

Exploring the Mechanisms of Emotion Elicitation and Regulation through Music in Music Therapists

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Abstract:

This qualitative study investigates the personal emotional experiences and strategies employed by music therapists in India for emotion elicitation and regulation through music. Fifteen certified music therapists participated in semi-structured interviews. An explanatory qualitative research design was employed to gain a comprehensive understanding of these concepts. Interviews were meticulously transcribed and analyzed using thematic analysis. The analysis revealed five broad themes and focus on the integration of personal and professional realms in music therapy, emphasizing tailored interventions, cultural inclusivity, and the transformative potential of music in emotional regulation. Recommendations for future research include longitudinal studies with diverse samples, investigation of technique efficacy across populations, and exploration of cultural competence in music therapy practices.

Keywords: Music Therapy, Emotional Elicitation, Emotional Regulation, Music Therapists

Introduction

Music has a special power to make us feel and express a wide range of emotions. It connects with us on a deep level, going beyond cultural and time differences – it's like a universal language. Music and emotion share a profound connection, which can be understood in two primary ways. Firstly, music serves as a representation of emotion (Peirce, 1867), earning it the moniker "language of emotion". This denotes the influence of emotion on music, where composers infuse emotional elements into their compositions, performers convey emotional nuances in their renditions, and audiences perceive emotional significance in various musical segments. Secondly, music induces genuine, experiential emotions. In this aspect, music actively engenders specific mental and physiological responses in listeners, commonly recognized as emotions. The significance of music in the realm of psychology is to understand the mechanisms that intervene between music reaching a person's ears and an emotion being experienced or detected by that person as a result of hearing that music. The American Music Therapy Association (AMTA) defines music therapy as "the evidence-based practice of using music-related interventions to achieve therapeutic goals." In the field of psychological research, there is a long-standing tradition of attempting to induce specific emotional states. Various techniques have been employed to achieve this, including hypnosis (Bower, 1983), guided imagery (Lang, 1979), and exposure to music (Sutherland et al, 1982). James Gross (1998)

defined emotion regulation as the processes by which we influence which emotions we have, when we have them, and how we experience and express them. Considering the potent emotional impact of music, individuals may seek to employ music for regulating their emotions through various potential avenues. For example, some may want to increase positive emotionality, decrease negative emotionality or even increase emotional intensity or arousal. (Lonsdale & North, 2011). The study of emotional effects of music is handicapped due to a dearth or lack of conceptual-theoretical analyses of the process underlying emotion production via music. However, Emotional intelligence, a construct developed by Salovey and Mayer, encompasses a multifaceted framework that includes emotional awareness, empathy, and the capacity to harness emotions for constructive outcomes, serves as a profound theoretical orientation for this research. In 2008, research studies highlighted that music exposure enhances emotional and cognitive functioning along with that it has been valued primarily by people because of the emotions it evokes. According to a research study, individuals predominantly appreciate music due to the emotions it elicits. Scholars have examined musical emotions either without considering their elicitation process or by presuming that these emotions stem from the "default" mechanism for inducing emotion (Juslin & Västfjäll, 2008). In 2011, research suggested that there's a connection between the ways in which music therapists relate to their music cultures and use music as a resource and the manner in which they presently work as therapists (Gonzalez, 2011). In 2018, Baker examined the lived experiences of music therapists working in rural communities of Atlantic Canada. The study suggests that music is often used for regulating emotions in everyday life and could have both beneficial and harmful effects on emotional health. Music therapy manuals suggest that individuals with mood disorders can receive advantages from listening to music in accordance with the iso principle. In a study conducted by Starcke et al. (2021), it was explored whether arranging music with varying emotional valences in a particular sequence could influence emotional states. The findings revealed that participants who listened to sad music initially followed by happy music reported elevated positive affect, increased emotional valence, and reduced negative affect compared to other groups. The number of studies focused on the effects of music listening in methodologically rigorous, controlled laboratory environments has been much lower despite the potential of music to evoke strong emotions (Juslin & Västfjäll, 2008). Specific populations, such as children with autism or veterans with PTSD, where the mechanisms of emotional elicitation and regulation through music therapy have been extensively studied but never with music therapists. No study in Indian context, the field being a new & emerging field of therapy, a lot in this specific field is unexplored.

Method

Statement of the problem: The purpose of this study was to identify and describe the personal emotional experiences and strategies used by Music Therapists for Emotional Regulation through music.

Objectives:

- To Explore Music Therapists' Personal Emotional Experiences with Music
- To know the Mechanisms for Emotional Elicitation and Strategies for Emotional Regulation through music in Therapeutic Practice
- To investigate the nature of music employed by music therapists in their practice

Research Design

Explanatory qualitative research design was utilized to gain an in-depth understanding of the concepts and

their relationship with each other.

