Music in Mindfulness: Mindfulness in Music

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Abstract

Music is an essential expression of the human experience in varying formats across cultures. Intentional listening prompts emotional and psychological responses that can shape identity and awareness of self. Similarly, mindfulness meditation can increase self-awareness and enhance the creative process and expressive results. However, this paper focuses on the synergy between the process of intentional listening and mindfulness practices seeking to examine the connection between the two practices and where they may align. Data collection includes observations and music therapy sessions for dementia patients at Jill's House in Bloomington, Indiana, interviews, and case studies. The data will be analyzed according to the hypothesis that Intentional listening and mindfulness have synergistic procedural qualities that can lead to a mindful state. Conclusions focus on connections between intentional listening and mindfulness, psychological implications, and potential for incorporating such practices into the everyday experience.

Introduction

This paper seeks to break down the connection between intentional music listening and mindfulness in order to highlight where their practices may align. The purpose of this research is to further dialogue about how mindfulness and music can work synergistically to enhance the listening experience. Mindfulness has been shown to have significant positive impacts psychologically, physically, and emotionally leading to a greater sense of harmony within and beyond the self. This research is important because it begins to systematically examine how the benefits from the structure of mindfulness practice can manifest in other practices, such as music listening, to yield a greater depth of experience that can extend to implications for personal well-being emotionally, physically, and mentally.

The structure of this study outlines the role of music in everyday life and how we engage it in order to lay the foundation for music's relevance to mindfulness and convey the impact of music on the human condition. Then the procedural qualities of mindfulness and intentional listening are outlined to provide a foundation and establish vocabulary in order to examine the connection between both practices. By utilizing a family resemblance model that defines mindfulness and its processes, this paper examines intentional listening in relationship to a phenomenological matrix of mindfulness. The combination of interviews and observations demonstrate a close procedural connection between intentional music listening and

mindfulness in which the processes of mindfulness are integrated into the listening experience. This paper attempts to build some groundwork and prompt further discussion about a theory of the benefits and impact of mindful listening as it's still a fairly new field.

Avenues of Music Consumption

Music is an integral part of the human experience serving various functions and consumed in many contexts both consciously and subconsciously. The International Federation of the Phonographic Industry (IFPI) 2019 Music Listening report notes that the average time spent listening to music each week is 18 hours which is an increase from the 17.8-hour average in 2018. This equals out to over 2.6 hours daily (IFPI, 2019, p.7). As digital technology advances access to music, its presence in everyday life increasingly grows. "Because so much music of different styles and genres is now so widely available via the Walkman, music video, the internet and other media, it is arguable that people now actively use it in everyday listening contexts to a much greater extent than hitherto" (North et al., 2004, p.2). There are many contact points with music which can include shops, restaurants, formal performances, street performances, television, social media, and in the home. Each encounter may have a different functionality depending on preference. Music may be used to help someone fall asleep, study, entertain, woo, or worship among many other uses. Thus there is a specific psychological end intended by listening contexts some of which are chosen (i.e. music to fall asleep) and others more situational (i.e. music in a coffee shop). In this framework music music can be seen as a resource rather than a mere commodity such that listening context ultimately dictates the value of the musical experience to the listener (North et al., 2004, p.2). Music consumption is a part of the everyday experience serving different capacities depending on location, culture, preferences, and needs.

Music is also contained in nature and the human body drawing on the subtleties of our humanity and the world around us to highlight a natural integration of music into the human experience. The sound of animals, such as birds, contains a musical quality and has inspired many artists to integrate it into their music. The practice has been formalized to the point where Robin Ann Ryan produced a work offering a pedagogical understanding of multispecies musicking based on the work of jazz clarinetist David Rothenberg. Ryan touches on the work of John Cage to set up the concept of music in nature as Cage asserted "music *is* ecology and art is meant to imitate nature in its operation such that nature signifies the bridge that addresses the indeterminate elements of a musical work" (Ryan, 2019, p.169). Nature embodies music translating to an innate understanding of music we hear in formal contexts because it is ingrained in the world around as an internalized sensory experience. Furthermore, the human body exhibits elements of music as "Our bodies are made up of cells which are in constant vibration and 'resonating'". There is rhythm in our heartbeat, brainwaves, and movement as well as melody in our voice leading to Cynthia Cohen's conclusion "we are music" (Urbain & Research, 2008, p.153).

There are many contact points with music from our own body to the Broadway stage giving it a profound depth of impact on construction of identity, emotional communication, and

self-reflection. Hargreaves and North (1999) concluded in their study looking at the social elements in music psychology in everyday life that the social function of music for the individual is manifested in self-identity, interpersonal relationships, and mood (Hargreaves and North, 1999, p.4). Consequently, music is used to explore, express, and tighten identities as well as articulate personal values, ambitions, beliefs, and perceptions of the world and self (Schäfer and Sedlmeier, 2009, p.280). The impact and associations connected to music preferences creates social and cultural groups that help people articulate themselves in the social sphere.

