The Use of Improvised Harp Music

as an Opening Ritual for the Therapeutic Setting

by

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### ABSTRACT

The inspiration to undertake this pilot study came after observation and reflection by the clinician-researcher, a board-certified music therapist who has used the harp as the primary instrument when facilitating sessions, on hundreds of music therapy sessions that took place at a facility for behavioral health and chemical dependency. It was observed that the use of improvised harp music as a therapeutic intervention within the context of a music therapy session seemed to relax patients who reported that they were nervous or anxious, and it was also noted that following a listening exercise that consisted of improvised harp music, patients appeared calmer and reported that they felt more comfortable. This research aims to determine if improvised harp music at the opening of a music therapy session creates a calmer environment in which to share information, compared with a guided verbal relaxation and ambient ocean drum sounds for the opening of the music therapy session. Social-behavioral research was conducted in the form of a fifty minute individual music therapy session with six subjects. Each therapy session used improvised music and verbal processing with the therapist, with three subjects in the experimental group and three in the control group. Each individual rated two different types of affective responses on scales of one to ten and completed a five-question survey at the end of the session. All the research subjects showed an increase in positive affect at the end of the music therapy session.

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### INTRODUCTION

# Overview

History documents the role of music in expressing emotion, assuaging sorrow, and alleviating the strain of physical ailments. Music as therapy became a modern profession in 1950 in the United States (Davis & Gfeller, 2008). Anecdotal reports indicate that the music that emerges from harp strings has pleased many humans over time. In reading the writings of therapeutic harpist Sarajane Williams one gets the sense that the harp and the plucked stringed instruments that have predated it have been used for healing for thousands of years. The first documented record of the harp being applied for modern, professional clinical use and as a separate field from music therapy has also occurred in the last century. (Williams, 2009). The two disciplines are related, in that they both strive to provide a healing benefit through music, although the education and training of the music therapist is different than that of the harp therapist. A boardcertified music therapist is required to complete an undergraduate program approved by the American Music Therapy Association (AMTA) and then complete a six-month internship under the supervision of an experienced music therapist. After the education and training has been completed, the music therapist sits for the board certification exam to earn the title, Music Therapist-Board Certified (Certification Board for Music Therapy, 2011). The music therapist is then prepared to provide goal-directed therapy in a great number of contexts and with a wide variety of patients and clients, with musical ability in voice, guitar, piano and one's "primary instrument" which may be the harp, or one of many other instruments, such as clarinet or viola. A harpist can train as a therapeutic harpist through various online programs and by studying the prescribed readings. Such

studies include the works of Sarajane Williams and others that have followed her methods. By acquiring this training, harpists learn to play what is pleasing for those who are experiencing stress or physical pain. The Harp for Healing, LLC (2017) website states that this type of training would be accredited by the National Standards Board for Therapeutic Musicians.

As a board-certified music therapist the researcher has worked professionally using the harp as an affective tool for patients within their music therapy sessions in a behavioral health setting, and has provided this same affective tool to the study subjects. Affect is defined by Davis, Gfeller, and Thaut in their glossary (2008) as "the observable aspects of behavior that tell one how others feel: for example, facial expression, tone of voice, and posture." The study subjects were college students seeking to achieve a greater understanding of their own creativity. The paucity of research available on the positive influence of harp music in clinical music therapy settings makes this study and further research a fertile field for exploration. Providing music therapists with more research on the use of the harp as a clinical tool, as well as some standard precautions, may contribute to future expansion of the use of the harp in music therapist-researcher's work in behavioral health, combining ritual and musical improvisation to help achieved a relaxed and open state in the client, and as a prompt for opening discussion.

## **Thesis Statement**

Harp music has the acoustic capacity to affect human beings psychologically and physiologically. By participating in a ritual of live improvised harp music to open music therapy sessions, a client will establish a sense of comfort and safety prior to engaging in the therapeutic relationship. This opening ritual may contribute to achieving therapy goals and might serve as a pioneering study to increase the use of therapeutic harp for board-certified music therapists.

# **Method and Approach**

The researcher received approval from the university's Institutional Review Board (IRB) before beginning the study. Music therapy sessions were conducted with six student subjects with one session per subject. The three subjects in the experimental group began their session with improvised harp music as an opening ritual and the three subjects in the control group proceeded without harp music as an opening ritual. The control group opening ritual was ocean drum sounds alternating with a guided spoken word meditation. The objective for the all subjects was to gain insight and coping skills in managing difficulties in daily life which may become obstacles to success. These personal obstacles to success can include but are not limited to emotional instability and/or common neurologic disorders such as difficulty with attention, academic or jobrelated stress, low self-esteem, or any other difficulties mentioned in the sessions. To maintain the psychosocial safety of the students, they were not required to share these

personal difficulties and their session objectives unless they were comfortable enough to do so. Confidentiality was maintained, as it would be in any music therapy setting.

The music therapy sessions used a mix of instrumental improvisation, verbal processing, and singing. The work of the therapist was informed by theories and philosophies from Bonny Guided Imagery and Music (GIM), Mary Priestley's Analytical Music Therapy (AMT), Nordoff-Robbins creative improvisation (NRMT), and Cognitive-Behavioral Therapy (CBT). Each of these approaches will be defined, providing a theoretical basis for working from a psychodynamic perspective.

Sessions were conducted with the above theories in consideration. Experimental group sessions began with seven to ten minutes of improvised harp music. Dorian mode was used as the tonal center of this scale is theorized to be the most stable and grounding for the listener. (Williams, 2005). The control group began with a semi-guided meditation involving either an ocean drum or a rain stick. For both groups, the rest of the session was structured the same. The session structure involved a formatted plan with the use of different instrumental combinations based on the interests and needs of the subject and the assessment and clinical judgement of the therapist. This included, but was not limited to: playful exploration of the instruments, practice of communication and expression, practice of thought-stopping, and rhythmic grounding. Each provided intervention utilized symbolic representation of a non-musical subject and employed techniques from cognitive-behavioral therapy to help the subject develop a coping skill to take home with them. Each intervention was followed by verbal discussion. Sessions ended with a closing ritual based on musical improvisation with subject-preferred elements.

Typically, a thorough assessment of the client is administered at the start of music therapy treatment, but because these sessions were administered as part of a research project and not part of a treatment plan, assessment of the subject occurred during the session. Queries were posed throughout the session as a means of collecting qualitative data. Collected data involved a combination of quantitative and qualitative measures. Qualitative measures were based on the subjective clinical accounts derived from observations in the affect of the subject as well as what the subject choose to discuss and report on throughout the session. Quantitative research findings are drawn from direct questions on tools created for this study. The data collected measured two types of affective responses on a scale of 1-10. The first scale measured comfort level with 1 being "very nervous" and 10 being "very relaxed." The second scale measured reported of insight with the 1 being "confused," 7 being "introspective," and 10 being "inspired." Subjects were asked to rate each type of affective response on a 1-10 scale approximately every ten minutes of the session. In the reporting section of the study, flow charts have been provided to depict each outcome. Graphs and figures depict the average outcome for each group.

Sessions took place in a harp practice room, which was easily accessible for both the researcher and the subjects. While the music building is preferable for easy accessibility to materials, one must factor in the auditory distractions that come with the utilization of a busy school of music practice floor. Times were dependent on the schedule of the researcher and the subjects. Each subject received one music therapy session lasting fifty minutes. Subjects were notified that thorough notes would be recorded by the researcher and that these notes would be hand written, and that no audio recordings would be utilized.

All measures were taken to create a warm and inviting space for the subjects. Visual stimuli that did not contribute to the research was limited, and care was taken so the space would not appear "cold" or uninviting. Distracting visuals including bright florescent lighting and electronic technology, was avoided. Clutter was removed so as not to lead to distracting feelings of imbalance or lack of control for the subject as well as the researcher. The researcher utilized paper and writing utensil to record data as electronic technology might alter connection between client and therapist, as well as diminish the desired "music space." An iPhone was used only to keep track of time. The therapist-researcher operated under the mindset that the session space was sacred, and made the room as comfortable as possible. Eschen describes it as "making a safe space for exploration of feelings that allows defenses to be gradually loosened." (2002, p. 37)

The research subjects were treated in the same manner as a regular paying client of the music therapist, although there was not need for the type of disclosure that would be typical in a client's session. In discussing humanism, Wheeler (2015) wrote as "all persons have innate capacities for actualizing their own unique potentials for health and well-being, given conditions that can serve adequately as opportunities for change." (p. 148) All efforts will be made to help subjects gain the coping skills to the personal obstacles they wish to overcome through participating in the proposed study.

