power after victimization.

    (Sutton, J. ed.) *Music, music therapy and trauma: International perspectives.* London:

    Jessica Kingsley Publishers.

Schrader, E. M., & Wendland, J. M. (2012). Music therapy programming at an aftercare center in

    Cambodia for survivors of child sexual exploitation and rape and their caregivers. *Social*

    Work & Christianity, 4(39), 390-406.

http://libproxy.lib.ilstu.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true

&db=psyh&AN=2012-30759-002&site=ehost-live&scope=site

Schwarz, R. (2002). *Tools for transforming trauma.* Brunner-Routledge: New York. p.71

Shier, R. (2004). 1.1 paired t-tests. *Mathematics Learning Support Center.*

https://www.statstutor.ac.uk/resources/uploaded/paired-t-test.pdf

Soshensky, R. (2011) Everybody is a star: Recording, performing, and community music therapy.

Music Therapy Perspectives, 29(1). 23-30. 10.1093/mtp/29.1.23

Soundcloud. (2021). Sharing a private track or playlist within Soundcloud.

https://help.soundcloud.com/hc/en-us/articles/115003450427-Sharing-a-private-track-or-

playlist-within-SoundCloud

Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for

the Stat-Trait Anxiety Inventory.* Palo Alto CA: Consulting Psychologists Press.

Staples, J. K., Abdel Atti, J. A., & Gordon, J. S. (2011). Mind-body skills groups for posttraumatic

stress disorder and depression symptoms in Palestinian children and adolescents in Gaza.

International Journal of Stress Management. 18(3), 246-262. 10.1037/a0024015

Statistics Kingdom. (n.d.). Paired t-test calculator.

https://www.statskingdom.com/160MeanT2pair.html

Steele, W., & Malchiodi, C. A. (2012). *Trauma-Informed practices with children and adolescents.*

Routledge Taylor and Francis Group: New York.

Stewart, B. L., & Dadson, M. R. (2012). Integrative therapeutic interventions of phase-oriented

treatment: Additional reflections on the case of Lynn. *Journal of Aggression, Maltreatment

& Trauma. 21*(3), 331-350. 10.1080/10926771.2012.659800

Strauss, S., & Behrens, G. A., (2015). AMTA undergraduate student research award status of music therapy for women who have been trafficked for sexual exploitation. *Music Therapy Perspectives. 33*(2), 182. 10.1093/mtp/miv022

Sutton, J. P. (2002). Trauma in context. (Sutton, J. P. Ed.). *Music, music therapy and trauma* (p.31). Jessica Kingsley Publishers: Philadelphia.

Symes, L., McFarlane, J., Maddoux, J., Levine, L. B., Landrum, K. S., & McFarlane, C. D. (2018). Establishing concurrent validity for a brief PTSD screen among women in a domestic violence shelter. *Journal of Interpersonal Violence. 00*(0), 1-15. 10.1177/0886260518779595

T Distribution Table. (n.d.) T table. https://www.tdistributiontable.com

Teague, A. K., Hahna, N. D., & McKinney, C., H. (2006). Group music therapy with women who have experienced intimate partner violence. *Music Therapy Perspectives.* 24(2), 80-86. 10.1093/mtp/24.2.80

NCTSN. (2000). Secondary traumatic stress. *The National Child Traumatic Stress Network.* https://www.nctsn.org/sites/default/files/resources/fact-sheet/secondary_traumatic_stress_child_serving_professionals.pdf

Tony, W. (2004). Improvisation: Methods and techniques for music therapy clinicians, educators and students. Jessica Kingsley Publishers: London.

Torres, E., Pedersen, I. N., & Perez-Fernandez, J. I. (2018). Randomized trial of a group music and imagery method (GrpMI) for women with fibromyalgia. *Journal of Music Therapy,* 55(2). 186-220. 10.1093/jmt/thy005

Ventre, M. E. (1994). Healing the wounds of childhood abuse: A guided imagery and music case study. *Music Therapy Perspectives,* 12(2). 98-103. 10.1093/mtp/12.2.98

Victims of Crime. (2018). Intimate partner violence. *Victims of Crime.*

https://ovc.ojp.gov/sites/g/files/xyckuh226/files/ncvrw2018/info_flyers/fact_sheets/2018N

CVRW_IPV_508_QC.pdf

Wen, G. (2017). *Advanced recording project 1.* CA: Oakland (Original Work, unpublished)

Wigram, G. (2006) *Receptive Methods in Music Therapy: Techniques and clinical applications for*

music therapy clinicians, educators and students. Jessica Kingsley Publishers: London.

127-156.

Winter, J. W. (2019). How music therapy effects the traumatized brain: Neurorehabilitation for

posttraumatic stress disorder through music therapy. *Honors Projects.* 99.

https://digitalcommons.spu.edu/honorsprojects/99.

Ward, A., Davis, T., & Bevan, A. (2019). Music technology and alternate controllers for clients

with complex needs. *Music Therapy Perspectives. 37*(2), 151-168. 10.1093/mtp/miz006.