Participants

15 music therapists from different regions of India comprise the study sample. The eligible participants were certified music therapists with relevant training and qualifications along with actively practicing music therapy and have experience working with clients in a therapeutic setting in India.

Procedure

Purposive sampling method was used for selecting the participants and the participants who met the inclusion criteria were selected. Later, participants were asked to fill the informed consent form through the online google form. The scanned copy of participant’s informed consent was sent to them via email. The interviews were semi-structured which addressed all the research questions. All the interviews were telephonic, conducted via zoom on 15 experienced music therapists. With the participant’s consent, all the interviews were audio and/or video recorded and then later, transcribed verbatim to capture participants’ narratives and emotions accurately along with taking down notes to document the important verbal or non-verbal cues.

Tools for the study

- **Demographic sheet & Informed consent form.** This questionnaire was created to gather basic demographic details and informed consent of the participant via google form.
- **Semi-Structured Interview Questions.** The questions in the interview addressed the research objectives of the study. The questions' validity was confirmed through expert review.
- **Qualitative Analysis.** Thematic analysis (Braun & Clarke, 2006) was used to analyze the interview transcript which involves identifying, analyzing, and reporting patterns (themes) within a dataset and is used for examining and understanding the content of data. Thematic coding was done using MAXQDA24 software. Later, the codes were manually categorized into themes. Inductive approach was used to address the research objectives, allowing themes to emerge directly from the data.

Results

The findings were summarized into 5 major themes and 12 sub-themes that show the different parts of how people felt and how music therapists help with managing emotions using music.

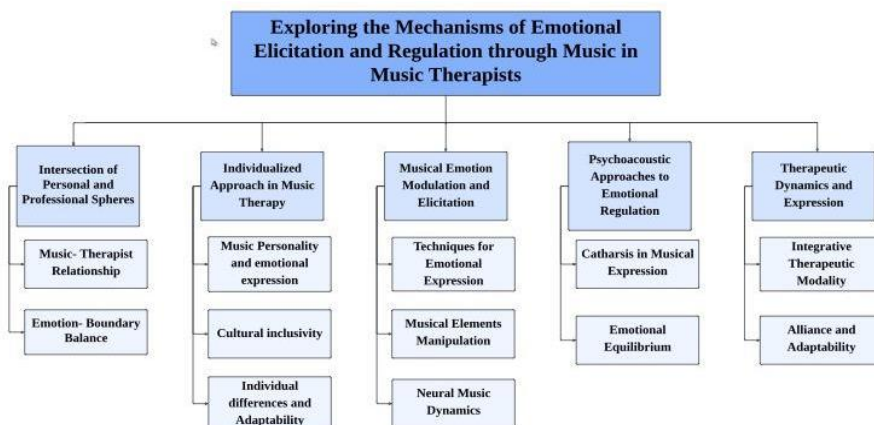


Figure1: Thematic Map of themes and subthemes

1. Intersection of Personal and Professional Spheres

The therapist selects music and design activities based on the client's age, cultural background, musical preferences, etc. (Dong Li, 2022). A 2011 study also proposed a correlation between music therapists' engagement with their cultural music and their therapeutic practices (Gonzalez, 2011). However, current study claims that there is an integration of the therapist's own musical skills, and emotional experiences into the therapeutic process as well. Therapists often draw upon their personal connections to music, their own emotional journeys, and their understanding of diverse musical genres to connect with clients and facilitate healing.

1.1 Music-Therapist Relationship

Music therapists could enrich music therapy research by exploring the impact of therapists' music within therapeutic interactions Bunt et al. (1988). DeNora (2000) highlighted how people frequently use music to enhance their mood daily. The study reveals that all 15 music therapists utilize music for emotional regulation, emphasizing its transformative influence on fostering connections and growth in clients. Participant AK stated that *'So what do I do when I feel off, I listen to music and there has not been an instance where music has not helped me so.'*

1.2 Emotion-Boundary Balance

In music therapy, emotional engagement involves therapists' self-awareness and reflective practices regarding their emotional responses to music, shaping their professional identity and enhancing therapeutic skills. Music can help one access a self-aware state by becoming a useful tool throughout one's lifetime. (Saarikallio, 2010) Current study reveals that music therapists engage in reflective practices and use music to become more self-aware to facilitate client healing. . Participant PS stated that *'I use active music making for myself because there is this tendency to kind of analyze everything. Or kind of go in a negative space of understanding why something works the way it does.'* However, maintaining professional boundaries ensures objectivity, confidentiality, and ethical standards in therapy. Stern (2004) emphasizes therapists' management of the emotional relational field in therapeutic relationships as crucial clinical work. Hence, participant SB stated that *'I know how to channelize my emotions and at least hold them somewhere during the session, and after that I know how to release and regulate them.'*

