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Community Music Therapy for Strengthening Social Cohesion in Socio-Environmental Conflicts

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Abstract

This study aimed to analyze the impact of a community music therapy process on strengthening social cohesion among members of the Association of Those Affected by the El Quimbo Hydroelectric Project (Asoquimbo). The research was conducted in the municipalities of Hobo and Garzón in the Huila department of Colombia, where the community is engaged in a socio-environmental conflict with the El Quimbo dam. The methodology, grounded in qualitative research with action-research and grounded theory designs, was developed in four stages: reflection-analysis, community engagement, implementation-closure, and results. The music therapy process, conducted between November 2022 and June 2023, focused on integration, participation, empathy, interaction, social relationships, communication, and expression, strengthening the community determinants of "Identity" and "Agreements." The results suggest that community music therapy contributed to reinforcing social cohesion in this community.

Keywords: community music therapy; social cohesion; socio-environmental conflict; community participation; grounded theory; action research

Editorial Comment

This research study highlights the value of community music therapy to bolster identity and organization to support environmental protection, connecting the dots to an ecological domain that sometimes seems distant in music therapy's impact potential. It also presents a case for music therapy's potential for participation and community strengthening, which, from a decolonial perspective, emerges as a solution for the

advancement of impoverishing sociopolitical movements focused on isolation and exploitation.

Introduction

The Environmental Justice Atlas (Global Atlas of Environmental Justice, n.d.) has documented over 2,100 socio-environmental conflicts worldwide since 2012, with significant emphasis on countries such as China, Pakistan, and India. In South America and Southeast Asia, approximately 260 environmental defenders have been killed, and around 360 conflicts related to contentious projects have been recorded (Bouza, 2019). In Colombia, the expansion of the primary sector—encompassing livestock, agriculture, mining, and forestry—has triggered significant environmental conflicts, impacting both rural production and cultures dependent on natural resources (Indepaz, 2022). The country faces more than 160 socio-environmental conflicts linked to large-scale mining, energy, and agribusiness projects, affecting urban, rural, Indigenous, and Afro-descendant communities (Indepaz, 2022).

Dams, often promoted as renewable energy sources, have caused forced displacements and severe social, environmental, and economic impacts globally (World Commission on Dams, 2000). In Colombia, of the 40 registered dams, 28 are dedicated to electricity generation, accounting for 68% of the country's energy supply (Barón Cáceres, 2019). One example of these impacts is the El Quimbo dam, located in the Huila department, which has affected over 28,000 people, including fishers, day laborers, landowners, and tenants, leading to forced displacements and human rights violations (Ruling T-135, Constitutional Court of Colombia, 2013; International Commission of Jurists, 2024). In response, the Association of Those Affected by the El Quimbo Hydroelectric Project (Asoquimbo) was formed in 2008 to defend the rights and territories of the affected communities (Asoquimbo, 2018; Dussán-Calderón, 2017).

Although there is existing research on community music therapy in contexts of armed conflict and gender-based violence (Luna et al., 2018; Martínez-Durán, 2019; Quevedo-Castillo, 2019; Ruiz-Fandiño, 2019), there is a lack of literature addressing its development in socio-environmental conflict contexts. An emerging approach in this field is eco-music therapy, which integrates the climate crisis into music therapy practice (Seabrook, 2020). Community music therapy has proven effective in displacement contexts, fostering empowerment and strengthening social networks (Martínez-Durán, 2019; Triviño Rey, 2020; Vasco & Güiza, 2018). This study focuses on strengthening the social cohesion of Asoquimbo, addressing the scarcity of prior research in this area. It seeks to open new avenues for future studies and for music therapists interested in working in such contexts (Mendoza & González, 2016; Ruud, 2010; Stige, 2002).

From a socio-environmental perspective, conflict is defined as a struggle between individuals or groups with incompatible interests, manifesting in interpersonal or social relationships. In this context, the environment serves as a stage for conflicts arising from control over natural resources and their impacts on communities (Ortiz-T., 1999). A distinction is made between environmental conflicts, related to external interventions affecting land use, and socio-environmental conflicts, involving access to and control over resources like water and minerals by external actors such as oil companies or mining and water concessions. These conflicts have significant environmental impacts and directly involve affected communities (Ortiz-T., 1999). According to the Environmental Justice Atlas (Global Atlas of Environmental Justice, n.d.), socio-environmental conflicts represent mobilizations by local communities or social movements against environmental impacts caused by pollution. These conflicts arise from power inequalities, access to natural resources, the right to participation, and the recognition of diverse worldviews and

understandings of development. They often lead to protests such as demonstrations, strikes, and civil disobedience. According to the World Commission on Dams (2000), while hydroelectric dams are promoted as clean energy sources, they have been shown to produce greenhouse gases and cause severe and irreversible damage to freshwater ecosystems. According to Asociación Interamericana para la Defensa del Ambiente (2015), they also affect communities by infringing on their rights to land, resources, governance, cultural integrity, and by causing displacement, impoverishment, and human rights violations.

The concept of social cohesion, as defined by Sztompka (1995), is the fabric of relationships that shapes social reality, fostering the cohesion and reproduction of social life. This concept is understood through concentric circles, including family, neighborhood, work, and civic relationships (Romero, 2006). Community determinants of social cohesion include social bonds, which provide trust and care; identity, which fosters a sense of belonging; and agreements, which involve participation in community decisions. On the other hand, institutional determinants encompass social institutions such as family and government, which ensure community stability, while structural determinants influence these factors through changes in family, socioeconomic, political, and cultural relationships (Mendoza & González, 2016).

Community Music Therapy

Community music therapy is a developing approach that emphasizes musical practice within social and cultural contexts, particularly relevant in contexts where it is still gaining academic and professional recognition. It extends beyond individual interventions, aiming to influence systems and communities by fostering an ecological view of music and health as interconnected systems (Bruscia, 2014; Wood, 2016). Introduced in 2001, this concept reflects a paradigm shift by conceiving music, well-being, and community as interrelated elements (Ansdell, 2002). Stige (2002) emphasizes that community music therapy can target specific community interventions or aim at social transformation through participatory and culturally sensitive processes.