Music listening has multiple levels which articulate the level of intentionality displayed by the listener. In "How We Listen" Aaron Copland (1939) developed a structure to classify levels of listening outlining levels of perception during the listening experience. Copland's three planes of listening include the sensuous plane, the expressive plane, and the musical plane. The sensuous plane is the simplest form of listening that is focused on the musical sound itself. It doesn't require intense thought or analysis but instead exists in the background or periphery. For example, turning on the radio while doing something else absent-mindedly absorbing the sound and its effect on the environment of the space. The second plane on which music exists is the expressive plane. This references the meaning of the piece or what it is about. There is no objectively correct answer to the specific expressive effect of music as it changes throughout the piece and is perceived differently depending on the individual. It is difficult to vocalize the expressive meaning but its psychological and emotional impacts are internally visceral. The third plane is the musical plane. This includes music in terms of the notes themselves and their manipulation. It includes such things as melody, harmony, rhythm, tone color, and form. Many listeners won't have a nuanced awareness of some elements of the musical plane initially. However, there is an instinctive element that connects all three planes such that people can absorb the totality of a piece. Copland praises active listening because "… you can deepen your understanding of music only by being a more conscious and aware listener-not someone who is just listening, but someone who is listening *for* something" (Copland, 1939, p.19).

While there may be a level of aptitude or background knowledge required for certain levels of listening, there are some universal elements in the human response to engaging in intentional listening. The manifestations of music and manners of consumption inform underlying similarities in the human response to music on a very broad level. As Urbain (2008) notes, "The aptitude and capacity for music apparently *is* a universal human phenomenon" (p.27). While individual preferences vary, the process of listening to music engages the human senses in a depth that has universal qualities. By harnessing the listening potential of music through intentional listening processes, many positive outcomes psychologically, emotionally, and physically emerge in a profound manner further reinforcing the integral nature of music in our daily life as well as forming the foundation for its relevance in a mindfulness practice.

Mindfulness

Mindfulness has grown increasingly popular as a practice as its taken on more secular contexts moving away from its roots in Buddhism. It has been increasingly focused on in clinical, psychological, and everyday settings (Bishop et al., 2003, p.230). One of the broad explanations

of the practice describes a process of bringing a specific quality of attention to moment-by-moment experience (Kabat-Zinn, 1994). However due to the breadth of contexts in which the term is utilized, an over-arching definition that reflects the current multi-faceted nature of mindfulness is difficult to construct. As Lutz notes, "a consensus definition of mindfulness is lacking, and the myriad definitions in the literature can be seen as generating more confusion than clarity" (Lutz et al., 2015, p.2).

In order to break down mindfulness procedurally and account for varying specificities in definitions this study uses a family resemblance model developed by Lutz and his colleagues in their work called "Investigating the Phenomenological Matrix of Mindfulness- related Practices from a Neurocognitive Perspective". This family resemblance model offers key characteristics present in all mindfulness practices. Consequently, it provides a framework establishing common vocabulary with which to examine how the processes of intentional listening could map onto a mindful structure.

- **Object Orientation** – Anything you can pinpoint in your experience. Could be thoughts, sensations, people, we either intentionally select (choice) or it selects us (ex. day dreaming)
- **Meta-Awareness** – Note all aspects of experience as you focus on the object. This could be emotions, memories, experiences, etc. that come to mind as you focus on your object.
- **Dereification** – Letting go of stuff you don't want to pay attention to. Acknowledge the emotion or surrounding thoughts and let it pass
- **Non-aversive framing** – Notice experience as is, no discursive judgment made about it.

For example, if you were working on a math problem you may select that math problem as the object. As you are working on the math problem you begin to get irritated. You realize you are getting irritated which is meta-awareness. After you note the irritation you let it pass without diving deeper into that emotion. Additionally, you don't make a discursive judgment about your feeling of irritation. If you were to aversively frame this experience, you might begin making a judgment on your character that the feeling of irritation arose, thinking you are a bad person for having those thoughts. Conversely, mindfulness reflects a present non-judgmental centered awareness where anything that arises in the attentional field is viewed from a space of curiosity, acknowledged, and accepted (Bishop et al., 2003, p.232). This allows the practitioner to maintain their object orientation preventing negatively valenced emotion from consuming their attention.

There has already been some existing literature examining how music and mindfulness work together to impact the listener. One has looked at the efficacy of the phenomenological matrix of mindfulness developed by Lutz et al., (2015) examining collegiate music school students who engaged in a mindfulness module (Diaz, Silveira, & Katherine, 2020, p.2). In this context, mindfulness was connected to the experience of music students as the participants expressed hopes meditation could help manage the stress and anxiety as well as negative emotional states that accompany performance, music practice, academic work, and social

settings. Ultimately the study showed that about 86% of coded phrases in the responses from students could map within the phenomenological matrix of mindfulness (Diaz, Silveira, & Katherine, 2020, p.22). Additionally, participants noted an improvement in their general wellness citing the processes of dereification, breathing, and non-aversive affect as major factors in the improvements.