Wu, Y. (2018). The development of music therapy in mainland China. *Music Therapy*

Perspectives. 37(1), 84-92. 10.1093/mtp/mix023.

Yu, X., Lau, J. T. F., Zhang, J., Mak, W. W. S., & Choi, K. C. (2010). Posttraumatic

growth and reduced suicidal ideation among adolescents at month 1 after the Sichuan

earthquake. *Journal of Affective Disorders. 123*(1-3), 327-331. 10.1016/j.jad.2009.09.019

APPENDIX A: QUESTIONNAIRE FOR DEMOGRAPHIC INFORMATION

Name: _____

I identify as (circle one):   Male   Female   Other_____   Prefer not to answer

I am over the age of 18:   Yes   No

My age is: _____   Prefer not to answer

I have lived in the shelter for __ days, OR not applicable.

I currently live outside of the shelter.   Yes   No

I have __ children.

I can commit to three 50-minute sessions over a period of two weeks.   Yes   No

I have access to listening equipment   Yes   No
(For example: computer, phone, CD player, headphones, etc.)

I am willing to use the skills that I will learn in this study outside of the sessions for ten days.
                                                                             Yes   No

I am here at the Shelter for the following reason(s) check all that apply:
__ Housing
__ Counseling Services
__ Civil Court Assistance
__ Criminal court assistance
__ Health
__ Child protection/welfare
__ Job/job training
__ Immigration issues
__ Divorce/Custody/ visitation

I have been afraid for my life in the past six months.   Yes   No
I have been afraid for my life in the past month.   Yes   No
I have been homeless in the past six months.   Yes   No
I have been a victim of domestic violence/intimate partner abuse.   Yes   No
I have been physically abused before.   Yes   No
(For example: hit, strangled, pulled or pushed without consent)
I have been emotionally abused before.   Yes   No
(For example: through words, intimidation, threats to: self, children, property, or pets)
I have been sexually assaulted before   Yes   No
(For example: rape, pressured from partner for sex, compared to your partner's previous relationships)
I have been humiliated by my partner before   Yes   No
(For example: name calling, made to feel crazy by my partner, public humiliation)
I have been financially limited by my partner before   Yes   No
(For example: partner has all control over money, partner has threatened to steal possessions, partner has prevented you from working)
I have been a victim of human sex trafficking before.   Yes   No
I have been a victim of human labor trafficking before.   Yes   No
I have reoccurring memories or flashbacks to traumatic events.   Yes   No
I have reoccurring body memories.   Yes   No
(For example: body pains that originated from traumatic experiences)

Appendix A. The name of the shelter has been omitted for confidentiality purposes.

Appendix B. The overt types of abuse found in domestic violence are found in the outer rim of the circle. The covert forms of abuse are found closer to the center of the chart.

APPENDIX C: PARTICIPANT CONSENT FORM

You are being asked to participate in a research study conducted by Juliet Weight, Andrea Crimmins, from the Music Therapy Department at Illinois State University. The purpose of this study is to create a musical coping skill that will potentially assist the participant in reducing stress, anxiety, or problems sleeping. The research project will require that the participant and the researcher meet together for three sessions over a period of two weeks. Each session will take approximately 50 minutes and will take place in an office space at the Shelter in the mid-west.

Why are you being asked?
You have been asked to participate because you are over the age of 18, and you identify as having been a victim of Domestic Violence at some point of your life. Your participation in this study is voluntary. You will not be penalized if you choose to skip parts of the study, not participate, or withdraw from the study at any time.

What would you do?
If you choose to participate in this study, you agree to fill out demographic and trauma history form. This form will ask questions related to past trauma you may have experienced within the past six months and if you have ever experienced a traumatic event such as sexual assault, emotional abuse, or whether you have been a victim of human trafficking. You will be given this demographic and trauma history form to fill out after signing this participant consent form. Reviewing and filling out the form shouldn't take more than five minutes to complete.
You will agree to meet with the researcher in one-on-one sessions with the researcher for three separate occasions over a period of two weeks. During the first session, you agree to help the researcher create a song that reflects feelings of calm, or reflects a place that invokes safety and peace. In the second session, you agree to learn how to use the music as a cue to participate in a guided meditation, with breathing exercises. You agree to practice using the music to help you calm down by visualizing stressful situations, and practicing using the music to calm down. In these two sessions, you agree to respond to assessment questions rating your current levels of stress and anxiety before and after the two sessions. You then agree to take and use the created song in your daily life to reduce stress and anxiety for ten days. The third and final time you will meet with the researcher, you agree to talk about your experience using the created song in your daily life by taking a written survey, and answering interview questions about the music. In total, your involvement in this study will last approximately two weeks where you will meet with the researcher for three fifty-minute sessions, with a ten-day gap between the second and final session. If you agree to meet for the study, you agree to be video/audio recorded during each session for data collection purposes.

Are any risks expected?
Foreseeable risks for this study are minimal. The risks include a review of one stressful situation in your daily life with which you can practice using the music to calm down to. To reduce the possibility of being exposed to the COVID-19 virus, you will be asked to wear a facial mask and to keep 6 feet away from the researcher at all times during the sessions. Beyond this, we do not anticipate any risks that would occur in everyday life. To reduce these risks, if you'd like to

participate in the study via telehealth or using an online platform, we can conduct the research online only.