Community-based practices in music therapy align with a broader cultural movement that addresses not only individual health but also aims to transform social dynamics through music. It is essential to establish a clear distinction between community music therapy and community music practices, as both share the use of music as a means of working with individuals and communities, but differ in their theoretical foundations, objectives, and frameworks of action. While community music focuses on musical participation as an end in itself or as a means to address social issues from an artistic and educational perspective, community music therapy is configured as a situated therapeutic practice that recognizes the social and cultural context of individuals and seeks to expand possibilities for action and participation through musical processes that promote health and well-being. In this sense, community music therapy does not simply transfer clinical models to collective settings, but involves a transformation of the therapist's role, therapeutic goals, and intervention spaces, integrating individual, relational, and community dimensions (Ansdell, 2002).

Ruud (2010) highlights that this approach focuses on mutual care and the creation of social networks, while Stige (2011) underscores the importance of key concepts such as community, context, ritual, and communitas. The notion of community, as described by Tönnies (1887/1947) and expanded by Stige (2011), involves a group of people sharing a common space and practices. In music therapy, context is understood as a web of interactive relationships (Rolvsjord & Stige, 2015). Rituals provide a secure framework for transformative experiences, fostering a sense of equality and companionship (Stige, 2002; Turner, 1969/1988).

Another essential concept is the relationship between music, musicality, and musicking. Music is considered an organized process of sounds over time (Kirkland, 2013), while musicality is seen as an innate capacity to communicate through sound (Stige, 2002). Musicking refers to active participation in musical creation, transforming music into a social practice (Small, 1999).

Regarding health and well-being, the World Health Organization (1948) defines health as a state of complete physical, mental, and social well-being. Other perspectives view health as a dynamic process shaped by cultural context and the individual's capacity to engage actively with their environment (Pellizzari & Rodríguez, 2005). Stige (2011) describes health as "a quality of mutual care in human coexistence" (p. 202).

Well-being is divided into two dimensions: subjective well-being, linked to emotional and cognitive experiences, and objective well-being, related to the satisfaction of basic needs, including physical and social aspects (Felce & Perry, 1995, as cited by Stige & Aarø, 2012; Hird, 2003). Within this framework, health is understood as a dynamic relationship between the individual and their environment, emphasizing the importance of contextual and relational factors in the practice of community music therapy (Stige & Aarø, 2012).

Methodology

Methodological Design

The study employed a qualitative methodology with a descriptive action-research design and incorporated an interpretative approach based on grounded theory (Bruscia, 2007; Hernández-Sampieri et al., 2010; Strauss & Corbin, 2002). In line with grounded theory principles, theoretical saturation was reached when no new relevant categories emerged from the ongoing analysis of interviews, field journals, and musical records. This process involved constant comparison of data across different sources and sessions, allowing the identification of recurring patterns and themes. Once the coding process no longer yielded novel insights that contributed to the understanding of community social cohesion through music therapy, the data collection phase was considered complete. This ensured analytical depth and coherence in the construction of categories and subcategories. The tools used included a field journal, semi-structured interviews, documents, materials and artifacts, biographies, life stories, analysis and tracking matrices, as well as the Atlas.ti software (Bruscia, 2001; Hernández-Sampieri et al., 2010; San Martín, 2014).

The research was carried out in four stages: reflection and analysis, community engagement, implementation and closure, and finally, the presentation of results, during which triangulation of the collected data was performed (Hernández-Sampieri et al., 2010).

To ensure validity and reliability, several considerations were made during the data collection process: sample configuration, review of researcher bias, and weighing of evidence. During the analysis, data representativeness was verified, and triangulation was conducted. The final report ensured transparency in procedures, thick description, and validation of results with the community, also known as member checking, which involved presenting preliminary findings to participants for feedback and confirmation (Bonilla & Rodríguez, 2005).

Music Therapy Process

The music therapy process was carried out in two phases with two groups, spanning from November 12, 2022, to June 4, 2023, and consisting of 20 sessions, each lasting 1.5 hours.

The first phase, Community Engagement, took place from November 12, 2022, to February 5, 2023, involving nine sessions: one with the territorial coordinators of Asoquimbo and eight with the HOBO and GARZÓN groups (four sessions with each group).

The second phase, Implementation-Closure, occurred from March 26 to June 4, 2023, and included five implementation sessions and one closing session in HOBO, as well as four implementation sessions and one closing session in GARZÓN.

The sessions involved activities such as musical improvisation, song re-creation, and composition (Bruscia, 2007), with objectives ranging from understanding community resources to strengthening group identity and cohesion (Hernández-Sampieri et al., 2010). Various musical instruments, including indigenous instruments from the region, were used, and the activities took place in community-provided spaces.

Data Collection and Analysis Tools

During the process, planning was conducted for each session, data were recorded in field journals, and semi-structured interviews were carried out (Hernández-Sampieri et al., 2010). Additionally, tracking matrices were developed to monitor objectives, units of analysis, and categories. Atlas.ti version 9 was used for the coding process. The software supported open and axial coding of qualitative data from field journals and semi-structured interviews, enabling the identification and organization of categories and subcategories related to community music therapy and social cohesion. Additionally, a qualitative analysis of improvisations and compositions emerging from the sessions was performed (Bruscia, 2001; San Martín, 2014). Units of analysis related to community music therapy and categories associated with community social cohesion and its determinants were identified (Mendoza & González, 2016; Ruud, 2010; Stige, 2002).

To clarify the triangulation and analytical process, Table 1 summarizes the methodological phases, the concrete actions taken, the tools and products generated, and the criteria used for analysis. This structure reflects the grounded theory and action-research design of the study.

Table 1. Methodological Phases, Data Collection Tools, and Analytical Criteria.

