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## The Breath as a Holistic Regulator: An Expressive Arts Therapy Community Project

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**The Breath as a Holistic Regulator:**  
**An Expressive Arts Therapy Community Project**  
Capstone Thesis  
Lesley University

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Specialization: Expressive Arts Therapy

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### **Abstract**

This capstone offers the idea that evolution has challenged appropriate breathing and led humans to breathe incorrectly, thus negatively affecting their physical and mental health. As breath can damage the body, it can also serve as a regulator of the mind and body. This thesis points out the multiple effects when uniting controlled respiration, drumming and nature sounds. Breathing, music and nature have many things in common. These include repetition, pattern, awareness of the present moment and relaxation. They all contain a rhythm, and they offer self-regulatory skills. Music-based expressive arts therapies intervention is postulated to provide breathing techniques, united to a rhythm and natural sounds to redirect the unconscious breathing to a more controlled one with the purpose of self-regulation and an increased holistic wellbeing. A one-hour indoor workshop was presented for the expressive arts therapy graduate community. The indoor workshop combined nature sounds and two guiding breathing techniques which would be aligned with the tempo of a drum playing by this author. Later participants would broaden their experience by an intermodal process of creative arts. This exploration is referred to as experiencing the impact of the breath and rhythm on the mind, body, emotions and spirit. The results illustrate that the use of breath in an expressive therapy intervention invokes calmness of the mind, increases physical energy and relaxation of the body, provides self-regulation of emotions, access creativity and internal exploration, builds repetition which motivates flow, and signals a connection to the personal and transpersonal self.

*Keywords:* expressive arts therapy, breath, meditation, mindfulness, regulation, music therapy, holistic psychology, mind-body, ecopsychology, embodiment.

## The Breath as a Holistic Regulator: An Expressive Arts Therapy Community Project

### Introduction

In everything alive there is breath, pulsation, and vibration. In nature, in animals and in human beings. Life without breath is not possible (Conger, 1994, p. 81). Each breath has a rhythm, which is constantly giving new life to every cell. Likewise, breathing is an unconscious action that signals the rhythm of the body (Conger, 1994, p. 81). Breath is the most powerful and influential molecule that Western science knows of (Nestor, 2020, p. 187). Respiration is reciprocation. Taking life, comprehending it, and giving it back out (Nestor, 2020, p. 39).

Stress can be shown in symptoms such as anxiety, poor sleep, depression, and other health problems which can lead to chronic health issues. Fortunately, all these conditions can be improved by bringing attention to the breath (Allen, 2017). According to Asena et al. (2021), controlled respiration constantly happens in the present by grounding the whole body into the senses, the mind to its beliefs and diverse interoceptive states.

Breath is a communicator and a regulator. It communicates how our bodies are doing and can regulate the nervous system when we decide to engage with it. Breath has been highly influential for both my personal identity and in my current development as a mental health clinician. I chose this topic because there is little research on using breath as the main motivator within the Expressive Arts Therapy field and its important impact on the holistic being. The research question explored in this thesis is: What is the experience of regulation on ExAT students in a music-based expressive arts therapies intervention using breathwork and natural sounds?

The three principal areas to be explored in this research are regulation, breath, music, and nature. Starting with the breath, it can drastically impact various aspects of life. In their study

(Loo, Prince, et al., 2020), discuss how various mindfulness attentional skills programs such as mindfulness-based stress reduction (Kabat-Zinn, 1994), mindfulness-based cognitive therapy (Segal et al., 2002), and dialectical behavior therapy (DBT) in which breathing is the central tool (Linehan, 2015). Some of these programs' contributions include higher awareness of experiences, general self-satisfaction, empowerment, acceptance, reduction of psychopathology such as depression, anxiety, and stress. Other benefits of these approaches include a more conscious decision-making experience, increased awareness, better insight of symptoms and reduced impulsivity and emotional dysregulation.

As James Nestor (2020) notes in his book, “in a single breath, more molecules of air will pass through your nose than all the grains of sand on all the world’s beaches” (p. 44). Health is missing one essential part, the use of the breath. It starts there. Even with the healthiest diet, a resiliency in the genes, a specific age, body size or intelligence, nothing matters if the breathing is not correct (Nestor, 2020, p. xix). Breathing correctly has an impact on vibrant health. Breathing gives the body the oxygen for the metabolism to fire, giving the body energy for the day. More oxygen creates more energy (Lowen, 2021, p. 22). Breathing in different patterns can shift the body weight and reconstruct health. It can benefit the immune system, control the nervous system, and increase lifespan (Nestor, 2020, pg. xix). The breath in mindfulness gives human beings the ability to connect with the present moment. It increases awareness and provides a higher understanding of the mind. Using breath consciously influences perceptions, actions, and the connectedness to each other, the self, and the surrounding world (Kabat-Zinn, 1994). In meditation, consciousness and intention are essential ideas (Kabat-Zin, 1994).

Breath and music are tangled in repetition, rhythm, and patterns (Kossak, 2021), the present moment, and the effect of and the effect of self-regulation which are provided by both

forms. Loo, Prince, et al. (2020) explain in their extensive literature review how music serves as a self-regulation tool. This is because it offers relaxation, improves mood, and rejuvenates (van Goethem & Sloboda, 2011). Music also provides a higher awareness towards experience and their emotional content, thus reducing emotional reactivity (Erkkilä & Saarikallio, 2007; Scherer, 2004). Music and nature are also interrelated. This influence comes from the article on Loo, Prince, et al. (2020), where the authors recognize how natural sounds provide repetition and relaxation. They explain the idea of uniting mindfulness with natural sounds, inspired from Eckhardt and Dinsmore (2012), other researchers who proposed that this combination would allow participants to be aware of their experiences in a nonjudgmental way, recognize the fleeting momentum of experiences, self-regulate in the process, and being able to cope better in diverse situations.

## **Literature Review**

### **Breath, Evolution and Biology**

In Latin, “to breathe” means “spirit” coming from Latin *spirare* (Kabat-Zinn, 1994), as in Greek the word “psyche” means both breathe and soul (Austin, 2008). Mindfulness holds a spirituality aspect. Internal listening opens a space for the individual to be a participant in their own health, to listen carefully and provide trust from what is coming, such as the body, mind and feelings that arise. This active participation is lacking in the medical field. In meditation, there is the questioning, coping, the aspect of clearing the mind, the insight, and the choice the health care system does not offer. It is not a replacement for professional care, but a necessary complement (Kabat-Zinn, 1994).