Will your information be protected?
We will use all reasonable efforts to keep any provided personal information confidential. All identifying information will be collected and scanned onto one computer used by the researcher. The physical copies with identifying information will be destroyed. The information will then be coded using a method only known to the researcher, and kept in a secure file on the computer, and on one external hard drive. Both the computer and the hard drive will be password protected. The audio/visual recordings of the sessions will be saved on the secure computer (password protected), and on the one external hard drive (also password protected). For the created song, you agree to title your song with no identifiers in the title. The song will then be saved on the said computer and hard drive, with no other identifiable information attached to the created song. Information that may identify you or potentially lead to reidentification will not be released to individuals that are not on the research team. After the completion of the study, all identifying information such as scanned forms, and recorded video/audio, will be permanently deleted from the computer and hard drive.
However, when required by law or university policy, identifying information (including your signed consent form) may be seen or copied by authorized individuals.

We need to make you aware that in certain research studies, it is our legal and ethical responsibility to report situations of child abuse, child neglect, or any life-threatening situation and/or illegal activity on the ISU campus, campus-controlled locations, or involving ISU students to appropriate authorities. However, we are not seeking this type of information in our study nor will you be asked questions about these issues. If there are any reports of harm to yourself, or to those around you either in the past, or happening currently, the researcher is obligated by law to report these instances to the appropriate authorities. Included within these legal reporting obligations is the necessity to report any self-harm, or participant harm to a designated social worker at the shelter.

Could your responses be used for other research?
We will not use any identifiable information from you in future research, but your deidentified information could be used for future research without additional consent from you.

Will you receive anything for participating?
After participating in the first two in-person sessions with the researcher, you will have access to the song created during the sessions. This song may be used during, and after the research project is completed in your daily life.

Who will benefit from this study?
Foreseeable benefits of participating in the study include the creation of an alternative coping device that you can use to reduce stress and anxiety in your personal life. This research project may contribute to discovering more effective ways of reducing stress and anxiety among clients who have suffered from domestic violence. This research project aims at creating healthy coping strategies that individuals can use within and without the therapeutic setting to increase the quality participant's lives, and to gain more personal autonomy.

Whom do you contact if you have any questions?
If you have any questions about the research or wish to withdraw from the study, contact Juliet Weight at the e-mail: jjweigh@ilstu.edu, or Andrea Crimmins at the e-mail: amcrimm@ilstu.edu. If desired, the results of the research project can and will be disclosed if requested via email.

If you have any questions about your rights as a participant, or if you feel you have been placed at risk, contact the Illinois State University Research Ethics & Compliance Office at (309) 438-5527 or IRB&ilstu.edu.

Documentation of Consent
Sign below if you are 18 or older and willing to participate in this study.

Signature _____   Date _____

Your signature below indicates that you agree to be video and audio recorded.

Signature _____   Date _____

You will be given a copy of this form for your records.

      Appendix C: The name of the shelter has been omitted for confidentiality purposes.

SAMPLE

Self-Evaluation Questionnaire
STAIAD Short Form Y-1

Please provide the following information:

Name_____Date_____S____

Age_____   Gender (*Circle*) **M   F**   T____

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you feel *right* now, that is, **at this moment**. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best. Use the following scale:

NOT AT ALL – SOMEWHAT – MODERATELY SO – VERY MUCH SO

		NOT AT ALL	SOMEWHAT	MODERATELY SO	VERY MUCH SO
1.	I feel calm	1	2	3	4
2.	I am tense	1	2	3	4
3.	I feel at ease	1	2	3	4
4.	I am presently worrying over possible misfortunes	1	2	3	4
5.	I feel frightened	1	2	3	4
6.	I feel nervous	1	2	3	4
7.	I am jittery	1	2	3	4
8.	I am relaxed	1	2	3	4
9.	I am worried	1	2	3	4
10.	I feel steady	1	2	3	4

APPENDIX E: SURVEY FOR SESSION 3

Mark with an X all that applied:

Outside of the therapy sessions, I listened to the composed music _____ times.
I listened to the music in the following circumstances:
__ Trying to sleep
__ Cleaning
__ while at work
__ Commuting
__ while exercising
__ while meditating
__ other _____

The music was helpful in the following circumstances:
__ Trying to sleep
__ Cleaning
__ while at work
__ Commuting
__ while exercising
__ while meditating
__ Other _____

The music was not helpful in the following circumstances:
__ Trying to sleep
__ Cleaning
__ while at work
__ Commuting
__ While exercising
__ While meditating
__ Other _____

The composed music was engaging, interesting, and relaxing.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

The composed music was repetitive, boring, disengaging.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

It was easy to visualize the safe space while listening to the music.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

I became easily distracted and/or agitated while listening to the music while trying visualize a safe space.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

The music *and* narration was effective in reducing my stress and anxiety.