Methodological phase	Concrete actions in this study	Tools / products	Analysis criteria / evidence
Selection and recruitment	Direct invitation by Asoquimbo's territorial coordinators; prioritization of active and available members; formation of two territorial groups (HOBO—lower area—and GARZÓN—upper area—). Recording of linked participants (36) and regular attendees (13).	Attendance and invitation lists; informed consent forms; records of territorial coordination.	Territorial belonging; role within the association (artisanal fishers, farmers, local leaders); availability to attend.
Data collection	Semi-structured interviews; systematic record in field journals for each session; audio and video recordings of sessions and musical materials (improvisations and compositions); documentation of absences and reasons (distance, work, transportation).	Interview guide (topics/items); field journals; digital audio and video files; recorded musical materials.	Narrative and expressive richness; complementarity between sources; contextual records explaining discontinuity in attendance.
Data preparation	Literal transcription of interviews; digitization and	Transcriptions (.doc/.txt),	Fidelity to recordings;

Methodological phase	Concrete actions in this study	Tools / products	Analysis criteria / evidence
and organization	organization of journals and musical files; importation of sources into Atlas.ti project; creation of backup files and metadata records (date, place, participant, session).	organized multimedia files, Atlas.ti project with imported documents.	traceability (link audio→transcription→field note); availability for queries and re-coding.
Open coding	Detailed reading of texts and audios; identification of meaning units (fragments, phrases, musical segments) and assignment of initial codes, some in-vivo; recording of analytic memos.	Initial codes and memos in Atlas.ti; preliminary code list.	Relevance to community social cohesion; thematic recurrence; evidence in at least one primary source.
Axial coding	Grouping of codes around common relationships, properties, and dimensions; search for cause–effect connections and conditions; iterative use of categories to re-code and refine codes.	Networks and co-occurrence queries in Atlas.ti; relational diagrams; category memos.	Internal coherence of categories; consistency between codes and properties; empirical support across multiple sources/sessions.
Integration / triangulation (constant comparison)	Systematic confrontation of findings across interviews, field journals, and musical records to identify recurring patterns and symbolic/emotional dimensions. Explicit attention to contextual information (absences, socioeconomic conditions).	Source×theme matrices (comparative tables), Atlas.ti queries and illustrative quotes, annotated musical examples.	Convergence of evidence in at least two sources; contextual explanation of discrepancies; symbolic richness indicated by musical materials.
Theoretical saturation (end of data collection)	Monitoring of new code emergence per session; documented decision to end data collection when no new relevant categories emerged from interviews, journals, and musical records.	Chronological log of new codes per session; memo declaring theoretical saturation.	Absence of new relevant categories after sustained analysis; stability and saturation of categories and subcategories.
Validation and reflexivity	Recording and consideration of contingencies (e.g., reasons for dropout) in the analysis; reflexive memos on analytical decisions and researcher positionality; maintenance of an "audit trail."	Reflexive field journals; analytic memos in Atlas.ti; decision logs (code changes, grouping criteria).	Methodological transparency; incorporation of contextual factors into interpretation; traceability of analytical decisions.

The integration of data collection techniques was guided by a triangulation strategy that combined semi-structured interviews, field journals, and musical materials (improvisations and compositions). These sources were analyzed using open and axial coding in Atlas.ti, allowing for constant comparison across different types of data. Field journals provided contextual and observational insights, interviews captured participants' narratives and reflections, and musical expressions offered symbolic and emotional dimensions of community experience. The convergence of these perspectives enabled the identification of recurring patterns and the construction of categories and subcategories related to social cohesion. This dialogical approach ensured that the analysis was both methodologically rigorous and sensitive to the complexity of the community dynamics.

Units and Categories of Analysis

The following units of analysis (Table 2) were preselected based on the theoretical framework adopted, with the aim of comprehensively understanding the practice of community music therapy in the studied context. These units guided the coding and interpretation of the data collected during the process.

Table 2. Analysis Units.

Ritual	A practice that is regularly repeated in a predictable manner, established by the same community, and preserves the norms or values of the group and its individuals (Stige, 2002).
Communitas	It is understood as the relationship between people who are not segmented by roles, but who relate as equals (Stige, 2011).
Musicking	Music is defined as a verb rather than a noun. Making music is participating in any capacity in a musical performance (Small, 1999).
Empowerment	The strengths and potentialities of participants regarding what is possible and meaningful to them. Experiences of control and belief in their own resources for action (Ruud, 2010).

It also considers the monitoring of the main analysis category and its subcategories, which emerged as a result of the community engagement phase.

Table 3. Main Analysis Category and Subcategories.

Community Social Cohesion	*Community Determinant – Identity*	Identity refers to the sense-making references that guide or justify a personal way of life or belonging to a collective. These are expressed in cultural practices such as symbols, rituals, celebrations, etc., and in the construction of collective narratives. This social identity is not permanent, which means it has the capacity to construct references that justify belonging to a collective and guide its practice (Mendoza & González, 2016).
	Community Determinant – Agreements	Agreements refer to individual or collective participation in decisions that affect the personal and social life of the community. These require a process of conversation to identify common

		problems or interests and participate in their resolution. It leads to the collective and community experience of "coming to an agreement" or "doing together" (Mendoza & González, 2016).

Objectives and Tracking Matrix

The general objective of the music therapy process was to engage with the community to identify and strengthen its internal resources through participatory musical experiences. Specific objectives were developed progressively throughout the sessions, based on the analysis of each encounter and the evolving needs of the participants. To support this process, tracking matrices were designed for each session. These matrices systematically recorded the relationship between therapeutic goals, the activities carried out, and the observed outcomes. They served as tools for planning, analysis, and decision-making, and were used in conjunction with field journals and interviews for data triangulation.

These matrices not only supported session planning and documentation but also facilitated the identification of emerging patterns and relationships between musical experiences and community dynamics.

The following section describes the participants involved in the music therapy process, including their demographic characteristics, group composition, and attendance patterns.

Participants

The research was conducted in collaboration with the Association of Those Affected by the El Quimbo Hydroelectric Project (Asoquimbo), an organization founded on July 26, 2009, to defend the social, economic, cultural, and environmental rights of communities impacted by the El Quimbo dam. The association focuses on resistance and social mobilization to promote an alternative model of energy and food sovereignty (Association of Those Affected by the El Quimbo Hydroelectric Project [Asoquimbo], 2020a). Its organizational structure consists of a General Assembly, a Board of Directors, and several specialized committees and teams (Asoquimbo, 2020a).

As of 2020, the association had 352 members organized into associations and groups located in the municipalities of Hobo, Gigante, Garzón, Altamira, and Tarqui in the Huila department of Colombia. Most members were adult men engaged in artisanal fishing and farming. Despite challenges such as precarious living conditions, loss of employment opportunities, and land insecurity, members remain determined to stay on their land despite the difficulties they face (Association of Those Affected by the El Quimbo Hydroelectric Project [Asoquimbo], 2020b).

