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**Enhancing the Quality of Life for Senior Citizens:
A Facilitator's Guidebook for Mindful Music and Movement**

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Abstract

Music appreciation and enjoyment enhance well-being throughout the lifespan. The challenges and constraints that people experience as they age can lead to lack of access to music, decreased physical activity, and fewer avenues for creative expression. Group music and movement interventions created for older populations offer opportunities for social connection and improved quality of life. Mindful practices add further benefit when combined with these interventions. Current available programs are scarce and most often do not encompass mixed modalities. In addition, the benefits of these programs do not show long-term sustainability. The purpose of this thesis is to explore the effects of music, movement, and mindfulness on overall health and present a program that helps establish and maintain well-being for senior citizens.

Keywords: music, movement, mindful, health, well-being, senior citizen

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Enhancing the Quality of Life for Senior Citizens:

A Facilitator's Guidebook for Mindful Music and Movement

Aging is a normal process of all human beings. The longer we live, the more knowledge and experience we gain, yet at the same time, we subtly begin to lose things. Our physical abilities decline. Cognitively, even though our memory may be intact, its recall may be slower and spottier. Our losses include the livelihood of our occupations, our independence, and people dear to us. Hollis (1993) stated, “The second half of life is slow horror show. We lose friends, mates, children, social status, and then our lives” (p. 112). While this is an extreme way to describe the process of growing older, the losses can be difficult to bear and may lead to stress, anxiety, and depression. Living a long life is something most people desire, yet this involves an acceptance of the losses that accompany aging. It is a noble endeavor to identify interventions that can help maintain physical and cognitive function as well as bring enjoyment and vitality to the years ahead. Much research shows that music and movement activities, either together or separately, are modalities that can help improve well-being in the elderly. The challenge has been maintaining these benefits beyond the initial few months of the interventions. Participation in a program of continuous and varied types of mindful music and movement activities can improve and sustain the quality of life for senior citizens.

This thesis explores the effects that music, movement, and rhythm can have on cognitive, physical, and mental health and culminates in a creative program that incorporates mindful practices with these activities. Contemplative neuroscience is gaining ground in the meditation community, and this paper starts by looking at the cognitive benefits produced by mindful movement and music which include neural growth, plasticity, and resilience. Next, physical benefits are presented which show the positive contributions these practices make to

cardiovascular health. Wrapping up the mind/body/spirit triad, the paper discusses how these modalities help allay anxiety and depression while bringing a sense of self-determination and social belonging. When implemented in conjunction with mindful practices and maintained over an extended period, these activities contribute to overall well-being through presence, attention, acceptance, and awareness which guide participants to higher self-actualization. Lastly, this thesis proposes an effective program that implements mindful music and movement accompanied by a detailed guidebook to be used in administering the practices.

Link to Mindfulness

Mindfulness has many definitions, and any one of them could be deemed valid when considering the wide range of experience that mindfulness encompasses. A common definition of mindfulness from Kabat-Zinn (1990) is the process of paying attention to the present moment on purpose and without judgment. Being mindful can range from a formal meditation practice to the simple act of being aware of one's surroundings and how one relates to them. Incorporating mindful awareness into the framework of an activity program allows present-moment focus on whatever activity is being performed which can create a fuller enjoyment of the activity. Rather than going through the motions, one becomes more deeply involved in what one is doing. Mindful practices enhance life by sharpening sensory input, developing the ability to make conscious choices, and discovering a sense of equanimity.

Cognitive Function

Combining various interventions of music, bodily movement, and rhythm are good for the brain. The benefits include the growth of neurons, neural rerouting and reorganization, and improved use of neural pathways. These structural changes improve memory and attention

(including mindful attention), assist with the retention and resilience of cognitive function, and enhance social behaviors that contribute to overall well-being.

Cognitive Reserve

Music and physical activity can be neuroprotective (Bherer et al., 2013; Innes et al., 2017; MacAulay et al., 2019). Research shows that various combinations of these activities help build or retain cognitive reserve (Chaddock-Heyman et al., 2021; Jünemann et al., 2022; Toricelli et al., 2021). Cognitive reserve improves the resiliency of the brain which helps it cope with or resist the pathological damage that often contributes to the cognitive decline of aging (Arida & Teixeira-Machado, 2021). Their research showed that aerobic fitness was particularly helpful for brain resilience in older adults, but the question arose whether this was influenced by educational level, nutrition, and environment. The concept that a higher cognitive reserve slows memory loss can be likened to sand in an hourglass: the more there is, the longer it takes to run out. A program that combines music with activity can help people retain the cognitive reserve of their neural banks as they age.

Attention

Attentional control is another aspect of cognitive function to consider. Bherer et al. (2013) stated exercise training had a moderate effect on attention. The coordination required to perform exercises and other types of physical training involves attention to the interplay of various body parts. Dance interventions, specifically, seemed to help attentional control. Coubard et al. (2011) suggested that contemporary dance helped older women with attention switching and attributed this to the idea that dance “demanded high attentional control through improvisation and creativity” (p. 9). In another study of senior-aged women, Balazova et al. (2021) proposed that a dance intervention enhanced the women’s attentional abilities. It seems

that dances with prescribed steps would require focused attention, yet the spontaneity of improvisational dance would not require that same level of attention. Perhaps the attentional focus of improvisational dance is related to listening and following a beat or to the conscious choice of what movement to use at a particular time. Interestingly, a study by Cheung et al. (2016) compared different group interventions (music with movement, music listening, and social activity) that showed “no significant change in attention and executive functioning in all three groups” (p. 311). This study included both older men and women, and, since most of the other studies had a high percentage of women, the different gender demographic may be why the results of this study were different from the others. While further research that involves a more diverse gender demographic may allow a wider perspective of the attention-building benefits of moving the body, the studies done thus far show much promise in helping with the regulatory and focusing tasks of the brain.

Neuroplasticity

Physical movement, mindfulness meditation, and both music listening and music playing appear to contribute to neuroplasticity. Loss of white matter is common with aging, yet people with better cardiovascular fitness demonstrate a reduced loss of both gray and white matter (Bherer et al., 2013). Mindfulness meditation improves well-being and prevents cognitive decline by increasing gray matter (Tang et al., 2020). Simply listening to classical or familiar music showed an increase in the volume of both gray and white matter in the brain (Innes et al., 2017). A dance intervention study by Balazova et al. (2021) noted increased white matter in the fornix. Giacosa et al. (2016) conducted a comparative study of dance versus music training and determined that each affected the white matter differently where the dance intervention caused fanning of white matter out to more areas of the brain while the music training focused the white

matter to a more specific area. Similarly, Bojner Horwitz et al. (2022) noted that dance practice had more effect on white matter than music practice did. They also found that dance helped spread white matter to both sides of the brain which may have improved pro-social behavior. Could it be that playing music improves brain function whereas listening contributes more to well-being? The implication is that a combination of interventions should be more effective toward both.

Jünemann et al. (2022) stated that degeneration of white matter in the fornix contributed to cognitive impairment and that learning to play the piano helped slow the decline by stabilizing the contents of the fornix. The question arose if musical instruments other than the piano could have this effect. Choi et al. (2021) compared wind instrument to piano playing and found that both created neuroplastic changes, yet the areas of the brain affected were different depending on the type of instrument played. They were not able to identify which wind instruments may have had more effect than others. Another disadvantage of their study was that it assessed young people with more than ten years of instrument training. Music training as a child has shown many benefits to neuroplasticity, intelligence, and language (Sutcliffe et al., 2020), but the extent to which learning to play an instrument later in life helps cognitive function is not fully understood (Thaut & Hodges, 2019). Chaddock-Heyman et al. (2021) stated music training in older adults improved brain matter, but it was unclear what type of training (instrument used) and what amount of musical experience the participants had prior to the study.

Brain-derived Neurotrophic Factor

BDNF (brain-derived neurotrophic factor) is a protein manufactured in the brain tissue that contributes to the growth of new neurons. Physical activity may activate the release of BDNF in the brain, particularly in the hippocampus, a region that assists with learning and

memory (Arida & Teixeira-Machado, 2021; Bherer et al., 2013; Miranda et al., 2019). The release of BDNF improves the flow of blood in the brain (Mandolesi et al., 2018). Adequate blood flow supplies oxygen and other nutrients to brain cells and encourages neurogenesis. Feeding the neurons, both new and old, boosted neuroplasticity which helped with attention, memory, and overall cognitive function (Toricelli et al., 2021). Vedovelli et al. (2017) posited that cognitive reserve may be strengthened when there is more BDNF available for use in the brain. This evidence supports the idea for a program that includes consistent and sustained physical activity which can contribute to enhanced neuroplasticity and cognitive function.

Physiological Function

A regular program of mindful music and movement also creates physical changes in the body that can impact health in important ways. The stimulation of physical exertion helps circulate blood to all areas of the body. Mindful practices positively affect blood flow to areas of the brain associated with emotional regulation. Other benefits include improved cardiovascular health and a slower aging process.

Blood Flow

Physical activity stimulates circulation throughout the entire body. This increased circulation includes the prefrontal cortex (PFC), an area that helps with emotional regulation (Arida & Teixeira-Machado, 2021; Bherer et al., 2013; Jordan et al., 2022; Mandolesi et al., 2018; Shimuzu et al., 2018; Thaut & Hodges, 2019). Mindfulness has also shown evidence of creating an increase in PFC volume (Hölzel et al., 2011). Mindful movement adds two modalities together for better executive function. Adequate blood flow in the brain boosts cognitive function. One form of cognitive decline is vascular dementia. This type of dementia occurs when areas of the brain do not receive enough blood. When the starved brain tissue does

not receive the oxygen and nutrients needed, it will not function well or may cease to function altogether. Adding a regular activity regimen to one's schedule is effective at improving blood flow and may help prevent or delay the onset of dementia.

Heart Rate Variability

Heart rate variability (HRV) is the continual change in the speed of the heartbeat (Shaffer & Ginsberg, 2017). Generally, a constant heart rate is not as healthy as one that fluctuates within a consistent range. This variability is an integral function of homeostasis where the heart compensates for changes in the environment. A healthy cardiovascular system is able to make constant adjustments. HRV showed improvement from the practice of mindfulness (Kirk & Axelsen, 2020; Loo et al., 2020), listening to music (Axelsen et al., 2022), and physical exercise (Bherer et al., 2013). Linking the heart to the brain, Chaudhary (2020) stated that HRV affects brain chemistry which, in turn, can affect our emotions. A healthy heart apparently does more than pump blood. Shaffer and Ginsberg (2017) also noted that a healthy HRV helped with emotion regulation as well as attention. A study by Bojner Horwitz et al. (2022) indicated that HRV decreased with a music intervention and that the music created goosebumps. This decrease in HRV could have been a compensatory mechanism as a different part of the nervous system became activated. While exercise is commonly known to be good for the cardiovascular system, it seems that mindfulness and listening to music can also be healthy for the heart. This reinforces the importance of building a conceptual program that adds mindfulness to both music and physical activity to benefit body and mind.

Aging

Telomeres are much like protective caps at the ends of chromosomes. Over time, telomeres shorten, and this causes aging and cognitive decline. Deng et al. (2016) proposed that

cell division, a normal part of aging, caused the shortening process. They also noted that stress accelerated the shortening (thus the aging) process. Furthermore, they suggested that both physical exercise and mindfulness delayed the aging process. Innes et al. (2017) echoed the idea that mindfulness was linked to telomere maintenance. Much like the benefits of blood flow mentioned above, mindfulness combined with movement may be doubly beneficial in maintaining cognitive function. From personal observation, I note that active people appear much younger than sedentary people of the same age. While telomeres may play a part here, they cannot take full credit since other lifestyle choices and habits can be largely responsible for this difference. Aging is a complex process, and telomere length is likely just one factor contributing to this youth-preserving phenomenon. Part of my motivation in creating a program that encourages older people to be more active is related to this possible extension of the lifespan.