Breath contains an invisible energy. This energy provides more power and effect than any other molecule the Western science knows of (Nestor, 2020, p. 187). Historically, from an

evolutionary perspective, oxygen was used from species to grow larger and into complex beings into mammalian bodies. The process of breathing consists of cells taking oxygen from our blood and returning carbon dioxide, and this carbon dioxide would then travel back on the veins, to the lungs and out into the atmosphere (Nestor, 2020, p. 10). According to Gaynor (1999), “breathing is much more than a mechanical reflex of oxygen exchange; it is the basis for all our cellular functions, our energetic wellbeing, even our emotional health” (p. 56). Breath impacts feelings, and feelings impact breathing (Austin, 2008).

The diverse ways of breathing allow human ancestors to escape, survive and adapt to different environments (Nestor, 2020). Unfortunately, 1.5 million years ago, our respiratory pathways started to shift and would affect all humans alive with multiple respiratory issues such as asthma, allergies, snores, stuffy nose, choking and more. Humans are the only mammal on earth that have misaligned jaws and repercussions in the mouth and teeth (Nestor, 2020, p. 10).

### ***Breath and Dysevolution***

Evolution does not equal progress, it means change. The term *Dysevolution* explains the various body aches humans usually have, and the reason for incorrect breathing among human beings (Nestor, 2020, p. 13). This dysevolution was influenced by adding many foods in the diet and cooking it. In this process the growing brain needed more space to stretch out in the face taking more room modifying bones and muscles and parts of the face as shrinking the mouths, noses, and sinuses. Thus, becoming more vulnerable to bacteria (Grippaudo et al., 2016; Nestor, 2020, p. 14). Adaptation to climate and speech made changes in larynx, throat, while making lips smaller and pushing the jaw forward. Cold climate made the nose narrower and longer, heating up air before entering the lungs. These adaptations added to human evolution but challenged appropriate breathing (Nestor, 2020, p. 15; Woodside et al., 1991).

### ***Mouthbreathing and Nosebreathing***

Breathing through the mouth and the nose has in fact contradictory effects and determine sickness or health (Nestor, 2020; Watson, 1920). Mouthbreathing is known for damaging the body by increasing rapidly the level of stress in the body and making it fatigued. In fact, it negatively changes the physical body and airways. By inhaling air through the mouth pressure decreases, causing the soft tissues in the back of the mouth to loosen up and bend, making breathing more difficult. Instead, nosebreathing transports air against the flabby tissues located in the back of the throat, thus making the airways broad and the breath would come easily (Nestor, 2020, p. 27). E. E. Watson (1920), a physician of Virginia mentioned that mouthbreathing was the primary cause of tuberculosis in seventy-five percent of his cases.

There were various experiments to study the relationship between mouthbreathing and changes in face, body and behavior. Rhesus monkeys and rats were obstructed nosebreathing by covering their noses, so mouthbreathing was only possible. After a few months the monkey's faces grew long, with slack-jaws and glazed over and the rats showed grew fewer brain cells and slow speed (Jefferson, 2010; Nestor, 2020, p. 27). Another Japanese study made with humans discovered that mouthbreathing transported less oxygen to the prefrontal cortex, which is an area associated with ADHD (attention deficit hyperactivity disorder). Mouthbreathers have shown diminished oxygen concentration in the blood than nosebreathers, which is associated with high blood pressure and cardiac failures (Jefferson, 2010), as well as back or neck pain, dry mouth, bad sleep, bad posture, sleepiness during the day, sneezing, increased saliva when speaking and more (Menezes, 2006).

Conversely, in nose respiration, as the air passes through the nose the absorption is easier due to the clearing, heating and moisten of it. Nosebreathing triggers hormones and chemicals



that can help digestion and lower blood pressure. It also benefits the stages of menstrual cycles in women as they regulate heart rate and retain memories (Nestor, 2020, p. 39). Native Americans believe that mouthbreathing weakens the body, deforms the face, and causes stress and disease. Differently, nosebreathing offers a strong body, preventing disease and making the face beautiful and used trainings for children. Healthy nasal practices are initiated at birth by closing the baby's mouth after feeding them and while sleeping (Catlin, 1861, p. 17; Nestor, 2020). Nasal breathing is the most efficient method of transporting oxygen into the lungs, body organs, muscles, the heart and brain (Jefferson, 2010). This process is also aligned with the immune system, mood, weight, and sexual function. Breathing properly decreases blood pressure, lowers depression, and eliminates headaches. In fact, many researchers show how various health issues such as asthma, anxiety, ADHD, and others can be reduced by changing the breathing method (Nestor, 2020). A report from the Mayo clinic stated that chronic insomnia which used to be a psychological problem is now linked to a problem in breathing and suggested that children who have sleep apnea like heavy breathing, lightly snoring have a chance to suffer with mood disorders, learning disabilities, blood pressure issues as well as lower height and weight in comparison to their peers (Jefferson, 2010; Nestor, 2020, p. 30).

### ***Eastern Philosophies and Breath***

In his book, Jon Kabat-Zin (1994) mentions that meditation consists in “development through mental training” (p. 81). Coming from the Eastern world, prana means “life force” or “vital energy”. From an ancient theory prana refers to atoms. Everything on this planet, such as clothes, the computer this author is writing on now, is made up of atomic bits, energy. To inhale prana means to breathe; to breathe energy. The concept of Prana was seen around 3,000 years ago around the same time in India and China (Camelo, 2022; Nestor, 2020). In these cultures, the

breathing methods were integrated into the text called Yoga Sutras of Patanjali: Breathholding, slow breathing, deep breathing using the diaphragm, and extended exhalations (Brown & Gerbarg, 2009; Nestor, 2020, p. 196). Pranayama is the practice of regulation and observation of the breath as it decreases emotional reactivity, engages the witnessing mind and increases awareness of energy in all life aspects (Khalsa et al., 2016, p. 19).

The Japanese, Greeks and Hebrews had their own word for prana (Nestor, 2020, p. 188). Breathing is expanding life force. The Chinese signal conscious breathing as *qigong*, while *qi* means “breath” and *gong* means “work” (Camelo, 2022; Nestor, 2020, p. 188). For the Hindus breath and spirit meant the same thing. They had their own practices to balance breathing and conserve physical and mental health. Moreover, the Buddhists used breath as a source of longevity and to reach higher levels of consciousness. Yogic science and Buddhism believe in the “bi-directional relationship between the mind and the breath, such that one can affect the mind and consciousness through manipulation of the breath” (Brown & Gerbarg, 2009, p. 55).

In sum, for all these cultures, breathing was medicine. In each medical tradition and culture, healing would be achieved with the movement of energy (Nestor, 2020, p. 194), though this could flow free and restore the balance of one’s vital energy (Camelo, 2022).