Strong Disagree   Disagree   Neutral   Agree   Strongly Agree

The music *without* the narration effectively reduced my stress and anxiety
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

Did you let other people listen to the music with you?   Yes   No

Over the course of the week, I meditated *without* music ___ times.
Over the course of the week, I meditated *with* the composed music ____ times.
Over the course of the week, I meditated *with* the composed music and narration _____ times.

I felt my level of concentration and focus go up when listening to the music while meditating.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

After listening and meditating to the music, I felt my stress level go down.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

I saw no difference in my stress or anxiety after listening and meditating to the music.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

What time of day would you use the music? Circle all that apply.
Morning   Early Afternoon   Afternoon   Late Afternoon   Evening   Late Evening

Were you confused on how to use the music to help you relax?   Yes   No   Sometimes

I would like to have ___ additional sessions with the music therapist to practice using the music to meditate and relax.

Was the music easily accessible?   Yes   No   Sometimes

Which was more successful in reducing your stress?
Music with narration Music without narration   Meditation without music

Do you feel like you'd like to make more music as a way to reduce stress?   Yes   No

Overall, I would recommend this Music Therapy Service to others.
Strongly Disagree   Disagree   Neutral   Agree   Strongly Agree

APPENDIX F: INTERVIEW QUESTIONS

Did you have problems accessing or playing the music?

Were you confused on how to use the music to help you relax?

What did you learn about yourself while making the music?

What did you learn about yourself while listening to the music?

Walk me through your processes of listening to the music. Was it helpful? Was it not helpful?

Give me an example of one of the times you listened to the music. Where did you listen to the music, did you listen to the song on repeat, or did your pause it often?

Did you let other people listen to the music with you? How did that change the experience for you?

What were some of the things keeping you from using the music as a coping skill?

In your opinion, was the music effective in helping you relax?

What do you wish you would have learned in using the music before using it?

Did your inner safe space change over the past ten days? If there were changes, would you change the music to reflect those changes?

Is there something you'd like to change about the music? If so, what would that be?

If you could go through the process of making the music, learning how to relax with it, and practice using it, what would you change?

What do you take away from this study?

Are there any additional comments you have about the study?

APPENDIX G:REVIEW OF *ABLETON LIVE* FILE OF INSTRUMENT POSSIBILITIES FOR

COMPOSITIONS
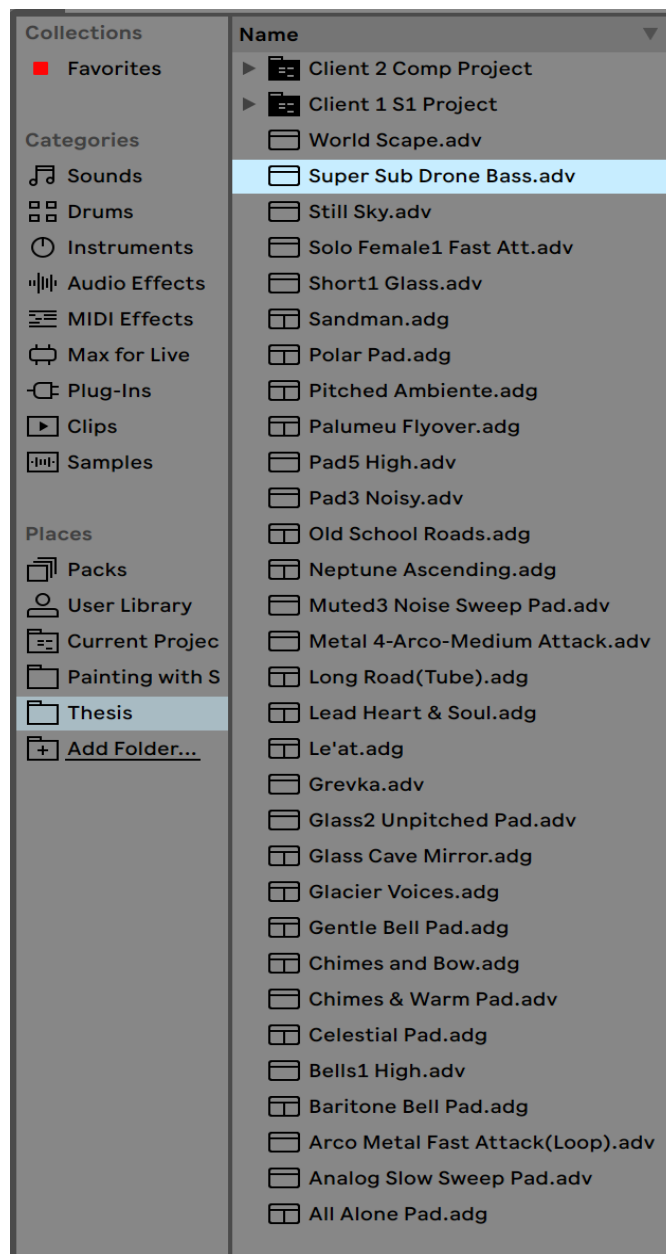
Appendix G. Before the sessions began, the researcher went through all the possible

instruments and sounds in *Ableton Live* library to find instruments and sounds that would be

appropriate to use for the composition process. The image shows the list compiled.