The initial participant group for the study consisted of 13 individuals, including members and territorial coordinators of the organization, who attended the first session. The selection of participants was carried out through direct invitation by territorial coordinators of Asoquimbo. The process prioritized individuals who were actively involved in the organization and had availability to attend the sessions. Selection criteria included territorial belonging, interest in community-based processes, and representation of diverse roles within the association, such as artisanal fishers, farmers, and local leaders. This approach ensured that the participants were both relevant to the study's objectives and capable of contributing meaningfully to the music therapy process. Considering the geographical distribution of the community, two study groups were formed to facilitate broader participation:

- Group 1 – HOBO: Located in the lower part of the dam, comprising 16 participants.

- • Group 2 – GARZÓN: Located in the upper part of the dam, with 20 participants.

Although a total of 36 individuals were linked to the process, attendance varied throughout the sessions. Only 13 participants attended consistently across most sessions. Reasons for discontinuity included the distance from their homes, socioeconomic challenges, work commitments, and limited access to transportation. These circumstances were documented in the field journals and considered in the analysis of results, recognizing that sustained participation was a key indicator of the process's impact. Informed consent was obtained from all participants, who voluntarily approved the audio and video recordings for academic purposes (Hernández-Sampieri et al., 2010).

Figure 1. Geographic Location.
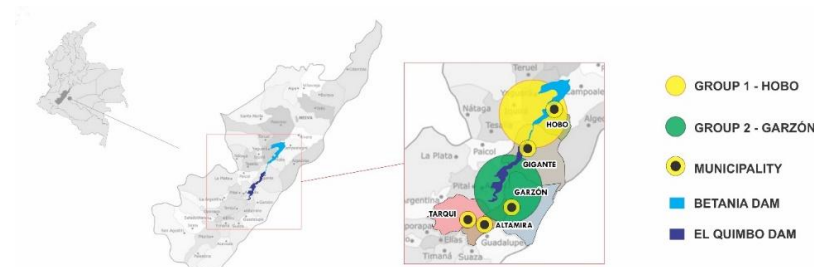
Researcher Positioning

Given the qualitative and participatory nature of this research, it is essential to explicitly state the researcher's relationship with the process. The researcher is not a member of the community but was invited directly by the Association of Those Affected, based on previous collaborations in training and psychosocial support processes. This prior relationship helped establish a bond of trust that facilitated the development of the music therapy process.

The researcher's positioning is framed within a critical and situated perspective, acknowledging that their role is not neutral but shaped by previous experiences in contexts of social conflict and by a conviction in the transformative potential of community music therapy.

To mitigate potential biases, several reflexive strategies were implemented. A field journal was maintained throughout the process to document emotional responses, assumptions, and analytical decisions. Triangulation was systematically applied across interviews, musical materials, and field notes to ensure that interpretations were grounded in multiple sources. Member checking was conducted to validate findings with participants, and analytic memos were used to track the evolution of categories and coding decisions.

Additionally, an external advisor with extensive experience in community music therapy reviewed the field journals, coding processes, and analytical materials. This external review provided a critical perspective that strengthened methodological rigor and helped minimize the influence of the researcher's prior relationship with the community. These strategies collectively contributed to a transparent and trustworthy interpretation of the data.

Ethical Aspects

This study was conducted in accordance with the Code of Ethics of the World Federation of Music Therapy (2022), which guides professional practice in areas such as confidentiality, responsibility, integrity, respect, and environmental care. In addition, the research adhered to Colombian regulations on bioethics and research involving human

participants, as outlined by the Intersectoral Bioethics Commission (CID) and the National Bioethics Council (CNB), which seek to balance scientific advancement with respect for human dignity (Decree 1101 of 2001; National Bioethics Council, n.d.).

Although formal approval from an institutional ethics committee was not obtained, rigorous ethical safeguards were implemented. Informed consent was used to document voluntary participation and authorize the use of personal data, images, audio, and video for academic purposes. Data handling complied with the Personal Data Treatment Policy of the National University of Colombia and relevant national legislation (Statutory Law 1581 of 2012; Decree 1377 of 2013).

Furthermore, the study was developed within the framework of the Community Music Therapy Research Group (Semillero de Musicoterapia Comunitaria) of the Master's Program in Music Therapy at the Universidad Nacional de Colombia, and was supported by this academic institution. The process was supervised by an external advisor with extensive experience in community music therapy, who reviewed the field journals, coding processes, and analytical materials. These measures ensured the protection of participants' rights, methodological rigor, and the ethical integrity of the research process.

Results

This section is structured by phases and groups. First, the results of the community engagement phase are presented, starting with those of Group 1 – HOBO, followed by those of Group 2 – Garzón. Subsequently, the results of the implementation-closure phase are included. The data analyzed in this section were obtained from field journals and semi-structured group interviews conducted during the community music therapy intervention process.

Results from the Community Engagement Stage

Group 1 – HOBO:

The following table summarizes the findings from the community engagement phase with Group 1 – HOBO, organized by units of analysis from the perspective of community music therapy. At this stage, the determinants of social cohesion had not yet been defined, as they emerged later in the process.

Table 4. Analytical Categories and Summaries in Community Music Therapy.

Main Category	Units of Analysis	Summary
Community Music Therapy	Ritual	Participants began to perceive the music therapy sessions as important spaces for integration, expression, and community strengthening.
	Communitas	Limited consistent attendance from participants. The music therapist facilitated group interactions.
	Musicking	Interactions among participants through playing instruments and dancing in a circle with expressions of joy.
	Empowerment	Two regular participants took ownership of the space and began developing strategies to encourage broader community involvement in the sessions.