Mental Health

Much research demonstrates the mental health benefits of music and movement interventions. Improved self-efficacy and decreased stress resulted from physical exercise (Bherer et al., 2013; Mandolesi et al., 2018). Music and dance interventions were also shown to help decrease stress (MacAulay et al., 2019; Miloš & Katušić, 2021) and boost emotional regulation (Bojner Horwitz et al., 2022; MacDonald, 2013; Rebecchini, 2021; Sekyung, 2021). Often, the emotional effect of listening to certain types of music or a specific piece creates a sense of chills. Salakka et al. (2021) interpreted this as an arousal that occurred with sudden musical changes. This could be attributed to the body's internal physiology interacting with the external environment (Bojner Horwitz et al., 2022). Chaddock-Heyman et al. (2021) and Zatorre and McGill (2015) stated this sensation originated in the orbitofrontal region, part of the PFC, the executive center of the brain involved in the management of emotions. Regardless of what

causes it, we cannot deny the uncanny feeling that we get when music gives us chills. Emotional responses arise from deep within. Music may be an alternative form of stress-relief therapy if it stimulates brain areas that help with emotional control.

More commonly noted in the research on music and movement interventions were the benefits of decreased depression and anxiety, yet the results varied based on type of intervention, population size, demographics, and the length of the study. In some studies, physical exercise was deemed the most effective (Bherer et al., 2013; Bojner Horwitz et al., 2022; Dorris et al., 2021; Mandolesi et al., 2018), whereas others found that music helped the most (Loo et al., 2020; MacDonald, 2013; Miloš & Katušić, 2021; Rebecchini, 2021; Salakka et al., 2021). From my own experience, both exercise and music, on their own, are mood enhancers. This could be that they create a change in the personal environment which can release one from a feeling of stasis. A contrasting study indicated that neither music with movement nor music listening had any more effect on anxiety than other group social activities (Cheung et al., 2016). Other studies showed greater benefits when they combined music with a physical activity such as dance (Majore-Dusele et al., 2021; Verrusio et al., 2014). It can be hard to separate whether it was the intervention itself that improved the mental health of the participants or whether it had to do more with engagement in the group social environment. Participation in group activities helps improve one's self-concept and can decrease loneliness and isolation as one builds social connections with others in the group (Miloš & Katušić, 2021). Since humans are social beings, there is an opportunity for participants to positively benefit from these group interactions.

Well-being

Thus far, this review has discussed cognitive, physical, and mental aspects of music and movement. This now poses questions: What is more important as one ages? Is it overall well-

being or the retention of cognitive function? Is it more important to be happy and at ease in the moment, forgetting or letting go of the stresses of previous life experiences, or to keep one's memory intact in order to remember the details of the past regardless of the content? While this would essentially depend on the preference of the individual, the focus of this paper is to present ways that can improve the life that is currently being lived. As previously mentioned, the basic premise of mindfulness is purposeful attention to the present moment. The practice of focusing on the present moment and what that moment brings would seem preferable to clinging to or ruminating about unpleasant memories that one cannot change. Unnecessary worry leads to negative thoughts as one continuously mulls over events in the mind. Mindfulness practices are effective in decreasing these ruminative thoughts (Dvorak & Hernandez-Ruiz, 2021; Greenberg et al., 2012). Mindfulness is about focusing on the present simply because it is the only moment that can be fully observed and lived. Rather than wishing the past had been different or worrying about the future, focusing on the present allows one to open up to real-time possibilities. My own practice of mindfulness relieves me of the burden of worrying about what tomorrow may bring so that I can experience the richness of the present. This mindset imbues a sacred quality to the current moment.

Well-being is a subjective concept. One person may define it as absence of pain, stress, or conflict. Another might say it is a sense that all is well. Hendry et al. (2022) proposed that self-actualization and social identity contributed to well-being and that it could develop when psychological needs such as “autonomy, connectedness, competence, positive self-identity and self-esteem” (p. 1408) were met. This thesis explores which interventions are the most successful so that they can be integrated into a program that can improve the quality of life for senior citizens.

Music Familiarity

There are a wide variety of therapy programs that use music as their main intervention. The term *reminiscence bump* refers to music that was popular in one's teen and young adult years. Rao et al. (2021) noted that music heard during this impressionable time of life created autobiographical memories. The idea is that emotions strengthen the memories attached to the music from that era. Most of us know how memories can come rushing back from hearing an old song from our youth. Both music familiarity and participant-selected music increased emotional expression (Salakka et al., 2021; Sorenson et al., 2019). Gök Ugur et al. (2017) chose the preferred songs of nursing home residents for a music intervention and noted a decrease in blood pressure and depression after eight weeks of therapy. Rao et al. (2021) also noted lower depression measurements when participants listened to personally chosen music. Lineweaver et al. (2022) focused on personalized playlists specifically for people with dementia. They found improvements in general neuropsychiatric symptoms and decreased agitation and depression as well as increased relaxation and happiness after three months of exposure to these playlists yet follow up did not demonstrate further improvement when re-assessed three months later. As with most activities, the benefits decline when the activity ends. Music enjoyment is common for most people. Sacks (2007) stated it calls to the emotional and intellectual sides of our nature (p. 285). When this music is familiar, that call may be strengthened, contributing further to well-being. When administering a group program that incorporates music, the facilitator should include tunes that are well-known to the participants.

Combined Modalities

It is difficult to determine the most effective types of interventions since the studies draw different conclusions. Some research showed that physical exercise alone improved quality of

life (Arida & Teixeira-Machado, 2021; Mandolesi et al., 2018; Park et al., 2020). Kampragkou et al. (2017) implied that physical exercise combined with music could improve the quality of life in a population with dementia because of the positive effects it had on their cognitive function. Other research used varying types of engagement with music and found that well-being increased with combined music and dance (Bojner Horwitz et al., 2022), songwriting (Baker & Ballantyne, 2013), singing (Coulton et al., 2015; Daykin et al., 2018; Hendry et al., 2022), music training (Jünemann et al., 2022; MacAulay et al., 2019; MacRitchie et al., 2020), and a combination of singing and playing music (Miloš & Katušić, 2021). Loepthien and Leipold (2022) compared two music interventions and noted that playing music created less flow than listening to music and attributed this to the stress and self-evaluation that accompanied performing. Along these same lines, the review by Jordan et al. (2022) agreed that playing music did not lead to an improved quality of life. Other reviews indicated that general music interventions contributed to well-being (Mileski et al., 2019; Sheppard & Broughton, 2020; Thaut & Hodges, 2019). Krause et al. (2019) proposed that attending to a particular musical activity was not the strongest effector of well-being. Instead, it was likely related to the participant's capacity for self-determination. When creating music and movement interventions for the elderly, these activities are more likely to be successful when they "are personalized, participatory, and socially interactive" (Matto et al., 2015, p. 278). With the voluntary choice of involvement and the opportunity for social connection, it would make sense that activity groups can help improve well-being.

Purposeful Movement

Movement of the body with purposeful attention is a form of mindfulness. Muro and Artero (2016) stated "regular dance practice is a powerful method to enhance the tendency to be

conscious and present in everyday life” (p. 6). Marich and Howell (2015) agreed that dancing can create an awareness that is akin to a mindfulness practice. Cruz-Ferreira et al. (2015) introduced a dance program that encouraged different types of mindful exploration and noted it was beneficial in a group of older adults. Group-based mindful dancing also prompted an awareness of the bodily movements of others in a shared space (Pizarro et al., 2020). This is a form of group mindfulness where, instead of sitting together in silence, the participants experience a shared mindful awareness of how they relate to others physically and spatially. Bojner Horwitz et al. (2022) saw this as an effect of synchronized movement. In contrast, Mindful-Based Dance Movement Therapy, a program used by Majore-Dusele et al. (2021), did not show improvement in mindfulness scores after five weeks of therapy, yet this could be that five weeks was not enough time to see results. Mindful walking is a useful and common form of meditation. Purposeful attention to the body while dancing is somewhat similar and can be used as an alternative form of mindfulness.

Rhythmic Attention

While music and dance are typically driven by a beat, drumming by itself is a specific rhythmic intervention that also brings the wandering mind back and into the present moment. The American Camp Association (2007) noted that “When you’re playing the drum, you’re doing something that is very grounded. You’re in your body” (00:50). In addition to strengthening mindful attention, research showed that drumming promoted health, decreased depression, led to better spontaneity, improved emotional expression, and created stronger social resilience (McCrary et al., 2021; Rebecchini, 2021; Shimuzu et al., 2018). Sacks (2007) stated rhythm created “a sense of collectivity and community” (p. 246). These benefits are strong contributors to well-being. Even so, Yap et al. (2017) reported contrasting results, stating that a

rhythm and music intervention did not improve their study subject's quality of life. Since their intervention was a total of ten sessions, one might conclude that the results could have been different with more exposure to the activity. Drumming is certainly another active form of mindfulness since keeping a rhythm requires purposeful attention. The resonance and vibration of drumming can produce a state that grounds and centers the mind. Including rhythm activities will strengthen the effectiveness of the proposed music and movement program since it adds another facet of attention and movement.

Music as Mindfulness

I could not agree more with the statement, "Music is completely woven into the fabric of our lives" (MacDonald, 2013, p. 10). My own personal experience proves that music can be used as an effective mindfulness tool whether it is played, sung, or simply listened to. Playing the piano brings the mind back from whence it may be wandering as one moves to a flow state and a connection to the instrument and the sound vibrations created by the hammers hitting the strings. The mindfulness of the flow state is a space where the thinking mind no longer holds sway as one simply *goes with the flow*. Singing brings a sense of release and joy. It is surprising to note how well it relieves stress. Perhaps the outbreath of singing can be likened to sighing where one lets go of tension. The breath inhalation needed to support notes becomes deep and measured. Attention to the words and the tune focuses one on the present moment.

My initial experience with mindfulness, before I was aware of what mindfulness was, involved listening to music. Life stressors were piling up and my composure was quickly unravelling. I put on some headphones, lay down on the carpet, and got absorbed in an instrumental violin piece. I was surprised how well it helped reground me. Thinking back, I can see the connection to mindfulness. When one sits and listens to music with the eyes closed, the

act of listening becomes the mindful focus. There is no space to ruminate about what has already occurred or worry about what may happen in the future since the focus on the sensory input to the ears can only be experienced in the present moment. Listening to a piece that creates chills and awe also allows a real-time experience of presence and a sense of placement and unity with something beyond the tangible world. Sometimes the goosebump-inducing music is related to a specific instrument or chord structure and is not necessarily a piece one is familiar with. Other times, a specific, known piece of music creates the same sense of awe each time it is heard. This awe opens the mind to the spaciousness that mindfulness often brings. Dvorak and Hernandez-Ruiz (2021) offered an opposing viewpoint in stating that familiar music may actually decrease mindfulness due to activation of the default mode network (DMN) in the brain or perhaps due to judgments that may have arisen from the past associations attached to the piece. The DMN helps with self-monitoring, so while it may bring up judgments, it can also help one notice when one's thoughts are wandering, which is a basic premise of mindful practice. The wandering mind can also be reined in by music that accompanies guided meditations. This music is effective in supporting the practice session by augmenting the power of the spoken words. Music can either supplement the mindful experience or be the primary activator of the mindful state.

Opportunities for Success

Lasting results are a key consideration in program development. Short-term benefits are easy enough to achieve; the challenge arises in ensuring the longevity of the program. Planning the program duration and the session length and frequency should be based on evaluation of the strengths and weaknesses of similar programs. The interventions should be diverse and flexible and administered by a facilitator who has some skill in leading groups and navigating interactions within these groups.

Effect of Variation

While a few of the studies showed that the positive effects of the interventions were still measurable at 24 weeks (Cruz-Ferreira et al., 2015; Innes et al., 2017; Verrusio et al., 2014), there were many others that noted that the benefits were not retained post intervention. In some instances, the effects simply plateaued. The positive benefits commonly declined after a 12-week period across the intervention types including singing (Corvo et al., 2020; Coulton et al., 2015), playing music (Jünemann et al., 2022), listening to music (Lineweaver et al., 2022), physical exercise following music listening (Higuti et al., 2021), and mindfulness (Park et al., 2020). Some of this may be that, once the interventions were completed, the effects wore off and participants returned to their previous states. It is likely that part of this was a result of habituation. Habituation is a known phenomenon when there is a decreased response to a stimulus the more it is repeated (Huron, 2013). He explained this as “the brain’s version of ‘been there, done that’” (p. 9). Huron noted that habituation commonly happens with listening. If people hear something repeatedly, they gradually pay less attention to it. This is a useful function of the brain as it filters what is relevant in the current moment. Unfortunately, it can decrease the effectiveness of ongoing music interventions. A successful program should change the modalities more frequently than every three months. These changes present novel information for the brain to process. Basically, it re-activates the cognitive processes of learning something new. The frequent change of activity encourages better engagement of both the brain and the participants. González-Ojea et al. (2022) proposed that each phase should last from four to six weeks. This aligns with the findings that showed decreasing benefits over longer time periods. Changing the interventions on a monthly basis can allow for novel experiences, avoid habituation, and promote continued group engagement.