2. Individualized Approach in Music Therapy

Music therapy interventions encompass relational or rehabilitative approaches, including individualized music listening guided by patient preferences (Raglio, 2023). The present study also highlights the importance of tailoring interventions to individual client needs, optimizing outcomes through personalized care and collaborative goal-setting. As participant SB mentioned *'Music therapy is basically designed differently based on the different kinds of patients. It's not designed for different kinds of emotion. When we check the background of the client and according to them, we design a certain kind of process that is only for one person.'*

2.1 Individual differences and Adaptability

Music therapy, guided by trained therapists, involves personally tailored interventions (Witte, 2020), enhancing therapeutic outcomes through personalized care. Hence, claiming music therapy to be a flexible approach. Participant AK stated that *'Individual differences exist in clients. As a music therapist, expanding our own horizons due to clients like learning different instruments, training in each genre becomes difficult but beneficial.'*

2.2 Music Personality and emotional expression

Music preferences reveal individual personalities, indicating a profound relationship between music and identity (Khatoniyar, 2020). This study emphasizes music's role as a powerful tool for emotional expression and authenticity, reflecting the complexity of one's personality. Participant AK mentioned that *'We all have something called musical personality. So, just like our taste buds. It's completely different, like. Some music that moves me, might not move you to that extent. Some music that I vibe to, you might not really like it. So it's a very subjective experience that one has.'* As the musical preferences vary, the techniques for emotional elicitation in the therapy also vary. It employs personalized techniques for emotional elicitation, fostering therapeutic healing through tailored interventions as mentioned by the participant AV that *'Music is inherently subjective, with various methods like receptive listening, improvisation, and composition available. We tailor techniques to meet the patient's needs and ensure enjoyment. Regardless of the method, clients consistently express their emotions.'*

2.3 Cultural Inclusivity

Despite globalization, cultural influences shape music preferences and emotional perceptions (Cicchelli & Octobre, 2017; Oishi et al., 2007). Current findings also support the statement that culture profoundly shapes music preferences and influences how individuals perceive and value emotional experiences. Participant AS also stated that *'Cultural consideration is so important because music is so culturally rooted. Everyone's musical association has some cultural involvement there.'* Culture-specific music serves as a powerful therapeutic tool, providing patients with cultural security and facilitating the exploration of complex emotions within their cultural framework (Orth, 2005). Participant AR also stated that *'Music has to be culturally sensitive and specific. So we take all the social background, their cultural background, their musical preferences, all this information first so that we design the intervention incorporating culture specific music.'*

3. Musical Emotion Modulation and Elicitation

Musical Emotion Modulation involves intentionally using music to regulate one's emotional state, while Emotional elicitation explores how music prompts emotional responses (Glowinski and Camurri, 2012). Elements like tempo, melody, and lyrics allow individuals to choose songs intentionally for emotional regulation (Glowinski and Camurri, 2012). Current study also supports this statement as participant DDJ stated that *"At a party, lullabies aren't suitable due to their slower tempo and different note combinations. Instead, faster tempo songs are played to synchronize with our inner rhythm, providing rhythmic entertainment."*

3.1 Musical Elements Manipulation for Emotional Expression

The emotion conveyed by music is determined by mode (major-minor) and tempo (fast-slow). Slow tempo and minor mode are associated with sadness whereas music played with fast tempo and composed in major mode is commonly considered happy (Gagnon and Peretz, 2003). Participant SJ also stated that *'When we play major chords like happy birthday it naturally brings positive emotions because it is associated with positive events in life. Likewise., when we play minor chords or chords which are one semitone down, while forming the structure. So those are considered to be sad music irrespective of the culture.'* There is also evidence that five ragas on a scale of six emotions – happy, peaceful, sad, longing, tense, and romantic consistently elicit specific emotions that are associated with musical properties (Chordia, 2008). Current study brought out the similar findings that different ragas elicit different emotions. Participant AS stated that *'As a classical musician, I select a raga like Shuddha Saveri in Carnatic music or Raga Durga in*

Hindustani, known for creating a positive atmosphere. I then craft a melodic pattern based on this raga for relaxation therapy.'