Figure 2. Atlas.ti Coding Results.
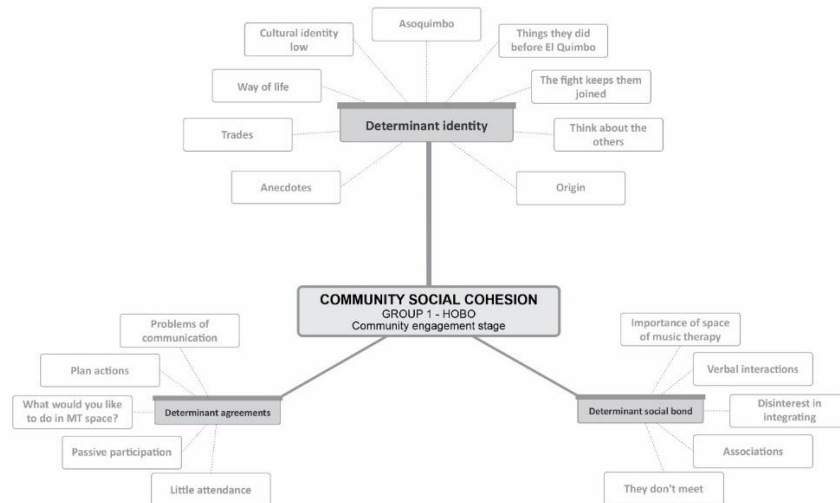
In the coding and analysis process with the Atlas.ti tool for the semi-structured interview and field diaries, it was found that Social Cohesion is the main category of analysis, and the determinant of Identity is the subcategory, as it is the concept with the most focus for strengthening and serves as the foundation for enhancing the other determinants. Additionally, a connection was found between this subcategory and the objective matrix and the analysis unit matrix, where factors (described below) are evident that can contribute to strengthening identity, thereby supporting Social Cohesion.

Through the objective tracking matrices developed for each session, it was possible to systematically record the relationship between therapeutic goals, the activities carried out, and the observed outcomes. These matrices supported the planning, analysis, and decision-making throughout the process, and served as key inputs for data triangulation alongside field journals and semi-structured interviews. The matrices also allowed for monitoring both the general objective—to engage with the community and understand its strengths and resources through key music therapy experiences—and the specific objectives that emerged from the analysis after each session. This structure helped orient the process, guiding activities aimed at facilitating mutual recognition among participants, promoting empathy, exploring expressive means through sound, and observing participant behavior. Factors related to empowerment, social relationships, recognition, bonding, group interactions, organizational capacity, and enjoyment of the encounter were identified.

In monitoring the units of analysis, the integration of ritual was highlighted, as participants began to view the music therapy sessions as an important space for integration, expression, and strengthening the community. This is reflected in verbalization spaces where participants identified areas for improvement, such as low attendance, individualism, and lack of interest in gathering or meeting without a particular incentive or benefit. Additionally, there were plans made by the attendees to achieve greater community participation in future sessions.

The qualitative analysis of the improvisations was conducted using audio and video recordings of the sessions, complemented by observations documented in the field journals. Criteria proposed by Bruscia (2001) for clinical improvisation analysis were applied, considering aspects such as:

- Rhythmic and melodic structure: stability, repetition, variation, and internal coherence.
- Musical interaction: turn-taking, responses, synchrony, accompaniment, and sonic dialogue among participants.

- Group participation: level of involvement, initiative, active listening, and co-creation.
- Expressivity: intensity, dynamics, use of sonic space, and timbral resources.

Most improvisations were free, although some sessions included open-ended prompts to facilitate participation (e.g., "create a soundscape of the river" or "respond with sounds to a collective emotion"). These prompts aimed to stimulate spontaneous expression and the construction of shared meaning through sound.

This analysis allowed the identification of interaction patterns, levels of group cohesion, and transformations in the appropriation of the musical space throughout the process.

Finally, the results from the approach stage allowed the definition of the general objective of the music therapy process for Group 1 – HOBO, guiding the next implementation-closure stage.

Group 2 – GARZÓN:

The following table summarizes the findings from the community engagement phase with Group 2 – GARZÓN, organized by units of analysis from the perspective of community music therapy. At this stage, the determinants of social cohesion had not yet been defined, as they emerged later in the process.

Table 5. Analytical Categories and Summaries in Community Music Therapy.

Main Category	Units of Analysis / Subcategory	Summary
Community Music Therapy	Ritual	The sessions were considered important for integration, recreation, and community strengthening. Participants showed interest in coordinating logistics before sessions and shared food genuinely at the end.
	Communitas	Power roles were evident due to the lack of initiative among participants, with interactions grouped by gender and age. The music therapist frequently facilitated the space and generated new interactions.
	Musicking	Few interactions emerged among participants with instruments during improvisations, despite expressions of joy.
	Empowerment	Initially, there was low ownership of the music therapy space, with limited individual initiative to handle instruments, interact, participate, or integrate into the group. The music therapist and group leaders predominantly led the activities.

Figure 3. Atlas.ti Coding Results.
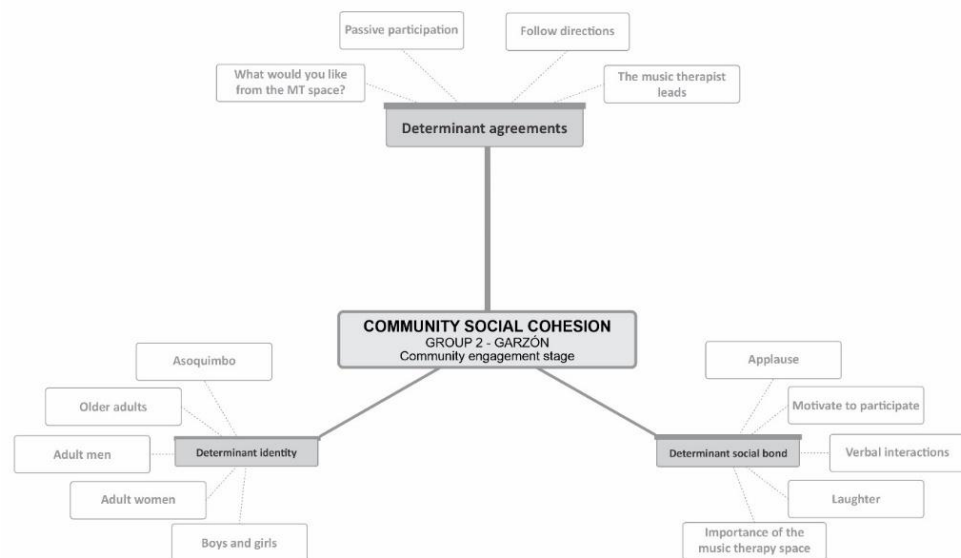
In the process of coding and analyzing the semi-structured interview and field diaries using the Atlas.ti tool, Community Social Cohesion emerges as the main category of analysis, with Agreements as a subcategory. This subcategory stands out as an important aspect to be strengthened and aligns with the characteristics and needs of the group. Furthermore, a relationship is identified between this subcategory and the objective matrix and the analysis unit matrix, where factors (described later) are evidenced that can contribute to strengthening agreements, thereby enhancing the Community Social Cohesion.