Other studies have looked specifically into mindfulness in connection with music listening in the music education context. Research has demonstrated instruction in mindful listening may lead to enhanced hearing and remembering of musical nuances (Anderson, 2013, p.26). Additionally, another study using a mindfulness induction as a stimulus prior to music listening resulted verbal reports of increased attention, some participants noted they experienced an aesthetic or flow experience for the entirety of music listening task ultimately indicating noticeable differences in music listening experiences among individuals who engaged in a brief mindfulness induction (Diaz, 2011, p.54). On the clinical side mindfulness has been explored for its usefulness to music therapists (Mika, 2014, p.78). The study proposes a definition of mindfulness for music therapists in a clinical setting based off interviews with a small sample size of music therapists. Among the small sample size, the results of the study show some music therapists integrate mindfulness into some element of their practice and reported great benefit. Consequently, the existing literature demonstrates there is a positive connection between listening to music with a mindful framework. This study investigates this relationship further utilizing the family resemblance model to examine the connection and where the practices align.

Intentional Listening

Intentional listening is broad term referencing the level of engagement a listener has with music. As noted earlier there are varying levels of perception and engagement with music which can be related to a number of variables including but not limited to musical preference, environment, and time of day. Intentional listening in this study describes a listening experience where the participant is actively engaged with music as the primary object of their attention. The term intentional listening is synonymous with other terms such as critical, perceptive, or active listening and can be used interchangeably. In contrast to passive listening where the listener simply hears sound, active or intentional listening requires auditory attention as well as cognitive processing (Johnson, 2013, p. 50). Thus there is an added level of engagement prompting interpretive and physical responses. The depth of response makes the practice of intentional music listening applicable in therapeutic, clinical, educational, religious, and everyday life.

Some of the core attributes of intentional listening are it is instructable, manipulable, reportable, and prompts neural correlates as is evidenced in numerous studies on music education and music therapy as it relates to memory. In other words, intentional listening can be taught through structured guidance (Kratus, 2017, p.46), you have agency over your ability to partake in intentional listening (Johnson, 2013, p.49), the effects of intentional listening are reportable (Diaz, 2011, p.42), and listening to music activates certain areas of the brain that can

prompt memories and emotion (Janata, 2009, p.2579). These attributes are core elements of an intentional listening practice and each manifests in different manners with varying impact depending on the circumstances in which the listening is taking place. However, informing each element is an intent which is set by the listener and prompted by the facilitator in some cases. In order to examine how the processes of intentional listening manifest in an applied setting, this study focuses on its application in music therapy. Music therapy is used as the lens to analyze the process of intentional listening in a specific context in order to put it in dialogue with the process of a mindfulness practice.

Music Therapy

Music therapy has multiple working definitions depending on the specific organization or group. The World Federation of Music Therapy (WFMT) released an updated definition in 2011 which states:

> "Music therapy is the professional use of music and its elements as an intervention in medical, educational, and everyday environments with individuals, groups, families, or communities who seek to optimize their quality of life and improve their physical, social, communicative, emotional, intellectual, and spiritual health and wellbeing. Research, practice, education, and clinical training in music therapy are based on professional standards according to cultural, social, and political contexts" (WFMT, 2011).

Music as a therapeutic tool has been around centuries with origins in the Ancient Greece and Egyptian culture. One of the earliest applications was by the Greek philosopher Pythagoras who found that certain music intervals such as the perfect fifth in the key of 'C' (256Hz) and 'G' (384Hz) promote health and are used to this day in practices that involve tuning forks or bowls (Goldman, 2017, p. 17). Additionally, Plato found connected music to promoting the moral welfare of the nation. Music therapy developed as a profession following World War I and World War II as veterans returned home and community musicians performed in the hospital to comfort those suffering from the trauma of the wars. As positive responses continued the practice was formalized further in an educational setting which continues to be a growing field of interest today. There are many models of engagement based in psychological frameworks utilized by music therapists with some more widely accepted than others (American Music Therapy Association).

Despite the existence of established models music therapists adjust their techniques or approaches as their client or audience reacts to the music, environment, and activities connected to the music. Each music therapist continues to learn integrating knowledge, experience, science, and art to best suit the people they serve in their unique environment (Urbain & Research, 2008, p. 151). Through my data collection observing and participating in music therapy, I also found that each individual required a nuanced approach to facilitate an engaging experience that resonated with their personal experience. However, underlying each practice are the core attributes of intentional listening discussed previously enabling therapists to exercise the human connection to music in a therapeutic setting.

This study focuses specifically on the process of music therapy for those experiencing memory loss as a lens to examine intentional listening. Memory loss is a crippling progression of deterioration that can slowly erode one's sense of identity and purpose. Thankfully, music has been found to be an effective aid in helping support cognition and sense of identity through its ability to aid people in recalling memories and experiences (Janata, 2009, p.2579). Furthermore, research indicates listening to music activates wide networks in the brain associated with emotion, creativity, and motor actions (Alluri et al., 2011, p.3677). Thus, intentional listening in music therapy is a critical element of the care strategy for family members, caretakers, and care communities around the world to maintain a high quality of life despite memory loss. The American Music Therapy Association (AMTA) highlights some of the key research findings as it relates to music therapy and memory loss. Some of the positive impacts of utilizing music therapy include reduced depression, enhanced social/emotional skills, improved recall and language skills, reduction in agitated and aggressive behaviors, and overall higher levels of engagement and interaction (AMTA, 2006). Thus intentional listening in this context prompts profound emotional and psychological responses that provide an effective perspective to juxtapose it to mindfulness in order to test the hypothesis Intentional listening and mindfulness have synergistic procedural qualities that can lead to a mindful state.