### ***Meditation and Breath***

Meditation offers a space in which consciousness and unconsciousness can be accessed by self-observation of the mind. The purpose is to pay attention to what is happening in each moment without judgment (Kabat-Zinn, 1994), and learn to label emotions, moods, and states (Hindi, 2012). This purposeful action increases clarity and observation of thoughts and acceptance of the present moment. Conversely, lack of awareness in the present moment sometimes drives problems or irrational thinking following automatic behaviors, occasionally

motivated by insecurities and fears. Mindfulness invites individuals to a space where they can see things as they are (Kabat-Zinn, 1994), with awareness and concentration (Mikulas, 2015). Inner and outer awareness of experience motivates behavior (Acolin, 2016), as action, growth and transformation can only be found in the present (Kabat-Zinn, 1994). Meditation is the focus of the mind and body as a whole (Jereth et al., 2015).

There is no goal in meditation, and it is not about emptying the mind or having it still, even though stillness of mind comes with practice. Instead, it is about letting the mind be as it is and observing the internal dialogue and the patterns of the mind. Awareness of these processes increases self-control of the body, mind, behaviors, and feelings (Mikulas, 2015). Likewise, it opens an exploration of memories, fears, feelings, and sensations (Caldwell, 1996). Meditation can help individuals understand the roots from their thoughts (Solhaug et al., 2016) as well as offer a more awakened state (Shonin-Gordon, 2016). There are other ways of meditating such as walking, standing, running, lying down and in any other activity of the day. The fundamental part is to engage with the activity intentionally (Kabat-Zinn, 1994).

In his book *Mindsight* (2010), Dr. Daniel Siegel describes that mindfulness is being aware and attentive of the present moment without getting tangled with judgments. The purpose of training the mind is to focus on moment-to-moment experiences. It is not a religion, instead it is a brain hygiene, in which the principle is to focus the attention on biological processes that promote health. In this process consciousness can be integrated (Siegel, 2010). Mehling et al. (2011) describe the access of the breath to be a “source of enlightenment” and a way to connect more meaningfully with oneself.

### ***Breath and the Holistic Self***

Breath provides many effects to the body, mind and brain, emotions, and spirit. The action of breathing is an energetic pulsation that transforms the entire body. As described before, evolution has made our breathing diminished, the pulse less favorable and ribs inflexible. As the diaphragm is tightened, the breath cannot reach lower to the genitals and neither can connect the upper and lower body (Conger, 1994, p. 83). In fact, early mechanisms to repress responses of anxiety and pleasure were to hold the breath and contract the diaphragm (Conger, 1994, p. 82). Lowen (2012) points out that adults struggle with disorganized breathing due to chronic muscular tensions that restrict their breathing. He explains that the root of these tensions are emotional conflicts that occurred as the individuals grew up and that the origin of the conflicts must be understood to release those tensions troubling the natural breathing (p. 22).

### ***Breath and Body***

According to Diane Austin (2008) the primary step to reconnect with the body is to breathe deeply. For the body to feel safe it needs to be grounded and the breath can offer this process (Austin, 2008). The body can feel gravity, balance itself and feel the feet on the ground so it can center, place boundaries, access feelings, be present and establish a protective space (Conger, 1994, p. 63).

Grounding opens protest and surrender. However, grounding cannot occur when there is a disconnection with the body. When the body vibrates energy is flowing in that zone and awakening that body part. With vibration and full breathing energy can move throughout the body (Conger, 1994, p. 65). Awareness of the breath can only be found in the here and now, separating from the past and the future (Dhiman, 2018).

The application of mindfulness techniques can strengthen the core of the mind allowing internal body signals and emotional waves to be sensed by more calmness, clarity (Siegel, 2010;

Leventhal, 2016) and consciousness (Hackney, 2002). Being aware of the internal states of the body, as feeling the heart or the belly, as the rhythm of the breathing could serve as knowledge, as it influences cognitive perception directing reason and decision making (Siegel, 2010, p. 63). In addition, people who have a higher body awareness have more empathy towards others, since sensing individual states can open a pathway for sensing others as well (Siegel, 2010, p. 62). Likewise, higher compassion towards others shows to increase one's personal well-being (Gilsinan, 2015) and a prosocial behavior (Kashyap, 2022).

Freedivers are an astonishing example of mastering breathing. For them, breathing is a force and a medicine. In 1980 there was a 70-year study on longevity program focused on heart disease. The results showed that lung capacity was the greatest indicator of life span, instead of exercise, genetics, and diet (Nestor, 2020, p. 55). This means that modifying the breath into different breathing patterns can expand longevity and affect the overall health of every part of the body (Nestor, 2020, p. xix).

### ***Breath, Mind and Brain***

Ventilation works as a regulatory process that can be voluntary and involuntary (Wasser, 2017). In meditation, by bringing awareness to the breath, the conscious control of the brain gets activated while shifting from the typical automatic breathing process (Hindi, 2012). Jon Kabat-Zin (2005) mentions that mindfulness can increase self-esteem. By paying attention to the mind, people can come to realize that their problems are in their thoughts, in their thinking, in past experiences and anxieties for the future. Without this mindful action, individuals live automatically in their distortive and sometimes irrational minds. Mindfulness opens the pathway to observe the wisdom of the body and the scope in the thinking, as the growing and healing to be done to make effective life choices. Such awareness of the mind can open the individual to

realize the authority each person is and the control they already have in their own selves (Kabat-Zin, 1994).

With increasing neuroscience investigations and his own experience, Siegel (2010), describes mindfulness as a mental activity that involves training of the mind to become attentive of awareness itself and of the mind's intention. This process involves observation of the self and needs to be non-judgmental and non-reactive. Likewise, in this process individuals attune with the self, tuning in and “becoming their own best friend” (Siegel, 2010, p. 86). This attunement is important because it creates resilience and flexibility. Mindfulness overlaps with the process of secure attachment and with essential parts of the middle prefrontal cortex part of the brain, as studies show. This part of the brain is related to regulation of the mood, increasing emotional equilibrium, and easing connection with others (Siegel, 2010, p. 86). A great amount of research shows that meditation can shift structure and function of essential parts of the brain, such as decrease anxieties, as well as increase concentration and compassion (Nestor, 2020, p. 176). Recent evidence shows that respiration contains a rural rhythm, and this intersects with cognitive and affective activities such as memory, attention, sensory processing, as well as decision making, problem solving and language processing (Asena et al., 2021).

### ***Breath, Emotions and Mental Health***

Techniques of rapid and slow breathing display effective treatment for anxiety, stress, and depression, since these shifts are related to changes in the amygdala, the prefrontal cortex, as the AIC and ACC (Asena et al., 2021). Although rapid breathing is commonly associated with high states of arousal, it can activate the processing areas of the brain, which favors responding faster to stimuli. Breathing is an anchor to the present, which can help facilitate the process of regulation and recognition of emotions (Asena et al., 2021). When there is no access or

expression of emotions breath cannot flow naturally (Austin, 2008). Consequently, “neuromuscular patterns develop into habits that cut us off from our instinctual connection between emotion and breath” (Linklater, 1976, p. 12).