3.2 Techniques for Emotional Expression

Emotional responses have been reported as one of the primary motivations to listen to music (Schäfer et al, 2013), and several studies have shown that music can evoke genuine basic emotions, such as happiness, sadness, and fear (Västfjäll, 2002). But previous studies lack evidence regarding the common techniques that are used by the music therapists' to evoke certain emotions in their clients. Current research study explored the most common techniques used in the therapeutic setting as stated by the participant SS *'I employ techniques like active imagination, guided imagery, and interpretation alongside passive and active listening. Using musical pieces, I induce guided imagery to facilitate active imagination and emotional engagement.'*

3.3 Neural Music Dynamics

Previous research suggests music modulates activity in brain structures like the amygdala and mesolimbic reward system, involved in emotional and motivational processes (Blood & Zatorre, 2001). Participant BM also stated that *'Music is something that is processed by our brain in a faster way. That is in the region of Hypothalamus, limbic systems, all that lower cortical areas. Particularly, responsible to deal with our emotional, motivational inputs.'* Music activates associations, memories, experiences, moods, and emotions. (Bullough, 1921) Baumgartner (2006) highlights the role of the limbic system in processing emotions and memory with music. The current study highlights music's capacity to evoke memories and emotions, addressing a gap in research focusing on emotional aspects of musical memory. In the interview, participant PS stated that *'Listening to your childhood lullaby can transport you back, evoking sensory memories. Music's ability to elicit strong emotions is tied to these specific associations.'*

4. Psychoacoustic Approaches to Emotional Regulation

When individuals listen to pleasant or happy music, cognitive monitoring and controlling areas associated with emotion regulation, including the anterior cingulate cortex, gets activated. (Sekyung, 2021). So, music therapy approaches to emotional regulation explore how sound and music impact our psychological and emotional states. Findings of the current study also highlights that by understanding the interplay between auditory stimuli and the brain's processing mechanisms, researchers and therapists leverage specific music therapy techniques for emotional regulation in individuals.

4.1 Catharsis in Musical Expression

Previous research has supported that music can be an effective way to facilitate emotional catharsis and promote psychological well-being (Bat-Rawden, 2010; Croom, 2015; Huron, 2011; Saarikallio & Erkkila, 2007; Sachs, Damasio, & Habibi, 2015). Current study findings also suggest that music therapists' believe that music offers a way to let out pent-up emotions and find relief. In the interview, participant AV stated *'So when that intense expression of emotion is happening, we never stop them because if the emotion is suppressed, it is not going to help you. It is going to harm you. So we always, in my experience, always, if somebody is crying, we let them cry. Once they are done, then they feel relieved and hence, catharsis is done.'*

4.2 Emotional Equilibrium

Numerous music therapists view emotion regulation as a possible advantage of music therapy (Marik & Stegemann, 2016). Findings from the current study also suggest that music has a positive influence on emotional regulation. Participant AS stated *'It is very much a part of my life to regulate my mood, to relax,*

to de-stress.’ Rodriguez (2023) highlights the active engagement of participants in songwriting and emotion regulation within music therapy interventions. The current study supports lyric substitution or parody as a method for gaining insight into emotions by creatively expressing and reflecting on feelings. Through understanding original music components like melody and lyrics, individuals deepen their emotional self-awareness. Participant SDH stated *‘Lyric substitution or parody involves identifying emotions evoked by familiar music, then altering lyrics to explore emotional responses and understanding. This process aids in clarifying feelings and experiences.’*

5. Therapeutic Dynamics and Expression

Therapeutic dynamics and expression explore the interactive processes in music therapy, facilitating emotional exploration and communication in a supportive setting highlighting the use of music to enhance emotional expression and promote healing and the importance of building strong therapeutic relationships and adapting interventions to meet the unique needs of each individual.

5.1 Integrative Therapeutic Modality

Music therapy serves as a significant addition to the non-pharmacological approaches employed in managing psychiatric and behavioral disorders (Witusik & Pietras, 2019). Current research findings show a similar pattern by suggesting that music serves as a complementary and creative modality in therapy, aligning with the client's needs and preferences. Participant SS also stated that *‘Music therapy is a complementary modality. It is not an active modality. Okay, so it would be very seldom to use music as an active modality but it works best with everything. Using movement, using psycho drama, it works best. Using art works best with other modalities you need to find a way.’* Current study findings also suggest that music is a form of self-expression and serves as a universal language and is a form of self-expression, transcending cultural and linguistic barriers.