Methods

The data collection in this study came from interviews and observations from music therapy programs at a memory care community in Bloomington, IN called Jill's House. The interviews served to supplement my observations providing greater context as well as a holistic perspective of how mindfulness and intentional music listening work together. The observations provide a first-hand look at how processes of intentional listening manifest in a variety of individuals listening to music. Thus, it provides a basis to examine how a progression of intentional listening, informed by music therapy, relates to the processes present in mindfulness.

Interviews

I spoke with Dr. Robert Goldstone who is a Distinguished Professor of Pyschological and Brain Sciences at Indiana University, Bloomington. Dr. Goldstone has done extensive research examining neural networks as well as group behavior so I wanted to inquire about existing research the respective psychological and neurological states when practicing mindfulness or intentionally listening to music. My questions focused on psychological and cognitive experience of both listening to music and practicing mindfulness as well as inquiring if there is evidence of similarities in respective mental states of intentional listening and mindfulness. Ultimately, the conversation introduced me to the concept of flow which incorporates a mindful attention and can be experienced during creative endeavors such as writing or listening to music.

I spoke with Dr. Frank Diaz who is an Associate Professor of Music (Music Education) at the Jacobs School of Music, Co-Director of the Music and Mind Lab at the Jacobs School of Music at Indiana University, Bloomington. I wanted to speak with Dr. Diaz because of his extensive background and knowledge in mindfulness as well as music. His research and experience has examined the impacts of mindfulness specifically on musicians. My questions focused on the relationships he has seen between music listening and mindfulness as well as what procedural elements allow for the two to work symbiotically. Dr. Diaz introduced me to the family resemblance model (Lutz et al., 2015, p.8) that is used to construct the definition and processes of mindfulness in this study. Our conversation supported the idea that it is possible to map an intentional listening practice that aligns or follows the processes outlined in the phenomenological matrix of mindfulness.

I conducted an interview with Shannon Wallace who is a musician specializing in interactive music workshops for those of all ages living with all stages of dementia and cognitive impairment. She is a Certified Dementia Practitioner (CDP) through the National Council of Certified Dementia Practitioners (NCCDP) and her Musical Memory Care program is sponsored by AARP Arizona. Ms. Wallace is a vocalist and conducts her program with an accompanist on piano. The sessions are very interactive prompting high levels of engagement with participants through singing, dancing, and clapping to music. Music is played non-stop throughout the session and is used in an interdisciplinary manner to facilitate movement, math, geography, and spelling by attaching each of these concepts to the rhythm of a specific song. I wanted to speak with Shannon because of her comprehensive background using music therapeutically in intentional listening environments. My questions focused on the structure of her program, how intentional listening operates within her program, what the perceived impacts and experiences were of participants/family members, and the elements of her approach/mental state as a facilitator.

Jill's House Memory Care

Jill's House is a memory care establishment in Bloomington, Indiana that cares for people suffering from varying levels of dementia. Residents are all elderly and no longer have the capability to live safely on their own. The facility is structured like a house with a dining room, where all meals are prepared and consumed, a living room, and TV room. Each resident has their own apartment where they sleep but all activities take place in the common areas. One of the central parts of the Jill's House care model is music therapy. As the Jill's House website explains, "… Music & Memory helps people living with cognitive and physical challenges find renewed joy in life through their favorite music" (Jill's House Memory Care, 2016).

There are two resources used to facilitate the music therapy program. One resource is a music therapist who attends Jill's House once a month to hold a group session with the residents. Another facet of the music therapy initiative is dedicated time every Friday to continue developing individual playlists for each resident. There is time set aside to listen to the music and engage with fellow residents or caretakers by sharing encounters of their playlists

collectively. Both the music therapy sessions and playlists are programs residents choose to participate in. Historically, residents have had very positive reactions demonstrating increased levels of communication and awareness.

Music Therapy Programs

The primary goal in visiting Jill's House was to observe and participate in the music therapy initiatives held for residents. There weren't any predetermined criteria for observation as it was important to have an immersive experience oriented towards observing how individuals relate to music. I wanted to remain open to as many potential impacts as possible without narrowing the range of reactions. Methods included making detailed accounts of changes in residents' behavior and relationship to their environment. Residents didn't receive any training or guidance to prompt mindful listening prior to engaging with the music therapy programs.

I intentionally positioned myself in multiple locations during the therapy sessions to gain a holistic sense of residents' reactions. I sat in the circle among the participants to experience the intimacy of the session as well as outside the circle to examine a broader collective reaction. I also worked individually with residents on developing personal playlists. By paying attention to body language, facial expression, breathing, movement, and engagement, details emerge about how intentional listening in music therapy connect with the human condition. I also examined the structure of the music therapy programs to analyze how residents engaged in a process of intentional listening.

During my time at Jill's House I observed multiple music therapy sessions facilitated by different individuals. Jill's House provides music therapy sessions with live musicians performing popular music that is recognizable to the residents in order to stimulate engagement. The first part of the sessions typically includes a sing-along where the music therapist plays well known classics that almost all the residents know. The goal of the exercise is to entice people to sing together recalling the lyrics of various songs. Then, one therapist facilitates a game where participants have to guess the phrase like "Wheel of Fortune". Clues are given by playing songs that start with a letter that helped complete the phrase. Finally, the therapist passes out shakers and wooden sticks encouraging everyone to play along together. The activities prompt residents to recall lyrics, guess phrases, and work collectively.