Through the objective matrix, it was possible to track both the general objective, which consisted of engaging with the community to understand its strengths and resources through music therapy's key experiences, and the specific objectives that emerged during the analysis conducted after each session. This process guided the planning of activities aimed at facilitating mutual recognition among participants, promoting empathy, exploring expressive means through sound, and observing participant behavior. Factors related to integration, group interaction, social relationships, recognition, bonding, organizational capacity, and limited participation in decision-making were identified.

During the monitoring of the units of analysis units, the development of empowerment was highlighted. Initially, there was low ownership of the music therapy space, with little individual initiative to handle instruments, interact, participate in the experience, or integrate into the group. This lack of initiative was primarily evident in the role of the music therapist, who frequently encouraged participation, or in group leaders, who dominated the activities.

The qualitative analysis of the improvisations for Group 2 – GARZÓN was conducted using audio and video recordings of the sessions, complemented by observations documented in the field journals. The analysis followed the criteria proposed by Bruscia (2001) for clinical improvisation, focusing on:

- Rhythmic and melodic structure: identifying patterns of instability, repetition, and coherence in the musical expressions.
- Musical interaction: observing turn-taking, responsiveness, synchrony, and the presence or absence of musical dialogue among participants.
- Group participation: assessing levels of initiative, engagement, active listening, and collaborative creation.
- Expressivity: analyzing the use of dynamics, intensity, timbre, and spatial sound

distribution.

In this group, most improvisations were free and spontaneous, although some sessions included open-ended prompts to encourage participation and thematic exploration. Examples of these prompts included "express the history of the organization through sound" or "create a musical response to a collective challenge." These activities aimed to foster symbolic expression and strengthen the sense of shared purpose.

The analysis revealed a predominance of soft, disorganized sounds and limited musical interaction, especially in the early sessions. However, gradual changes were observed in the participants' appropriation of the musical space, with increased initiative and responsiveness over time. The role of the music therapist was essential in providing structure and facilitating integration, helping participants move from passive observation to active engagement.

This process allowed for the identification of evolving dynamics within the group, highlighting the emergence of collective initiatives and the strengthening of agreements as a determinant of community social cohesion.

One of the most significant initiatives was the planning and execution of a communal "sancocho," proposed by the participants as a symbolic act of unity and celebration during the final session. This activity involved collective decision-making, coordination of resources, and active participation from various members of the group. Additionally, participants organized a knowledge-sharing event, where they exchanged experiences related to territorial defense and organizational history. These actions reflected a growing sense of ownership of the music therapy space and a commitment to fostering collective well-being through culturally meaningful practices.

In this way, the results of the engagement phase helped define the general objective of the music therapy process for Group 2 – GARZÓN, guiding the next phase of implementation and closure.

Results of the Implementation-Closure Phase

Group 1 – HOBO:

The following table summarizes the findings from the implementation and closure phase with Group 1 – HOBO, organized by units of analysis and the subcategory "Identity," within the framework of community music therapy. These findings reflect the evolution of group dynamics and the strengthening of social cohesion through musical experiences.

Table 6. Analytical Categories and Summaries of Findings on Community Music Therapy and Social Fabric.

Main Category	Units of Analysis / Subcategory	Summary
Community Music Therapy	Ritual	The sessions were considered important for promoting unity and were integrated into the community's organizational meetings as a strategy for strengthening.
	Communitas	A more empathetic and supportive relationship was observed, as well as a leveling of power roles during improvisations and song creation.
	Musicking	The community's enjoyment was evident

Main Category	Units of Analysis / Subcategory	Summary
		through singing, dancing, playing instruments, or participating as spectators.
	Empowerment	Despite challenges related to transportation, work, or health, participants valued the music therapy space for fostering unity and integration. The sessions were appropriated by including them in organizational meetings.
Community Social Fabric	Identity Determinant	Participants expressed aspects of their identity as artisanal fishers from Hobo and as members of the organization, highlighting traditions, ways of life, a sense of struggle, and belonging.

Figure 4. Results of Atlas.ti coding.
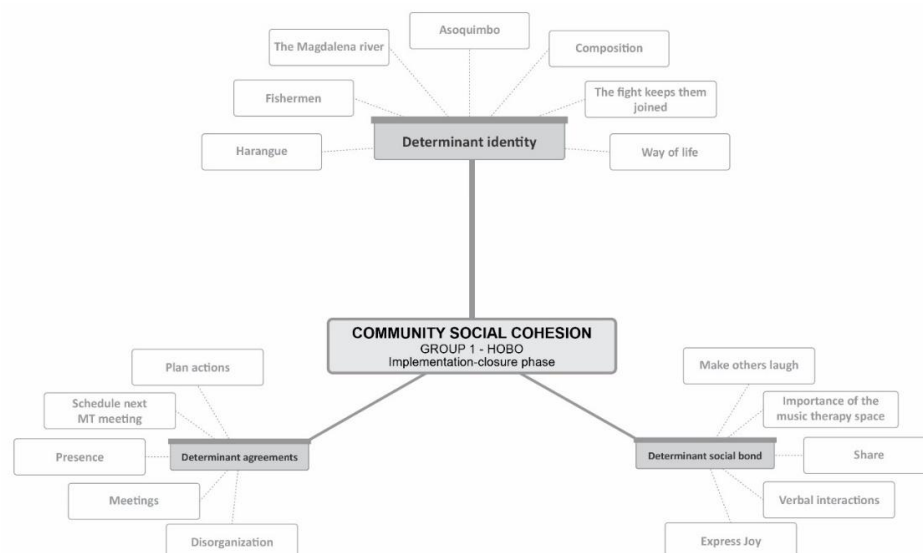
In the process of coding and analyzing field diaries using the Atlas.ti tool, it was found that the collected information was related to the main category Community Social Cohesion, where greater participation of the participants in the music therapy sessions was evident. This increased participation promoted aspects such as integration, musical interaction, empathy, and the strengthening of social relationships among participants. Furthermore, regarding the subcategory Identity Determinant, which this process focuses on, participants expressed aspects of their identity as fishermen, their relationship and bond with the river, their customs, trades, and ways of life, as well as the importance and meaning of belonging to Asoquimbo. This information also correlates with the objective monitoring matrix, the unit and category analysis matrix, and the qualitative analysis of songs, which was conducted by examining the lyrics, musical structure, and expressive elements of the compositions created during the sessions. The analysis focused on identifying symbolic references, collective narratives, and emotional expressions related to community identity and shared experiences. Recurring themes such as the river, resistance, and belonging were interpreted in relation to the Identity Determinant, revealing how musical creation served as a medium for articulating collective memory and reinforcing social cohesion.