APPENDIX H: SAMPLE LIST OF POSSIBLE SOUND EFFECTS FOR COMPOSITIONS

Appendix H. The researcher compiled recordings of sound effects that could have possibly been used for the compositions before meeting with the participants.

APPENDIX I: PARTICIPANT 1, THE LITTLE FOREST: GUIDED NARRATION

As you enter the forest, I invite you to leave behind all your past troubles.

Leave behind your stress, your worries, anything that is holding you back.

Let them melt into the background of the forest.

Breathe in, and breathe out.

Breathe in, and breathe out.

With each breathe that you take, all of your worries, all of your stress, fades even a little bit

further away from you.

You feel your mind and your body becoming fully relaxed and open to the forest around you.

You may notice that your mind may drift back to previous worries, sorrows, or stresses.

I invite you that each time any of these thoughts or emotions come up, notice them, but release

them.

You are here in this moment, at this time, in this forest: your forest.

Breathe in, breathe out

As you turn to gaze around the trees, bring your attention to the birdcall, to the water that moves

freely. As you listen to these calls of nature, I remind you to relax, to find solace, comfort.

Breathe in, breathe out.

Breathe in, breathe out.

You may find that there are thoughts or versions of yourself that may come to visit you in the

forest. Let your voice be heard.

Speak to the trees,

speak to the birds,

speak to the moving water.

You are safe.

You are heard.

Just breathe.

I invite you to think about yourself as an individual. As a survivor, as someone who has overcome impossible odds, a person who can still overcome any challenge placed in your path.

You will survive, and you will thrive.

As you listen to your little forest, know that you may always find solace and comfort here.

As this space is your own.

You are heard,

You are loved,

You are safe.

Take all parts of you moving forward, embrace all parts of yourself. Learn from your past, live in your present.

When you are ready, start re-inviting movement back into your body in small ways, increase the pace of your breath, breathe a little deeper in and a little deeper out.

And when you are ready, you may open your eyes.

APPENDIX J: PARTICIPANT 2 SPRING HAS FINALLY COME: GUIDED NARRATION

As you move towards the grassy hilltop, you can see the ocean stretching out before you.

As you look to your side, you see the forest with the beautiful clear crisp pine trees reaching

heavenwards. And in the distance, you also see a running brook, a waterfall.

In this space, know that you are home.

I invite you to breathe in and to breathe out.

Breathe in, focusing on your troubles, and breathe them out.

Let your troubles wash away with the sound of the waves.

Being here reminds you of the great worth that you have as an individual.

Your opinions matter.

Your worth as a person, as a whole being cannot be underestimated.

Breathe in, breathe out

Breathe in, and out.

Know that challenges come, but they ebb and flow away.

For this space is a safe space, for you.

You are a very special, wonderful being

You deserve happiness and peace of mind.

As you listen to your environment and feel the breeze on your face, and breathe in the crisp clean

air,

know that you are whole,

that you are loved,

and you are seen.

Breathe in and out

As your troubles melt away, remember to fill your soul with joy.

Remember that there is always sunshine behind the clouds.

And know that you can overcome anything that comes your way, you are a survivor, and you

will thrive in your life.

Focus on believing in yourself, believing in what you can become

Forgiving yourself for past wrongs, and celebrating the accomplishments that you have done in

your life thus far.

Breathe in, breathe out.

You are safe.

You are loved.

You are whole.

As you move forward, remember to believe in yourself and take with you a sense of serenity that

can be found here.

APPENDIX K: PARTICIPANT 3, BLOOM WHERE I MAY: GUIDED NARRATION

The call of the drum is a call from your ancestors, the spirits around you, to center yourself.

To be in this moment, in this place.

As you have thoughts that come into your mind, let them come, and let them flow out.

Choose to be present.

Re-center yourself: Your mind, Your body, Your soul.

Breathe in, breathe out.

Breathe in, breathe out

Let your mind center on what is around you: the sound of the willow tree, the sound of the water.

The life, the nature that is around you.

As you become aware of the nature and life around you, know that it is a part of you. As you, are

one with the world.

Let your mind refocus on your core values of who you are independent of what others think of

you or the needs that others have.

Be one with yourself.

Forgive yourself.

Bring your thoughts, your needs, and focus them to be present in this moment.

Just breathe.