Additionally, Jill's House operates a personalized playlist music therapy program developed by the nonprofit Music & Memory. The organization has developed resources for caretakers such as family members, nurses, and music therapists to integrate music listening into the care model for people suffering from memory loss. The process and structure of the program is rooted in extensive research on the neurological connections to music and memory that find specific music can trigger higher cognitive function demonstrated through such things as lyric recollection or experiences connected to the music.

The playlist program requires care partners or family members to ask the patient about their music preferences. However, many people experiencing memory loss have difficulty communicating. Consequently, the process of developing a playlist also requires attention to individual reactions to music to curate a playlist the resident enjoys. Some of the potential results cited by Music & Memory include reduced agitation by playing music to distract or calm, increased alertness and engagement from regular listening sessions, and enhanced cooperation and social behavior (Music & Memory, 2016, p.11). Consequently, Jill's House utilizes the Music and Memory Program to support their community ethos of empowerment and purpose. The program's effectiveness is rooted in the concept, "Beloved music often calms chaotic brain activity and enables the listener to focus on the present moment and regain a connection to others" (Music & Memory, 2016, p.5). This program has produced many positive results in terms of behavior and cognitive function demonstrating the capacity for music to alter mental states for the better.

My role in working with the individualized playlist program at Jill's House was to work individually with residents to develop their own Spotify playlist with music that is meaningful to them. I used the Music & Memory guide to help facilitate a discussion about their music preferences and experiences connected to specific artists or genres. During the conversation, I took notes and added songs based on information I was given as well as trial and error with song suggestions. This process is one that required flexibility because some residents were more or less responsive depending on the day. I focused on trying to understand why certain music was meaningful and how it impacted residents physically, emotionally, and cognitively. I spent time with residents in settings that didn't include music to establish a standard for comparison. However, it is important to keep in mind that each day varies greatly for people experiencing memory loss so the greatest measure of impact is capturing the reaction in the moment. In my observations I attempted to remain acutely aware of the moment to capture a holistic picture of how intentional listening connects to the mental processes and condition of people suffering from memory loss.

Results

Dr. Robert Goldstone Interview

The interview with Dr. Goldstone revealed, there is not a lot of research examining psychological and neurological states during intentional listening and mindfulness. They are difficult topics to research due to a number of environmental factors that can impact results. Similar to literature discussed previously, Dr. Goldstone re-iterated a number of studies have connected music listening with neural network engagement and positive psychological impacts in people with dementia. However, questions about similar mental states did highlight the idea that the experiences of mindfulness and intentional listening may have some overlapping qualities that prompt similar psychological states embodied in a flow experience.

Csikszentmihalyi (Csikszentmihalyi, Creativity Flow and the Psychology of Discovery and Invention, 1996, pp.111-113) outlines nine elements describing the experience of enjoyment embodied in a flow experience as the following:

1. There are clear goals every step of the way
2. There is immediate feedback to one's actions
3. There is a balance between challenges and skills
4. Action and awareness are merged
5. Distractions are excluded from consciousness
6. There is no worry of failure
7. Self-consciousness disappears
8. The sense of time becomes distorted
9. The activity becomes autotelic

By breaking down the flow experience, it is evident that the practices of mindfulness and intentional listening could contain each of the nine elements listed above. There weren't any existing studies using the specific criteria laid out by the nine elements above to examine their presence during intentional listening and mindfulness, but this raises valuable discussion about the relationship of flow to both practices.

Ultimately, the interview with Dr. Goldstone revealed the concept of flow as something that may be present in both music listening and mindfulness practice in terms of producing an optimal experience of heightened experience. The experience of flow is one characterized by a heightened attentive state of enjoyment in intrinsically rewarding tasks. A flow experience is due in part because of an individual's absorption or immersion in relationship to an activity that is pleasurable as well as appropriately suited to the skill level of the individual (Csikszentmihalyi, 1990). Flow has been commonly connected to creative endeavors with music of particular interest as Csikszentmihalyi (1990) explains (as cited in Diaz, 2011, p.43):

> In every known culture, the ordering of sound in ways that please the ear has been used extensively to improve the quality of life. One of the most ancient and perhaps the most popular functions of music is to focus the listeners' attention on patterns appropriate to a desired mood. (p.108)
>
> Music, which is organized auditory information, helps organize the mind that attends to it, and therefore reduces psychic entropy, or the disorder we experience when random information interferes with goals. Listening to music wards off boredom and anxiety, and when seriously attended to, it can induce flow experiences. (p.109)

In relationship to mindfulness it is possible that it may work synergistically with intentional music listening to prompt the attention necessary during the listening to induce a flow experience for participants. This points to the idea that mindfulness can support the listening experience to enhance the experience as well as prompt some of the health benefits that accompany complete and effortless immersion in a pleasurable task. However, examining this connection in a structured manner is beyond the scope of this study.