5.2 Alliance and Adaptability

Austin (2008) emphasizes the role of musical connection in enhancing the client-therapist relationship, akin to the significance of trust in deepening musical interaction. This study also focuses on the therapeutic alliance, particularly through music, highlighting the importance of rupture-repair episodes (Safran & Muran, 2000) which significantly influence patient outcomes. Participant AS mentioned that *‘The idea in therapy, there's a concept called rupture repair. So the idea is not to be afraid of rupture. Rupture is actually a good sign as the client is comfortable to even show up with this side of his, you know, where he is completely dysregulated. So, allowing the ruptures to happen and then finding the ways together to repair because that's where all the magic happens.’*

Discussion

The study examined music therapists' personal emotional experiences, mechanisms for emotional elicitation, and strategies for regulation, employing qualitative methods with 15 certified music therapists. Semi-structured Zoom interviews were conducted and transcribed verbatim for thematic analysis. The intersection of personal and professional spheres emerges as the first theme, highlighting the nuanced relationship between therapists' personal experiences and their professional roles. The study asserts the therapist's musical skills, emotional experiences, and background integrate into therapy, addressing a research gap and challenging prior findings emphasizing only client influence. The study also reveals a consistent trend that all 15 music therapists utilize music for personal emotional regulation in their daily lives, highlighting their personal connection to music. It also suggests that music therapists actively engage

in reflective practices which facilitates healing for their clients. As participant AK stated in the interview that *'In spite of me being a music therapist using music to help others. First I have to know how to use music to help myself.'* There is an emphasis on the importance of tailoring interventions to suit each client's unique needs considering individual differences, music personality, and cultural backgrounds. As participant AK also mentioned *'Music is very subjective at the same time the client is also constantly evolving. And the client's relationship with music is also constantly evolving. We use a combination of techniques keeping in mind the background of the client that kind of triggers a specific response.'* The theme of musical emotion modulation and elicitation highlights the role of music in evoking emotions. Nine therapists emphasized neural dynamics, implicating brain regions like the amygdala, hypothalamus and limbic systems, aligning with existing research indicating music's influence on emotional and motivational brain structures (Blood & Zatorre, 2001). The study confirms previous findings on manipulating musical elements to evoke specific emotions. Music therapists strategically use progressions in different scales to modulate emotions, focusing on person-centered techniques based on initial assessment and case history. All the 15 music therapists reported active imagination, guided imagery, songwriting and interpretation of music pieces as important techniques for emotions elicitation while music therapists trained in Indian classical music also highlighted the role of Hindustani/Carnatic Ragas to evoke specific emotions. The study highlights psychoacoustic methods like catharsis and emotional equilibrium for regulation, elucidating music's role in emotional processing. Therapists commonly employ lyric substitution and parody as effective techniques for emotional regulation. Finally, the theme of therapeutic dynamics and expression emphasizes the integrative nature of music therapy and establishment of a strong therapeutic alliance. Music therapists believe that music is universal, is a form of self expression and a complementary modality. The emphasis on therapeutic alliance & rupture-repair episodes during the course of treatment is also given, as indicated by previous studies as well that these processes can have an impact on patient outcomes. (Safran and Muran, 2000). As participant PS stated in the interview that *'Understanding a client's musical preference is key to establishing a therapeutic bond. Without this rapport, even the most effective interventions may not yield desired results.'* These findings suggest that music therapists should integrate personal experiences, tailor interventions, and foster therapeutic alliances to optimize client outcomes and promote emotional well-being in music therapy practice.

Conclusion

The study explores the integration of personal and professional realms in music therapy, revealing therapists' use of music for emotional elicitation and regulation. Findings emphasize tailored interventions and cultural inclusivity, emphasizing the importance of adaptability in therapy. Psychoacoustic approaches show music's transformative potential in catharsis and emotional equilibrium. This integrative nature of the approach highlights the significance of therapeutic alliance and client-centered approach in fostering emotional expression and growth.

Although, the research addressed a research gap in the literature by exploring how personal experiences and professional roles intersect in the realm of music therapy, the study findings are prone to personal bias as it is relied on self report data, a small sample size limiting generalizability, and a qualitative focus hindering quantitative outcome assessments. Also, the study's clinical context may not reflect diverse populations or long-term effects, necessitating broader exploration. Along with that, longitudinal studies

with diverse samples are needed to explain the sustained benefits and factors contributing to therapeutic success.

Finally, the study emphasizes music therapists' personal emotional experiences, crucial for rapport and tailored interventions. It shows how incorporating personal insights into practice can enhance therapeutic success. Future research in music therapy can focus on investigating technique efficacy across diverse populations, longitudinal effects, and technology integration to enhance access. Comparative studies with other therapies and exploring cultural competence, adaptation, and the impact of cultural factors can also advance culturally responsive music therapy practices.

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