Duration and Timing

Embarking on the journey of administering a sustainable music and movement program requires a time commitment from the person or people offering it. A program that is longer than nine months is more likely to be successful (Innes et al., 2017). A suggested target would be offering the program for at least a year. Since the goal is to improve well-being in seniors, a perpetual program that is offered as part of the social activities of an institution would help contribute to the well-being of greater numbers of people.

One session per week may not be enough to maintain interest. Sessions offered more frequently allow for enhanced social connection and group cohesion. Increased exposure can have a dose-dependent effect (Verrusio et al., 2014). This suggests that twice weekly sessions may be doubly advantageous over the once-a-week cadence. At this juncture, the ideal frequency and duration has not been determined and needs further exploration (McCrary et al., 2021). It seems that more exposure to the interventions would realize better results than the occasional session. This can be compared to learning a new skill: the more one practices, the better the results.

Working with Participants

The program should follow a structured format yet be customizable based on participant interest and response. Not all interventions will resonate with everyone, therefore, it is important to change them up on a regular basis. Some interventions can potentially decrease well-being. A study by Park et al. (2020) showed that a chair yoga intervention in people with dementia caused agitation rather than allayed it. Even if the intended population of the program does not have known cognitive impairment, it is important to expect that not every member will find all the interventions beneficial. There may be times when a certain song or intervention has negative

implications for a participant. The instructor needs to be sensitive to this and have a plan for how to handle such incidences and be ready to offer other alternatives.

The skills that the facilitator will use in engaging participants and handling group dynamics are important factors to assess in determining if the program can be implemented successfully. Strategies for a successful group include encouragement of participation and personal development as well as a feeling of being cared for and supported by the instructor (O'Rourke et al., 2018). If the group is diverse, the participants can have many different ways of communicating and interacting. An instructor trained in diversity will have better outcomes (Hallam et al., 2016). Even a more homogeneous group may have some people who do not get along. The instructor needs to be skillful in navigating instances when there is tension between the members. Setting ground rules at the beginning of sessions is crucial. A kind, welcoming demeanor and nonjudgmental approach can help the instructor defuse tension by making sure all participants feel equally important and supported.

Thaut and Hodges (2019) suggested that interventions should be administered by professional music therapists. While this may be ideal, without enough trained therapists available, the benefits will not be realized by as many people. It is advisable to employ motivated individuals who enjoy working with the elderly. This creates the opportunity to reach a larger number of people who would otherwise not have access to these types of activities. One should tread carefully if not professionally trained and the potential group is made up of individuals with known trauma or mental health issues. *Trauma-Sensitive Mindfulness* by David Treleaven (2018) is an excellent resource for facilitators who are interested in leading the more sensitive groups. A confident and prepared instructor will be able to better address these types of issues should they arise.

Limitations and Implications

Some challenges noted with the research reviewed were the low number of participants in most of the studies and the lack of gender diversity. Longitudinal studies and research of larger populations can help gather data that is more informative. The majority of the studies explored in this paper were composed of mostly, if not all, women participants. One could surmise that women may have more interest in the interventions, and their willingness to participate skewed the ratio of men to women. Recruitment of male participants may have been more difficult due to outdated societal stereotypes of masculine versus feminine activities. Such stereotypes do exist and most certainly affect results of many studies across the research spectrum. Considering modern society's focus and acceptance of non-binary designations, further research could be conducted that adds more than the female/male dichotomy or leaves gender out altogether. This is important as the younger generations, who were brought up with non-binary norms, eventually become the next senior citizens. Results will eventually shift over time. As programs of longer duration emerge, qualitative and quantitative data should be collected to determine if the effects will be sustained. This will encourage the development of more diverse programs that can ease the aging process as older adults discover that well-being is as much available to them as it is to the younger generations.

Discussion

Music, movement, and rhythm activities, whether alone or combined, show much promise in improving the quality of life for senior citizens. The activities discussed throughout this paper showed improvements in attention, cognition, and neuroplasticity, yet these are secondary benefits when the goal is to improve well-being in the present moment. Additionally, the activities created improvements in physical health, manifested by increased blood flow,

improved heart rate variability, and slower aging, all of which can add to better health and well-being. The modalities studied demonstrated decreased isolation, stress, depression, and anxiety in the elderly. Reducing these negative aspects of aging can transform the internal mental environment to a more positive outlook. For the creation of my program, I focus on offering the interventions in community with others as this encourages social interaction and connection. Group programs that incorporate music, movement, and rhythm with mindful awareness improve quality of life by building resiliency, balancing emotional responses, and boosting self-efficacy which lead to a healthier self-concept.

This thesis proposes changing the interventions every four weeks to help maintain participant interest. If only one type of intervention is offered throughout the program, the risk for habituation is higher than when other modalities are added (Huron, 2013). This reiterates the importance of combining a mix of music, movement, and rhythm activities. Longer programs with plenty of variety are likely to be more successful. The creative program should be used for at least a year, changing up the modalities every four weeks and repeating the whole program every twelve weeks. The mindfulness practices added to the interventions can help eliminate automatic thinking and reactions thus inspiring participants to fully experience the present moment.

Conclusion

The losses experienced in the course of life can accelerate as people age. It is important to add positive activities that can counter-balance the negative events that are certain to occur. Considering the evidence presented, the time is ripe to offer effective programs that support long-lasting well-being in older populations. Music combined with other activities shows promise in improved cognitive functioning yet, more importantly, it also implicates strong

improvements in quality of life. The lens of mindfulness encourages people to focus on the moments that they have control over, which is the present time. One advantage of a program that incorporates music and movement is that it can benefit most anyone regardless of their background (Thaut & Hodges, 2019). The program presented herein includes the three interventions of music, movement, and rhythm with mindfulness woven in throughout. I wrote it with the focus on the elderly and the ways it can benefit this older demographic but, with some adjustment, it can be beneficial for any age group. While the studies demonstrated that the various modalities improved quality of life, they failed to show a lasting effect. The development of this robust and extended music and movement program has the potential to break past this barrier. Senior citizens who participate regularly and consistently in longstanding programs that offer mixed modalities can expect sustained positive improvements in their quality of life.

References

- American Camp Association, Healthy Learning. (Producers). (2007). *Drumming and wellness for adults*. [Video]. Monterey Bay Video Production Company.
<https://video.alexanderstreet.com/watch/drumming-and-wellness-for-adults>
- Arida, R. M., & Teixeira-Machado, L. (2021). The contribution of physical exercise to brain resilience. *Frontiers in Behavioral Neuroscience, 14*, 1-19.
<https://doi.org/10.3389/fnbeh.2020.626769>
- Axelsen, J. L., Meline, J. S. J., Staiano, W., & Kirk, U. (2022). Mindfulness and music interventions in the workplace: Assessment of sustained attention and working memory using a crowdsourcing approach. *BMC Psychology, 10*(108). 1-16.
<https://doi.org/10.1186/s40359-022-00810-y>
- Baker, F., & Ballantyne, J. (2013). “You’ve got to accentuate the positive”: Group songwriting to promote a life of enjoyment, engagement and meaning in aging Australians. *Nordic Journal of Music Therapy, 22*(1), 7-24. <https://doi.org/10.1080/08098131.2012.678372>
- Balazova, Z., Marecek, R., Nemcova-Elfmarkova, N., Kropacova, S., Brabenec, L., Grmela, R., Vaculikove, P., Svobodova, L., & Rektorova, I. (2021). Dance intervention impact on brain plasticity: A randomized 6-month fMRI study in non-expert older adults. *Frontiers in Aging Neuroscience, 697*(13), 1-8. <https://doi.org/10.3389/fnagi.2021.724064>
- Bherer, L., Erickson, K. I., & Liu-Ambrose, T. (2013). A review of the effects of physical activity and exercise on cognitive and brain functions in older adults. *Journal of Aging Research, 2013*. <https://doi.org/10.1155/2013/657508>

- Bojner Horwitz, E., Korošec, K., & Theorell, T. (2022). Can dance and music make the transition to a sustainable society more feasible? *Behavioral Sciences*, 12(11), 1-15.
<https://doi.org/10.3390/bs12010011>
- Chaddock-Heyman, L., Loui, P., Weng, T. B., Weisshappel, R., McAuley, E., & Kramer, A. F. (2021). Musical training and brain volume in older adults. *Brain Sciences*, 11(1), 1-17.
<https://doi.org/10.3390/brainsci11010050>
- Chaudhary, K. (2020). *Sound medicine: How to use the ancient science of sound to heal the body and mind*. HarperCollinsPublishers.
- Cheung, D. S. K., Lai, C. K. Y., Wong, F. K. Y., & Leung, M. C. P. (2016). The effects of music-with-movement intervention on the cognitive functions of people with moderate dementia: A randomized controlled trial. *Aging & Mental Health*, 22(3), 306-315.
<https://doi.org/10.1080/13607863.2016.1251571>
- Choi, U. S., Sung, Y. W., & Ogawa, S. (2021). Brain plasticity reflects specialized cognitive development induced by musical training. *Cerebral Cortex Communications*, 2(2), 1-7.
<https://doi.org/10.1093/texcom/tgab037>
- Corvo, E., Skingley, A., & Clift, S. (2020). Community singing, wellbeing and older people: Implementing and evaluating an English singing for health intervention in Rome. *Perspectives in Public Health*, 140(5), 263-269.
<https://doi.org/10.1177/1757913920925834>
- Coubard, O. A., Duretz, S., Lefebvre, V., Lapalus, P., & Ferrufino, L. (2011). Practice of contemporary dance improves cognitive flexibility in aging. *Frontiers in Aging Neuroscience*, 3(13), 1-12. <https://doi.org/10.3389/fnagi.2011.00013>

- Coulton, S., Clift, S., Skingley, A., & Rodriguez, J. (2015). Effectiveness and cost-effectiveness of community singing on mental health-related quality of life of older people: Randomised controlled trial. *The British Journal of Psychiatry*, 207(3), 250-255.
<https://doi.org/10.1192/bjp.bp.113.129908>
- Cruz-Ferreira, A., Marmeleira, J., Formigo, A., Gomes, D., & Fernandes, J. (2015). Creative dance improves physical fitness and life satisfaction in older women. *Research on Aging*, 37(8), 837-855. <https://doi.org/10.1177/0164027514568103>
- Daykin, N., Mansfield, L., Meads, C., Julier, G., Tomlinson, A., Payne, A., Grigsby Duffy, L., Lane, J., D'Innocenzo, G., Burnett, A., Kay, T., Dolan, P., Testoni, S., & Victor, C. (2018). What works for wellbeing? A systematic review of wellbeing outcomes for music and singing in adults. *Perspectives in Public Health*, 138(1), 39-46.
<https://doi.org/10.1177/1757913917740391>
- Deng, W., Cheung, S. T., Tsao, S. W., Wang, X. M., & Tiwari, A. F. Y. (2016). Telomerase activity and its association with psychological stress, mental disorders, lifestyle factors and interventions: A systematic review. *Psychoneuroendocrinology*, 64, 150-163.
<https://doi.org/10.1016/j.psyneuen.2015.11.017>
- Dorris, J. L., Neely, S., Terhorst, L., VonVille, H. M., & Rodakowski, J. (2021). Effects of music participation for mild cognitive impairment and dementia: A systematic review and meta-analysis. *Journal of the American Geriatrics Society*, 69(9), 2659-2667.
<https://doi.org/10.1111/jgs.17208>
- Dvorak, A. L., & Hernandez-Ruiz, E. (2021). Comparison of music stimuli to support mindfulness meditation. *Psychology of Music*, 49(3), 498-512.
<https://doi.org/10.1177/0305735619878497>