As in the community engagement phase, the objective analysis matrix in the implementation-closure phase made it possible to track both the general objective and the specific objectives that emerged during the analysis conducted after each session. These objectives guided the process and allowed for planning activities aimed at promoting group cohesion, integration, and facilitating expression about aspects related to identity, such as symbols, customs, ways of life, and meanings relevant to the community itself.

In the monitoring conducted through the unit and category analysis matrix, the development of the subcategory Identity Determinant stands out. This highlighted the emergence of aspects related to the community's identity as artisanal fishermen from Hobo and as members of Asoquimbo. Similarly, the unit Communitas stood out, showcasing greater community participation and integration, as well as the development of more empathetic and supportive relationships. These situations are also related to the Musicking unit, where the enjoyment of musical interactions and the inclusion of individuals outside the circle of participants were evident. All these elements contribute to enhancing Community Social Cohesion.

In the qualitative analysis of improvisation, certain factors were observed, such as the role of the music therapist in facilitating and integrating the group of participants, the difficulty in achieving structure during improvisation, and the predominance of soft, distant sounds with limited musical interaction during the experience. These sonic characteristics were interpreted as indicators of initial emotional distance, lack of group cohesion, and unfamiliarity with the musical space. The music therapist responded by introducing rhythmic anchors, modeling musical dialogue, and encouraging turn-taking to promote interaction. Over time, participants began to show greater initiative, engaging more actively in co-creation and responding musically to one another. This evolution reflected a gradual appropriation of the space and a strengthening of social bonds through sound.

In the qualitative analysis of songs, it was observed that music therapy experiences of composition and recreation promoted participation and facilitated the expression of factors that contributed to strengthening the Identity Determinant. Some aspects, such as the symbolism and connection to the Magdalena River, ways of life, customs, empowerment, the significance of the organizational process, and the sense of belonging to Asoquimbo, were recorded in the lyrics and rhythms of the songs.

Figure 5. Musical composition: "Por el río Magdalena Luchamos" ("For the Magdalena River We Fight").


The results of the implementation-closure phase align with the general objective of the music therapy process defined during the community engagement phase. They demonstrate consistent tracking of the main category, the subcategory, the units of analysis, and the objectives.

Group 2 – GARZÓN:

The following table summarizes the findings from the implementation and closure phase with Group 2 – GARZÓN, organized by units of analysis and the subcategory "Agreements," within the framework of community music therapy. These findings reflect the evolution of group participation and the strengthening of collective decision-making through musical experiences.

Table 7. Analytical Categories and Summaries of Findings on Community Music Therapy and Social Fabric.

Main Category	Units of Analysis / Subcategory	Summary
Community Music Therapy	Ritual	The sessions were considered important for integration and community strengthening. Participants coordinated logistics beforehand and shared food genuinely at the end of sessions.
	Communitas	A more horizontal relationship was observed, with increased participation and initiative. Musical interactions helped reduce power hierarchies and fostered empathy.
	Musicking	Participants showed enjoyment through singing, dancing, and playing instruments. Musical creation became a space for shared expression and symbolic communication.
	Empowerment	Participants took greater ownership of the music therapy space, proposing and organizing activities such as a communal "sancocho" and a knowledge-sharing event.
Community Social Fabric	Agreements Determinant	Participants expressed collective goals, organizational history, and shared convictions. Musical compositions reflected their unity, resistance, and commitment to community action.

Figure 6. Results of Atlas.ti coding.
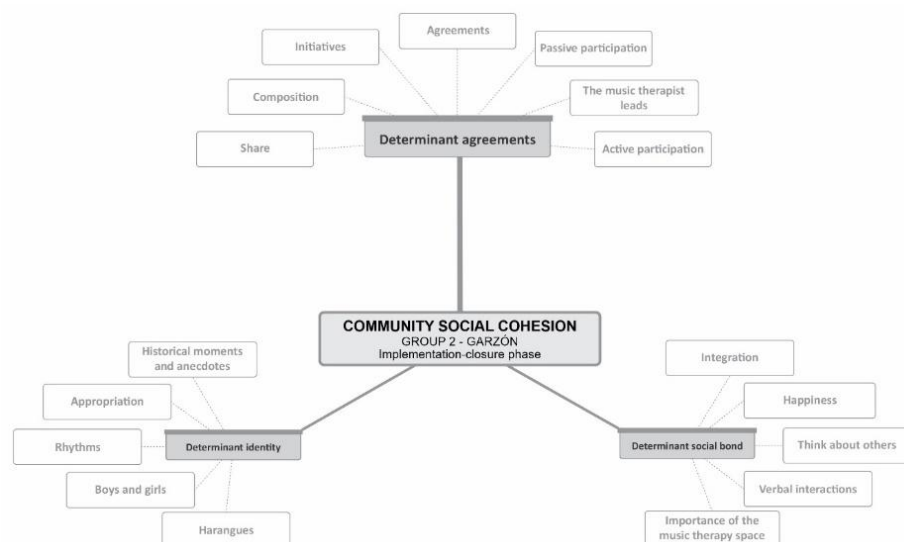
In the process of coding and analyzing the field diaries using the Atlas.ti tool, the collected information was found to relate to the main category Community Social Cohesion. It was evident that there was consistent participation of the population in the music therapy sessions, fostering aspects such as integration, ownership of the space, musical interaction, sharing, empathy, and social relationships. Furthermore, regarding the subcategory

"Agreement Determinant," participants expressed and collectively acknowledged aspects related to their history, the reasons for their association, their struggles, convictions, and objectives. They also generated initiatives to organize and carry out activities for and by the community, such as communal sharing. This information also correlates with the objective monitoring matrix, the unit and category analysis matrix, and the qualitative analysis of songs.