APPENDIX L: *ABLETON LIVE* SESSION OVERVIEW FOR PARTICIPANT 1 THE LITTLE
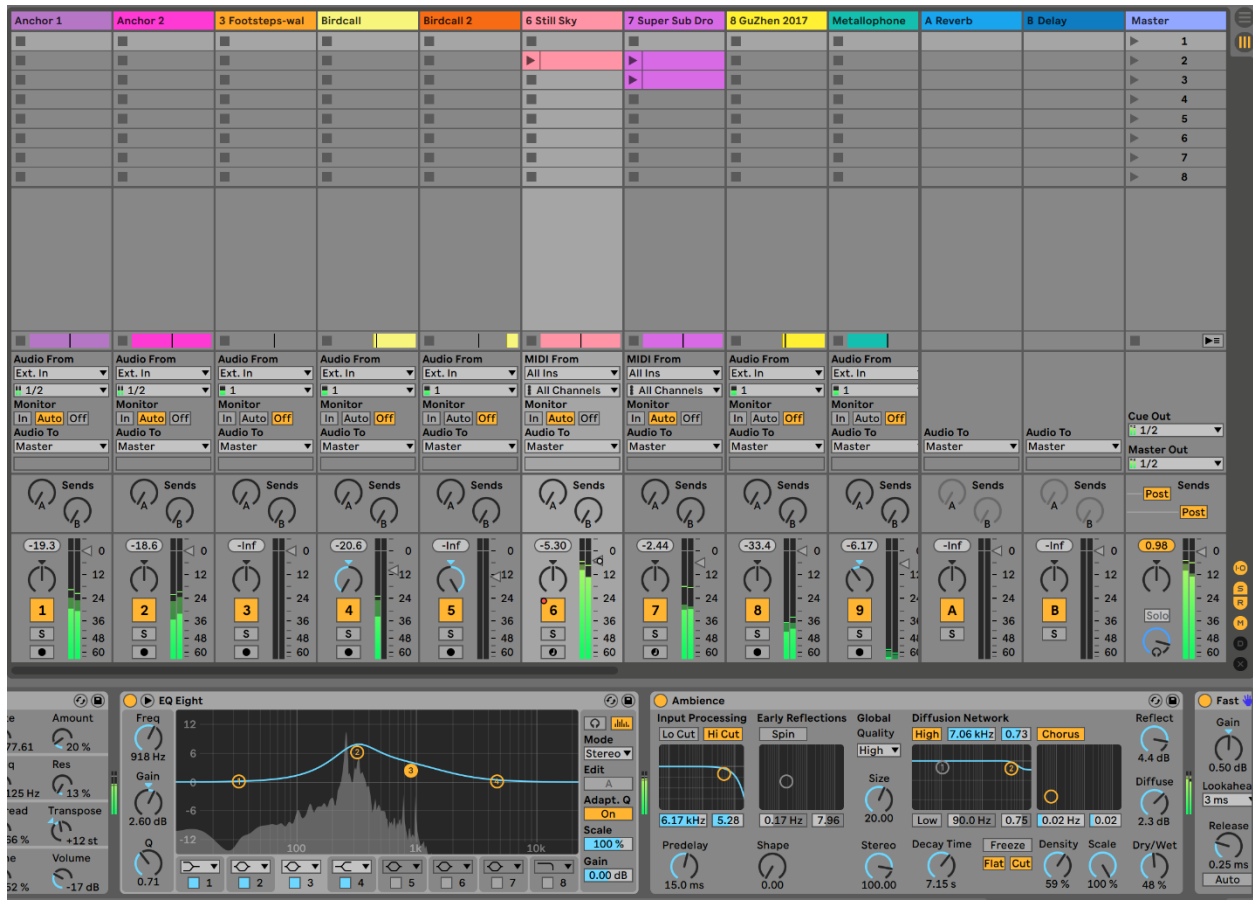
FOREST

Appendix L. The session included panning of different tracks to create more of a forest

atmosphere, monitoring the track levels, and including EQ, reverb, compression, and limiters to

tracks that were acoustic, and electric. Not all tracks used are visible in the image.