- Giacosa, C., Karpati, F. J., Foster, N. E., Penhune, V. B., & Hyde, K. L. (2016). Dance and music training have different effects on white matter diffusivity in sensorimotor pathways. *NeuroImage*, 135, 273–286. <https://doi.org/10.1016/j.neuroimage.2016.04.048>
- Gök Ugur, H., Yaman Aktaş, Y., Orak, O. S., Sağlambilen, O., & Aydın Avcı, İ. (2017). The effect of music therapy on depression and physiological parameters in elderly people living in a Turkish nursing home: A randomized-controlled trial. *Aging & Mental Health*, 21(12), 1280-1286. <https://doi.org/10.1080/13607863.2016.1222348>
- González-Ojea, M. J., Dominguez-Lloria, S., & Pino-Juste, M. (2022). Can music therapy improve the quality of life of institutionalized elderly people? *Healthcare*, 10(2), 310-320. <https://doi.org/10.3390/healthcare10020310>
- Greenberg, J., Meiran, N., & Reiner, K. (2012). “Mind the trap”: Mindfulness practice reduces cognitive rigidity. *PLoS ONE*, 7(5), 1–8. <https://doi.org/10.1371/journal.pone.0036206>
- Hallam, S., Creech, A., McQueen, H., Varvarigou, M., & Gaunt, H. (2016). The facilitator of community music-making with older learners: Characteristics, motivations and challenges. *International Journal of Music Education*, 34(1), 19-31. <https://doi.org/10.1177/0255761415617039>
- Hendry, N., Lynam, D. S., & Lafarge, C. (2022). Singing for wellbeing: Formulating a model for community group singing interventions. *Qualitative Health Research*, 32(8-9), 1399–1414. <https://doi.org/10.1177/10497323221104718>
- Higuti, A. Y., Barbosa, S. R. M., Corrêa, L. M., Izzo, T. F., & Ansai, J. H. (2021). Effects of listening to music and practicing physical exercise on functional and cognitive aspects in institutionalized older adults with dementia: Pilot study, *Explore*, 17(4), 292-296. <https://doi.org/10.1016/j.explore.2020.07.006>

- Hollis, J. (1993). *The middle passage: From misery to meaning in midlife*. Inner City Books.
- Hölzel, B. K., Lazar, S. W., Gard, T., Schuman-Oliver, Z., Vago, D. R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on Psychological Science*, 6(6), 537-559.
<https://doi.org/10.1177/1745691611419671>
- Huron, D. (2013). A psychological approach to musical form: The habituation-fluency theory of repetition. *Current Musicology*, 96, 7-35. <https://doi.org/10.7916/D8KP81FG>
- Innes, K. E., Selfe, T. K., Khalsa, D. S., & Kandati. S. (2017). Meditation and music improve memory and cognitive function in adults with subjective cognitive decline: A pilot randomized controlled trial. *Journal of Alzheimer's Disease*, 56(3), 899-916.
<https://doi.org/10.3233/JAD-160867>
- Jordan, C., Lawlor, B., & Loughrey, D. (2022). A systematic review of music interventions for the cognitive and behavioural symptoms of mild cognitive impairment (non-dementia). *Journal of Psychiatric Research*, 151, 382-390.
<https://doi.org/10.1016/j.jpsychires.2022.04.028>
- Jünemann, K., Marie, D., Worschech, F., Scholz, D. S., Grouiller, F., Kliegel, M., Van De Ville, D., James, C. E., Krüger, T. H. C., Altenmüller, E., & Sinke, C. (2022). Six months of piano training in healthy elderly stabilizes white matter microstructure in the fornix, compared to an active control group. *Frontiers in Aging Neuroscience*, 19, 1-27.
<https://doi.org/10.3389/fnagi.2022.817889>
- Kabat-Zinn, J. (1990). *Full catastrophe living: Using the wisdom of the body and mind to face stress, pain, and illness*. Delta.

- Kampragkou, C., Iakovidis, P., Kampragkou, E., & Kellis, E. (2017). Effects of a 12-week aerobic exercise program combined with music therapy and memory exercises on cognitive and functional ability in people with middle type of Alzheimer's disease. *International Journal of Physiotherapy*, 4(5), 262-268.
<https://doi.org/10.15621/ijphy/2017/v4i5/159420>
- Kirk, U., & Axelsen, J. L. (2020). Heart rate variability is enhanced during mindfulness practice: A randomized controlled trial involving a 10-day online-based mindfulness intervention. *PLoS ONE*, 15(12), 1-23. <https://doi.org/10.1371/journal.pone.0243488>
- Krause, A. E., North, A. C., & Davidson, J. W. (2019). Using self-determination theory to examine musical participation and well-being. *Frontiers in Psychology*, 10(405), 1-12.
<https://doi.org/10.3389/fpsyg.2019.00405>
- Lineweaver, T. T., Bergeson, T. R., Ladd, K., Johnson, H., Braid, D., Ott, M., Hay, D. P., Plewes, J., Hinds, M., LaPradd, M. L., Bolander, H., Vitelli, S., Lain, M., & Brimmer, T. (2022). The effects of individualized music listening on affective, behavioral, cognitive, and sundowning symptoms of dementia in long-term care residents. *Journal of Aging and Health*, 34(1), 130–143. <https://doi.org/10.1177/08982643211033407>
- Loepthien, T., & Leipold, B. (2022). Flow in music performance and music-listening: Differences in intensity, predictors, and the relationship between flow and subjective well-being. *Psychology of Music*, 50(1), 111-126.
<https://doi.org/10.1177/0305735620982056>
- Loo, L-M., Prince, J. B., & Correia, H. M. (2020). Exploring mindfulness attentional skills acquisition, psychological and physiological functioning and well-being: Using mindful

- breathing or mindful listening in a nonclinical sample. *Psychomusicology: Music, Mind, and Brain*, 30(3), 103-118. <https://doi.org/10.1037/pmu0000255.supp>
- MacAulay, R. K., Edelman, P., Boeve, A., Sprangers, N., & Halpin, A. (2019). Group music training as a multimodal cognitive intervention for older adults. *Psychomusicology: Music, Mind, and Brain*. <https://doi.org/10.1037/pmu0000239.supp>
- MacDonald, R. A. (2013). Music, health, and well-being: A review. *International Journal of Qualitative Studies on Health and Well-being*, 8(1), 1-14. <https://doi.org/10.3402/qhw.v8i0.20635>
- MacRitchie, J., Breaden, M., Milne, A. J., & McIntyre, S. (2020). Cognitive, motor and social factors of music instrument training programs for older adults' improved wellbeing. *Frontiers in Psychology*, 10(2868), 1-15. <https://doi.org/10.3389/fpsyg.2019.02868>
- Majore-Dusele, I., Karkou, V., & Millere, I. (2021). The development of mindful-based dance movement therapy intervention for chronic pain: A pilot study with chronic headache patients. *Frontiers in Psychology*, 12(587923), 1-14. <https://doi.org/10.3389/fpsyg.2021.587923>
- Mandolesi, L., Polverino, A., Montuori, S., Foti, F., Ferraioli, G., Sorrentino, P., & Sorrentino, G. (2018). Effects of physical exercise on cognitive functioning and wellbeing: Biological and psychological benefits. *Frontiers in Psychology*, 9(509), 1-11. <https://doi.org/10.3389/fpsyg.2018.00509>
- Marich, J., & Howell, T. (2015). Dancing mindfulness: A phenomenological investigation of the emerging practice. *Explore*, 11(5), 346-356. <https://doi.org/10.1016/j.explore.2015.07.001>

- Matto, H. C., Tompkins, C. J., Ihara, E. S., Inoue, M., & Byrd, A. (2015). Results from a music, imagery, and movement treatment intervention in a long-term care facility. *Families in Society: Journal of Contemporary Social Services*, 96(4), 277-283.
<https://doi.org/10.1606/1044-3894.2015.96.32>
- McCrary J. M., Redding E., & Altenmüller E. (2021). Performing arts as a health resource? An umbrella review of the health impacts of music and dance participation. *PLoS ONE* 16(6), 1-18. <https://doi.org/10.1371/journal.pone.0252956>
- Mileski, M., Brooks, M., Kirsch, A., Lee, F., LeVieux, A., & Ruiz, A. (2019). Positive physical and mental outcomes for residents in nursing facilities using music: A systematic review. *Clinical Interventions in Aging*, 14, 301-319. <https://doi.org/10.2147/CIAS189486>
- Miloš, D., & Katušić, A. (2021). Possible effects of music therapy on depression and anxiety symptoms, perceived stress and subjective well-being in nursing home residents. *Ljetopis Socijalnog Rada [Annual of Social Work]*, 28(3), 695-709.
<https://doi.org/10.2147/CIAS189486>
- Miranda, M., Morici, J. F., Zaroni, M. B., & Bekinschtein, P. (2019). Brain-derived neurotrophic factor: A key molecule for memory in the healthy and the pathological brain. *Frontiers in Cellular Neuroscience*, 13(363), 1-25. <https://doi.org/10.3389/fncel.2019.00363>
- Muro, A., & Artero, N. (2016). Dance practice and well-being correlates in young women. *Women & Health*, 57(10), 1193-1203.
<https://doi.org/10.1080/03630242.2016.1243607>
- O'Rourke, H. M., Collins, L., & Sidani, S. (2018). Interventions to address social connectedness and loneliness for older adults: A scoping review. *BMC Geriatrics*, 18(1), 1-13.
<https://doi.org/10.1186/s12877-018-0897-x>

Park, J., Tolea, M. I., Sherman, D., Rosenfield, A., Arcay, V., Lopes, Y., & Galvin, J. E. (2020).

Feasibility of conducting nonpharmacological interventions to manage dementia symptoms in community-dwelling older adults: A cluster randomized controlled trial.

American Journal of Alzheimer's Disease & Other Dementias, 35, 1-12.

<https://doi.org/10.1177/1533317519872635>

Pizarro, J. J., Basabe, N., Amutio, A., Telletxea, S., Harizmendi, M., & Van Gordon, W. (2020).

The mediating role of shared flow and perceived emotional synchrony on compassion for others in a mindful-dancing program. *Mindfulness*, 11(1), 125-139.

<https://doi.org/10.1007/s12671-019-01200-z>

Rao, C. B., Peatfield, J. C., McAdam, K. P., Nunn, A. J., & Georgieva, D. P. (2021). A focus on

the reminiscence bump to personalize music playlists for dementia. *Journal of*

Multidisciplinary Healthcare, 14, 2195-2204. <https://doi.org/10.2147/JMDH.S312725>

Rebecchini, L. (2021). Music, mental health, and immunity. *Brain, Behavior, & Immunity –*

Health, 18. <https://doi.org/10.1016/j.bbih.2021.100374>

Sacks, O. (2007). *Musicophilia: Tales of music and the brain*. Alfred A. Knopf, Inc.

Salakka, I., Pitkäniemi, A., Pentikäinen, E., Mikkonen, K., Saari, P., Toiviainen, P., & Särkämö,

T. (2021). What makes music memorable? Relationships between acoustic musical

features and music-evoked emotions and memories in older adults. *PLoS ONE*, 16(5), 1-

18. <https://doi.org/10.1371/journal.pone.0251692>

Sekyung, J. (2021). Developing music-based emotion regulation (MBER): A theoretical model

for age-related depression prevention. *The Arts in Psychotherapy*, 74, 101769.

<https://doi.org/10.1016/j.aip.2021.101769>

- Shaffer, F., & Ginsberg, J. P. (2017). An overview of heart rate variability metrics and norms. *Frontiers in Public Health*, 5(258), 1-17.
<https://doi.org/10.3389/fpubh.2017.00258>
- Sheppard, A., & Broughton, M. C. (2020). Promoting wellbeing and health through active participation in music and dance: A systematic review. *International Journal of Qualitative Studies on Health & Well-Being*, 15(1), 1-11.
<https://doi.org/10.1080/17482631.2020.1732526>
- Shimizu, N., Umemura, T., Matsunaga, M., & Hirai, T. (2018). Effects of movement music therapy with a percussion instrument on physical and frontal lobe function in older adults with mild cognitive impairment: A randomized controlled trial. *Aging & Mental Health*, 22(12), 1614-1626. <https://doi.org/10.1080/13607863.2017.1379048>
- Sorensen, S., Steindl, S. R., Dingle, G. A., & Garcia, A. (2019). Comparing the effects of loving-kindness meditation (LKM), music and LKM plus music on psychological well-being. *Journal of Psychology*, 153(3), 267-287. <https://doi.org/10.1080/00223980.2018.1516610>
- Sutcliffe, R., Du, K. & Ruffman, T. (2020). Music making and neuropsychological aging: A review. *Neuroscience and Biobehavioral Reviews*, 113, 479-491.
<https://doi.org/10.1016/j.neubiorev.2020.03.026>
- Tang, R., Friston, K. J., & Tang, Y. (2020). Brief mindfulness meditation induces gray matter changes in a brain hub. *Neural Plasticity*, 2020. <https://doi.org/10.1155/2020/8830005>
- Thaut, M. H., & Hodges, D. A. (2019). *The Oxford handbook of music and the brain*. Oxford University Press.
- Toricelli, M., Pereira, A. A. R., Abrao, G. S., Malerba, H. N., Maia, J., Buck, H. S., & Viel, T. A. (2021). Mechanisms of neuroplasticity and brain degeneration: strategies for protection

during the aging process. *Neural Regeneration Research*, 16(1), 58-67.

<https://doi.org/10.4103/1673-5374.286952>

Treleaven, D. (2018). *Trauma-sensitive mindfulness*. W. W. Norton & Company.

Vedovelli, K., Giacobbo, B. L., Corrêa, M. S., Wieck, A., Argimon, I. I. D. L., & Bromberg, E.

(2017). Multimodal physical activity increases brain-derived neurotrophic factor levels and improves cognition in institutionalized older women. *Geroscience*, 39(4), 407-417.

<https://doi.org/10.1007/s11357-017-9987-5BDNF>

Verrusio, W., Andreozzi, P., Marigliano, B., Renzi, A., Gianturco, V., Pecci, M. T., Ettorre, E.,

Cacciafesta, M., & Guelli, N. (2014). Exercise training and music therapy in elderly with depressive syndrome: A pilot study. *Complementary Therapies in Medicine*, 22(4), 614-

620. <https://doi.org/10.1016/j.ctim.2014.05.012>

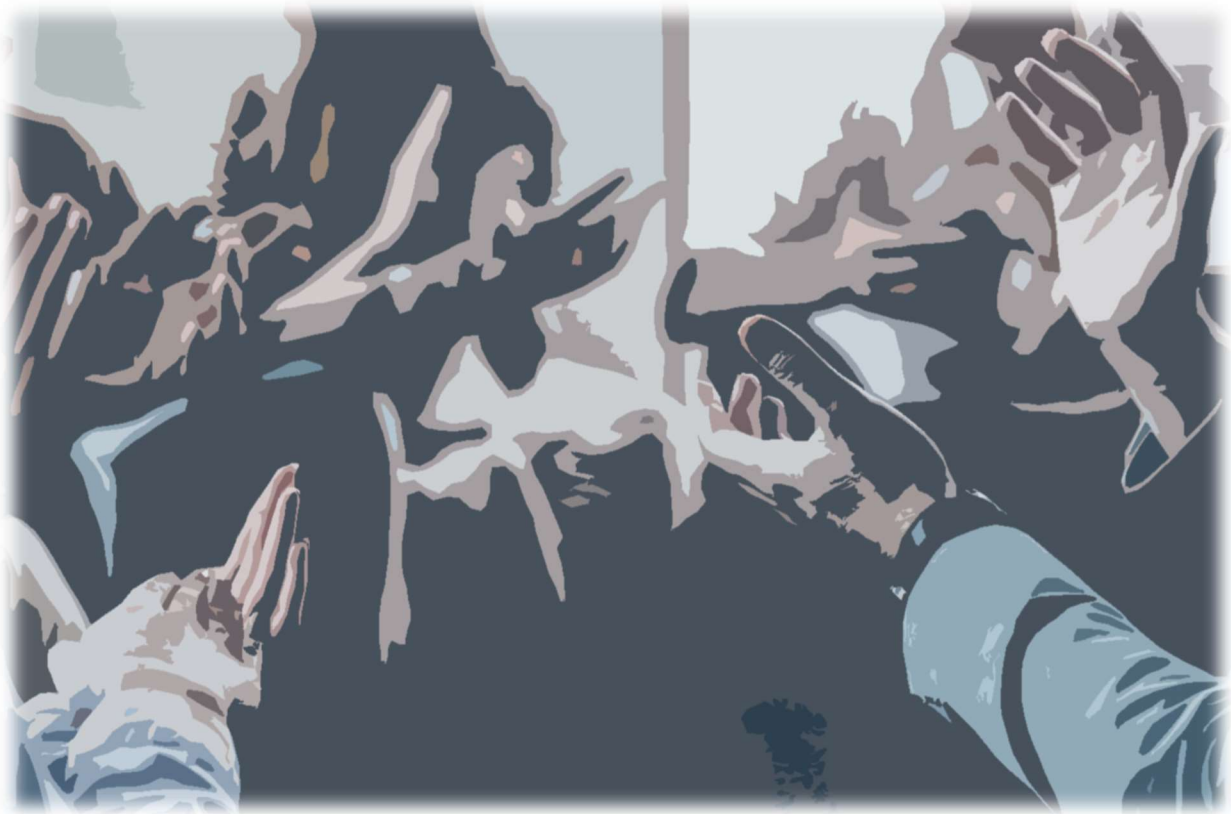
Yap, A. F., Kwan, Y. H., Tan, C. S., Ibrahim, S., & Ang, S. B. (2017). Rhythm-centred music making in community living elderly: A randomized pilot study. *BMC Complementary and Alternative Medicine*, 17(1), 1-8. <https://doi.org/10.1186/s12906-017-1825-x>

Zatorre, R., & McGill. (2015). Music, the food of neuroscience? *Nature*, 434(7031), 312-315.

<https://doi.org/10.1038/434312a>

Mindful Music and Movement: Facilitator's Guidebook

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MINDFUL MUSIC AND MOVEMENT: FACILITATOR GUIDEBOOK

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Introduction

This program was created to enhance the well-being of senior citizens. It incorporates a combination of music, movement, and rhythm activities with mindful attention. The intent is to offer modalities that encourage social engagement and personal enjoyment. The idea is to have fun which, ultimately, improves quality of life. My idea for the program originated from my experience with my aging mother. She was an intelligent woman who had dual careers as both a nurse and a police officer. She accomplished some amazing things in her life and seemed invincible to those who knew her. She became forgetful in her early 70s, and we wrote it off as normal aging, although she openly fretted about it. When her memory loss became pathological, I wondered why she did not fight the decline. I thought that since she had been a fighter throughout her life, this should be no different. I remembered the words of a poem by Dylan Thomas, “Do not go gentle into that good night. Rage, rage against the dying of the light.” In this circumstance, the dying light was my mother’s memory. Dementia is not something one can talk oneself out of, so I had to accept and reconcile her fighting spirit from circumstances beyond her control. Since she had a trait of strong personal defense reactions, I fully expected her to fight the placement into the memory care facility. Instead, I was surprised by how happy she instantly became. The staff found her to be such a joy, which was not a word *anyone* in the family would have used to describe her. She was a different person. This is when my thoughts shifted from retaining memory at all costs to simply enjoying the present moment, because that is where she was perpetually living. She passed on after less than a year in memory care but had planted the idea in my head that all aging adults should have the opportunity to enjoy senescence. This program is her legacy.

A Word About Mindfulness

The activities contained in this program incorporate mindfulness practices. The basic premise of mindfulness is to pay attention to the present moment on purpose and without judgment (Kabat-Zinn, 1990). For simplicity, I introduce mindfulness as a concept of merely paying attention. When we pay attention, we notice more. We see colors we may not have seen or hear sounds we may not have heard. When we pay attention, life becomes richer as we take in more of what is around us. Mindfulness practices help build emotional regulation so we can respond rather than react to situations. This contributes further to well-being as we learn functional ways of interacting with everyone and everything we encounter. I simplify the meaning because not

every person who hears the term “mindfulness” will be comfortable with it. In leading a past mindfulness session, I was instructed not to use the word “mindfulness,” although “mindful” was deemed acceptable. It could be that some people see it as synonymous with meditation which may seem counter to one person’s religious beliefs or overly “new age” to another. If you are concerned that people in your group may be uncomfortable with the use of the word *mindfulness*, you can simply refer to it as minding “something,” much like when we “mind our manners.” Perhaps, we mind our breath, or we mind our thoughts, or we mind our experience. How you present it is up to you.

The extent of the benefits that people can gain from mindfulness practices will be different for each person depending on their receptivity, previous exposure, and personal life experiences. Part of your own mindfulness journey is to accept and meet each person where they are at. Please keep in mind that this program is not intended to address trauma or mental health issues. Mindfulness practices may evoke some repressed thoughts and feelings that participants may wish to deal with outside of the group. It is good to have some resources available to share should this need arise.

Guidelines for Implementation

There is much organization that goes into implementing programs. A few key things to consider for this Mindful Music and Movement program include following the 4 week/12 week/1 year format, setting effective ground rules, and knowing how to lead the various portions of the sessions. Familiarity with mindfulness and confidence leading participants in mindful practices are useful skills. Social adeptness will help with the success of the program if any conflict between group members arises. Facilitators should have resources available for those who may need assistance outside of what the program offers (i.e., physical, emotional, mental). You may wish to have the participants sign a waiver prior to the start of the program and for those joining after it has started. The waiver can state that you are not a trained professional and that they agree that their participation is voluntary and at-will. It should include information that they may quit at any time and that they will not hold you or the center accountable for any personal harm that may occur directly or indirectly from their participation.

Preparation is essential. The space that will be used should be temperature-controlled and large enough for the participants to move around for the dancing interventions. The space should include plenty of chairs, pillows, and blankets for participant comfort. Availability of parking and safety of the surrounding area should be considered.

The facilitator must have a large collection of music available to play during the sessions. This media should be stored on a portable device that has a speaker loud enough for everyone in the room to hear. There are various other items needed depending on which session is being led and which mindful activity is chosen. Colored pens/pencils and designs for coloring are used for one of the mindful activities. If the activity involves taking turns, a handy way to draw numbers from a hat may be useful if the group is large. Hats or sashes that participants can wear to signify interaction preferences within an activity are good to have available (explained in the week 4 section). An array of props is used for week three of each 12-week block. Putting these together well ahead of time will help avoid the stress of trying to find them at the last minute. If opting for the music playing activity of week eight, you will need to determine how the instruments will be provided. Will the participants bring their own? Will you supply some, if not all, of them? How will you obtain them? Can they be borrowed? Do you own some instruments that you can share, or are you able to purchase them as a package deal online? You will need percussion instruments for weeks 10 through 12. If you have access to drums and bongos, that is ideal. If not, you can invest in some used/second-hand drums, bongos, maracas, castanets, and tambourines. There may be beginner sets available online. Plastic clappers (shaped like hands) are inexpensive and can be bought in bulk. If these options do not work, you can use your own creativity. Percussion instruments can be created from many different items. A hollow wooden box has good resonance. A large empty can with a plastic lid (like a coffee can) can be a makeshift drum. The material of wide resistance bands/sheets can be stretched over many items to create the hollow sound of a drumhead. An overturned bucket works well. Even a simple overturned cardboard box turned can be used. Dried beans inside a lidded plastic container doubles as maracas (be sure to secure the lid well!). Small blocks of wood or wood remnants can be used as clappers. Use your own creativity, ask friends for ideas, and/or do an internet search. You might ask the participants for their ideas prior to week 10. They may enjoy making and bringing their own percussion instruments if they are given enough time to plan.

Setting Ground Rules

It is important to set expectations at the beginning of the program as well as review them at the start of each session. The basic premise of these expectations is respect of self and respect of others. This creates a setting where the participants can feel safe. If the group is made up of people from diverse backgrounds, it is important to cover acceptance and lack of discrimination. A suggestion for preliminary scripting is listed below. Please feel free to edit or add your own voice as fits your situation.

*“This session is for your self-care and enjoyment. It is important to listen to your own body. When doing physical movements, do not push beyond what is comfortable. Alter or stop any movement as needed. See if you can drop any self-consciousness and let yourself be creative and expressive. Just be yourself. Try to remain open-minded. If any activity brings up intense or surprising emotions, memories, or thoughts, feel free to stop and focus on something else, such as your breath or a spot in the room, or take a drink of water. You may wish to walk away from the group or leave the space until you feel more balanced, regulated, and safe. Feel free to stop or rest at any time for any reason. Use the restroom as needed. Keep water handy so you can stay hydrated. Keep in mind that this practice is not a competition. Try not to compare yourself with others. Do not feel like you must do anything the same way as anyone else or as fast as another person. Be supportive of the creativity of others as they may be stepping outside of their comfort zone, and they will benefit from positive encouragement. It is okay to laugh **with** others, not **at** them. Be accepting of yourself and other participants. Be respectful of each other’s space and limitations. Do not share what others say or do here outside of this group unless you have express permission from that person. As we get started, let’s keep in mind that the purpose of this session is to enjoy ourselves.”*

Format

The program’s format follows a 12-week repeating cycle. There are specific activities suggested for each month and for each week within that month. The instructor is encouraged to follow the format closely for the first three months. The subsequent 12-week blocks can be mixed up based on initial participant response and ease of administration (such as availability of instruments and props).