# **Researcher Background**

This researcher has spent most of her clinical experience working in a center for chemical dependency and behavioral health. This experience began with an internship that lasted for nine months, learning under the supervision of a music therapist with a psychodynamic orientation. This was an opportunity for the researcher to practice applying her primary instrument to her clinical practice. The harp was first used in various parts of one on one sessions. Through the course of the internship, there were approximately ten behavioral health patients who were seen for individual music therapy sessions. Most of the patients who received these individual sessions were unable to attend the required recreational group therapies to meet the goals of their treatment plan. Reasons for absence from group therapies ranged from feeling too ill, or due to the possibility of being overwhelmed or emotionally triggered by being in a room full of other individuals. A more individualized recreational treatment needed to be provided to these patients. The researcher first experimented with improvisation on the harp with the focus on gently altering the patient's affective state. Improvisations were musically structured around the church modes of Ionian, Dorian, Phrygian, Lydian, Mixolydian, Aeolian, and Locrian, based on what was recommended in a reference on therapeutic harp by Sarajane Williams (2005). These served as "assessment sessions," which used each church mode to gauge responses and to implement improvised harp in ways that seemed most beneficial to improving patient affect in sessions that followed. Harp music was often requested by these patients in the beginnings of the sessions that followed thus, the idea of opening sessions with harp music was born. On average, patients in these alternative treatment sessions preferred the Dorian mode. A common response to the

improvisation played in Dorian mode included patients associating the sounds with feelings of peace and serenity. Aeolian mode often evoked feelings of sadness, while it made two patients feel happy. Aeolian mode is the scale pattern commonly referred to as minor. Ionian (major mode) made three patients feel "excited and energetic."

Three case studies were presented to the hospital staff as an in-service presentation to advocate for the use of individualized music therapy sessions as alternative treatment. Each patient from the case study was also shown to benefit in some way from briefly engaging in what may be understood as altered states of consciousness with the harp music. For example, client E was a 62-year-old woman suffering from grief and loss and was in the hospital for opioid and alcohol dependence. She shared that she heard her late daughter's voice sending her motivational messages in the music, which inspired her to pray. This caused a cathartic release of emotion and further willingness to share her life story with the intern in sessions that followed. Client T was a 56-year-old suffering from major depressive disorder and psychosis. She was high functioning, but shared that she suffered from flashbacks and hallucinations. Client T was quiet and withdrawn in the beginning of her first session, but began to reveal more about herself after discussing the imagery that came with the improvised harp music. She wished to tell the intern more about her life, even though the session was ending. After two individualized sessions with harp music, Client T was motivated to go to group. Finally, Client B was referred to the intern because of his fear of attending groups in large rooms full of people. He chose to draw and color to the harp music. At the end of the session, he reported a "very good state of mind," which was noticed by hospital nurses and staff. The outcomes of these sessions informed the researcher that the use of harp music may

establish a sense of trust between client and therapist and an openness from the client to receive music therapy interventions as treatment.

At the time of this study, the researcher had been employed by the same psychiatric facility for nearly one year and has provided daily music therapy to patients throughout this time. Harp music improvised between Dorian and Ionian modes has been used to open group music therapy sessions. Patients are encouraged to "get comfortable and see how [they] respond." There have been several cases where patients walked into the room conveying disdain and resistance, but displayed a calm affect and cooperative engagement following their participation in the affective listening. Based on these findings, the researcher was motivated to conduct a formal experiment to ascertain if harp music in music therapy sessions provided additional benefit for the client.

### BACKGROUND LITERATURE

The following works are resources and studies that support the idea of live harp music as an effective opening ritual for a music therapy session. Populations studied may vary, however individuals with a mental illness or behavioral disorder who are considered to be high functioning will serve as the primary population. Literature is categorized into several sections, according to how the hypothesis is supported. The implication is that live harp music in either a group or an individualized music therapy session can physically or emotionally facilitate a client's progression to a state that establishes a rapport with the therapist as well as a feeling of safety, thus increasing the willingness of the client to engage with less resistance in an intervention.

# Approach

The method and approach to music therapy informs how one must structure a session. Administering self-expressive and grounding techniques for coping with emotional repression is common in music therapy for mental health and wellness. These objectives are supported by music-centered music therapy in which the primary focus is for the client to expand their creative ability and problem solving skills through musical play. Musical play can function as a necessary force that allows an individual to explore their environment and interact with purpose, in which case the individual can perceive the force in a new way and establish a sense of direction. (Aigen, 2005). In other words, by becoming familiar with an outlet that allows one to safely interact and express oneself, basic human needs are satisfied. Music functions as a human need because the traits

found in music - rhythm, pitch, inflection, tension, and resolution - also are found in human behavior and interaction.s. (Ansdell, 1995)

Nordoff-Robbins Music Therapy was created by Paul Nordoff and Clive Robbins to address what they refer to as the *music child*, which they define as:

The capacity for musical perception and response inborn within every human being, whether child or adult, reflecting both the universal human heritage of "complex and subtle sensitivity to the ordering and relationship of tonal and rhythmic movement" and "the uniquely personal significance" of each individual's musical responsiveness. (Nordoff & Robbins, 1997/2007, p. 3; Wheeler, 2015, p. 186)

NRMT is called creative music therapy, and is a music-centered approach with the music child concept as its primary philosophy. Music-centered or "Creative Music Therapy" is a model used within NRMT, meaning that insights gained in therapy "come largely from the experience of making music with a wide variety of people in different situations and with different people." (Ansdell, 1995, p. 5) Through creative musical expression, the therapist who has trained in the NRMT approach helps an individual with a disability that inhibits communication to achieve goals related to self-expression and cognitive engagement.

Analytical Music Therapy (AMT), developed by Mary Priestley, is an advanced form of music-centered music therapy that applies psychodynamic interventions to uncover parts of the client's past that inhibit them from realizing their full potential. This is known as reconstructive therapy because it aims to reconstruct thought patterns by addressing trauma or regression. (Wheeler, 1983) By engaging in musical improvisation, the AMT client is allowed freedom of expression within the context of the therapeutic relationship. The psychodynamic model in music therapy is rooted in Sigmund Freud's psychoanalysis, but also with other practices enfolded, including object relations theory, ego psychology, and self psychology. (Kim, 2016). AMT promotes the balance of psychic energy between the id, ego, and superego to develop interpersonal and intrapersonal knowledge. (Eschen, 2002).

Although it is outwardly expressed in improvised sound or music, a person's "inner music" is not her or his musicality or musical potential, but rather the core of the psyche – where the unconscious resides. So, the improvised music is "projective" in the sense that it is a manifestation of the unconscious. (Priestley, 1975; Eschen, 2002, p. 35).

Priestley's (1994) concepts are based on the foundational theories of Sigmund Freud, Melanie Klein, and Carl Jung. Based on these theories, the role of the analytical music therapist is to facilitate musical play to achieve psychoanalytic goals. Priestley explains that AMT facilitates free energy flow for a patient who may be experiencing anxiety over an old, repressed emotion. By engaging in musical expression – a socially acceptable emotional outlet – the patient can diminish some of this anxiety (1994, p. 159). Like NRMT, AMT uses creative, improvisational play as its primary intervention, but with psychoanalytic interpretation and verbal processing with the therapist. NRMT facilitates the reaching of such goals without the process being psychoanalyzed.

Helen Bonny's theories for Guided Imagery and Music (GIM) are also psychoanalytically informed. The major difference between this approach, NRMT, and AMT, is that the primary intervention in GIM is music listening, rather than musical play (Wheeler, 2015). According to Bonny and Summer, the GIM approach "allows the therapist to de-emphasize verbal interactions of problem-solving techniques, and reemphasize self-exploration and encourage affective responses" simply by listening to a carefully selected playlist of classical music (2002, p. 294). Abrams (2014) found in an evaluation on the experiences of transpersonal depth-guided imagery and music (TD-GIM), that participant reports strongly correlated with the expansion and understanding of "music, humanity, life/being" (p. 47). Although the idea of music listening sounds simple, in this case, music therapy is utilized as an advanced experience that transcends a reality beyond understanding, known as "universality" (p. 48). The facilitator must therefore have intensive psychoanalytic training and unwavering emotional stability.

While AMT, GIM, and NRMT all require advanced training, a music therapist with a music-centered approach can draw from the these approaches for theory, philosophy, and information to develop one's therapy practice. For example, music listening can be administered in different ways than just for guided imagery, and many therapists use basic imagery techniques and listening practices to help their clients.

Empathic improvisation is a music listening technique developed by Juliette Alvin. Alvin used the cello in the beginnings of sessions to improvise a piece that complemented the client's affect (Wigram, 2002).

If a client comes into the therapy room agitated or upset, this mood can easily be incorporated into an empathic improvisation; the therapist is not trying to ameliorate or reduce the degrees of distress which the client is currently experiencing, but merely to play it back to them as supportive and empathic confirmation (p. 89).

Improvisation on the part of the therapist can support the client's affect and eventually their own play without the need for putting the client in a transpersonal state of consciousness. Empathic improvisation can also be administered with any pitched instrument.

For session structure, Carolyn Kenney (1996) uses a psychoanalytically informed approach like those of AMT and GIM to support the concepts of myth and symbol in music therapy. Nature, death, and rebirth are themes of growth that can occur in a musiccentered session based on psychoanalytic theory. Kenney encouraged patients to produce different works of art, such as poems, movements, paintings, verbal descriptions, and musical improvisations to convey the death-rebirth myth in the therapeutic process. Musical improvisations and other works of art representing death and rebirth could inspire healing in a damaged area of the personality. "Metaphoric dying engages the psyche on some level, whether through cognitive recognition or spiritual inspiration" (p. 32).

Because music therapy based on psychoanalytic theory aims to utilize the power of self-expression to unravel the stress of past experiences, it is an effective approach to administer in the mental health setting. Montello (1999) conducted a study on the effects of this approach in treating adults traumatized as children. She states that in cases such as these, "it is the therapist's job to mirror and express musically, as well as put into words, the patient's unknown thoughts" (p. 78). Montello provides qualitative case examples to convey the results: A 27-year-old abuse survivor was able to discover how and when the events happened by engaging in meditative music listening; A 29-year-old woman suffering grief and loss found through creative improvisation that she had repressed feelings of rage absorbed from her father when she was young; A chronic marijuana user played sounds on his violin of a baby screaming to be fed without realizing he did so until he heard the recording; (pp. 76-78). The results of these discoveries was the release of repressed and debilitating emotions.

Cognitive-behavioral based therapy is "a form of therapy that emphasizes the two-way interaction between faulty thoughts and beliefs and maladaptive behavior in treating mental illness" (Davis et al, 2008, p. 543). Music that brings a client into an altered state is not often recommended for those whose goal it is to orient to reality, so cognitive listening experiences are structured to remain alert and attentive to thoughts. Balzani et al (2014) conducted an observational study of patients in a psychiatric facility that utilized primarily cognitive-behavioral methods. These patients listened to music and processed their responses to the music after the listening portion was over. They found, based on the patients' statements, that simply by engaging in the listening process, the patients developed interpersonal subjectivity attributed to the combination of ritualization and internal freedom. The structure of the music therapy sessions in which they could experience comfortable validation and stimulation created a sort of familiarity with reality and healthy habit.

### **Therapeutic Harp**

The harp has a long and thorough history as a therapeutic instrument that it is almost a separate branch from the music therapy umbrella. As a result of this dichotomy, there is often a gap between use of the harp in clinical music therapy and the clinical use of therapeutic harp playing. Based on the evidence in the following sources, though, there is good reason to advocate for more implementation of therapeutic harp in the music therapy field. The twentieth century revival of therapeutic harp for clinical use was pioneered by American harpist Sarajane Williams. Williams has contributed literature that encourages other harpists to use their gifts for healing. One of these takes the form of a documentary that branches out into three sections: ancient legacy, sound science, and clinical application (2009). In Ancient Legacy, it is explained that different forms of the plucked, multi-stringed instrument that eventually evolved into what we know as the harp were used across many cultures throughout history to heal and communicate with divine sources. Sound Science goes into detail on how the resonance of the harp strings affects the body. John Reid is an English acoustic engineer featured in this section. He has patented a device called the cymascope to create and depict how sound takes form in circular motions, which can then been seen by creating a visual geometric pattern. Reid and Williams worked to test a harp piece attributed to the Celtic goddess of fertility. They found that the resulting images resembled those of sperm meeting an egg in human conception and the separation of chromosomes. Reid explained in a Sound Healing conference featured in this documentary that "when a sound healing instrument is used with the body, molecules are jostled and electromagnetic components are sent into the cells." (Reid 2009; Williams 2009). To conclude the Sound Science portion, Williams explains that the electromagnetic resonance of harp music is found to interrupt nerve pain, as well as to stimulate and relax the nervous system. In the third and final section of Williams's documentary, *Clinical Applications*, further study results as well as tips for interested professionals are conveyed. Cynthia Price-Glynn, a classical harpist for the Boston ballet and Boston Conservatory administers therapeutic harp for patients in

general hospitals. She shares that when engaging in therapeutic playing, one must allow for the patients to be the conductor, and that the music must be "soft and sensitive," rather than "virtuosic and impressive." (2:30) Christina Tourin, a music therapy graduate of Arizona State University and founder of the International Harp Therapy Program, explains that the difference between music therapy and therapeutic harp is that music therapy is goal- and objective-oriented, while therapeutic harp is catered toward the individual's spiritual realm. Tourin proposes that this spiritual connection is achieved by matching the harp's resonance with a patient's unique "resonant tone" so that the patient can rest in a "cradle of sound." (11:50) Scales, modal centers, and rhythms are utilized to match the patient's mood and breathing tempo. One of the studies shown in this section of Williams's documentary is the effects of harp music on patients with fibromyalgia. As previously stated, the harp's electromagnetic resonance primarily targets a patient's nervous system, and so patients suffering from a painful nervous disorder are prime candidates for observation of the music's effects. This study took place over a five-week period of ten sessions. Results included patients reporting "better sleep patterns, lessened constipation, reduction in pain, and greater sense of well-being." In fact, some interventions reported "complete absence of pain." (40:00)

Sarajane Williams published literature before the time of the documentary that conveys in more intricate detail the effects of the harp as a "healing" instrument. She shares that music can alter blood pressure, respiration, heart rate, metabolism, muscular energy, and digestion. Additionally, it holds one's concentration in place. (2000, p. 21) In this case, the importance of the ISO-principle is consistently emphasized. The ISOprinciple states that music can most effectively resonate with a human being if it first matches their state of being. This same principle is used in music therapy and is used in music therapy (found in glossary of Davis, Gfeller, and Thaut text) and is attributed to Ira Altshuler, a psychiatrist and pioneer in music therapy (Davis, 2003).

Using the ISO-principle, the music is matched to the mood of the client (producing entrainment) and then the music may be changed to elicit another mood if desired... When the client is relaxed, abstract thinking slows and awareness expands...Those experiences may provide new awareness, positive reframing or integration of previously oppressed material, and/or emotional catharsis. (Williams, 2000, p. 23)

Williams has also provided a written guide to educate harpists on the use of their instrument as a healing device. In it, she explains that the goal of the healing is for the sufferer to achieve a state of "wholeness" through the use of whole tones. (pp. 36-37) Christina Tourin, the above mentioned founder of the International Harp Therapy Program, has found that the mysterious and seemingly Celtic sound of the Dorian mode is used for "centering and decreasing restlessness in confused patients," while the quirky and dissonant feel of the Phrygian mode may "induce tears and remedy constipation" (p. 39). A guide is provided on pp. 42-43, for the association of each modal center. It is implied that a therapeutic harpist may utilize these modes as tonal keys on which to improvise. For example, if a harpist were to use Dorian mode, he or she might play a perfect 5<sup>th</sup> accompaniment in the left hand (D and A) with a melodic improvisation in the right hand that begins and ends on D. No pedal or lever changes are required.

While Sarajane Williams has dedicated her career to advocating for the harp as a therapeutic instrument for the positive results, one must bear in mind the difficulty of

obtaining concrete evidence in the studies provided. Most results indicate changes in human affect, and many variables might cause similar results. The primary factors include cultural background, individual preference, intention, rhythmic entrainment, and belief. (Williams, 2005, p. 36) Other factors may not be so predictable. In a study on the use of prescriptive harp music in palliative care for dying hospice patients, Freeman et al (2006) found that harp vigils "could have a positive influence on both the agitation and wakefulness of the patients," (p. 103), but that several limitations could have blurred the results. In a study on the effects of harp music in low birth-weight infants, every care was taken to ensure that infants with similar diagnoses were eligible for participation. This included the following.

(i) Their birth weight was between 500 and 1500 g [1.1 and 3.3 pounds, respectively] and appropriate for gestational age;

(ii) they were on full enteral nutrition,

(iii) they had not received any analgesia or sedation for at least 2 days and

(iv) they had had no infections, surfactant applications, arterial hypotension, steroids, intraventricular haemorrhage, hypoglycemia, blood transfusions or tracheal orpharyngeal ventilation for at least 48 hours before the first music exposure. (p. 363)

Researchers found through close observation of dependent variables that the infants responded to the live harp music through decrease in salivary cortisol, increase in oxygen saturation, and other measurable quantitative factors. This indicated that the babies did, in fact, benefit from the resonance of the harp.

Therapeutic harp is an independent field of therapeutic music. One is not required to be a board certified music therapist if he or she can intuitively improvise on their instrument with the purpose of patient relaxation and enjoyment, and a therapeutic harpist should not be confused with a music therapist. However, the use of therapeutic harp in music therapy sessions would be a useful tool for the ease and relaxation of a nervous client. Whelan (2016) notes that a music therapist should carefully pose several questions before implementing the harp in a session, such as: "Will the client feel intimidated by the beautiful and unusual instrument? Or will he or she find it intriguing and beguiling?" In contrast to the principles of therapeutic harp, Whelan explains that "in reality, it is a remarkably versatile instrument that can be rhythmic, playful, or even harsh and jazzy too, making it easy for the therapist to respond to the changing emotional dynamics in the therapeutic space" (p. 184). Based on the information presented, this writer believes that the harp can be a remarkably effective device for relaxation and providing an open attitude for developing rapport with a therapist, that could lead to personal growth and insight. The harp can also inspire playful and creative exploration, which can be a useful tool to develop as a means for creative play in a variety of problem solving capacities and to brighten an individual's affective state.

# Affect and Altered States

Humans have a natural inclination to use music for validating or changing their affect, from mood all the way to psychological function. Individuals with minimal experience and training in the therapeutic realm should use caution when considering interventions using music for altered states of consciousness. Uninformed practice can involve risk and constitute irresponsibility on the part of the practitioner. As Fachner states, "the holistic experience of music can only be a personal event and is by itself ineffable. To adapt all the necessary ingredients for the individual to transcend his or her own being demands the art, knowledge, and experience of a guide" (2006, p. 16). Even beyond that, emotional stability and intrapersonal familiarity is required of the guide or musician. While an *altered* state of consciousness may sound perilous, in actuality it is a state of mind. Pilch (2006) points out that the music itself may not directly induce an altered state, but it certainly plays a key element. Music is but one element that can create temporary changes in neurological function, such as the difference between an alert and oriented, typical daytime state, to a very relaxed or dreamlike state.

Ethnomusicologist Becker explains in her work the neurological impacts of music listening and the process of inducing trance through music. She defines trance as "a state of mind characterized by intense focus, the loss of the strong sense of self, and access to types of knowledge and experience that are inaccessible in non-trance states" (1992, p. 41). Becker goes on to explain that music acts as a continual and rhythmic activation of a certain map or bundle of neurons. The recurrent patterns of the rhythmic activity then link different pathways between these maps, causing mnemonic associations to develop. This is how old or repressed memories, emotions or imagery might be accessed if one were to engage in an hour-long session of Bonny's Guided Imagery and Music. The deeper a listener may choose to go into trance, the more opportunities these pathways in the brain have to connect. In Becker's words, "Music, by stimulating auditory neurons that successfully stimulate neurons in other parts of the brain, helps to establish a particular configuration of activated and unactivated bundles of neurons and activated

and inhibited neurotransmitters." (p. 40). In this decade, Bernatsky et al (2011) explains that the processes of the autonomic nervous system are deeply interrelated with conscious emotions, which influences bodily state. In their words, music helps to "establish a particular configuration of activated and unactivated bundles of neurons and activated and inhibited neurotransmitters." (p. 50) To refer back to Williams's (2000) nomenclature, harp music can heal by resonating with a person's "resonant tone" because it establishes and connects the desired neural pathways in the lobes of the brain associated with memory, emotion, and fight or flight response. While engaging in the listening experience, every human body system connected with the autonomic nervous system is therefore activated to create an ordered experience for the brain. This is how music in turn may affect behavior. (Hodges & Hack, 1996, p. 472).

In a quantitative study, adolescents in a psychiatric unit were hooked to EEG monitoring in order to convey parasympathetic and sympathetic reactions to affective music listening. Results based on the monitoring showed that these patients who had been experiencing acute stress experienced parasympathetic nervous system stimulation when listening to music (Barth, 2012). A second study performed yielded qualitative data conveying complimentary results. This took place with psychiatric inpatients on an adolescent unit at a different hospital. In that study, qualitative data was extracted to convey the results of affective listening to music. Researchers reported that participants experienced the most affective changes in individual mood, fatigue, and energy. While both studies on the same population for a similar purpose were conducted differently, both found that music for desired affective states was neurologically stimulating for the adolescents. (Shuman et al, 2016)

We now understand that the organized sound we call music can bring the listener or performer into a deep psychological state of being, as well as influence both long-term and short-term behavior. The supporting neurological evidence has required meticulous long-term observation and advanced technology to study the effects of music on the brain and physiological functions. In addition to results of neurological research, observable affect serves as another variable that can be observed by the therapist as well as felt and reported by the client. While researchers can measure affect through quantitative means, qualitative analysis also provides evidence through different perspectives. Helen Bonny describes deep affective changes as "greater levels of emotional intensity, depth and comprehensiveness" (1973/2005, p. 17). She did not often use quantitative instruments to help a learner understand her approach. Similar to guidelines of therapeutic harp, Bonny recommends the use of the ISO-principle or meeting the client at their level by musically matching their affect, even if their mood is not positive or desired. The ISO-principle is continuously recommended as a reliable and evidenced-based guideline for improvisational affective listening. Once clients have reached a desired altered state of consciousness, though, the music may be "gradually" changed. (p. 43) Once the music has supported and guided the client to a comfortable sense of heightened awareness, the observable and reportable affect in the end conveys the result of the experience as positive.

In Crowe's text, the descriptions and results of music-induced affective states are conveyed with both quantitative and qualitative scientific acknowledgement. Similar to Williams, Crowe describes music's healing vibrations as "mechanical energy, which abides by the natural laws that govern mechanical energy" (2005, p. 53). She introduces

music-induced altered state within the transpersonal model as a model of transcendence from normal ego function, which can result in energy and motivation for a participating individual. McMullin (1996) has dedicated his research to studying the results of such affective states in music psychology. He reports that, because there are so many abstract factors involved in music-induced affect, it can be quite difficult to achieve desired results. He recommends observing the relationship between what is perceived as a result of the musical experience and affective/aesthetic behavior, rather than the relationship between just the music and affective/aesthetic behavior (p. 391). This is because there can be no prescription or standard for music or sound preference between individuals. McMullin therefore concludes that "while considerable time and effort are being expended in research projects, it seems that too often such projects are just fragments or worlds unto themselves" (p. 396). However, perhaps rather than despairing at the complexity of human reaction and behavior, this may simply leave more room for curiosity and new methods to understand how one can harness abstract concepts as persuasive evidence for research.

## Ritual

Historical evidence supports that music has been used in rituals across the globe in virtually every culture. Bloxam explains that the music-ritual topic is "fundamentally anthropological, because it concerns how people have used music within a ritual context, from prehistory to the present, all across the world" and that anthropology, religion, psychology, and the arts appear to consist of its primary disciplines (2015, p. 511). It may be that the arts have been present in society because they serve as an emotional channel, a symbol for the imagination, and assist in inducing beneficial physiological changes to the body and brain (Raunikar, 2017, p. 8). Additionally, ritualistic art provides a sense of connection to others as well as pride in one's culture or spirituality. Bloxam (2015) shares that documented music was predominantly ritualistic in the Western world until Renaissance period, when it was "sowing seeds of its modern status as independent art music" (p. 525). Music for the sake of art is considered with a context of liberation, but humans will also use music as an implementation of structure and rhythmic balance. Ansdell implies that we require both a sense of independence as well as structure in our creativity.

We yearn not to be trapped in roles and structures that limit our freedom, or that make social interactions with others formal or distant. Yet we realise there's no escaping structure altogether, and that it can provide safety and security (2014, p. 237).

This sense of safe structure can be found within musical creations as well, such as a steady, consistent tempo and the concepts of counterpoint in music theory. The meticulous use of structure and counterpoint was utilized until well into the nineteenth century, when classical composers began to increase experiments with new instrumental timbres and forms.

In the twenty-first century, the word ritual seems to imply a mere habit that has been made regular, such as showering in the morning or praying before bed. Stephenson describes it as involuntary or created by someone else while requiring others to continue. (2015) The modern use of the word ritual appears to have evolved from its original meaning, but that should not detract from the potential that ritual has when applied to

something more sacred, such as the therapeutic space. In music therapy sessions, a facilitator may harness the roots and history of music as ritual to help a client achieve a desired state of awareness or healthy behavior. Fachner states that culturally and historically, music has been used in rituals to "provide atmosphere, evoke identification processes in ceremony groups and to induce, accompany or lead a trance" (2006, p. 20).

Ritualistic interventions are actually quite common in music therapy sessions, such as hello and goodbye songs or the repetition of favorite activities at a certain time. Ritual provides a sense of comfort and security to clients of all populations. Ansdell shares that weekly ritualistic features can reinforce feelings of belonging and solidarity, but that these results are achieved gradually with time and careful repetition (2014). He goes on to explain that the most common and historical ritual processes come in three parts: separation, between-ness, and return to normality.

At whatever level of complexity or importance, we are taken out of everyday life and its structures and rules, and out of quotidian time and its usual demands. We then experience a period where things are in flux or possibility, then we return again to 'real life' – but somehow transformed, either in social status or in a more individual and existential sense (p. 233).

It would appear that Stephenson is correct in this context about being started by one individual or group of people and continued by others. The meaning of ritual is often dependent on lineage and anthropological roots. Physiologically, though, ritual in the music space can also reinforce the use of certain neural pathways in a cognitivebehavioral based setting, which would not require any past experience with the ritual. From a psychoanalytical standpoint, McClary (2007) states that the use of ritual can help an individual realize their authentic Self, which from Jung's perspective is a client's "ultimate goal." The Self in psychoanalysis is seen as the most individual facet of the inner consciousness. McClary invokes Jungian theory to show that when we engage in creative music making on a ritualistic basis, the "compensatory mask" eventually falls away. A client then becomes comfortable with being vulnerable in the context of habit and structure. When an intervention like affective listening or empathic improvisation is provided as a session's opening ritual, a client can then become comfortable with relaxing with their thoughts and intentions as their brain is trained through ritualistic rhythm. We may forget as therapists that the anthropological and neurological power of music as a ritual for individual transcendence can be accessed in every session and strengthened through practice.

### **Rapport and Trust**

One of the most important and essential factors in reaching success in therapy is the client's level of trust with the therapist. When the therapeutic relationship between the client and therapist cannot progress, client resistance becomes increasingly difficult to break through. However, it would seem to be a common occurrence that a client will be nervous in the beginning of their treatment and the first few sessions may be met with resistance. This challenge is especially likely in a psychiatric or behavioral health setting, where a patient may lash out or pull away due to fear and confusion. Psychiatric patients may be used to isolating themselves, or shutting down emotionally, after being hurt. They must be carefully and mindfully coaxed out of this sense of isolation. Langenberg explains that the therapy sessions in a psychiatric facility require a need for emotional vulnerability in order for the patient to progress, and is therefore often met with ambivalent tension. "The new, the unfamiliar, that which can't yet be classified, all create uncertainty and the patient falls into a need for regulation in this encounter" (1999, p. 238). Furthermore, MacDonald shares that these clients may present with "impaired judgment, acute feelings of distress and confusions, and the bewilderment of an unfamiliar environment" (2015, p. 108). Such feelings on the part of the client in music therapy sessions for mental and behavioral health may be enhanced in a psychiatric facility and more subdued in an outpatient practice.

Verbal processing is often a counseling or psychoanalytic technique implemented by the music therapist for adult clients engaging in a music-based activity. According to Nolan (2005), verbal processing can increase client awareness, enhance awareness about the music, musical behavioral, interpersonal process, and enhance integration between verbal and non-verbal processes. It allows the client to add form and clarification to what they are about to or have already engaged in. Verbal process is a clear and comprehensible form of communication for assisting in putting a nervous or resistant client at ease. It may sometimes be necessary for a therapist to "become more human" and share his or her own feelings or experience. Therapist self-disclosure is a controversial, but often effective intervention when the moment is chosen mindfully and without revealing private information. While many therapists avoid self-disclosure to safely maintain boundaries between themselves and their clients, many studies have shown that carefully implemented types of therapist self-disclosure can help establish trust and rapport between a therapist and a guarded or resistant client (Raunikar, 2018). When the therapist becomes a more human and empathic "parent-like" figure to a client in a fragile state, the client may become less fearful about the therapist judging or reprimanding them.

Parent-like therapeutic behavior must be administered carefully. The goal is not for the therapist to *become* a parent to the client, but to facilitate support in the same way a wise or experienced parent might teach a child, especially if the client never really received support as a child in the first place. Streeter (1999) states that in creative or free associative music therapy often centered on improvisation, transference is bound to occur and cannot be avoided (p. 89). Once client trust is gained, a therapist must be prepared for the client to associate the therapist with either a past authoritative or parental figure. This effect must therefore be channeled constructively in the session. De Backer and Van Camp note that "just because the child with an early disturbance did not get the chance to be him/herself, s/he first of all needs a therapist who acts in a mother specific fashion. This has nothing to do with over-mothering. We can never replace that which has never been there" (1999, p. 23). The theme and the use of transference in the music therapy session is most appropriately implemented in a long-term outpatient setting, where the client has more of a chance to untangle many years of stagnant and unreliable coping skills.

In a short term inpatient setting, verbal processing for music therapy is used to familiarize patients with their treatment and to help them understand their responses. "Verbal processing serves therapeutic goals in allowing the client to add form and clarification to affective states, imagery, symbolic and other phenomena stemming from being in music with the therapist" (Nolan, 2005, p. 27). Deeper trust officially occurs when the patient chooses to engage in the process of listening or music making. In a study by Rolvsjord (2015), qualitative client reports were collected over a series of five sessions in adult mental health. Findings indicated that the clients did not assume a passive role in the therapeutic facilitation, but were actually quite active in contributing to the therapeutic relationship as they were open and willing to learn. In some cases, no matter how skillful or creative the therapist's interventions are, a client must also have a level of initiative in conquering their own resistance.

In another study, inpatients in a psychiatric facility provided qualitative data about how they perceived their experiences with the music therapist. They found that primarily, the therapist felt like a supporter, a teacher, and a guide, thus increasing their comfort level in their desire to reciprocate the therapeutic relationship. Patients reported that the music therapist played a role for them in eight of sixteen provided themes: safe space, mutual desire for support, intrinsic value of music, music learning, motivation/hope, selfawareness, value of listening and trust, and self-expression (MacDonald, 2015, p. 116). It would seem that, if the implemented interventions and verbal processes encompass the above themes, a recipe for trust and rapport can be established between the therapist and patients going through stabilization in their mental health.