Breath also influences the oxygen in the blood (Asena et al., 2021). Affects can be highly manipulated with the breathing rhythm as it can induce both positive and negative emotions and regulate arousal or create dysregulation. Learning to control the breath would mean having control over the effect it creates (Asena et al., 2021; Mehling et al., 2011). In a well-known research, studies found that monks are capable of voluntarily regulate their brain activity by mental processes linked with positive emotions (Gilsinan, 2015). Having an increased awareness and integration of the breath can allow the individual to see themselves holistically, integrating the mind-body-emotion relationship (Mehling et al., 2011).

According to Jerath et al. (2015), emotional experience impacts the whole body due to the activation of the amygdala. For instance, self-identity, memories, habits, and emotions influence the mental and physical health of the individual (Weinberg, 2009). This mind-body connection aligns the mind and heart with the physical and chemical level of the human being (Weinberg, 2009) and can direct the person to have a positive or negative well-being. Mental health issues such as anxiety and stress are often activated by thoughts, behaviors, and emotions. Mindfulness-based approaches can reconstruct health by tapping into breathing practices that can offer a unique way of looking into mental patterns and transform internal and internal relationships (Starzec & Wisner, 2016).

### ***Regulation***

The body contains an automatic way of regulation. The basic physiological process, the breath and the heart rate are regulated by the brainstem. This ancient part of the brain also

regulates the cortex in charge of alertness and states of mind, including levels of arousal. This state of mind provides internal awareness so then a response can be made. This is a way regulation can occur, with the state of mind awareness, the monitoring, and the response, in which energy can be modified (Siegel, 2010). Likewise, breath can inform the level of arousal or safety in an environment by being affected by experience and affecting one's experience (Mehling et al., 2011).

The brainstem also works with the limbic and cortex levels to determine safety or danger. In safety, the muscles relax, and the mind feels calm. Conversely, in a state of danger if the body feels capable of dealing with the situation, it activates the fight and flight alert linked with the sympathetic nervous system, as adrenaline turns on and cortisol hormone releases. Otherwise, if the person thinks they are helpless, the body freezes, dropping blood pressure and fainting (Siegel, 2010, p. 127). These adaptations are crucial in daily interactions and circumstances and provide the shifts of the internal and external processes of the body (Porges, 2011).

They act as “gut sensations” that inform thinking, feelings, needs and direct decisions in daily life events. This is also known as interoceptive awareness (Siegel, 2010, p. 127). Interoception and self-regulation allow the individual to sense their inner world regulating this world (Siegel, 2010), which is also known as the mind and body connection which can be achieved by meditation (Nestor, 2020; Jereth et Al., 2015).

### ***Slow Breathing and Regulation***

Researchers and doctors found that focusing on the breathing would prevent chronic health issues, enhance athletic performance, and prolong longevity. Hence, the method was to inhale and exhale slowly, so the level of oxygen and carbon dioxide would balance (Nestor, 2020, p. 72). After extensive research and his own experience, Nestor (2020) states that the most



efficient breathing rhythm would consist of 5.5- seconds on inhales, followed by 5.5- seconds of exhales, providing the right pace for the body to perform at its best and the necessary amount of air by balancing respiratory gases (Nestor, 2020, p. 83). This pattern is the same one used in the rosary, and it is believed it evolved because on wellbeing it gave from the cardiovascular rhythms (Nestor, 2020, p. 84). Slow resting heart rate can only be achieved with slow breaths. Mammals who have the slowest breathing have the lowest heart rates and therefore live the longest (Nestor, 2020, p. 104). Using the slow-paced breathing technique or taking 6 breaths per minute provides mental and physical relaxation (Asena et al., 2021). According to Diane Austin (2008) “the ability or inability to deeply inhale and exhale reflects our personality traits and psychological issues” (p. 25).

Slowing the rhythm of the breath affects cardiovascular, brain systems, endocrine, autonomic functions, as most noticeable it activates the parasympathetic nervous system evoking physiological relaxation (Asena et al., 2021; Austin, 2008). Breathing rapidly or slowly has different effects in the body and are related to two opposite functions in the nervous system (Allen, 2017; Nestor, 2020;). Slow breathing builds a calm emotional and physiological state, while accelerated breathing elicits an aroused state (Asena et al., 2021; Jereth et al., 2015). Breathing skillfully can support both nervous systems by promoting healthy physiological effects depending on the body’s needs and feelings (Allen, 2017). Slow breathing activates the parasympathetic nervous system, linking relaxation, rest, growth and restoration of the body, digestion, and feel-good hormones, such as serotonin and oxytocin (Nestor, 2020; Alderman, 2016; Porges, 2011). Deep breathing produces a wave of energy that can be carried to body parts that need soothing, release of tension and revitalization (Austin, 2008).

The second function is the sympathetic nervous system which has an opposite role, signaling activation of organs and muscles when perceiving a threat. This causes rapid and short breathing and physiological responses including heart racing, palms sweating, and a sharpened mind (Austin, 2008; Cherry, 2019; Nestor, 2020; Porges, 2011), which are indications from the body to mobilize its resources to deal with a stressful situation or a threat or a change outside of the body (Cherry, 2019; Porges, 2011). Although this reaction preserves “survival” for evolutive purposes, some bodies tend to take longer to calm down after the danger has passed. The effect is seen as issues in digestion, and higher levels of stress and anxiety (Nestor, 2020, p. 144).

According to Alderman (2016) “controlled breathing can alter the reaction of the body’s automatic nervous system, which regulates unconscious body systems such as heart rate and digestion in addition to the body’s stress response” (Alderman, 2016, p. 22; Telles et al., 2011).

The vagus nerve plays a significant role in the activation and deactivation of the functions of the nervous system. This nerve is the one that connects all the major internal organs. As elevated levels of stress are perceived, the vagus nerve turns down the function in organs, slowing heart rate and body circulation. This process has a negative impact on brain and organ communication, principally between the vagus and the two autonomic nervous systems coming from chronic stress. While this process keeps humans alive, it degenerates health building anxiety, depressive and autoimmune diseases (Nestor, 2020, p. 150). Fortunately, breathing can be an effective way to stimulate the vagus nerve (Asena et al., 2021; Grigonis, 2019; Nestor, 2020). Breathing is an automatic function, but individuals can control it consciously accessing the autonomic nervous system. This process consists of turning the stress state up through rapid breathing, then turning it off into a relaxed and rested state (Nestor, 2020, p. 150).