Dr. Frank Diaz Interview

During the interview with Dr. Frank Diaz, he elaborated on and broke down the family resemblance model (Lutz et al., 2015, p.8) to describe how it may apply to music listening. Additionally, Dr. Diaz identified underlying procedural qualities of both mindfulness and intentional listening that add clarity as to how such a strong connection exist between the two practices and supports the ability to examine them together. The overlapping process qualities are as follows:

- **Instructable** – Can prompt/guide people to engage in both mindfulness and intentional listening
- **Manipulable** – People have agency over their ability to partake in the activity of intentional or mindfulness. You decide to participate and to what degree.
- **Reportable** – People have the ability to report back on their experiences with both mindfulness and intentional listening
- **Neurological Connection** – Brain scans indicate changes in neural networks when people are able to engage with both mindfulness and intentional music listening

Each of these elements is present in both mindfulness and intentional listening. Consequently, it helps support a more nuanced mapping that relates intentional listening into the specific processes within the phenomenological matrix of mindfulness (Lutz et al., 2015, p.8).

Shannon Wallace Interview

In the interview with vocalist Shannon Wallace she conveyed the structure of her Musical Memory Care (MMC) program, its goals, and her approach as a facilitator. The structure of Shannon's program is to keep music playing the entire time using rhythm as key component to engage participants in movements that coincide with the music. She also engages participants in artistic interpretation, problem solving, as well as creative reflection. The program uses intentional listening as a gateway to an empowering experience with music. She allows the natural human connection to music to be framed toward something that enables growth and cognitive stimulation.

Furthermore, she confirmed the concept that in practice the listening experience is tailored to the audience requiring slightly different approaches to her program each time. Whether it is the music selection, engagement style, or activities associated with the music, each program adapts to the nuances of a particular audience to elicit the greatest depth of impact. Similar to observations at Jill's House, each music therapy session had a slightly different approach depending on how people reacted. The intention behind the listening experience in her programs is to convey a sense of joy, purpose, and meaning to the participant's life such that they feel alive inside despite their health condition. However, as noted earlier and reinforced by this conversation, it is difficult to fully capture the totality of the impact during an intentional listening experience because listening predominately takes place internally leaving only certain observable elements. Nonetheless, she told me that some of the impact can be measured based on the information conveyed by caretakers or family members.

Consequently, some of the things she has experienced as impacts of her work include positive attitude, memory retention, increased appetite, and greater enthusiasm to live life propelled by a sense of belonging. She found these results to be most prominent with repeated engagements occurring within the same context. Thus, consistency is crucial for maximum impact in intentional listening exercises, particularly in a memory care scenario.

In examining the role of music in this scenario, she described it as fountain of youth. The music facilitates connections to time periods that were most influential in peoples' lives. She referred to this as "the time of their life" where experiences and situations are most influential and visceral. The music can spark a place of reinvigoration, purpose, and beauty. Her attention to music from "the time of their life" is further supported by neurological research connecting music to widespread brain activation including autobiographical memories (Alluri et al., 2011, p.3677; Leggieri et al., 2019, p.2). Music from this point in people's lives creates a personal connection that lays the ground for a positive response in the intentional listening process.

As a case study on how music from "the time of their life" can impact an individual she recounted an interaction she had with a handyman during rehearsal. The handyman was in his late seventies picking weeds at the house. She described his demeanor as feisty when they first met. When he came back through the room she asked him what his favorite song was to which he answered "Fly Me To The Moon" by Frank Sinatra. She proceeded to sing that song and he immediately began dancing with the broom in his hand while singing along. His entire demeanor changed for the rest of the day approaching everyone with a positive attitude. I think this experience reflects the power of music we enjoy to shape how we treat other people and frame our reality. This aligns with findings by Leggieri, et al. (2019) encouraging interpersonal relationships with others and emotional introspection through music therapy (p.6). Thus, translated into a more structured intentional listening platform like music therapy, there is great potential to alter the mental state of people living with conditions such as dementia to a place of optimism or purpose.

One of the guiding principles of this entire discussion is intentionality and how it manifests in the experience of listening. In her experience there are multiple elements of intentional listening during her work using music in a therapeutic setting. There is intentional listening from the facilitator as well as from those receiving the music. Her intentional listening comes from both her heart as well as external influences in order to create an experience that resonates with people. On the flip side the participants intentionally listen such that they can openly receive the music within themselves. This dynamic is informed by good intention. She has found that if the intention is good then nothing but good can come from it. Thus in this framework of intentionality in her work she has found mindfulness to be necessary to engage in an intentional listening experience. Whether it is actively acknowledged or thought of in those terms is another topic altogether. However, the progression of intention setting and engaging with music in a focused manner such that people's mindset and behavior change requires mindful attention.

Ultimately, Shannon's approach as a facilitator reflects the processes present in the phenomenological matrix developed by Lutz et al., (2015). The structure of her program can be mapped onto a mindful progression as follows:

- Object – She set her object orientation on the music she is performing
- Meta-Awareness – She notices the reception of the music in the room
- Dereification – She lets go of negativity in order to orient her point of connection with the participants to be one focused on beauty and purpose
- Non-Aversive Framing – She makes no judgment on the emotion or personal experiences of the participants

Examining Shannon's approach in this framework reveals how mindfulness manifests in her programs. This aligns with existing research where music therapists reported mindfulness enhanced their clinical work. Similar to Shannon's approach, participants found mindfulness manifest in heightened awareness of their disposition both internally and externally, stronger instinct and intuition in the moment, and the ability to become attuned to a patient (Mika, 2014, p.84).

Jill's House Observations

The music therapy sessions were a very popular event at Jill's House. They are not mandatory for residents but as soon as music started playing people quickly gathered. Prior to the start residents were scattered without much conversation or close contact. However, as the music began people moved to sit next to each other and multiple conversations commenced. Body language helped indicate a positive response as many of the residents demonstrated improved posture as they sat with their back straighter to engage with the performance. Additionally, almost every participant demonstrated some form of movement rhythmically connected in time to the music. Some swayed back and forth, others clapped or tapped their leg, and one resident stood up and danced for a majority of the session. The natural aptitude for rhythm speaks to commonalities, particularly within similar cultural circles, in the human interaction with music.

There were a couple residents who expressed more introspection in their reaction. One resident would frequently close her eyes with an affirming grin. Another recalled raising a family of musicians and playing guitar and mandolin duets with her brother. Everyone participating demonstrated increased eye contact. People expressed greater recognition of their peers in the space. Prior to the music, many people had their heads down and were not actively engaged with others. Many of residents have trouble expressing coherent thoughts but were able to clearly recall multiple verses of lyrics. One gentleman even sang in harmony with the therapist. Overall, I saw an increase in engagement, movement, awareness, communication both verbally and non-verbally, movement, and cognitive function all of which reflect findings from AMTA (2006), Leggieri et al., (2019), and Alluri et al., (2011).

Additionally, I worked individually with residents develop individual playlists working through the Music & Memory Program. Throughout my time at Jill's House I had conversations with multiple residents focused on topics that were not strictly music listening related. However, among all the topics discussed music was one that received a greater level of engagement catalyzing further conversation and insight into the resident's life. Despite varying degrees of cognitive ability, each resident I spoke with was able to articulate cohesive opinions, preferences, and experiences about music. There were three recurring reactions as I worked through some of the Music & Memory questions related to musical preferences. They included, recollection of an experience that involved music, description of emotion, and immediate recognition.

Upon introducing the topic of music multiple residents immediately elaborated on their personal connection to music or an experience that connected to music. For example, one resident elaborated on her time as a classical pianist while another reflected on her husband's career as a professional opera singer. This experience aligns with current neuroscience research finding strong connections between music and autobiographical memories (Janata, 2009, p.2579). Furthermore, one resident noted her love of "Sound of Music" and was able to recall the lyrics to many of the songs. This supported findings by AMTA (2006) and Leggieri et al., (2019) of improved recall and language skills in connection with listening to music.

Additionally, there were some people who couldn't articulate specific musical preferences making the process of developing a playlist more difficult. However, on multiple occasions people expressed their preferences on how they wanted music to make them feel. One resident found the music she preferred connected her to a happy state of mind. Any music that could help her attain a feeling of happiness was something she enjoyed. As we listened to various types of music a big smile would emerge indicating it was a good tune. Even without specific selections the expression of emotions guided the conversation.

Conclusions

The observations from the music therapy sessions suggest that music facilitates higher levels of function and cognitive ability in people with varying degrees of dementia. Examining the nuances in the reactions connects back to broader similarities in the human experience of music and depth of impact during intentional listening. Recollection of both lyrics and memories points to a sense of permanency in how people internalize their listening experience such that even in compromised cognitive conditions they can access memories connected to music. Additionally, the concept of sharing the listening experience elicits greater depth of emotional response and communication. It helps people externalize feelings and sentiments through cues such as movement and expression. Thus it is a form of communication beyond words. The increased eye contact suggests a higher level of awareness and connection with the other people in the room using the music to facilitate an exchange which aligns with findings from the AMTA (2006), Leggieri et al., (2019, p.2), and Alluri et al., (2011, p. 3677) of enhanced social and emotional skills. While many responses were similar, the nuanced distinctions in how each individual received the music speaks to the personalized nature of how we receive music

as human beings. It provides a sense of identity and self awareness in a circumstance where individual purpose in life may be questioned.

The increased cognitive function, heightened emotional response, and enhanced engagement also relates to neuroscience research about the widespread brain activity from music listening (Janata, 2009, p.2579) as well as extensive research compiled by AMTA (2006) highlighting case studies that demonstrate changes in behavior. One of the surprising elements was that engagement with music was not necessarily automatic. It required a reduction in extraneous distraction, focus, and consistency to see more visible shifts in behavior or demeanor. This conclusion aligns with Shannon's experience where there was a substantial difference in the effectiveness, reception, and recollection when there was consistent contact.

The progression of intentional listening observed at Jill's House reflects some of the processes in the family resemblance model that defines mindfulness (Lutz et al., 2015, p.8). Without prior instruction, residents at Jill's House engaged with music in a manner that naturally followed a mindful progression leading to the positive impacts discussed above. This reflects the concept that mindfulness as a trait "…is thought to be measurable in subjects trained in mindfulness practices and also in untrained subjects" (Lutz et al., 2015, p.3). One specific instance at Jill's House that reflects the processes outlined in the family resemblance model is when a resident recalled playing guitar and mandolin duets growing up while listening to a song. This response translated to the lens of the family resemblance model is as follows:

- Object Orientation – The song the resident was listening to
- Meta-Awareness – Remembering an experience elicited by the music of playing mandolin and guitar duets
- Dereification – The resident mentioned the experience and then let is pass not mentioning it again
- Non-Aversive Framing – It wasn't possible to ascertain if there was any discursive judgment made on the the experience

This listening progression supports a close relationship between intentional listening and mindfulness. Another instance where a similar progression occurred was with one resident who particularly enjoyed the "Sound of Music". She listened to a song from the "Sound of Music" (Object Orientation), noted a positive connection with her younger years (Meta-Awareness), and continued listening without mentioning any previous experiences with song (Dereification). Similar to the previous example, it was not possible to confirm if the resident made a discursive judgment on the experience (Non-Aversive Framing).

The observations indicate that intentional music listening can work within the structure of mindfulness to prompt strong emotional, cognitive, and physical responses. This is also reinforced from the viewpoint of a facilitator for intentional listening as was demonstrated in the interview with Shannon Wallace. The prompts and structures that accompany intentional listening in the therapeutic setting come from a place of mindful attention that is then communicated to the participants facilitating a mindful reception of the music. Consequently, it

was confirmed that intentional listening and mindfulness have synergistic procedural qualities in the sense that the processes of mindfulness can work within the practice of intentional listening. However, the observations don't provide enough information to confirm whether or not residents personally experienced a mindful state.

Limitations

Unfortunately, due to the novel Coronavirus (COVID-19) I was unable to complete my data collection. Consequently, my observations and conclusions come from a shorter time frame preventing the longitudinal perspective anticipated to determine how listening to music over time may impact behavior, demeanor, awareness, and cognitive function. A majority of my data came from about a 2.5-month span which focused on relationship building and documenting immediate responses. Thus, I could not collect data on how repeated intentional listening over time impacts people experiencing memory loss. The shortage in data is supplemented by interviews from professionals in the field. Interviews provided some additional cases to examine and analyze in relationship to the data I have collected. The combination of data provides enough incite to examine if there are common elements in the processes and mental states between intentional music listening and mindfulness meditation.

Additionally, due to FERPA restrictions I can't give any details on existing conditions or other medical history that may have an impact on how residents interact with music.

It is also important to note that this data is highly individualized. The observations collected are with a small sample size and don't account for many of the outside variables that can impact the listening experience. When working in a community setting with people suffering from memory loss there are environmental factors that may impact reactions. Consequently, the data collected doesn't serve to generalize the intentional listening process and can't be accepted as the only factor contributing to the changes in behavior or emotional state following intentional listening practices.

Furthermore, the data collected is based on verbal accounts and body language. It is difficult to measure the listening experience empirically or in a complete sense because the activity of listening takes place internally with only certain parts of the experience that are observable (Kratus, 2017, p.47). Consequently, the data represents only a portion of the total experience that residents were capable of conveying both consciously and sub-consciously. Nonetheless, the observable elements of listening are critical pieces of exploring the listening process because the individual was compelled to share their experience publicly.

Summary

This study provides insights into the underlying connections between intentional music listening and mindfulness. The observations reveal that it is possible to think about the structures of intentional listening and mindfulness synergistically further affirming the intersectional qualities of mindfulness. The findings suggest intentional listening can fit within

the processes of mindfulness during music therapy leading to positive health benefits for people with dementia.

Moving forward, one thing to consider is how the procedural alignment of intentional listening and mindfulness can extend beyond the therapeutic setting to an everyday scenario. Some of the residents of Jill's House naturally listened to music following a mindful progression without any prompting leading to enhanced emotional and social well-being. Thus, translating the processes of mindfulness into music intentionally, with a conscious effort to follow a mindful listening progression, could potentially have even greater implications for enhancing the listening experience and yielding positive health benefits. Particularly during the global pandemic of COVID-19 currently facing society, translating the connections between music and mindfulness provides an accessible avenue to process complex emotion and gain an appreciation for the moment due to its present centeredness, non-judgmental framing, and emphasis on allowing exterior pressures to pass.

One recommendation for incorporating mindful listening into an everyday setting is to focus on the rhythm of the breath in relationship to the music. The music helps to maintain focus on the breath as Richard Wolf notes in his book, "In Tune Music as the Bridge to Mindfulness", "Combining a simple musical element that synchronizes with the count can effectively amplify the centrality of the breath as an object of attention" (Wolf, 2019, p.127). Another practice is a mindful body scan prior to and during the listening experience to note any physical sensations in your body in an attempt to maintain a present centered orientation. This process is utilized in the study by Diaz (2011, p.27). This same structure could be applied to a specific instrument where an individual focuses on the sensation of one instrument throughout a piece of music. Each of these techniques allows music to serve as gateway to a present centered mindset.

As was discussed at the very beginning of the paper, music is an integral part of everyday life touching many facets of our identity. Consequently, this research serves to prompt further dialogue about intentional music listening and mindfulness as a way to enrich the music listening experience such that music serves as a portal to a more mindful way of living. Further research could apply the family resemblance model of mindfulness in an everyday setting to examine the impact on various group settings and even beyond music. Furthermore, investigations into the nature of flow and its relationship to mindfulness as well as music listening may provide additional insights about how to enrich the music listening experience in manner that promotes a holistic well-being of both body and soul.

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