APPENDIX M: *ABLETON LIVE* SESSION OVERVIEW FOR PARTICIPANT 2 SPRING HAS
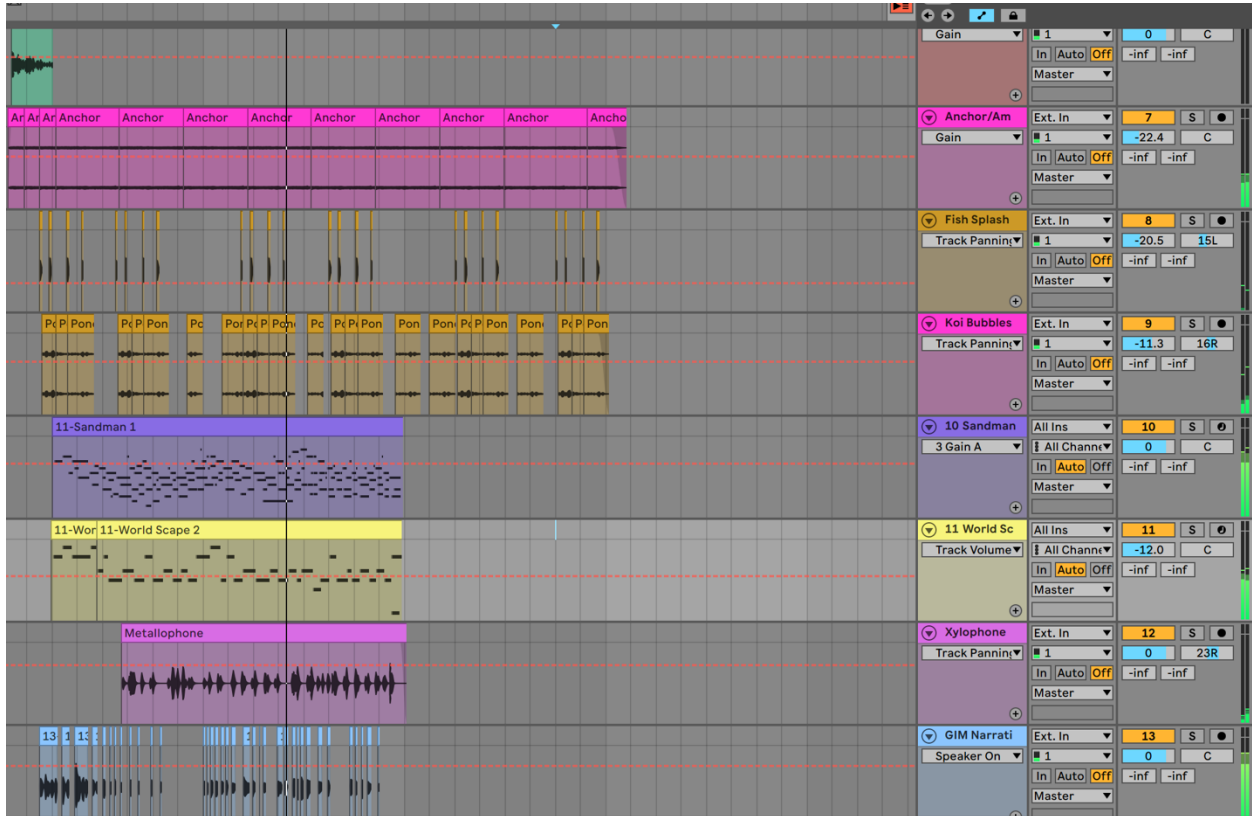
FINALLY COME
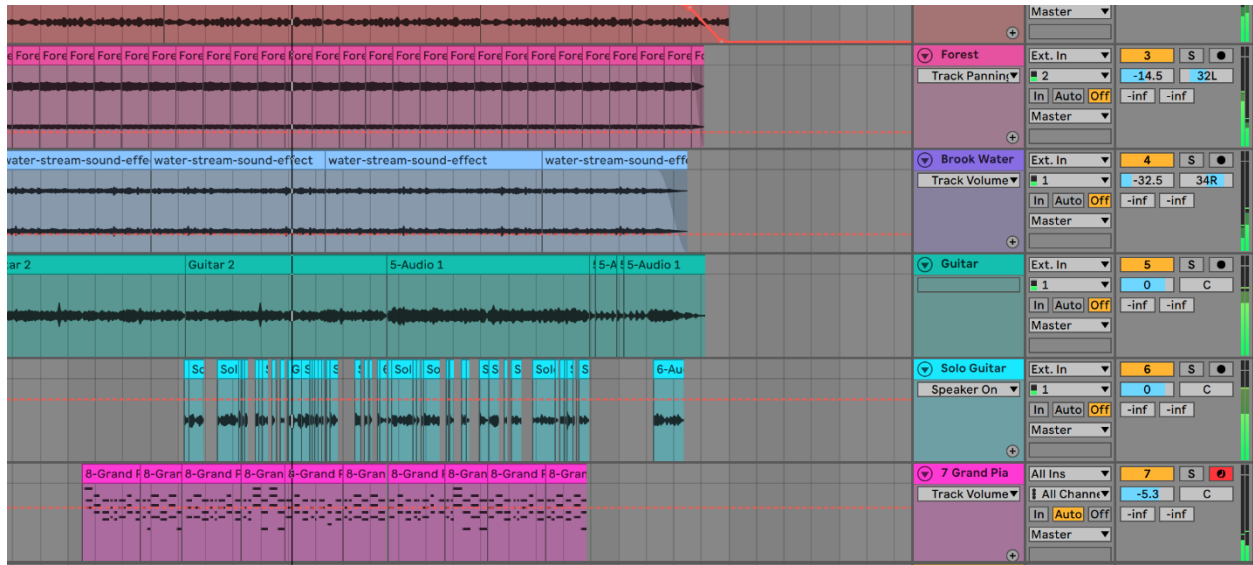
Appendix M. Many of the instruments chosen by Participant 2 were acoustical tracks,

except for the Grand Piano. Not all tracks and instruments are visible in this image.

Appendix N. Creating the fish pond involved randomly placing small splashes throughout the atmospheric noises. The splashes are located on Track eight in the image and are short slivers of sound. Not all tracks are visible in the image.

APPENDIX O: *ABLETON LIVE* EDITS TAKEN ON TRACKS IN SPRING HAS FINALLY

COME
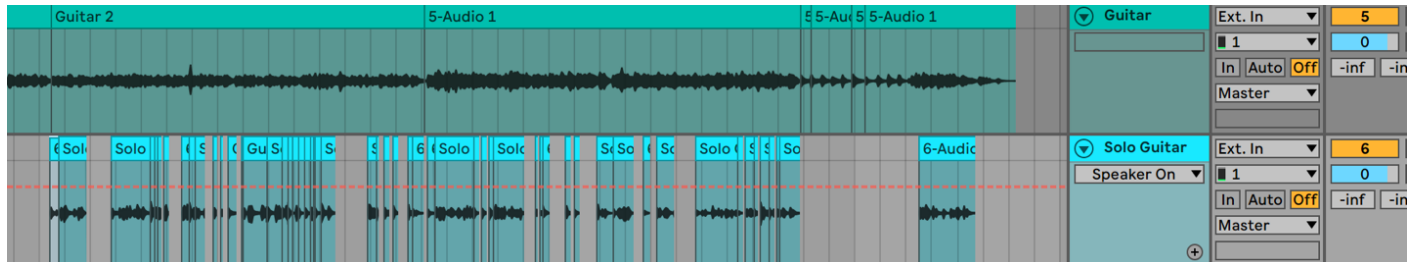
Appendix O. The edits for the acoustic recordings took much of the time during the composition process outside of the session for Participant 2's composition.
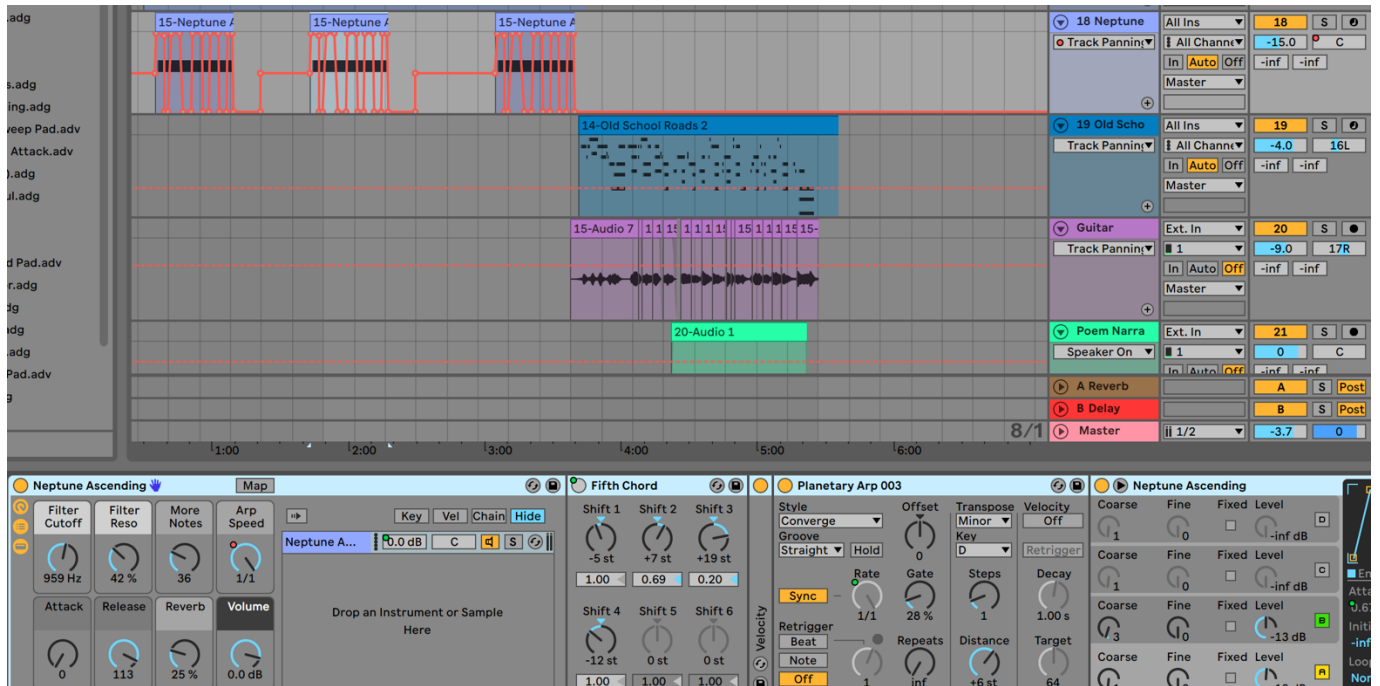
Appendix P. Track 18 of Bloom Where I May (which was labeled Neptune) was a track that randomly selected notes to play within an arpeggio scale. This created the illusion of a jumping around sound effect. To mimic the Participant's jumping thoughts, the researcher modulated the panning so that some notes are heard through the right speaker, while others are heard through the left speaker. The modulation is seen with the line going up and down over the top of Track 18. This gives the illusion of the sound traveling. The speed of the arpeggio notes gradually slows to a standstill within the composition. This is achieved by the researcher recording the modulation of the "Arp Speed" which is seen in the bottom left-hand corner next to the dial. As the dial turns, there are fewer options in the arpeggio scale for the synthesizer to choose from, making large gaps between the notes until it comes to a standstill on one note. This process is repeated three times within the composition.