### ***Increasing CO2***

As breathing too much and fast can be the cause behind various chronic diseases, breathing less could be a solution. Konstantin Buteyko believed that increasing Carbon Dioxide in the body by breathing less could bring health and healing. He discovered that patients with asthma and hypertension were breathing too much, loudly, and most inhaled and exhaled through the mouth. Their readouts displayed increased oxygen in their blood, but little Carbon Dioxide. Thus, he invented the technique “Buteyko” which would train patients to breathe in relation to their metabolic needs, which meant taking less air so the Carbon Dioxide in the body would increase. The use of Buteyko benefited patients with lower heart rate and decreased migraines (Nestor, 2020, p. 100). According to Britt (2019) the automatic response of the human body to stress, pain and difficult emotions is an accelerated breathing response.

Athletes used breathing-less techniques which allowed them to heighten performance and respiratory difficulties by increasing CO<sub>2</sub> in their body (Nestor, 2020). One study from Australia discovered that the use of Buteyko technique for asthmatic adults their intake breath decreased by 70% and their use of medicine for relieving effects decreased by 90% (Nestor, 2020, p. 101).

### ***Holding the Breath***

Individuals who struggle with anorexia, panic or OCD carry low carbon dioxide levels and fear of holding their breath while breathing too much to escape another attack. Their anxiety is elevated from their overbreathing, and their overbreathing is elevated from their anxiety (Nestor, 2020). Studies by Alicia Meuret showed how breathing slower and less would increase Carbon Dioxide on individuals with Asthma and others suffering with panic attacks. The results were decreased dizziness, shortness of breath and feelings of suffocation. She wrote it was better to instruct clients to hold their breath instead of taking a long one. The body's weight regulation system is in the lungs (Nestor, 2020, p. 75). Similar studies focusing on belly breathing show

that taking deep inhalations following a short holding on the breath and a long exhalation offers temporary relaxation, and improves overall homeostasis, mood regulation and reduction of stress and anxiety (Wang et al., 2016).

The nasal cavities in the nose are also influential in health. They control temperature, blood pressure, and feed the brain with chemicals which control emotions, moods and sleeping states. In fact, each nostril has a different function in the body. For instance, breathing through the right nostril activates the sympathetic nervous system, placing the body in an alert and awake state. Using the right nostril activates cortisol levels, blood pressure and heart rate as it will also direct more blood to the opposite brain hemisphere associated with language, analytical thinking, and numbers. On the other side, the left nostril signals an opposite effect by relaxing the body, lowering blood pressure, cooling the body, and decreasing anxiety, as this side is connected to the parasympathetic system and directs blood to the creative thought, mental abstraction, and the creation of negative emotions (Nestor, 2020, p. 41).

Holotropic breathing is a practice created by Stanislav Grof, a Czech psychiatrist (Nestor, 2020). The purpose of this technique was to rewire the mind. In this process, the body would breathe rapidly and be forced to inhale higher amounts of air than it needs and exhale more carbon dioxide. The brain areas affected are related to functions in visual processing, body sensory, memory, time awareness and sense of self. The effect could include hallucinations, out-of-body experiences, and waking dreams as impact the limbic system of the brain (Nestor, 2020, p. 163). For some people it would serve as a spiritual awakening, for others would bring sensations of death and rebirth and for others psychological breakthroughs. Studies show positive outcomes of this practice for individuals with anxieties, low self-esteem, asthma, and interpersonal struggles (Nestor, 2020, p. 161).

### ***Mindfulness and the Expressive Arts***

Mindfulness and the use of the arts as a therapeutic asset contributes to compelling clinical work. It opens the space to vulnerable individuals who are not ready or safe to self-disclose, who have multiple emotions they yet do not understand and cannot verbalize, who lack the capacities of self-reflection. These individuals need a sensorimotor and experiential approach which comes in the Expressive arts and the breath to look internally instead of a verbal processing. In other words, these individuals require bottom-up psychotherapy and not a top-down form (Rappaport, 2014, p. 305). The rhythm of the breath can arrange sensory integration (Cane, 1951). The mind-body techniques and expressive therapies contribute to a pre-verbal, sensorimotor awareness, where somatic emotional regulation skills can be provided so the individual feels safe to process memories without regression (Rappaport, 2014). Kossak (2015) believes that in the practice of Expressive Arts and art making shifts in internal thoughts, attitude and feelings can happen when the body is engaged. Cane (1951) agrees with this point, explaining that art can arrive from feelings or thoughts, but it is executed in the body, “the body is the instrument through which the creative process occurs” and refers to the kinesthetic sense (p. 41).

### ***Breath and Dance/Movement***

Respiration is like swing movement. This connection is already used in the martial arts, where exhalation is synchronized with the force in punches (Asena et al., 2021). Studies show how respiration provides activity in sensorimotor areas of the brain and how controlled breathing enhances motor activity (Asena et al., 2021). A study made on somatic mindfulness shows that attuning to another individual in a somatic way produces communication among those

individuals even when language cannot be accessed. This study explains how the bond in the rhythm between the individuals provides a response in empathy (Kossak, 2021).

Associations with breath and movement patterns have been applied for centering and moving into an evolving calm body-mind state that a usual sitting practice is more challenging to attain. For instance, movements such as rocking back and forth or making circles while breathing can prepare a practice of stillness and to facilitate awareness of somatic and cognitive internal information (Kashyap, 2022). Movement meditation called “rocking body meditation” involved moving the body slowly, starting in silence and then incorporating counting and breathing followed by a bynon-rhythmic music with an Indian string instrument called sitar. Participants experienced an easier still sitting position, with longer inhalations and exhalations and lessen racing thoughts (Kashyap, 2022). A retreat called “Vipassana meditation” takes place in Asia and gives emphasis to the mind-body connection and the impact of thoughts being connected to a body sensation. This link allowed participants to experience an increased self-awareness, feelings of groundedness, centeredness and an authentic “self as knowing” (Fleischman, 2012). Caldwell (2004) notes that attuning to conscious movement and stillness can increase awareness on the inner and outer experiences.

### ***Breath and Art Therapy***

The rhythm of breath speaks as a life force, motivates creative processes, and influences life experiences (Siegel, 2019). Awareness of the breath in the art making process incorporates the mind-body connection and stimulates bodily sensations in different body parts (Milner, 1969). According to Eigen (2002), art accesses the psyche to organize states of being such as moods, feelings, and processes of growth. It is essential to consider the multi-modal purpose of art therapy and access other senses such as sounds, movements and the breath that the art

contains (Siegel, 2019). Using all parts of the self can heighten the inside relationship with the self as well as the relationship with the environment and its reciprocity (Siegel, 2019).

### ***Repetition, Rhythm, and Attunement in Music***

Hackney (2002) refers to breath as “the key to life, movement and rhythm” (p. 51). In music, singing eases deep breathing. In the singing process, air needs to be sustained in the belly and diaphragm followed by an exhalation so the process can go on (Austin, 2008). There is a link between physiological and psychological effects of breathing. When the breath is avoided, the throat, chest or abdomen can sever the connection of feelings and negatively affect speech and the singing voice (Austin, 2001). Breathing exercises can open the mind-body connection, heightening relaxing and connection with the body, so singing can become more natural and less intimidating (Austin, 2008).

Music provides many qualities. These include structure and form, organization, a non-verbal language which offers a subjective meaning from the listener. It motivates perception and it is witnessed in the present moment (Rappaport, 2014, p. 118). Repetition is an aspect present in music. Rappaport (2014) believes that a repetitive pattern is key for a mindful experience, since it does not stimulate the brain with new sounds and patterns, but instead in a sense of flow. Thus, there is predictability and a constant pulse (p. 119). “Is the music moving the body or is the body responding to the music?” (Kossak, 2021, p. 251).

From the perspective of physics, rhythm is the universe's pulse that creates matter and achieves thoughts, emotions, and consciousness. In short, rhythm and pulsation are what can be considered the background of life (Kossak, 2021). Rhythm can be found in social bonding,

cohesion in a group, nonverbal communication, communication, language processing (Merker et al., 2009) and selection of mates (Miller, 2000).

As rhythm pulsates it is seen as Eastern ancient traditions as the source of life that exists. Practitioners in Chinese medicine believe that disease happens when rhythm contains a lack of balance and likewise, healing can occur when the imbalance is revived by the course of the rhythm (Kossak, 2021). Gyorgy Buzaski, a neuroscientist who researches the brain, points out that all psychiatric diseases are related to a rhythmic issue (Kossak, 2021).

Everything that is alive has a vibrational rhythm and pulsates (Kossak, 2021; Conger, 1994). In fact, the rhythm of the earth has the same frequency as the ones in states of meditation, increased relaxation, and martial arts such as Chi-Kung (Kossak, 2021). Entrainment refers to the synchronization that exists between two or more fields such as breathing, circulation, lunar and solar cycles, and rhythms in the nervous system. Studies have shown that rhythm entrainment can be found when a beating heart is affecting other parts of the body and on other individuals' hearts (Kossak, 2021). There is a study on what is known as pulsating or rhythmic synchronization which shows how two muscle cells coming from different hearts adjusted their rhythms as they came closer. A similar study was repeated with infants and their mothers in terms of movement and language showing the same results (Condon & Sander, 1974).

Studies on entrainment have been applied to brain and rhythm and have helped individuals struggling with Parkinson's disease, TBI, aphasia and cerebral palsy. In this intervention the individual listens to a musical piece and while the person synchronizes with the rhythms, the nervous system gets influenced and the motor system follows up (Thaut, 2013; Thaut et al., 2015). On the contrary, the inability to attune with each other often referred to as an interpersonal misattunement, has shown to influence a physiological disorder or a disease due to



the immune system getting affected by the inability to regulate in the rhythmic attunement (Kossak, 2021).

### ***Self-Regulation and Music***

Individuals who practice mindful breathing can learn to regulate emotions by using quiet music melodies and supporting imagery (Rappaport, 2014). The combination of sounds and movements offers grounding and maintains the energy flowing (Austin, 2008).

### ***Nature and the Expressive Arts***

Ecological arts therapies bring nature, and the creative arts together involve sensory awareness activities related to the ecosystems, environments, and forms of life with the purpose of bringing into the conscious mind aspects of biological history and “ecological unconscious” (Kopytin, 2021; Roszak, 2001). Activities include breathing, mindfulness walking, body scanning, journaling with the purpose of an increase receptivity, attention, and embodiment in the living environment. The aim of these activities is to offer effective self-regulatory skills as coping mechanisms for therapeutic and daily living purposes for better health and well-being with an embodied presence and reconnection of the self (Kopytin, 2021). Results include enhanced well-being, health, and a supportive self-perception of individuals as ecological beings.

Furthermore, listening mindfully to music increases the awareness of sounds throughout the day. It also heightens the appreciation toward natural sounds as well as the present moment. The combination of music, listening and mindfulness can increase acceptance of the self and insight (Rappaport, 2014, p. 117).

## **Method**

The methodology used in this study was established on the phenomenological approach in qualitative research and applied inductive analysis with grounded theory. This approach summarizes the raw data and develops categories and conveys key themes to show the direction where the intervention and analysis lead us (Strauss & Corbin, 1990).

The intervention chosen combined breathing, rhythm, and natural sounds, followed by an Expressive Arts intervention. In this community engagement project for expressive arts graduate students, the facilitation started with a guided mindfulness and breath-based creative process with the group. After leading the experience and listening to the feedback and responses from the participants, the author engaged with her own process through the arts, repeating the intervention and used the Expressive arts to further her experience. Finally, the data produced during the reflection process was analyzed and organized into themes and categories based on the most frequently emerging units of meaning. The anticipated results are embedded within emotional processing, regulation of mood (Loo et al., 2020), self-regulation of mind and body (Mehling, 2011; Loo et al., 2020), interoceptive awareness (Mehling, 2011), as understanding the importance of breath, natural sounds, and music as its impact on the holistic being (Loo et al., 2020).

## **Participants**

For this arts-based community setting experience, six participants expressed interest in participating. All of them were enrolled in a master's degree in Expressive Arts Therapy, or other art forms (for example., art therapy, music therapy, or drama therapy). The mean age of the participants was 26.0 and had an average exposure to meditation. Participants were recruited from a convenience sample by email or by signing their name on a list located outside of several

classes. Two participants identified as male and four as female. Four participants were American, one Puerto Rican and one Turkish.

## **Procedure**

The experience lasted one hour. There were two parts. The first part involved meditation with natural music and a rhythm with a Conga to synchronize with the breathing patterns. The second part included the Expressive Arts intervention further exploration of the breathing experience and any processing needed. The whole experience had nine steps and was explained to the participants prior to starting. The intervention was done sitting in classroom chairs.

Step 1: The first step involved asking the participants to start breathing normally for a minute to reconnect with their breath and their body.

Step 2: The second step included playing in a speaker the soundtrack of the natural sounds from the Ganges River in Varanasi, India. The sounds included the sound of the river with multiple crickets. The engaging with the breath and the natural sounds lasted two minutes.

Step 3: The third step incorporated a beat with a Conga. “In native American indigenous and many African traditions, the drums have been used as a source of rhythmic resonance or an instrument to entrain to social and divine energies... and can alter states of consciousness by activating sensory-motor areas of the brain” (Kossak, 2021, p. 142; Drake, 1991).