Through the objective matrix, it was possible to track both the general objective and the specific objectives that emerged during the analysis conducted after each session. These objectives guided the process and allowed for planning activities aimed at promoting group participation, expression, the exchange of ideas and thoughts, and the ability to interact, contribute, and engage in joint creation.

In the monitoring conducted using the unit and category analysis matrix, the information obtained in the Agreement Determinant subcategory stands out. It highlighted aspects related to integration, the emergence of initiatives, and the community's participation in matters of common interest, such as planning and executing actions or activities for the collective benefit. Additionally, the Empowerment unit stands out, where increased ownership of the music therapy space and shifts in power roles during the sessions were evident. All these elements contribute to enhancing Community Social Cohesion.

In the qualitative analysis of improvisation, several factors were identified that reflect the evolving dynamics of the group. Initially, the improvisations were characterized by soft, distant, and disorganized sounds, which indicated emotional distance, low group cohesion, and unfamiliarity with the musical space. The music therapist played a central role in structuring and facilitating the experience, using strategies such as repetitive rhythmic patterns, variations in intensity, and intentional silences to provoke musical responses. These interventions led to rhythmic imitation and, progressively, to musical interactions resembling question-and-answer exchanges among participants. This transformation in the improvisational process revealed a growing sense of trust, active listening, and collective engagement, aligning with the therapeutic objectives of fostering empathy, participation, and social cohesion.

In the qualitative analysis of songs, the music therapy composition experience promoted group participation and facilitated the expression of factors contributing to the strengthening of the Agreement Determinant. The song "The Struggle of Asoquimbo" was collectively created by participants using phrases, words, and reflections shared during the sessions. Its lyrics address themes related to the organization's history, sense of belonging, reasons for unity, and the nature of their collective struggle. During the recording, participants incorporated musically significant elements such as the bambuco rhythm, selected instrumentation, and verbal expressions of encouragement and resistance, including: "Rivers for life, not for death!", "Fish don't swim in dammed rivers!", "Long live Asoquimbo!" This collective creation process helped consolidate agreements, strengthen organizational identity, and provide a symbolic space for expression aligned with the therapeutic objectives of the intervention.

Figure 7. Musical composition: "La lucha de Asoquimbo" ("The Struggle of Asoquimbo").

The results of the implementation-closure phase align with the general objective of the music therapy process defined during the community engagement phase. They demonstrate consistent tracking of the main category, the subcategory, the units of analysis, and the objectives.

Discussion

This section is organized by groups and phases to facilitate a deeper understanding of the process and its outcomes. First, Group 1 – HOBO is addressed, beginning with the

community engagement phase and followed by the implementation and closure phase. Then, Group 2 – GARZÓN is analyzed using the same structure. Finally, a comparative analysis is presented to highlight similarities, differences, and emerging patterns across both groups and phases.

Grupo 1 – HOBO – Community Engagement Phase

During the community engagement phase, the music therapy process began with an initial session involving territorial coordinators, followed by four sessions with Group 1 – HOBO. The goal was to engage the community and explore its internal resources through participatory musical experiences, drawing on previous research (Hernández-Malaver, 2021; Salgado-Vasco & Monroy-Gómez, 2024).

Using qualitative methodologies and an action-research design (Hernández-Sampieri et al., 2010), data were collected through field journals and semi-structured interviews. The open coding process (Strauss & Corbin, 2002), supported by Atlas.ti, revealed Community Social Cohesion as the main category, with Identity emerging as the most significant determinant. This finding reflects the community's need to reconstruct collective narratives and strengthen social bonds in the face of socio-environmental conflict and displacement.

From a grounded theory perspective, the emergence of "Identity" was not predefined but derived inductively from the data. The coding process involved constant comparison and conceptualization, allowing the researcher to identify recurring themes such as references to fishing, territorial defense, and cultural practices. These elements were interpreted as symbolic anchors of belonging and resistance.

The analysis of key units (ritual, communitas, musicking, and empowerment) provided deeper insight into the transformative potential of music therapy. Ritualized musical spaces began to function as symbolic containers for community expression, where participants redefined the sessions as meaningful events rather than mere therapeutic encounters. This aligns with Stige's (2002) notion of ritual as a framework for transformation and Turner's (1969) concept of communitas, where hierarchical roles dissolve and participants relate as equals.

Musicking (Small, 1999) was observed in the spontaneous musical interactions, which evolved from disconnected and hesitant sounds to more cohesive and dialogic improvisations. Initially, the group exhibited emotional distance and fragmentation, reflected in soft, isolated sonic gestures. However, the music therapist played a facilitative and semi-directive role, introducing rhythmic anchors, modeling musical dialogue, and encouraging turn-taking. This approach helped energize the sessions and fostered a gradual increase in interaction, imitation, and co-creation.

The researcher interpreted these changes as indicators of a reactivation of collective memory and identity. Music became a medium through which participants reconnected with their roles as fishermen and defenders of their territory. The process did not merely document existing dynamics-it actively contributed to their transformation. In this sense, music therapy functioned as a tool for social reconstruction, enabling the community to reclaim its narrative and strengthen its cohesion.

Group 1 – HOBO – Implementation and Closure Phase

During the implementation and closure phase, Group 1 – HOBO participated in six sessions: five focused on implementation and one on closure. Following the open coding process proposed by Grounded Theory (Hernández-Sampieri et al., 2010; Strauss & Corbin, 2002) and using Atlas.ti (San Martín, 2014), data from field notes were analyzed and organized into previously defined subcategories—Community Determinants: Bonds, Identity, and

Agreements—all related to the main category of Community Social Cohesion (Mendoza & González, 2016).

This phase centered on strengthening community identity as a foundation for enhancing social cohesion. Identity, understood as the set of symbolic references that guide belonging to a collective (Mendoza & González, 2016), was expressed through participants' connection to their roles as artisanal fishermen and members of the organization Asoquimbo. These elements were repeatedly referenced in musical compositions and verbal reflections. However, despite strong identification with these aspects, participants also voiced concerns about the lack of unity and limited interest in engaging in community-driven activities that did not offer personal incentives.

The application of music therapy concepts—ritual, communitas, musicking, and empowerment (Bruscia, 2014; