Harmonic Healing

Harmonic Healing:

The Science, Tradition, and Future of Music Therapy

Edited by

Dinesh C. Sharma and Sumbul Zehra

Cambridge Scholars Publishing

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CHAPTER ONE

HEALING THROUGH SOUND: THE SCIENCE AND TRADITION OF MUSIC THERAPY

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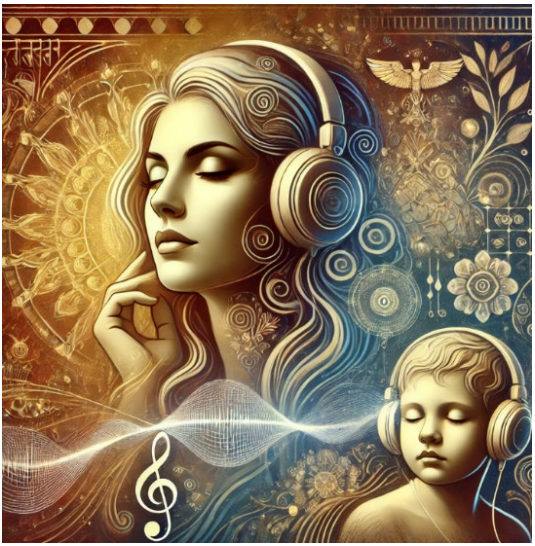
Abstract

Music has long been recognized as a powerful medium for healing, influencing both mind and body. It is a universal language that transcends cultural and linguistic barriers, making it a valuable therapeutic tool. Ancient civilizations, including the Greeks, Egyptians, and Indians, used music for medical and spiritual healing. Today, music therapy is a recognized field in healthcare, with scientific evidence supporting its effects on neurophysiology, cardiovascular health, and mental well-being.

Keywords: Music Therapy, Samaveda, Medicinal



1. Introduction

Music is an integral part of human civilization, transcending geographical, cultural, and linguistic boundaries. The therapeutic use of music has been recognized since ancient times, with historical evidence indicating its role in healing and well-being across various civilizations, including those of India, Egypt, Greece, and China (Horden, 2000). The profound impact of music on the human mind and body is attributed to its ability to stimulate neurological pathways, regulate physiological processes, and influence emotional states (Koelsch, 2009).

Modern neuroscience validates what ancient traditions have long known—that music has a direct impact on neurophysiological, psychological, and biochemical processes. Research in biomusicology (the study of music's effects on biological functions) has demonstrated that musical vibrations can influence brainwave activity, hormone secretion, immune response, and pain perception (Thaut, 2005). Clinical studies indicate that music therapy can alleviate stress, anxiety, and depression while enhancing cognitive function and social interaction (Bradt and Dileo, 2010).

The mechanisms of music therapy are rooted in neuroplasticity, the brain's ability to reorganize itself by forming new neural connections. The rhythm, melody, and harmony in music activate various regions of the brain, including the amygdala (emotional processing), hippocampus (memory),

and prefrontal cortex (decision-making) (Levitin, 2006). Additionally, music triggers the release of dopamine, a neurotransmitter associated with pleasure and motivation, which explains its therapeutic effects on mood disorders (Salimpoor *et al.*, 2011).

From a biological perspective, the human auditory system is uniquely designed to process and respond to musical stimuli. The vibrations generated by sound waves travel through the cochlea, stimulating hair cells that convert these vibrations into neural signals. These signals are then transmitted to the brain, where they interact with various neural networks governing emotion, movement, and cognition (Zatorre *et al.*, 2007).

The Role of Music Therapy in Contemporary Medicine

Music therapy is now an established intervention in neurology, cardiology, oncology, psychiatry, and obstetrics, among other fields. Studies have shown that listening to soothing music can reduce blood pressure, heart rate, and cortisol levels, thereby mitigating stress-related disorders (Chanda and Levitin, 2013). In patients undergoing surgical procedures, preoperative music therapy has been associated with lower anxiety levels and reduced postoperative pain perception (Hole *et al.*, 2015).

Furthermore, music-based interventions in neonatology have demonstrated positive effects on premature infants, improving their heart rate stability, oxygen saturation, and overall developmental outcomes (Loewy *et al.*, 2013). In the field of psychiatry, music therapy has been successfully used in the treatment of schizophrenia, depression, post-traumatic stress disorder (PTSD), and autism spectrum disorders (Gold *et al.*, 2009).

Despite the growing body of scientific literature supporting music therapy, traditional healing practices involving sound and vibration remain underexplored in mainstream medicine. The Vedic tradition, for instance, holds vast potential for therapeutic applications. Vedic chants, particularly from the Samaveda, have been historically used for mental clarity, relaxation, and physiological healing. Modern research is now validating these claims, with studies indicating that chanting specific mantras, such as the Gayatri Mantra and Mahamrityunjaya Mantra, can enhance cognitive function, improve heart rate variability, and reduce stress biomarkers (Pandey *et al.*, 2020).

This chapter explores the scientific basis, historical evolution, and contemporary applications of music therapy, with a particular emphasis on the therapeutic benefits of Vedic chants. By bridging traditional knowledge with modern biomedical research, we aim to highlight how music therapy can be integrated into clinical practice, mental health interventions, and holistic wellness programs.

2. The Science Behind Music Therapy

The human brain orchestrates complex biochemical and physiological functions. When disrupted, these imbalances manifest as diseases or disorders. Sound, in the form of music, has the ability to modulate brain activity, affecting hormone secretion, neurotransmitter levels, and overall metabolism. Music therapy operates on the principle that rhythmic and melodic stimuli can restore equilibrium in the body's physiological and psychological systems.

3. Historical Perspectives on Music Therapy

Music as a healing art has ancient roots. Indian history credits Tansen, the legendary musician, with using specific ragas for therapeutic benefits. The Vedic tradition, particularly the *Samaveda*, contains references to the use of chants and hymns for spiritual and physical healing. Similarly, in ancient Greece, Apollo was revered as both the god of medicine and music. Hippocrates, the father of medicine, played music to soothe his patients, while Aristotle described music as a force that purified emotions.

4. Forms of Music Therapy

Music therapy can be broadly classified into two types:

- **Active Music Therapy**: Involves direct participation, such as singing, playing musical instruments, and composing music. It is used in cognitive therapy, rehabilitation, and emotional expression.
- **Passive Music Therapy**: Involves listening to pre-selected or customized music. It is effective in stress reduction, pain management, and neurological rehabilitation.

5. Vedic Chants in Music Therapy

Vedic chanting, an integral part of Indian spiritual traditions, has been scientifically studied for its effects on stress reduction, cognitive function, and physiological balance. Some well-known Vedic chants used in therapeutic applications include:

1. **Mahamrityunjaya Mantra** – Used for healing and longevity.
2. **Gayatri Mantra** – Enhances concentration and mental clarity.
3. **Shanti Mantras** – Induce relaxation and reduce anxiety.

4. **Dhanvantri Mantra** – Associated with health and recovery from ailments.
5. **AUM (Om) Chanting** – Regulates breathing patterns and calms the nervous system.
6. **Atharvaveda Healing Hymns** – Address specific physical and psychological conditions.
7. **Purusha Suktam** – Linked to stress reduction and mental clarity.
8. **Surya Namaskar Mantras** – Used in yoga for vitality and holistic well-being.
9. **Aghamarṣaṇa Mantra** – Purification mantra believed to cleanse both mind and body.
10. **Bija Mantras** – Used for chakra balancing and emotional stability.

6. Scientific Evidence Supporting Music Therapy

Recent research supports the physiological and psychological benefits of music therapy. Studies have demonstrated that listening to therapeutic music:

- Lowers **blood pressure** and **heart rate**, reducing cardiovascular risks.
- Enhances **immune function**, increasing resilience against diseases.
- Helps manage **anxiety and depression**, as observed in clinical settings.
- Aids **pain management**, reducing the need for sedatives and analgesics.
- Improves **cognitive function**, particularly in neurodegenerative conditions like Alzheimer's and Parkinson's.

A study by Pandey *et al.* (2020) found that exposure to the Mahamrityunjaya Mantra significantly upregulated **steroidogenic gene expression** in cultured buffalo granulosa cells, suggesting a biological impact of Vedic chanting. Similarly, research on NICU infants showed that live therapeutic music reduced distress and improved neonatal health outcomes.

7. Applications of Music Therapy in Healthcare

Music therapy has proven effective across various medical domains:

- **Neurology**: Used in stroke rehabilitation, Parkinson's disease, and traumatic brain injuries.

- **Mental Health**: Helps in managing PTSD, anxiety, schizophrenia, and mood disorders.
- **Cardiovascular Health**: Reduces blood pressure and heart rate variability.
- **Pediatrics**: Enhances neonatal health and cognitive development.
- **Oncology**: Used in palliative care to alleviate pain and improve emotional well-being.
- **Pregnancy and Prenatal Development**: Helps regulate fetal heart rate and reduces maternal stress.

8. Music Therapy in India: An Emerging Discipline

While Western medicine formally recognized music therapy in the 20th century, India's tradition of using sound for healing dates back to the Vedas. The **Indian Association of Music Therapy (IAMT)** was established in 2010, promoting research and clinical practice. Institutions like the **Chennai School of Music Therapy** and **The Music Therapy Trust of India** are working to integrate music therapy into mainstream healthcare.

9. Case Studies and Ongoing Research

1. **Music Therapy in Pregnancy**: Research using **sonography** has shown that listening to soft ragas enhances fetal brain development and promotes emotional bonding between mother and child.
2. **Impact on Cardiovascular Patients**: A study by Sharma and Zehra (2023) found that exposure to specific raga-based music led to significant reductions in blood pressure and anxiety in patients undergoing coronary angiography.
3. **Music and Animal Welfare**: Experiments on **dogs, elephants, and racehorses** have demonstrated that classical music reduces stress, aggression, and anxiety-related behaviors.

10. My Research and Student Contributions to Music Therapy

Research Contributions

Over the years, I and my research team have conducted extensive studies on the effects of music therapy on human and animal subjects. Our research

focuses on biomusicology, the physiological and psychological impact of sound vibrations, and the application of Vedic chants in therapeutic settings.

Key Research

- Impact of Music on Cardiovascular Disorders (Sharma and Zehra, 2023)
  - Analyzed the role of Raga-based music in controlling blood pressure, heart rate, and anxiety in patients with cardiovascular diseases (CVD).
  - Significant reductions in mean arterial pressure and stress levels.
- Effect of Vedic music on gene expression (Pandey et al 2020)
  - The CYP19A1 gene expression was significantly upregulated by 3.464 ± 0.15 folds in the music exposed spheroids than the non-exposed spheroids
- Effects of Music Therapy on Pain and Anxiety in Patients Undergoing Bone Marrow Biopsy and Aspiration Shabanloei et al. (2010).
  - Participants who listened to music had lower state anxiety and pain levels than those who did not listen to music. Aorn (2010).
- Music and Neurological Health ((Rusowicz, et al., 2022).
  - Rhythmic Auditory Stimulation (RAS) has been found beneficial for patients with stroke, Parkinson's disease, and movement disorders.
  - Study revealed enhanced motor coordination and neuroplasticity in subjects exposed to rhythmic beats.

Student Research Contributions

- Impact of Music Therapy on Fetus and Mother (Zehra and Sharma, 2023)
  - Used sonography to evaluate the effects of different genres of music on fetal development.
  - Observed improved fetal cardiac activity and movement responses.
- Impact of Indian Music on Edible Freshwater Fishes (Singh et al., 2023, Singh and Sharma,2023)
  - Examined the biochemical and behavioral effects of music on fish growth and metabolism.
  - Increased neuronal activity and improved biochemical parameters.

- Analysis of Shiv Strotam on Blood Pressure and Pulse Rate (Sharma et al., 2024)
  - Conducted pre- and post-exposure tests to assess calmness and stress reduction.
  - Marked reduction in sympathetic nervous system activity.

11. Future Prospects and Conclusion

The integration of music therapy into healthcare systems is a promising avenue for holistic well-being. More scientific validation and cross-disciplinary research are needed to standardize music-based interventions for specific health conditions. With increasing global interest, India's ancient musical traditions can play a crucial role in shaping modern therapeutic approaches.

As Swami Vivekananda aptly said, **"Music is the highest art, and to those who understand, it is the highest worship."** By bridging tradition and science, music therapy continues to evolve as a powerful healing modality in the 21st century.

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CHAPTER TWO

CHOICE-MAKING IN A MUSIC THERAPY PROGRAM WITH ELDERS FROM ST LUKE'S ELDERCARE ORGANIZATION IN SINGAPORE

ISABEL TAN LYN MEY

Abstract

This study explores choice-making as part of a music therapy program tailored for the elderly at two St Luke's ElderCare Community Day Care Centers. Using the "Methodkit" tool, which includes visual aid cards representing Cognitive, Physical, Social-emotional, and Spiritual domains, the study aimed to identify key preferences of participants. Six elderly individuals aged 50 and above with mild cognitive impairments participated. Choice making which was part of the process was evaluated to assess engagement, autonomy, and satisfaction among elderly participants, aligned with the organization's model of care as well as integrating elements of music therapy. The overall music therapy program, part of which was choice making was evaluated through a post-program survey to assess its feasibility. The elders get to express their autonomy and creativity in music choice as well as to enjoy the program that was co-created by them. This could be seen as the elders verbally express appreciation that their voices are being heard and to be called again if there was another upcoming session in the future.

Keywords: Co-creation, Music Therapy, Elderly Care, Southeast Asia, Community Day Care Center

Choice-Making in a Music Therapy Program with Elders from St Luke's ElderCare in Singapore

Music therapy literature emphasizes choice-making as a critical component in therapeutic interventions with elderly participants. Programs that involve

elderly patients, especially those with dementia, have shown that enabling choice in music selection can foster engagement and autonomy, which are essential for improving mood, enhancing cognitive function, and reducing symptoms of anxiety and depression. In music therapy, providing choice is a fundamental principle, allowing participants to select music or activities that resonate with their personal experiences. This sense of ownership has been shown to improve cognitive stimulation and emotional well-being (Bannan & Montgomery-Smith, 2008). For instance, studies have demonstrated that incorporating patient choice within group music therapy sessions can lead to better outcomes, particularly in increasing self-esteem and promoting a sense of control (Renci, 2024) (Leow, 2017).

Research in Singapore has further validated the value of choice-making within music therapy for the elderly. At facilities like Ren Ci Hospital and SGH, programs have included both active music-making and receptive listening, allowing participants to choose the music they engage with, which supports their cognitive and emotional needs (SGH, 2024).

A pilot evaluation of a music therapy program for healthy elderly in Singapore's community settings also highlighted the importance of choice-making for this demographic. Participants reported that choosing their music helped them feel more engaged and connected, promoting a sense of personal agency in their therapeutic process (Leow, 2017). Music therapy often incorporates religious or spiritual music to address the emotional and spiritual needs of elderly individuals, offering comfort and connection through familiar, meaningful melodies (Aldridge, 2000).

However, elder care has traditionally focused on physical health while often neglecting emotional, social, and spiritual dimensions. Studies have shown that this gap can negatively impact the quality of life for elderly individuals (Garrido et al., 2021). Addressing this gap, especially in contexts where music therapy has been underutilized, can offer an enriched care experience by addressing cognitive, emotional, and spiritual needs.

This study explores the feasibility of elders' choice-making in a Music Therapy Program in a community day care setting in Southeast Asia. In Singapore specifically, hospital and social service organizations offer structured music therapy programs led by certified Music therapists to address cognitive and emotional needs. These programs involve both active music-making and receptive listening, allowing elderly participants to make choices in their sessions, which can help with engagement, autonomy, and confidence. In these settings, therapists encourage choice-making to foster a sense of control, especially among individuals with dementia (Renci, SGH).

However, there is no organization which involve the elders in the process of creating a music program where choice making, and music

therapy principles are integrated to enhance cognitive, emotional, and social well-being. Hence, by involving participants in the design process, this study aims to develop a program that promotes autonomy, engagement, and satisfaction while addressing the holistic needs of elderly individuals (Jones et al., 2018; Creech, 2019). This aligns with the St Luke's Eldercare model of care which entails Graceful Aging, Respect, Autonomy, Choice and Empowerment (G.R.A.C.E)

Method

St Luke's ElderCare is currently serving the community with 28-day care centers, 30 rehabilitation centers, 12 active aging centers, two nursing homes and offers home services. The elders undergoing maintenance day care and dementia day care services will attend a minimum of one day to five days a week for a minimum of five to six hours daily. They perform various activities starting from orientation before participating cognitive activities in the morning which involve music and other art forms to exercise activities in the afternoon. They would also attend various health talks and go on outings to the Singapore tourist sites. Their therapeutic goals involve maintaining their cognitive and executive function, increase their social emotional and communication skills within other elders in the center, improve their functional skills in activities of daily living in the center as well as maintaining their identity in a spiritual area.

A pilot study was conducted with six elderly individuals (three males and three females) from two Community Day Care Centre. Participants were selected by the Center Manager and those recruited were aged 50 and above, had mild cognitive impairments and were able to communicate effectively in Mandarin or English. Informed consent was obtained, and the study followed ethical guidelines to ensure confidentiality and participant well-being. All of them have not received music therapy sessions before as individual sessions were not offered in the center.

The study was structured into two sessions, each lasting approximately one hour in an enclosed room. During the first session, participants sat around the table and were given a brief introduction to the program beginning with 16 visual aid cards (Methodkit) representing various domains: Physical (e.g., "Clothes"), Cognitive (e.g., "Creativity"), Social-emotional (e.g., "Share"), and Spiritual (e.g., "Faith") (Refer to Appendix A). Participants selected and ranked the same amount and type of cards based on their personal preferences. The Music Therapist displayed all the cards on the table and would only explain specific cards if the elders needed a clearer explanation on the cards. The themes of the cards were explained

briefly but not in depth as the main objective is for the elders to pick the visual cards that they thought were important to them. The elders were given a safe space and autonomy to explain and elaborate the reason the specific card was selected. MethodKit is a well-known visual aid card toolkit that has been used by many organizations for team development, app development and workshop planning (Möller, 2012). The visuals on the cards were pictures describing the key word and can be referred in Appendix A.

In the first session, the collected data were analyzed by counting the number the similar/different cards chosen to identify patterns and gender-based differences. During the second session, participants refined their preferences for the music program using handmade curated visual aids by the Music Therapist focused on program settings (e.g., group versus individual), music genres (e.g., religious versus pop/classical/traditional), and activities (e.g., song dedication, singing, watching performances) (Refer to Appendix B) after collating the results from the 1st session regarding their collective preferences (Refer to Table 1). The feasibility of the program was evaluated using a post-program survey that assessed participants' enjoyment and sense of empowerment (Refer to Appendix C). Some of the elders began reminiscing and discussing about their preferred songs and started singing along as they were going through the process of the second session.

Results

Table 1: Results of Male and Female Elders Selection in the 1st session

Domain	Female Selection	Male Selection
Physical	Sleep	Water
Cognitive	Choices/Learn	Choices
Social Emotional	Music/Communicate/Family	Communicate
Spiritual	Faith	Faith

Note. The findings from Table 1 revealed that both male and female participants valued "Choices" in the Cognitive domain, "Communicate" in the Social-emotional domain, and "Faith" in the Spiritual domain. Female participants also emphasized "Learning," "Music," and "Family," which is consistent with previous research indicating that co-creation fosters engagement and satisfaction (Jones et al., 2018; Creech, 2019). Male participants preferred "Water" over "Sleep" which was preferred by the female participants in the Physical domain.

Table 2: Results of Male and Female Elders Selection in the 2nd session

Category	Female Selection	Male Selection
Place (Setting)	Senior Care Centre	Senior Care Centre
Mode (Virtual or Reality)	Concert Hall: Preferred for Music Programmes	Dancing Venue
People (Audience)	Song Dedication Choir Singing Orchestra Performance Reminiscing Oldies	Song Dedication Singing Performance Reminiscing Oldies
Programme	Singer Appreciation	Singer Appreciation

Note. Table 2 showed that both male and female participants preferred the "Senior Care Centre" as the ideal setting for the program, sharing common interests in activities such as "Song Dedication" and "Reminiscing Oldies." These shared preferences highlight a desire for familiar, emotionally resonant experiences, aligning with music therapy's focus on reminiscence and emotional connection.

However, gender-based differences emerged in their preferences for program activities. Female participants favored formal musical experiences, such as "Choir Singing" and "Orchestra Performance," reflecting an appreciation for collective, structured music therapy activities. In contrast, male participants preferred active, performance-oriented activities like "Singing" and attending a "Dancing Venue," emphasizing engagement through performance and movement, which are key elements in music therapy for promoting physical and emotional well-being.

Both groups expressed interest in "Singer Appreciation," which reflects a shared value placed on recognizing musical talent and the emotional impact of live performances.

Table 3: Results of Post Programme Survey

Questions	Female Answers	Male Answers
1. Do you enjoy this programme?	All said Yes	All said Yes
2. Do you feel that this programme is meaningful?	All said Yes	3 said Yes 1 said Maybe

3. Would you like to take part in similar programme in the future?	All said Yes: "Make friends and enjoy singing" "Happy" "I like to hear everyone's comment" "I know each other better"	2 said Yes 2 said Maybe "I like to join the programme in the future" "Very meaningful, interesting, I feel satisfied" "Hope to attend the programme in the future again"
4. Do you know each other better after the program?	3 said yes 1 said Maybe	2 said Yes 1 said Maybe 1 did not answer
5. Do you feel empowered by taking part in this program?	All said Yes	1 said Yes 2 said Maybe 1 did not answer
6. Which part of the program do you enjoy the most?	"Love to hear one another's opinion" "All the activities involved, thank you!" "I like to hear everyone's comments" "I like the group activity"	"Chinese Musician" "I like to communicate (to be allowed to speak and listen – vice versa)" "Asking them about their opinions (location specifically)"

Note. Table 3 explains the answers provided by the female and male participants during the post survey about the process of the Music Therapy program.

Discussion

The findings of this study align with existing research on the benefits of choice making in a Music Therapy program, emphasizing its potential to enhance user engagement and satisfaction, particularly in elder care settings. The preference for "Choices" in the Cognitive domain reflects the importance of autonomy in fostering engagement and empowerment as mentioned in Bannan & Montgomery-Smith's study.

The emphasis on "Communicate" in the Social-emotional domain highlights the importance of fostering meaningful social interactions in elder care. Music therapy has been widely recognized for its ability to enhance communication, especially in populations with cognitive

impairments or dementia. Group singing, for example, can facilitate non-verbal communication, strengthen social bonds, and alleviate feelings of isolation, aligning with the goals of the Music Therapy program. This happened during the process in choice making, where elders spontaneously started discussing about their preferred genre, songs and started singing along in the group.

The significance of "Faith" in the Spiritual domain underscores the role of spirituality in elder care. As mentioned by Aldridge, 2000, this study highlights the therapeutic potential of addressing the holistic well-being of participants by integrating spiritual music into the co-created program when the elders spontaneously started reminiscing on religious songs when they talk about praying in the temple or church. All these benefits that each domain provided has affirms Garrido et. al's study where traditional care emphasizing on physical care only would decrease quality of life.

Gender differences in program preferences further emphasize the need for customized approaches to elder care. The proclivity of female participants towards formal musical experiences, such as choir and orchestra performances, aligns with music therapy's focus on collective expression and emotional regulation. These structured activities provide opportunities for social cohesion and shared emotional experiences, which are particularly important for elderly individuals who may feel isolated or disengaged. Both female and male elders were very firm in what they believed. However, the female elders were more influential in their preference in song choice, venue and music activities to each other through the group song singing which instilled group unity amongst each other.

In contrast, the preference of male participants for active, performance-based activities reflects the importance of incorporating physical movement into music therapy. Activities like singing and dancing can promote physical health, improve motor skills, and provide emotional release, making them valuable components of a well-rounded music program.

Despite these gender differences, the shared interest in "Singer Appreciation" highlights the universal appeal of celebrating musical talent. Music therapy activities that focus on live performances or recognizing individual performers can serve as a unifying element in the program, fostering participation cohesion while still accommodating individual preferences.

Hence, these points mentioned above show that various musical experiences and benefits can come out of the process of creating a Music Therapy program through choice making and not just through traditional individual and group Music Therapy programs (Renci, 2024) (SGH, 2024). This also affirms the benefits that the elders will obtained similarly to the

pilot program that was set up by Leow, 2017). However, the elders experience much more sense of accomplishment and empowerment when they know that the program is created by them. This comes to show that there are many ways for us to approach by involving the elders through creating a music therapy program as compared to the elders only benefiting from the receiving end of a Music Therapy program.

Challenges and Adjustments

One challenge encountered in the study was the potential for group conformity, where participants might have felt pressured to align their preferences with those of the group. To mitigate this, future co-creation processes could benefit from using structured open-ended questions and culturally relevant visual aids to encourage more personalized and authentic feedback. Music therapy techniques, such as offering a safe space for self-expression, can also help address this issue by allowing participants to engage in a way that feels comfortable and individualized.

Recommendations for Improvement

To enhance the choice making process, it is recommended to incorporate strategies that facilitate more individualized feedback, such as open-ended questions and simplified language. Additionally, the incorporation of culturally sensitive visual aids and music therapy techniques, such as reminiscence-based exercises and performance-oriented activities, could significantly enhance participant engagement and the therapeutic benefits of the program.

Conclusion

Choice-making in a Music Therapy program with the elders are both feasible and beneficial. The program enabled participants to influence its content, leading to a tailored music experience that harmonized with their preferences and needs, aligning with the G.R.A.C.E model of care. The integration of music therapy elements, such as reminiscence and performance-based activities, contributed to the program's success in promoting cognitive, emotional, and social well-being. These findings suggest that music programs, especially those incorporating music therapy, can offer significant benefits to elderly individuals in community care settings, particularly in Singapore. Subsequent endeavors should explore

the long-term impacts of such programs and their potential for broader application in elder care settings.

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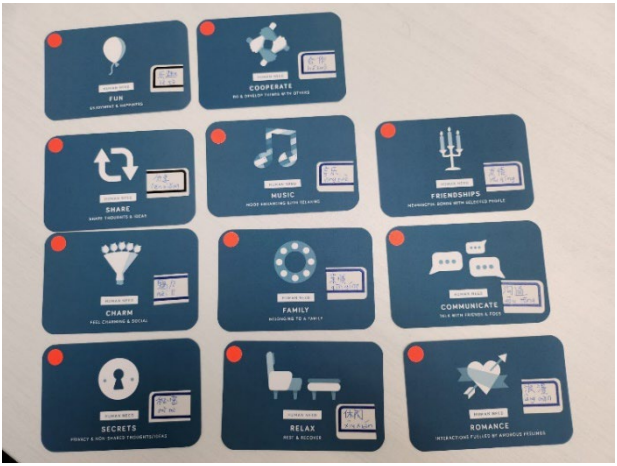
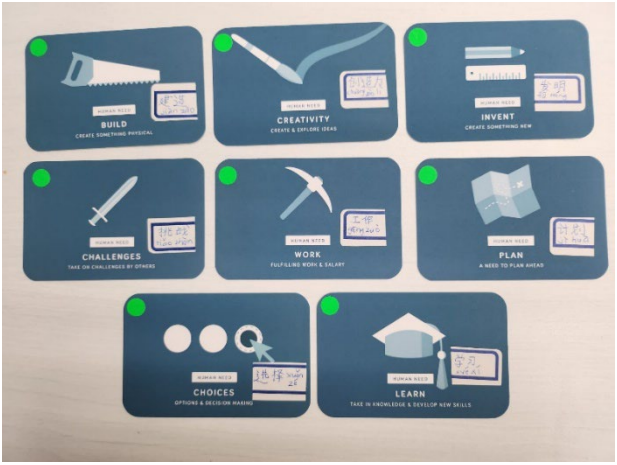
Appendix A

Figure 1

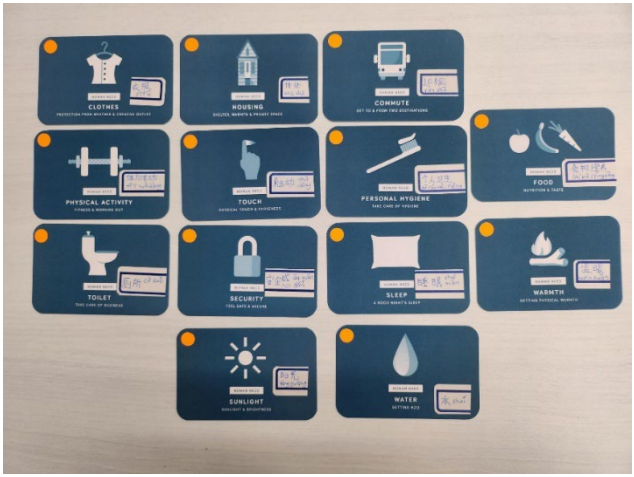
Example of the "Methodkit" Visual Aid cards categorized in 4 domains with Chinese translation



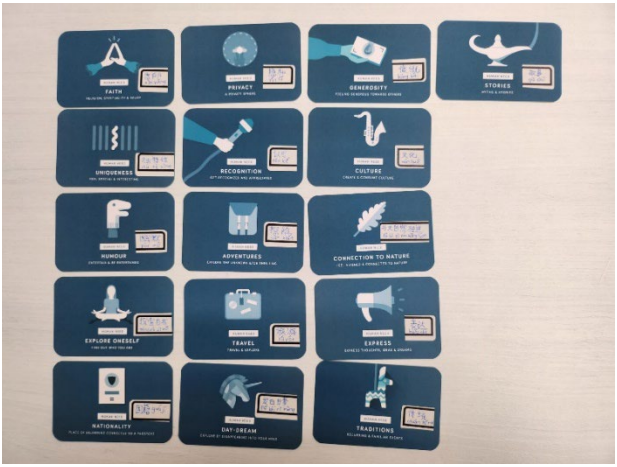
Note. Social Emotional Domain



Note. Cognitive domain



Note. Physical Domain



Note. Spiritual Domain

Appendix B

Figure 2

Example of the curated visual aid cards for the 2nd session