Step 4: The fourth step involved participants to start breathing in and out aligning with the tempo from the drum playing. I guided individuals with counting aloud through the process of box breathing (4 seconds inhale, 4 seconds hold, 4 seconds exhale, 4 seconds hold), a technique from DBT and repeat for 4 minutes, and then to switch to 4 seconds inhale and 4 seconds exhale for 4 minutes. After 4 minutes I told participants to return to their natural breath.

Step 5: The fifth step included incorporating Nestor's 5.5 breathing technique, which he referred to as the most efficient breathing rhythm consisting of inhaling for the count of 5.5 second and inhaling from the count of 5.5 seconds (Nestor, 2020) and repeat for 4 minutes. Afterwards, I directed participants to return to their own breath.

Step 6: The sixth step involved repeating both breathing techniques and took 8 minutes.

Step 7: The seventh step offered an opportunity to process and keep developing the experience with the Expressive Arts. Participants were given art materials to process and further their prior breathing experience. This activity took 10 minutes.

Step 8: This step followed free writing which allowed participants to keep exploring their creative process in an intermodal way and a cognitive level of their experience. This activity took 10 minutes.

Step 9: This last step provided a space for participants to share their experience, their creative process, artwork or any change or effect they felt regarding their cognitive level, emotions, body, and spirit.

### **Inductive Analysis**

After the experience, discussion and sharing among participants ended, I engaged in my own individual process using the expressive arts to further my observations of the experience and create more data for analysis. I engaged with my personal process on 3 different days. The first day was after leading the experience in which I engaged with some movement, art making and journaling. At the end of the day, I did more journaling to write my observations from the experience. Three days later I engaged myself in the original intervention, followed by a repeated movement that came from the drumming and breathing. At this moment, I understood the impact

of the breath in the mind-body connection. I repeated the movement for five minutes, which formed a mental image represented in the art making (see Figure 1).

**Figure 1**

*Participant Researcher's Personal Visual Representation of Swirl of Water*



*Note.* See the detail and the contrast between the colors chosen.

This experience followed five minutes journaling in which I noted some words, symbols and phrases that came from the movement and the art. The last analysis was made three days after and involved the repetition of the movement from the second day, followed by some artwork and journaling. After having all the data, the initial analysis began by gathering all data I had from my journaling, artwork, and videos from the movement piece. I engaged with open analysis of the artistic data and highlighted repeating themes and organizing these with each art modality. After I processed the data with the intersecting themes from the diverse art modalities.

I found four common themes. This inductive analysis allowed me to see the themes more clearly and organize them in a more efficient way.

## Results

### Creativity and Internal Exploration

The first theme includes the progression occurring in Expressive Arts Therapies between the modalities explored. The method explored included music in the background. When shifting to embodied movement some symbols appeared, these represented a swirl of water which then ended in a fetus position. This progression was represented in the arts and later with some journaling. The representation offered contacting one's aliveness so it can be liberated and released finding its way to stillness. In this explanation it can be seen the shift and build up that occurs in the intermodal process of the arts. Many senses are embedded accessing the mindfulness aspect as well as creativity and imagination, evidenced by the symbolisms and metaphors. The cognitive, emotional, spiritual, and physical level are present in this experience.

**Table 1**

Meaning Units Describing the Theme of Creativity and Internal Exploration

Creativity and Internal Exploration
<ul style="list-style-type: none"> <li>• The swirl of water symbolize chaos that needed to be alive, expressed, experienced and liberated so it could calm down and arrive at the symbol of fetus position.</li> <li>• I was the wave embedded in chaos, strong and comfortable in this.</li> <li>• I was feeling energized and calmed, as wanting to open my eyes and be ready for anything.</li> <li>• I am flowing like water, feeling alive and part of nature.</li> <li>• My spirit felt connected with the transpersonal, with myself, with nature and everything around me.</li> <li>• I am connected with my essence and my soul.</li> <li>• Multisensory and enhanced experience.</li> <li>• Breath and rhythm synchronized.</li> </ul>

## Repetition

The second theme explored is about the rhythm that the breath contains and the repetition that it creates. The analysis shows that this repetition drives focus, gives structure and an order to follow in the activity. Repetition also provided pleasure, strength building and served as a motivator to keep the persistence of the process. Moreover, the repetition can also be seen in the mind and body experience. The data shows that the rhythm of the music is repeated in mind and body, which creates a repeated somatic movement described as an opening and closing of the body. This represents inhalation and exhalation. In a different part of the method, there is also emphasis on rib cages, home from important organs: heart, chest, and lungs. The synchronization of breath and rhythm builds up automatic movement as breath comes easily. Ideas of interoception were also experienced, evidenced by feeling the internal energy moving the body instinctively, as well as boneless, and feeling the internal organs such as heart, chest, and lungs.

**Table 2**

Meaning Units Describing the Theme of Repetition

Repetition
<ul style="list-style-type: none"> <li>• The rhythm of the drum repeated in my mind and motivated repetition of movement.</li> <li>• Focused mind, pleasure in repetition, in flow, automatic movement, breathing comes naturally and easily.</li> <li>• Breath directs repetition in internal movement, helps us connect to our strength, growth, helps us to progress, transmute, resist. It gives us impulse.</li> <li>• While moving I felt awareness of the rib cages, heart, chest and lungs.</li> <li>• In movement there is rhythm.</li> <li>• Repetitive movement of drumming created an open and close of the chest.</li> </ul>

## Self-Regulation

The third theme incorporates the self-regulation ability that breath provides. The data shows that after the method, the mind felt clean, refreshed and with less mind chattered. The

body felt safe, grounded, balanced, nurtured coming from the symbolism of the fetal position at the end of the movement. Calm and energized were feelings that came from the symbolism of a warrior. Additional embodied feelings came in another part of the data such as rejuvenation and aliveness. In terms of emotions, there were many positive feelings such as pleasure, satisfaction, safety and groundedness. Lastly, the breath motivated peace in the spirit.