The first four weeks focus on music and movement. Each week’s activities are done to or with music. The music may be a serene piece or something more familiar depending on the activity. Week one starts the program with gentle stretching and movement of body parts. Quiet, instrumental music is a good choice for this activity. The second week involves mimicking movements and poses, first by the instructor then led by participants. Week three is designed to use a variety of props to accompany the music. Color themes can be used to enhance prop choice. The following week is improvisational dance.

The second 4-week block focuses on singing. Week five incorporates familiar tunes that are chosen by participants (or a facilitator default list if needed). The next week continues with singing familiar songs with participants in different seating configurations and then split into smaller groups. The third week of this section encourages creativity where participants make up

their own words to familiar tunes. Week eight has two options: either playing music or listening to music. The choice will be based on logistics, which include instrument availability and participant preference.

The final section incorporates rhythm activities. The first week of this section is keeping rhythm to music by using the body with hand clapping, knee slapping, foot tapping, and marching. The second week of rhythm is a drumming session. This is where the percussion instruments come into play. Week eleven is drumming a beat to music. If there are instruments available, their use would be encouraged in this session. The last week is singing and drumming/clapping combined. Participants can choose to be a singer or rhythm-keeper or both, either switching off or doing both concurrently.

After the twelve weeks have been completed, the program repeats itself and may morph/evolve over time. The sessions are between 60 and 75 minutes and can be done 2-3 times per week. Twice a week is the minimum suggested. The same intervention should be used for the entire week, but you can change the music or add your own creativity to subsequent sessions within the same week.

The suggested format is:

Greeting, introductions, ground rules, one-word activity*	10 minutes
Dropping in mindfully**	5-10 minutes
Intervention	25-30 minutes
One-minute silent pause; sharing/dialogue	10 minutes
Mindful integration**	5-10 minutes
Closing	5 minutes

* One-word activity is when participants are invited to go around the circle/room and say just one word that comes to mind. They can be given a prompt for this word such as what is top of mind, current events, a holiday, or a chosen theme. The theme can be related to the music theme of the day if one is used.

** Mindful portions (explained on next page):

- Body scan/Touch points
- Breathing while listening to soft music or nature sounds
- Measured breathing (counting)
- Embodied breathing
- Slow/mindful movement of the body while listening to music/nature sounds

- Listening to music while doing a creative activity such as coloring kaleidoscope or mandala designs
- Silently wishing well-being to self and others (lovingkindness)
- Silently chanting a personally chosen word or phrase

Add other mindfulness ideas

- _____
- _____
- _____
- _____

Guiding the Mindful Activities

The mindful suggestions listed in the previous section should be done in silence. This is a time for each person to pay attention to what is going on for them personally. The mindful portion done *prior* to the intervention allows them to settle in and become present for the activity that follows. The mindful portion done *after* the intervention is for integration where they will have time to process any thoughts or feelings that arose.

Body Scan/Touch Points

This practice is done with eyes closed or downcast. Give the participants the option of doing a quick body scan or focusing on “Touch Points” (term borrowed from Pollak et al., 2014). Some people may not be comfortable doing body scans particularly if certain areas trigger traumatic memories, so having an available alternative is essential. For the body scan, give them the choice of starting either at the head or the toes, whichever feels more natural for them. Encourage them to check in with each part of the body as they work their way up or down. I like to picture a soft, colored energy swirling around each body part. This energy gently caresses the body part and adds positivity or calmness. Let them choose what the energy brings to their own bodies. You can suggest colors for them to imagine such as blue, white, silver or gold. For the Touch Points practice, they can focus on the different areas of the body that are in contact with something else such as their feet on the floor, their seat on the chair, their hands resting in their lap, or the touch of their clothes on their legs, arms, or shoulders. They can choose to focus on one touch point or go through each one as they discover them while moving in an upward or downward direction. Hands in lap and clothes on body are both internal sensations. If someone struggles with this much focus on the internal, suggest touch points that focus on how the body interacts with something external such as the floor or chair.

Breathing to Music or Sounds

It is advisable to give some basic breathing instructions *before* starting the breathing focus.

Scripting can include: *“When you focus on your breathing, you may wish to close your eyes or cast your gaze downwards. If you are more comfortable focusing on something specific, you can look at your hands or pick a spot on the floor or elsewhere to stare at. Start with a deep breath in and feel how the air enters your lungs. See if you can feel the cool air entering your nostrils or mouth and feel how it expands your chest. See if you can breathe the air all the way to the bottom of your lungs by letting your belly expand. If you are able and it is comfortable, hold the breath for a count of four and then gently let the air leave your lungs through either your nose or mouth, whichever feels more natural for you. Just let the air expel itself naturally as the lungs recoil and stabilize with the room pressure. There is no need to force the air out unless you feel the desire to sigh or release tension. See if you can pause for another four counts before starting the next breath cycle. Take three of these deep breaths at the start of the music and then let your body resume a normal breathing pattern while continuing to pay attention to the air entering and leaving your body. If you find your breath is shallow or becomes shallow, see if you can deepen it a bit so that you can take in more of the free life-giving oxygen that helps you think more clearly. As you become comfortable with this breath focus, see if you can incorporate it into the music you hear.”* After the instructions, start the music and join in with the participants for the breathing focus. When the music ends, make sure to stop it. Sit quietly and pause for a moment. Many participants will open their eyes to see what is next. Smile at them and then gently invite everyone else to quietly reengage with the group.

Measured Breathing

This type of breathing can be done in different ways. One suggestion is simply to count the inhalation/exhalation cycle. They can either count each cycle together (inhale/exhale = 1) or they can count the inhalation as one and the exhalation as two. They can count to ten (or any other chosen number) and then count backwards to one, or they can continue to count upwards until the session concludes. Another measured breathing method is to inhale to the count of four and exhale to the count of six. I like to make the exhalation longer because exhalation prompts relaxation by activating the parasympathetic nervous system.

Embodied Breathing

The three types of embodied breathing that I find useful are Ujjayi breathing, directional breathing, and the “universe breath.” Briefly explained, Ujjayi breathing is an audible breath created by narrowing the throat so that the air inhaled and exhaled creates a rushing sound. I refer to this as the Darth Vader breath when explaining it to others. There are plenty of

resources online that can give you a more in-depth explanation of how to do it. Directional breathing is done by inhaling into a specific lung field. This is easier to do than one would imagine. Inhale and exhale into the left side, then do the right side. You can inhale solely into the front of the body or just into the back. Even though the lungs do not go down into the sacral area, I like to imagine breathing into the lowest part of the back, first one side then the other. It creates a nice stretch and feels balancing and releasing. The universe breath is where you imagine that you are not doing the breathing but that the universe is breathing you. When inhaling, sense that the universe is gently pushing the air into your lungs. When exhaling, feel the lungs naturally recoil as the air returns to the universe and the atmospheric pressure normalizes.

Lovingkindness

Explain that lovingkindness is a compassion practice where we send good thoughts to ourselves and others. Emphasize that self-compassion is just as important as compassion for others. I like to start by offering phrases of lovingkindness to myself with the premise that one needs to have compassion for self in order to give it to others. I then move to offering the phrases to other people. I wrap up by including myself in a group with everyone else. Instruct participants to silently send phrases of lovingkindness to themselves and then move to whoever comes to mind. This can include someone dear to them, someone who they know is having difficulties, or someone neutral such as the mailman or a store clerk. In future sessions, when they are more comfortable with this practice, or if they feel capable, encourage them to send the phrases to someone they consider difficult. Other suggestions are to send the phrases to groups that are suffering from things such as discrimination, civil unrest, or war. Suggested phrases (with alternating pronouns):

- *May I be happy*
- *May you be healthy*
- *May we be safe*
- *May I be calm and peaceful*
- *May you be free from suffering*
- *May we live in harmony with others*

Since there are many suggestions for phrases, let participants know they are not expected to remember or use them all. Encourage them to choose a few that resonate with them.

Chanting

The word “chanting” may make some people uncomfortable if it does not fit in with their particular beliefs. If you sense anyone in the group is or will be uncomfortable with the use of

this term, you can refer to it as repeating words or repeating phrases. *The Relaxation Response* by Herbert Benson (1975) is a good reference for this technique. The basic instructions are to choose a word, phrase, or prayer that fits in with one's own beliefs and silently repeat it with each exhalation. If participants ask for ideas on what to repeat, you might suggest the words *calm* or *gentle* or *kind* or *patient*. Short phrases could be "I am a good listener" or "I am compassionate."

Post Intervention

When the group has completed the intervention, practice a silent one-minute pause. Invite them to close their eyes or cast their gaze downwards. After this minute-long pause, invite the participants into a shared dialogue where they can talk about their experiences. *How did they like the session? Was there something they did not like? What did they enjoy? What was challenging? What thoughts or feelings came up that were unexpected? Were these welcome or unwelcome? What might they do to process their experience?* Be inclusive during the dialogue time and refrain from giving advice. This dialogue session is simply for group interaction and connection. It is for them to share their experience with and support each other as needed. If they seem at a loss with how to process difficult emotions, and they do not seem receptive to suggestions from the group (if any were made), you can talk about accepting things as they are without feeling like they need to fix anything. Ask them if they can just sit with whatever it is.

Closing Activity

The closing part of the session need not be long or formal. You can determine the best way to close your sessions. You can thank the group members for their participation, their openness, or their willingness to try something new. You can give positive feedback about the creativity that they expressed or their overall talent (i.e., "I heard some pretty impressive singing today!"). Let them know when the next session will be and express your hope that they will be able to attend. You may wish to stick around after the session for 15-20 minutes if there are people who have questions or want to socialize a bit more before moving on with their day.

Guidelines for the Facilitator

It is essential that the facilitator considers possible physical limitations, music preferences, and general preferences of the intervention group. The individual level of participation is the choice of each group member. Allow them to make the choice to "sit this one out" rather than coerce

them to join in. Keep in mind that these activities are intended for the benefit of the participants and not the facilitator.

Instructor etiquette for the sessions:

- Be enthusiastic, approachable, encouraging, and amiable
- Make eye contact
- Be aware of your body language and tone of voice
- Repeat instructions
- Allow pauses as needed
- Use humor
- Listen
- Be flexible
- Have a back-up plan
- If you don't know an answer to a question, say so
- Paraphrase and validate comments
- Do not disagree (ask if others have the same or different experience)
- Do not come across as someone who knows everything (approach with beginner's mind)
- Know it is not your responsibility to fix everything and everyone
- Lead with authenticity
- (add your own ideas) _____
- _____
- _____
- _____

Choosing Music

Music considerations are important. Since it may be difficult to collect a list of music preferences from potential participants prior to the start of the program, the instructor needs to come prepared with an extensive repertoire of songs. The list should include songs that would have been popular while the participants were young. Since senior citizens span a wide range of ages, songs from different decades should be available. Show tunes and “oldies but goodies” are good choices (i.e., Boogie Woogie Bugle Boy, Singing in the Rain, Take me Out to the Ball Game). If there are participants in the group that come from a non-North American background, the instructor should ask them what songs can be added for upcoming sessions. For the calmer pieces, they can be soft singing (i.e., Enya), general instrumental songs (i.e., Secret Garden), or well-known classical pieces (i.e., Rêverie by Debussy).

The music that you put together for your sessions will reflect somewhat on your own tastes and will evolve over time as you learn what music the group members respond best to. A good resource for song lists by decade and theme is *Music, Memory, and Meaning* by Hamons et al. (2017). Some songs and suggestions that I use are listed below.

Classical pieces – good for listening/mindful portions

- Adagio in G Minor (Giazotto)
- Theme from Polovtsian Dances (Kucybala)
- Rhapsody on a Theme of Paganini (Rachmaninov)
- Air on the G String (Bach)
- Fur Elise (Beethoven)
- The Swan (Saint-Saëns)
- Clair de Lune (Debussy)
- Gymnopédie No. 1 (Satie)
- Nocturne #2 in E Flat (Chopin)
- Piano Concerto No. 1 (Tchaikovsky)
- (add your own ideas) _____
- _____
- _____

Instrumental

- Sweet Rain (*Bill Douglas*)
- Calling Earth (*Fiona Joy Hawkins*)
- (add your own ideas) _____
- _____
- _____

Traditional

- Danny Boy/Londonderry Air
- Skye Boat Song
- (add your ideas or other cultural/ethnic songs)
- _____
- _____
- _____

Good Songs for Singing Along

Showtunes

- I'm Gonna Wash That Man Right Outa My Hair
- I Could Have Danced All Night
- Cabaret
- My Favorite Things
- Anything You Can Do I Can Do Better
- No Business Like Show Business
- If I Were a Rich Man
- Consider Yourself
- I Feel Pretty
- Oh! What a Beautiful Mornin'
- Zip-a-Dee-Doo-Dah
- Getting to Know You
- 76 Trombones
- Put on a Happy Face
- (add your own ideas) _____
- _____
- _____

Childhood Songs

- Camptown Races
- Oh Suzannah
- Oh My Darlin' Clementine
- She'll Be Comin' Round the Mountain
- This Land is Your Land
- I've Been Working on the Railroad
- (add your own ideas) _____
- _____
- _____

Oldies

- Mairzy Doats
- I'm Looking Over a Four Leaf Clover
- You Are My Sunshine
- Don't Fence Me In

- Deep in the Heart of Texas
- (add your own ideas) _____
- _____
- _____

60s & 70s

- King of the Road (*Roger Miller*)
- Downtown (*Petula Clark*)
- Build Me Up Buttercup (*The Foundations*)
- Happy Together (*The Turtles*)
- Blowin' in the Wind (*Peter, Paul & Mary*)
- Leaving on a Jet Plane (*Peter, Paul & Mary*)
- Crystal Blue Persuasion (*Tommy James & The Shondells*)
- Scarborough Fair (*Simon & Garfunkel*)
- Bridge Over Troubled Water (*Simon & Garfunkel*)
- Sunshine on My Shoulders (*John Denver*)
- Take Me Home, Country Roads (*John Denver*)
- I Feel the Earth Move (*Carole King*)
- Sweet Caroline (*Neil Diamond*)
- (add your own ideas) _____
- _____
- _____

Most songs from *Frankie Valli & The Four Seasons*, *The Carpenters*, *The Beach Boys*, *Linda Ronstadt*, *The Eagles*, or *The Beatles* are usually well-known enough to sing along to.

Upbeat – good for rhythm interventions

- Superstition (*Stevie Wonder*)
- Play That Funky Music (*Wild Cherry*)
- Brick House (*The Commodores*)
- Footloose (*Kenny Loggins*)
- Happy (*Pharrell Williams*)
- *Greatest hits from Earth, Wind & Fire*
- *Greatest hits from Electric Light Orchestra*
- (add your own ideas) _____
- _____
- _____

Going Forth

The information provided should give you a good foundation to start with. The details of the interventions are listed in the following pages. There is no “wrong way” to lead the sessions. As you become comfortable leading the interventions, they will evolve and take on your own flavor and that of your participants. If you choose to change the way an intervention is administered, that is entirely acceptable and encouraged. The sessions need to work for everyone involved. The most important thing is to be sure to include the mindful practices before, during, and after the interventions. When we truly pay attention to what we are doing, we enjoy more of what life offers; that which may have previously gone unnoticed. As our awareness grows, so does our well-being as we are able to see the fullness of our lives and the lives (and life) around us.

THE INTERVENTIONS

Mindful Movement Interventions (Weeks 1-4)



Week 1 – Gentle Movement

Mindful Focus: *bodily sensation & movement; relaxation*

This session is for gentle stretching and joint mobility starting with the toes and working upwards. A good choice for music is something calm and quiet but use whatever you think the group will like. Below is the basic script to follow. It does not need to be exact. Use it as a template on what to cover and how to lead. Make sure to give ample time for each movement.

“Today we are going to move each part of our body. Our joints like to have some motion, so we will gently move different areas starting from the toes and working upwards. Please feel free to skip any area that you do not wish to move or that feels uncomfortable. Listen to what your own body needs. Rather than try to copy or outdo your neighbor, it is important that you do what feels right to you. This is not a competition. This is *your* experience.

So, if you like, you can take your shoes off or you can leave them on. It is your choice. I will take mine off, so my toes feel free!

Let’s start with wiggling the toes. You can focus on one foot at a time or wiggle all the toes of both feet. How many different ways are you able to move them? Maybe they only move in one way. Just pay attention to what they are doing and how they feel as you move them.

Let’s warm up the ankles, either together or separately, first by pointing and flexing the feet; up & down, up & down. Can you feel the muscles you use to move your foot? Do you feel your calf engage or some other muscle? If you are doing them separately and have not switched yet, go ahead and do the other one.

Next, we’ll gently rotate our ankles. Again, you can rotate both at the same time or do them separately. Rotate whichever direction you like. You can keep going in the same direction or switch directions if you wish. If you are doing them separately, go ahead and switch when you are ready. Note how this feels.

Moving up to the knee joint, slowly bend and straighten your leg. It is easier to do one leg at a time. The non-active leg keeps you stable so you can move the active leg. How does this feel? Does your leg feel heavy or light? Is it hard or easy to move? Do you hear any cracking or popping of the joint? Just note how it feels. When you are ready, switch to the other leg and see if that one feels different.

This next one might be easier standing, but you can remain sitting if you wish. Making sure the movement comes from the hip joint, turn your foot in pigeon-toed and then turn it out like a

duck or a ballet dancer. Do not force the movement. Just gentle in and out, feeling it in the hip socket. How does this feel? Switch to the other leg whenever you are ready. In and out.

If you are standing, remain so for the next movement. Rotate your lower body around in a circle, either direction. If you are seated, you can move the upper body instead. After a while you can switch directions if you like. Maybe try making a figure 8 with the hips. Note how your body feels as you make these movements.

Let's do some gentle side bends in each direction. You can keep your arms at your side, or you can raise one up and over as you bend. Be gentle and only bend slightly. Stop and/or modify if it feels uncomfortable.

Let's stop for a moment and breathe. If you want to sit for this, that is fine, or you can remain standing. Take a deep breath and let it out. On the next in-breath, see if you can breathe into your lower back. Pretend that your lungs go all the way down to your tailbone. Breathe into the left side, then the right side. Feel the lower back expanding and opening up. How does this feel? Is this a new sensation? Does it feel weird, or does it feel good? Let's take a few more breaths before we get back to moving (give them a chance to take about 3 more breaths).

The rest of the movements can be done sitting or standing. You can sit if you feel tired and stand again when you are ready or you can remain seated for all of them. It is your choice.

I prefer to sit for the next movement which is upper body rotation. It is easier to keep the lower body still if you are seated but this can be done quite easily while standing as well. You may have already done this one if you have been sitting all along. Rotate your upper body. Slowly and gently make small circles with your torso first one direction, then the other if you wish. Do you feel coordinated, clumsy, dizzy? Whatever you feel, accept it without judgment.

We'll do one more torso move before we go to shoulders and arms. Go ahead and gently twist one direction like a corkscrew. Note how that feels. Without forcing it, what are you seeing off to your side or slightly behind you? Just note it. Now switch to the other side and, again, note what you see.

Alright, let's move to those shoulders, an area that many of us keep tight. With your arms at your side, roll your shoulders up and back, slowly and gently. After a few rotations, switch the direction to up and forward. How does that feel? I always end by switching one more time to up and back because it opens up the chest and helps stop us from slumping. Let's end by letting the shoulder blades feel heavy as if gravity is pulling them down the back.

Let's stop here and check in. How are you feeling so far? What is your breathing doing? Just notice (give some silent time - 45-60 seconds). Let's take a deep breath in together and move on.

Now, using the shoulder joint, bring your arms up extended in front of you, you can raise them just to shoulder height or a little higher if you feel flexible enough today. If it is uncomfortable to raise them past a certain point, lower them a bit. You can raise them separately if you wish.

Bring them up and down a few times. Then we'll switch to extending them out to the sides. You may note more or less flexibility in this direction. Just pay attention to what your body needs.

Up and down, up and down, like a gently flapping bird.

Next, leaving your arm or arms extended to the side, flip your palms forward then down. Be gentle and see how this feels.

Elbow benders are next. Extend your arms in front of you and bend and straighten them. Your palms can face whichever direction feels best or most natural for you (facing down, inwards, or upwards). Can you feel the air on your arms as you move them?

Moving to the wrists, we're going to do a movement like we're turning the knob of a TV. Did anyone have a TV with knobs? Maybe your stove still has knobs? Just turn your knobs off and on several times. What other joints do you notice might be involved in this movement?

Now let's do flipping and flapping. Flipping is turning your palms up then down. Try to isolate the movement to your wrists. After you have done this for a while, try flapping your palms. You can hold them facing up or down, whichever you like, or you can alternate. With the palms down, what does the flapping remind you of? Is it like a bird flapping his wings ineffectively. Is it like waving to someone in an odd manner? Do you feel like you are signaling someone to tone it down? If your palms are up, what does it look like. Are you asking someone to "come here?" or are you fanning yourself from the heat? Just notice.

Wrist rotations are next. Gently rotate your wrists for a bit in one direction and when you are ready, switch to the other direction. This is not a movement we commonly do unless we do a lot of stirring so this is good for mobility especially for your non-dominant hand. How does it feel to move your wrists in this way?

Moving down into our fingers we will do some flicking and fluttering. Flicking is like we are trying to flick water off of our fingertips or maybe we're trying to express surprise to someone with our hands. Fluttering is like playing piano keys. What comes to mind while you are doing these movements? Notice without judging.

Let's move to our neck. It is important to be gentle with the neck. Slowly turn and look to your left. Stop if you have any pain. The neck may only turn 45 degrees or less and that is fine. Now slowly turn and look to your right. Again, just a small angle of turn is fine and normal. Maybe slowly turn your head from left to right as if you are slowly saying "no." What do you need to say no to in your life?

Bring your chin down and see how the stretch in the back of the neck feels. Now gently tilt your head slightly to gaze upwards. What do you see when you look up? Slowly switch from down to up as if you are slowly saying “yes.” What things do you say yes to?

Now gently aim one ear to the shoulder for a tiny stretch. Take a deep breath or 2 in this position. When you are ready, switch to the other side and take in another breath.

Let’s do slight head rotations and I do mean slight. Do not bend the neck too far in any direction especially backward. A very small circle is all you should do. I like to go counterclockwise first and then switch to clockwise. This movement is supposed to lubricate the cervical spine, an area many of us get a bit of arthritis in. What do you notice?

(If there are still people standing, invite them to sit now)

Lastly is mouth or face movements. Do whatever you want to. You can squint your eyes, crinkle your nose, screw up your whole face, pucker your lips, or simply open and close your mouth like a fish. Do what feels right to you today.

Once you are done, just relax your face. Unclench your teeth and let your jaw drop. Feel the relaxation. If you like, you can close your eyes or soften your gaze and, keeping your face relaxed, see if you can relax your shoulders, maybe feel those shoulder blades sliding down your back. In this relaxed posture, take in 3 slow deep breaths at your own pace. There is no rush. Open your eyes whenever you are ready.”

Notes: _____



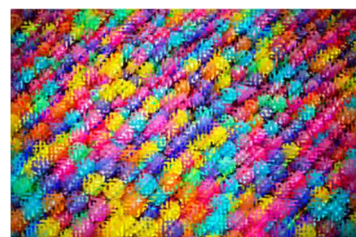
Week 2 – Copycat

Mindful Focus: *body movement; attention, listening*

In this session, participants copy movements or poses. The first time this session is done, it is best for the instructor to lead the initial movements. Future sessions can skip the instructor portion if desired. The instructor advises everyone to copy whatever he/she is doing. It can be movements such as swaying or mimicking an animal, or it can be some type of pose. Timing is based on how many people are in the group because each person will be given the opportunity to lead a round. The instructor might lead for 3-4 minutes to get everyone comfortable with moving. Then, let each participant lead for as long as they feel comfortable; some may lead for a short time, some may lead for longer; some may choose not to lead - let everyone know ahead of time that is okay if they do not wish to lead. If you skip anyone because they declined, round

back to them when everyone else is done to give them another chance in case they have become more confident or interested in leading a round. After everyone has had a chance to lead in this way, the next round will be participants doing one movement or pose and the next person adding to that and so on, making the “routine” into a long string of choreographed movements. This is great for memory stimulation. It is okay if people forget or leave stuff out. This is about having fun and being in the present moment. Suggested music would be to start with a soft instrumental piece and then transition to something more familiar or preferred by the group. If it is a very energetic group, a soft instrumental piece may not be appropriate. There are many upbeat instrumental songs you can use in this situation such as “Spring” *by Vivaldi*. The participants may naturally create movements or poses that fit the music. If the session goes quickly, you can start over and create another “routine” with different music. The last part of this session is to put in a piece of music and advise the participants to listen attentively to it and mindfully choose their own poses or movements that are independent of what the others are doing.

Notes: _____



Week 3 – Using Props

Mindful Focus: *attention & interpretation of environment*

In preparation for this session, you will gather various props of different colors. Colored balls are one idea as they are easy to find and use. Cloth remnants of different colors are another idea. To

keep your costs down, you can simply bring things that you have on hand that are easy to handle and that you are willing to let others use. Whatever you choose, make sure to have various colors and several items of the same color so that participants are not limited in what colors to choose.

This session can be led in different ways. You may choose to bring a picture or bring your computer and pull one up or you may choose specific music that mentions a color.

For the visual option, start with having the participants focus on the picture. Ask them what they notice; what colors and contrasts they see. What feelings does the picture evoke? Let them spend some time mindfully gazing at the picture. After a few minutes, start some soft music that you think may match the picture and ask them to choose a prop. Advise them to move around the space mindfully with the prop. They may wish to sway or dance or simply explore the prop with their eyes. The music may help them decide what they want to do. Encourage them to use their

creativity and not to worry about what others are doing or thinking. After the song ends, start another song with a different style (i.e., something with a different beat) and encourage them to choose a different prop or add another one if they desire. Ask them to find ways to use their own props together. They can also find ways to incorporate their props with those of others. Ask them to be mindful of the body language of others to determine if they are willing to interact (making eye contact, turning toward the person approaching, nodding assent). For the music option, some color-specific song ideas are *Green Tambourine*, *Yellow Submarine*, *Lady in Red*, *Devil with a Blue Dress On*, and *Purple Rain*; there are many choices. Follow the same process as above, letting them choose their props and move about the space as they wish.

Notes: _____



Week 4 – Improv Dance

Mindful Focus: *bodily expression & sensation; awareness*

This session is about moving the body in ways that participants feel prompted by the music played. Ensure you have different types of music for different types of expression. As usual, starting with a softer piece is always a nice warm-up of their bodies and their confidence (dropping inhibitions). They may wish to act out the one word they shared at the beginning of the session or the word or phrase they chose for their silent chant if this was used during the pre-intervention mindfulness. Participants are encouraged to dance solo for the first song and can continue to do so for every song if they wish. Encourage them to note how the body feels as they move it around. They might notice how the muscles move, how their arms relate to other parts of their bodies, or how it feels to move through the space. After the first solo dance, participants may wish to interact in the improvisational dance with others. It is important before you start the music to have people signify their preference if they wish to dance alone. These participants can wear a hat or a sash that you provide that signals other participants that they do not wish to interact in their dancing. Choose as many songs as you like to fill the session, keeping an eye on people to note if they might be getting tired and then bring the dance portion to an early close if necessary.

Notes: _____

Music Interventions (Weeks 5-8)

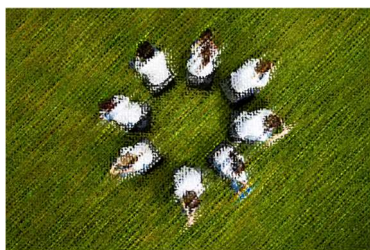


Week 5 – Sing Familiar Songs

Mindful Focus: *breathing & acceptance*

Singing is typically done in a circle and can be done either sitting or standing, whichever the group prefers. Bring a list of well-known songs on the device you use for playing music. People will have different timeframes or genres of music that they prefer so it is good to have a variety of songs available. You should also include songs that most people would be familiar with. Participants can use their smartphones or tablets to find lyrics for ease of singing. Allow the participants to choose the songs. If the group is large, everyone may not get a turn. You may want to have them draw chits with numbers on them to determine who picks first. Spend the session singing together, taking a break every 3-4 songs to quietly take 3 deep breaths together and give their voices a rest. During this break, ask them to note what has come up from their singing and to simply look at it without grasping or pushing it away.

Notes: _____



Week 6 – Singing Together While Apart

Mindful Focus: *adjusting, breathing, reflecting*

Like Week 1, participants will sing familiar songs but this week, they will be physically spaced differently. The purpose is to note how different singing feels when not together as groups usually are in shared activities. For the first half of the session, you are encouraged to try different seating options for each song. Instead of a circle facing each other, turn the chairs around so they are facing away. Another option is to space the chairs out so that everyone is more separated throughout the room. A third option is to have the chairs facing in all different directions. You may want to try half the group standing and half sitting. Use your creativity to configure the locations of each person. Before you start the songs, let them settle in and take a breath to adjust to the new configuration. After approximately 4 songs (or more depending on the number of configurations used), bring everyone back together. Allow some time for quiet reflection before moving on to the second half of the intervention. For the remainder of the session, and in order to recreate a sense of shared space, keep them facing each other and have members take different parts of the songs so that not every person is singing every word. You can do this by

splitting people into equal-sized groups and having group 1 sing the first verse, group 2 the second verse and so on. The groups can be all the people sitting in one quarter of the circle (if there are 4 verses) or you can have them count off (1,2,3,4) so that all of the 'ones' sing verse 1, the 'twos' sing verse 2, etc. You can separate the groups by shirt color, first letters of their names, geographical location of where they currently live, or anything else creative that you see the potential to use.

Notes: _____



Week 7 – Re-inventing Songs

Mindful Focus: *breathing, reflection*

In this session, you will use instrumental versions of well-known songs. Some ideas are *Beethoven's Fifth Symphony*, *Stars and Stripes Forever*, *Has Anybody Seen My Gal*, *The Colonel Bogey March*, and *Home on the Range*. Any well-known song/tune will work well. The participants are encouraged to make up new words to these songs. You may want to play the song first to re-familiarize everyone with the tune. When you start making up the words, do this part without accompanying music. You can get them started by making up the first verse and then letting others add to the song. Encourage creativity and humor. Let the participants volunteer their ideas at will. Do not call on specific people if they have not made an effort to share. Once the new lyrics are created, you can play the music and have everyone sing along, or the group may just want to sing it A Capella (this may be easier as everyone tries to remember the new words). Stop for 3 deep, silent, reflective breaths between songs.

Notes: _____



Week 8 – Music Playing or Listening

Mindful Focus: *acceptance or attention*

You choose one of two options for this session. The first option is to have the participants play instruments. Encourage them to bring any they may have. If you have instruments available for

use, you can bring them for those who do not have their own. If there is a piano in the space where you are meeting, this can also be utilized. This session option can be difficult because everyone will have a different skill level (if at all) in using instruments. Supplying sheet music may not be practical because the instruments are in different keys, and some people are unable to read music. It would work best to play a recorded song and allow them to play along. Some discordant sounds may occur. This offers an opportunity for mindful acceptance. Inform the participants that this may happen and ask them to see if they can accept that it is far from perfect. While this option can be difficult to pull off, it is offered as an option for a group that has people with musical backgrounds or for participants who want an opportunity to play. Assessing the wishes of the group prior to meeting for this session can help you determine which option is your better choice.

If instruments are not available or the logistics of the first option will be hard to work out, the second option is to have the participants simply listen to music and focus on it. Before you start, encourage them to note the nuances of the music played. Is it slow or fast? Does the tempo change? Do they note any musical structure such as verses, a bridge, or repeating phrases? What instruments can they identify? Are there particular harmonies noted between some of the instruments? Do they hear one instrument fade out as another comes in? Are there parts where it gets louder or softer? If there are vocals, how would they classify the singers' voices (bass, tenor, alto, soprano)? Where does the voice seem to originate from (chest, throat, or nasal passages)? Is the voice operatic, gravelly, guttural, shrill, haunting, smooth, or pure? If they know the song, ask them to see if they can hear something new or different that they have not noted in the past.

Notes: _____

Rhythm Interventions (Weeks 9-12)



Week 9 – Rhythm Using the Body

Mindful Focus: *energy & reflection*

This session is for creating rhythm without the need for equipment. Bring some cheerful music with a good beat. Start clapping to the beat and ask the others to join you. Once everyone has the beat going, encourage creativity by clapping in double time or half time and throwing in some

counter beat claps. They can also choose to create a beat pattern. Encourage them to start using other parts of their body to keep the rhythm such as chest drumming, knee slapping, and feet tapping. As the session progresses, encourage walking, marching, or dancing to the beat (such as step, tap or step, kick). If participants wish to clap with each other (like patty cake), make sure they get assent from whoever they wish to engage with. Some participants may want to practice the rhythm alone and this can be an effective form of mindfulness. As mentioned previously, visual designations (sash or hat) for those who wish to remain solo would be good to don prior to starting. Allow for silent reflection between songs (and to allow for rest and an energy reset).

Notes: _____



Week 10 – Cacophony

Mindful Focus: *energy & listening*

There are three parts to this session. The first is to simply get used to beating a drum or using another percussion instrument.

Everyone is instructed to beat their drum/instrument at their own pace and rhythm. There will be no structure, so it will sound a bit chaotic (hence the title of cacophony). After giving participants ample time to enjoy making noise, encourage everyone to stop suddenly to feel the energy while they listen to the silence.

For the second part, the instructor will share made-up drum riffs and have the participants copy them. Try different patterns and build them into longer riffs for copying. This is a good activity for prompting memorization.

For the third part, let the participants take turns creating and leading riffs that others can copy. As usual, volunteers only.

Notes: _____



Week 11 – Adding Rhythm to Music

Mindful Focus: *energy & silence*

This session copies week 9, but participants will use drums instead of their own body parts (unless they wish to). Play music to which the participants can match or embellish with their drums. If musical

instruments are available (see suggestions from Week 4), encourage the participants to bring them ahead of time. They can try to match the music with their instruments while others are drumming. Stop for a moment of silence (30-45 seconds) after each song ends to feel the reverberations and let the energy settle before moving to the next song.

Notes: _____



Week 12 – Roundup

Mindful Focus: *energy & reflection*

In this session, you will combine singing with rhythm.

Participants can choose to either sing or drum or they can switch off being a singer for the first half and a drummer for the second

half or vice versa. Familiar songs will probably work best. If there is time and/or the session seems to call for it, participants can add walking, marching, or dancing to the beat. While it may be challenging to do all three at once, it can also be quite fun. As was done in Week 11, stop for a moment of silence after each song so the participants can feel the energy they just created.

Notes: _____

Concluding Remarks

Once you are finished with Week 12, start again at Week 1 and repeat the whole program, altering and editing the content as needed. The minimum time period is intended to be 48 weeks (approximately one year) yet can be run indefinitely. This perpetual program was designed to attain and maintain well-being for senior citizens by offering fun activities in a social environment. Changing the modalities on a regular and frequent basis, as the program is designed, helps to prevent boredom and habituation. Combining the prescribed interventions with mindfulness contributes to improved physical and mental health as the participants move their bodies and explore how their minds process the attention given to the activities. My hope is that this program enriches the quality of life for all those who encounter it.

References

Benson, H. (1975). *The Relaxation Response*. HarperTorch.

Hamons, M., Jenkins, T., & Befi-Hensel, C. (2017). *Music, Memory, and Meaning: How to effectively use music to connect with aging loved ones*. Whelk and Waters Publishing.

Kabat-Zinn, J. (1990). *Full Catastrophe Living: Using the wisdom of the body and mind to face stress, pain, and illness*. Delta.

Pollak, S. M., Pedulla, T., & Siegel, R. D. (2014). *Sitting Togethrs: Essential skills for mindfulness-based psychotherapy*. The Guilford Press.

Thomas, D. (1947). *Do not go gentle into that good night*. <https://poets.org/poem/do-not-go-gentle-good-night>