The establishment of trust and rapport in a therapeutic relationship can be an uncertain and elusive objective when it comes to assisting a population that is suspicious of others, closed off, or in the case of personality disorders, manipulating others for desired results. There appear to be many guidelines for establishing the client-therapist trust relationship, but it may be most important for clients to see the therapist as a supportive human being. Inviting clients to cognitively engage in the non-threatening yet stimulating activity that is music, and in a way that is ritualistic and familiar, is often a wise choice for initiating such an essential relationship.

### METHODOLOGY

# **Participants**

Students from the researcher's Animating Research class at Arizona State University Tempe campus were given the opportunity to participate in fifty-minute individualized music therapy sessions with the goal of providing a music therapy session to ten to twelve participants and separating them into a control group and experimental group. The objective for the Animating Research class was for students to broaden their creative horizons by partnering with researchers in the ASU Bio-design school to express scientific projects through artistic media. The Animating Research class was offered through the Herberger Institute for Design and the Arts, and the majority of students came from areas associated with performance or expressive design. Nearly half of the students in the class were studying dance, perhaps in part because of their familiarity with the instructor of record for the course, whose home unit is Dance. None of the students apart from the researcher were enrolled in the School of Music.

Eleven students contacted the researcher via email and in class, expressing an interest in participating in the study. The researcher responded by providing students with consent forms explaining that they would be participating in creative based music therapy sessions, and some of the expected musical interventions were disclosed. The benefit incentive was that the participants might expand their problem solving skills by broadening their creative expression as well as gaining coping skills for dealing with personal obstacles. Five students followed through by scheduling their sessions on the website <a href="https://doodle.com/">https://doodle.com/</a>. Each participant was randomly assigned to either the control group or the experimental group. Assignment was determined by alternating order in

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which the potential participants responded. For example, the first to respond was assigned experimental, while second was assigned control, the third to experimental, and so on. The first three subjects to participate in these sessions were from the experimental group. As the researcher ran short on time and only five of the interested students had scheduled their session, it was decided that the last two plus the one student outside the animating research class would be placed in the control group. One of the participants' colleagues was also recruited to keep the numbers even. Participants were provided with identification numbers for data collection and to maintain confidentiality: E1-E3 for the experimental and C1-C3 for the control.

Participants included four dance students and two non-dance students. Five of the students were female and one was male. Ages of participants averaged in the twenties. Four participants were graduate students and two were undergraduates. The sample of participants were ethnically diverse: one Caucasian, one East Asian, one African American, one South Asian, one Pacific Islander, and one Hispanic. The participants all presented with cheerful affects, and were pleasant and open to the activities. Most had also previously expressed interested in the fact that the researcher is a harpist. All participants were aware that the researcher is a harpist and music therapist, but unaware that the harp music would be the dependent variable. The researcher is only acquainted with the participants through the class and has not previously engaged in any social activities to constitute a dual relationship.

# Materials

Several forms of data were collected from the sessions. Participants were asked to fill out a data collection form during and at the end of the session. Two quantitative measurement tools were created and utilized by the researcher. Participants were asked to numerically rate two types of affect, "Introspection" and "Comfort Level" on a scale of one to ten. Different words to describe affect were provided next to each number on both scales in order to provide structure and guidance with which a participant could effectively convey his or her state of being. Participants were asked to provide the number on the scale that best described their comfort level and sense of mindful introspection every ten minutes in the session. An application on the researcher's iPhone called *Forest* was utilized to keep track of every ten minutes non-intrusively. *Forest* is designed to help its user maintain attention to task while growing an animated tree or bush in the process. When the plant has grown, a soft xylophone-like influx indicates the alert. When the alert sounded for the fifth time to indicate fifty minutes had passed, the researcher closed the session as deemed appropriate and asked participants to fill out five questions for qualitative data. Participants were given the choice of completing the questionnaire in the room with the researcher or in a nearby music practice room for more privacy. Additional qualitative data was collected by the researcher through handwritten notes throughout the session. It was decided that laptops or other technological note-taking devices would be avoided so as to not tamper with the desired atmosphere for the session.

Instruments were chosen and borrowed from the Music Education and Therapy lab in the music building where the sessions took place. They included two tall,

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cylindrical hand drums; a medium-sized xylophone; a smaller, medium-sized metallophone; a hand-held cabasa; a small rainstick; and an ocean drum. Instruments from the researcher's personal inventory included a guitar, a wooden frog scraper, and a thunder tube. Finally, the harp used for the experimental group was a six-foot-tall Lyon and Healy petite concert grand, belonging to the ASU harp studio and which regularly sat in the practice room used for the research sessions. Its wood color was blond with ornate carvings on the column and floral vines on the soundboard. The harp was played in the beginning of sessions for participants in the experimental group to listen, and they were asked to assess their responses. For both groups, the harp was provided as an option for participants to play if they chose to, in their exploration of all the instruments, or for accompaniment in improvisations. Pedals on the harp were moved to create a pentatonic scale setting so that the participants could play and create an aesthetically organized sound.

Instruments were divided into three groups: pitched, rhythmic, and auxiliary. The xylophone, metallophone, harp, and guitar were grouped into pitched. The choice of pitched instruments was provided so that participants could choose which timbre seemed to best represent their personality and "inner voice". Rhythmic instruments included the two drums and the frog scraper. These were provided as mediums to create a clear, grounding, and structured rhythm. The thunder tube, ocean drum, rainstick, and cabasa (which could also overlap as rhythmic) were provided to pique participant interest and exploration in order to expand their modes of creativity. Arrangement of the instruments were more strongly taken into consideration after the first session when Subject E1 reported feeling "overwhelmed" by the array of instruments scattered across the floor. He

also reported being immediately drawn to the striking presence of the concert harp. For the sessions that followed, instruments were moved to the sides of the room and grouped according to their respective category. The harp was placed in the far corner and covered with a brown "harp sock" so as to not draw participant attention until it was implemented into an activity. This was especially important for the reason that a curious participant from the control group might ask to hear it played in the beginning of the session, thus defeating the purpose of experimental group separation.

A plaid blanket was laid in the middle of the floor to create a sense of inviting comfort and to eliminate potential intimidation from the array of instruments. In one session, the blanket served as a prop for a participant who engaged in movement to the music. A tall floor lamp was used for sessions that took place later in the evenings, since the primary overhead light in the room was fluorescent, with the potential to be overly stimulating. Two chairs were kept in the room in case a participant found they were unable to or uncomfortable with sitting on the floor. Other miscellaneous materials in the room included personal items and music belonging to students of the ASU harp studio.

### Session Design

This experiment was designed to determine the effect of an opening ritual, using a between-groups experimental design. Each subject participated in one fifty-minute music therapy session at times where they and the researcher were both available. Due to scheduling issues, the original plan for which subjects were randomly assigned to control or experimental group needed to be adjusted, causing the first three participants to be in the experimental group, and the last three that attended sessions to be in the control group. This change was made to keep the number of participants in each group the equal, and the selection of the placement of subjects in group was no longer randomized, but it was blind in that the subjects did not know if they were in the control group or the experimental group.

Every session had the same formatted session plan, with the opening wellness exercise differing, between improvised harp music or a guided meditation with ocean drum or rain stick sounds, depending on whether the participant was assigned to the experimental group or the control group. The primary dependent variable quantitative responses (scale numbers) provided by subjects in writing every ten minutes during the session. The independent variable was the use of either harp music or guided meditation with ocean drum to begin the first ten minutes of each session. A secondary dependent variable, provided at the end of the session, included participant answers in the qualitative questionnaire regarding the decisions they made and how they perceived their experience may have been influenced. Independent variables for qualitative analysis were the improvisational instruments chosen for play throughout each session. The secondary set of dependent and independent variables existed to provide the researcher with insight into how the primary independent variable may have influenced the course of each session.

## Procedure

Music therapy sessions took place in the designated harp practice room on the third floor of Arizona State University music building east. Participants were met by the researcher in the courtyard and led to the session room. Once they entered the room, participants were provided with a data collection form with two sets of blank spaces to be filled out every ten minutes, based on the number they felt best described their comfort level and introspection. Scales were portrayed as follows:

Comfort Level: 1. Very Nervous, 2. Nervous, 3. Tense, 4. Alert, 5. Becoming
Calm, 7. More Calm, 8. Relaxed, 9. More Relaxed, 10. Total Relaxation.
Quality of Introspection: 1. Confused, 2. Preoccupied, 3. Unfocused, 4.
Attentive, 5. Curious, 6. Intrigued, 7. Engaged, 8. Enlightened, 9. Insightful, 10.
Inspired

Participants were asked to fill out the first blank for each scale before the session began. The researcher then proceeded to summarize what was to take place: that the objective for these sessions was to assess and expand on creative ability; that as the researcher is a board certified music therapist, participants were welcome to share personal information if it made them comfortable and that this information would remain confidential; and that if they presented a harm to themselves or others, the researcher would exercise duty to warn.

When participants conveyed understanding of the above information, the independent variable was then executed. Within both groups, participants were encouraged to assume the most comfortable possible position on the blanket, whether it was sitting or lying, and to create an inner intention. They were encouraged to observe how they responded, both psychologically or physiologically to the intervention. Participants in the experimental group were provided with roughly seven minutes of improvised harp music in Dorian mode. Participants in the control group were provided with the sounds of the ocean drum with more verbal guidance from the researcher.

Phrases of guidance included: Let out all your breath; feel the support of the floor underneath you; notice what is happening in and outside of your body; see if you can synchronize your breath with the sound of the waves. At the end of the opening intervention in both groups, participants were provided with words of guidance as follows: allow your breath to reanimate your body; begin to move your hands and feet; gently move the rest of your body according to what makes you the most comfortable. At this point, the researcher offered to "check in" with the participants and facilitate an opportunity for them to express what they had experienced.

Next, the participant was invited to explore and play with the instruments around the room. They were encouraged to notice how they were affected by each sound or timbre. It was also suggested that they notice to what instrument they were most drawn, and least drawn. While participants explored, the researcher would sometimes play quietly on the harp or an auxiliary instrument to provide a soft and supportive sound for the participants in their exploratory time. If participants expressed interest in a specific instrument, the researcher would name the instrument and show the participant the different ways the instrument could be played. Meanwhile, every ten minutes as the alarm went off and at an appropriate point in the session, participants were prompted to fill in the blanks on the data collection forms. Following the instrumental exploration, participants were invited to engage in a musical improvisation based on what they learned about themselves. A second separate improvisation typically followed, based on which instruments represented what the participants wished to increase in their lives. The closing activity was usually determined by what the researcher felt would solidify what knowledge the participant could take with them.

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At the very end of the session, participants were instructed to answer the five qualitative questions provided at the end of the data collection form. Questions proceeded as follows:

1. Describe what you were expecting when you walked into the session.

2. How did the materials (such as instruments or art mediums) affect your experience?

3. Did any external factors (such as the environment setting, the therapist's gender, or recent outside events) influence your responses in the session?

4. Did you acquire any new coping skills for your objective? If so, how?

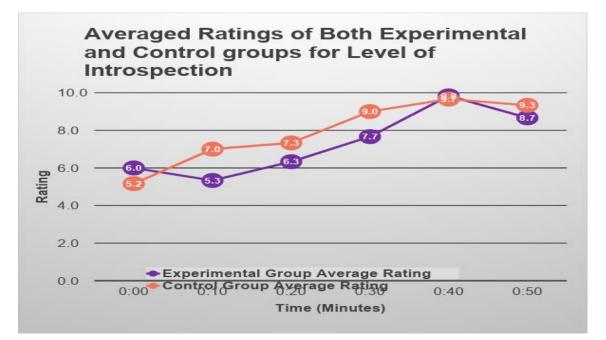
5. Describe any things about the session that you wished were different, any changes in your expectations, or any met expectations that you experienced at the end of the session.

Participants were led into a different practice room so that they could have private, uninterrupted time to process what had occurred in their session. Forms were returned to the researcher in the session room to later be stored in a secure space and analyzed to convey results.

# DATA ANALYSIS AND RESULTS

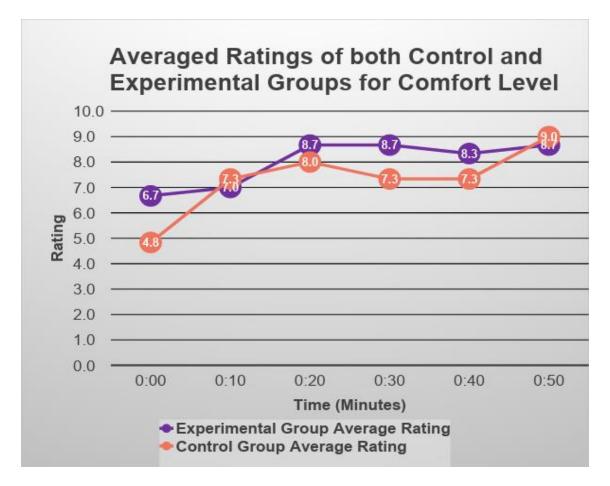
# **Quantitative Results**

The implication of this research was that using harp music as an opening ritual would significantly impact client progress in the session. While circumstances did not allow for a statistically significant number of participants, there were noticeable trends among all six participants for session progress. While the harp music appeared to alter the affect and introspection of the subjects in the experimental group, it was the control group who conveyed the most noticeable affective change shortly after the use of the wellness exercise. The provided flow charts depict the average participant ratings through the duration of the sessions.



#### A flowchart depicting averaged ratings of both experimental and control groups for Introspection Scale

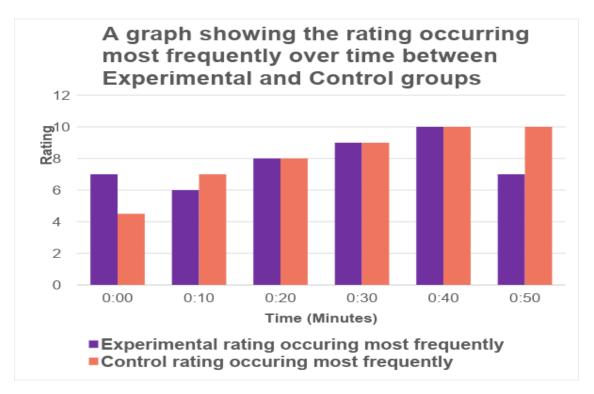
On the above chart, the orange line is the control group, and the purple is the experimental group. On average, subjects from both groups appear to progress in level of introspection through the course of the session. Both groups also appear to have reached their peak ten minutes before the session ended. This was typically around the time each subject gained a personal insight about themselves. Contrary to implications, there is a drop in introspection level for the experimental group at around the time the harp music ended. A possible influential factor could be that one participant, which technically made up 33% of the group, suffered from tinnitus and requested to hear the harp music again at a softer volume.



A flowchart depicting the averaged ratings of both control and experimental groups for the Comfort Scale.

In the chart depicting comfort level, the control group displayed the most significant difference between the beginning of the session and the end of the first ten minutes. Similar to the results of the other affective scale, the average from both groups depict a rise in affective rating from the beginning to the end of each session. Within both groups, the ratings for level of introspection appear to display the steepest increase. A possible influential factor in comfort level could also be the participants' conveyed level of comfort in the start of the sessions.

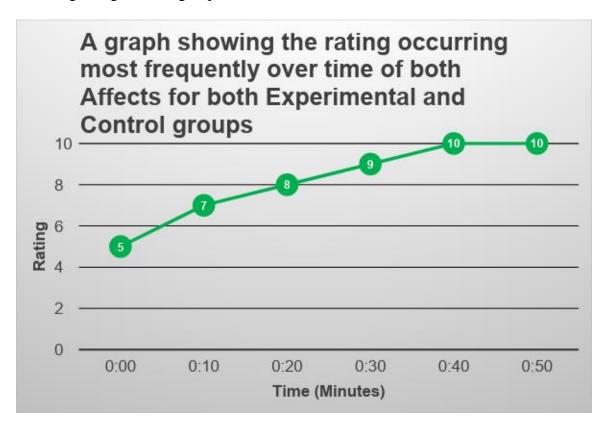
Within the rise in affective ratings are noticeable trends. Many participants identified similar ratings for both affective scales within the same ten-minute time periods. These trends are depicted on the following graph.



A line graph depicting the rating occurring most frequently over time between both groups.

Between 00:20 and 00:40 was when both groups averaged the most commonly rated scale number, with 00:20 being 8, 00:30 being 9, and 00:40 being 10 – the peak period for both groups on both affective scales. This may imply that the time period roughly halfway and continuing into the second half of the session is when participants are doing the most thinking and are the most present in their learning process.

Perhaps the most significant quantitative finding, though, was not the difference between the impact of the wellness exercises, but that the rating numbers of every participant rose throughout each session. This final line graph depicts the most frequently occurring ratings of both groups combined.



A flowchart depicting the most frequently occurring rating over session duration for both groups.

It is clear from the figure that the lowest possible average for both comfort and introspective level begins at the beginning of the session – a neutral five – while a steady increase continues without deviation to the highest rating possible, which indicates that subjects are both totally relaxed as well as inspired. This implies that all subjects appeared to have obtained the desired benefits from participating in these sessions.

## **Qualitative Findings**

Participants were encouraged to answer the qualitative questions privately in a different practice room where they would have a chance to let the session sink in undisturbed while they processed their experiences. Participant E1 deviated from a couple of norms that the other participants showed in their data. As previously mentioned, E1 suffered from tinnitus, which appeared to impact his experience in listening to the harp improvisation. He requested to hear the harp music for another several minutes, only softer, which led to his rating 00:20 with a higher number. He was also impacted by the arrangement of the atmosphere, which was adjusted for the other participants, following his session. E1 shared in the question about expectations that the immediate sight of the harp created an expectation that the atmosphere would be soothing and that he would "continue to have a very calming Sunday morning." In the question regarding the materials, he stated that it was actually all of the other instruments that were overwhelming and that it was the mere sight of the harp that helped him mentally declutter the space. This phenomenon works in conjunction with Sarajane Williams's statement that the gentle curve of the harp "depicts sacred geometry in form." (2009)

Average expectations among most subjects in the experimental group reflected taking a more passive listening role. Although music listening was the independent variable in this situation, it was not originally implied that this is what they would be experiencing. E1 shared that he expected something close to guided music and imagery. E3 wrote that she was "expecting to just lie down and listen to Mary play the harp." E2 also shared that she was expecting "plucking at my heartstrings" and that she did not know she would be playing instruments. C1 shared that even though she was aware of the structure, she was expecting to take "a more passive role within the session." C3 also shared that she thought she would have "a more passive role in experiencing music for comfort." C2 was the only subject expecting to be actively engaged in the instruments. These findings may show that relaxation and comfort might come as a natural expectation for music therapy.

Although most participants expressed surprise with "a level of nervousness" or "feeling overwhelmed" over the use of the instruments as materials for the study, most expressed that the materials were helpful for them. Both C1 and C3 shared that it piqued and activated their curiosity. According to C2, "they aided my sensory, emotional, behavioral awareness." Experience of the materials in the experimental group conveyed a curious air of power and balance, which were both words written in their responses.

Most often, sessions took place on a noisy practice room floor, but surprisingly, none of the participants were impacted by the cacophony. They expressed within the session that the extraneous sound did not bother them, and they did not indicate otherwise in their questionnaire. E1 described it as an "interesting juxtaposition to the calmness we were exploring in the experiential space." Any external factors that did impact their mood or affect had to do with recent outside events, such as C3's role as a mother, C1's high levels of personal stress from illness and injury, and C2 running into a former partner from a romantic relationship on the way to the session room. It appeared that by chance, all three members of the control group had outside events on their mind, which may explain the stark average contrast between their affects in the beginning of the session and after the first ten minutes.

Finally, every participant indicated they gained a personal benefit from the session. Empowerment, presence, grounding, and connection were common themes that showed up among the participants' answers. In the sessions, different participants chose to disclose different levels of personal information, and each participant conveyed a different level of emotional vulnerability. E2 and C2 both became tearful when experiencing powerful insights. A common denominator among all participants within their sessions was that they willingly stepped out of their comfort zones by identifying and exploring with instruments that they found intimidating (i. e. the harp for its complexity or the drum because of a presumed expectation of rhythmic stability). After they had expanded their creativity in this sense, they each displayed pleasant affects through smiles, laughter, and receptivity to advice.

### DISCUSSION

# **Researcher Implications**

Quantitative results were not statistically significant. Further study with a much larger sample size is required to effectively convey the impact of therapeutic harp as an opening ritual. Continued use and exploration of therapeutic harp as an intervention will be implemented in music therapy session to understand the impact of different modes and rhythms. Quantitative results from each group indicate that an opening wellness ritual is impactful in assisting clients to a desired transpersonal state of consciousness in order to identify any challenging areas that may not be so obvious. Regular use of a wellness exercise in music therapy practice is encouraged.

## **Implications for Music Therapists**

It would appear that the field of therapeutic harp is somewhat separate from music therapy. Background literature indicates that the harp is used for relaxation on clients who are experiencing physical pain and distress, primarily in medical hospitals. Harpists can become therapeutic musicians simply with an empathic sense of musicianship in order to impact a client's spiritual realm. I will reiterate that while this is impactful, it does not apply the goals and objectives that music therapy does. The use of therapeutic harp in the psychiatric setting could potentially be risky as patients with certain types of psychoses have displayed difficulty in absorbing the sounds of the plucked strings. These patients require much more grounding and reality orientation than altered states can influence through musical transcendence. It is crucial that the use of harp music in dealing with the mental health population be done with caution, informed judgment, and extensive knowledge in abnormal psychology.

With that said, it would be beneficial to find literature that is more informative on how harp music tends to impact individuals psychologically as most studies have focused on the physical attributes of lowered blood pressure and expanded breathing. Relaxation is also a broad term, used in such a wide range of applications that, within the context of this study, the term cannot be effectively applied without significant explanation and contextualizing. Based on the above literature, the above study, and especially this researchers past experience with patients in the mental health setting, there is evidence to support the positive impact of therapeutic harp as an intervention. Further study on the benefits to behavioral and mental health seem warranted. This is simply so more patients who are feeling helpless, hopeless, or unmotivated may have more access to something that has been used for healing throughout the course of history.

## Conclusion

Results indicate that the use of the ocean drum as an opening wellness exercise may have had a more significant impact on participant affective state than that of the improvised harp music if all external factors are disregarded. However, because the sample size was so small, external factors may have had more of an influence on the results participants conveyed in the qualitative analysis. Both the harp and the ocean drum have live ambient sound in common and would both be effective in measuring the use of instruments for an opening wellness ritual in general. In this case, it may have been more significant to use harp *or* ocean drum for an experimental group while the control

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group began without a ritual. To understand if there is a statistically significant difference between the effects of the harp and the ocean drum would require a much larger sample size.

Because the sample of participants was so small, there was often too much inequity in ratios in regards to how certain factors, such as personal identity, may have affected the participants' experience. As identified in the previous chapter, only one participant was identified as male, and the rest were female. Only one participant represented the LGBTQ community. Only one participant spoke English as a second language. However, and quite fortunately, this small sample held a significant diversity of race and culture. C2 used her session as an opportunity to reconnect with her roots as an African American and found significant empowerment in the use of rhythm both in her life and on the drums. Because diversity and coexistence are evolving as more universal themes in music therapy sessions, it is important to uphold an empathic sense of cultural sensitivity. I was especially honored that the participants so willingly disclosed information on their cultural identity and personal struggles, and that they trusted me to facilitate their experience in getting in touch with their roots and values.

Above all, and whether the quantitative results may have been statistically significant or not, each participant appeared to be caught in a struggle of modern day demands, and they simply needed to reconnect with an inner balance or consciousness. We are all vulnerable, and every person has the potential to lose focus under pressure. Like taking regular vitamins, we must understand the importance of reconnecting with our inner consciousness because inner consciousness teaches us to slow our reactions, to listen, and to explore. The theory of the above model is that when a client is exposed to

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too many breaking points, he or she requires a solution that is neurologically reactivating and dedicated to improving affect, calm focus and insight. By applying an opening ritual that is psychologically and physiologically impactful as part of a creative and comprehensive music therapy session, a person can access the desire to play and explore within a safe environment.

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