**Table 3**

Meaning Units Describing the Theme of Self-Regulation

Self-Regulation
<ul style="list-style-type: none"> <li>• Feeling present, aware of the moment, refreshed mind.</li> <li>• Holding my own self in my arms, feeling safe, authentic and satisfaction.</li> <li>• Fetal position, integrating the movement of opening and closing of the chest which symbolized self-protection and self-nurturing.</li> <li>• Lightness inside the body, in legs, shoulders and neck.</li> <li>• Rounded movements.</li> <li>• Safe, nurtured, in tune with my soul, boneless and no pain.</li> <li>• Symbol of warrior; calmed and energized.</li> <li>• Synchronization of my breath and rhythm to reconnect with my essence.</li> </ul>

**Personal and Transpersonal Self**

The fourth theme describes how the breath triggers a connection in the personal and transpersonal level of the self. In terms of the personal level, the data shows how the breath motivated two different imageries. The first one included holding myself in my own arms and the second one introduced a golden light coming out of my chest which was interpreted as internal expansion, transformation, vibration, lightness, ease, wholeness, and aliveness. The transpersonal aspect of the data signaled the connection with nature and the universe. Symbols like ocean, wave and river came from the movement and symbols of energy, moving atoms, planets, galaxies, as well as the flow of life, expansion and physics came from the visual art. This is an “aha moment” I had after the experience, and I wrote, “we can sense everything else’s rhythm by



first accessing our own internal rhythm.” It all starts with breathing. Connecting internally to connect with everything around us. This is a poem I wrote in this process:

“With each breath there is growth and transformation. Breath moves forward and directs movement, momentum, and growth. Repetition signals the cycle embedded in nature, in waves as they go up and return. The pattern is found in the breath and alive by my body movement”

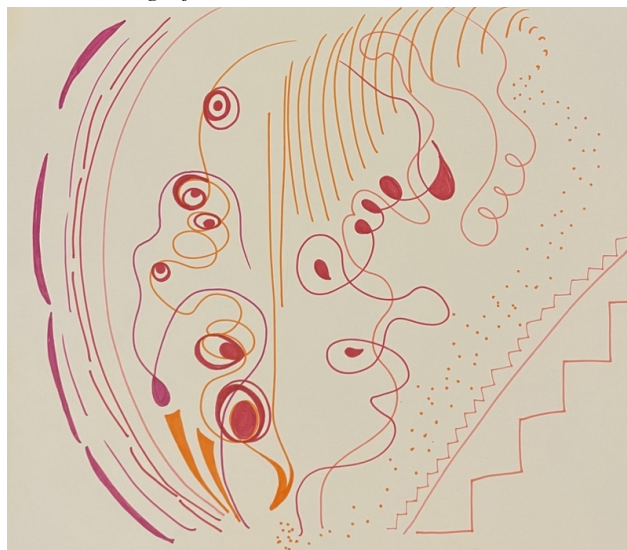
**Table 4**

Meaning Units Describing the Theme of Personal and Transpersonal Self

Personal and Transpersonal Self
<ul style="list-style-type: none"> <li>• Flow of life, universe, resonance, escalating, expansion, physics.</li> <li>• Symbol of stairs moving upward.</li> <li>• Symbol of golden light coming out of my chest meaning connection with the self and the universe, giving back energy and taking it in again, reciprocity.</li> <li>• Rejuvenation, stillness, awe, grounded, rested, at ease.</li> <li>• In art (see Figure 2) I see vibration, energetic mutation, resonance, attunement, and community; as pattern, structure, a building up, persistence and transforming.</li> <li>• There is breath, rhythm and pattern in everything that is part of nature as in waves, wind, rain and flowers.</li> <li>• Breath directs life, aliveness, balance.</li> </ul>

**Figure 2**

*Participant Researcher’s Personal Visual Representation after Repetition of Movement: Open and Closing of Chest.*



*Note.* See the different shapes, forms and the interaction between all of these.

### **Discussion**

In the arts-based community project I directed, the use of breath in an expressive arts therapy and music intervention with natural sounds was the focus. This experience offered participants the opportunity to engage in breathing techniques followed by a furthering process of the Expressive arts to then explore any effects the breath had over the holistic being. My research was guided by James Nestor's studies of breath and how it can heal or damage the overall wellbeing of the individual depending on how one breathes. Nestor highlights the importance of breathing through the nose and doing it slowly and the effects it has in mental and physical health issues (Nestor, 2020). Jon Kabat-Zin (1994), Jereth et al. (2015), Siegel (2010) provided a clear and approachable explanation of mindfulness and meditation. Conger (2004), Lowen (2012), Austin (2008) and Asena et al. (2021) contributed to the effect that breath has on the body, mind, emotions, and spirit. In terms of breath and the Expressive Arts, Kossak (2021) and Rappaport (2014) pointed out the inseparable connection between breath, music, and repetition.

Various authors support the results of my study. Nestor (2020) explains that slow breathing accesses a relaxed and rested state. Siegel (2010) explains effects of calmness and clarity through the application of mindfulness techniques and interoception effects of the body. Eckhardt and Dinsmore (2012) also support my results by explaining the effects of self-regulation and being in the present moment by combining mindfulness with natural sounds. The inspiration for the intervention came from an article which recognizes how music and nature are interrelated (Loo et al., 2020). The effectiveness of this technique impacted my results notably. As Loo et al. (2020) stated, the use of natural sounds provided repetition, relaxation, and

rejuvenation. The results of the connection with the personal and transpersonal self are supported by Kopytin (2021), who described “ecological art therapies” to offer self-regulatory skills as well as connection with the self and a self-perception of ecological beings. Lastly, the use of the arts provided a sensorimotor and creative experience (Rappaport, 2014) as an internal exploration through the shift of thoughts, attitude and feelings present in the mind-body connection (Kossak, 2015).

### **Recommendations**

This research will contribute to the understanding of the impact of combining breathing techniques as a main resource in expressive therapy interventions as well as the therapeutic benefits that natural sounds provide and enhance in the field of the Expressive arts. There is small literature on how breathing can impact the process of the arts. However, it is still used in the Expressive Arts in the beginning of sessions for sensorimotor and grounding purposes (Conger, 1994). Specific application of the breath in various techniques such as ones in DBT and holotropic are necessary for integrating with the Expressive Arts and the mind-body effect that these integrations may bring. There is some research done within breath and music therapy as well as dance/movement therapy, but more is needed in terms of art therapy and drama therapy, so more data can coexist within the intermodal Creative Arts. Additionally, further research and studies are necessary for the integration of mindfulness, the expressive arts, nature and the impact in the holistic mind, body, emotions, and spirit. With ecological arts therapies interventions brought to communities many benefits can be offered to diverse settings, such as increased reconnection with the self, the outside environment and self-regulatory skills that can enhance an overall well-being among individuals and their communities.

I hope this work promotes enough curiosity for the reader to see breath as their new ally, which can replenish and regulate the body in seconds of a couple inhalations and exhalation. Breath is the invisible energy inside of us that can serve as a communicator of experiences that can inform us of our internal state, and at the same time offer mind and body regulation. Breath enhances creativity, movement and can allow individuals to connect deeper with their surroundings, deepen their connection and increase their empathy and compassion towards the people they care about. Most importantly, the breath can access an internal pathway towards the self, expand insight, promote identity exploration, as well as offer safety, healing, and love towards the personal self.

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In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

**Thesis Advisor:** Dr. Rebecca Zarate MT-BC, AVPT, LCAT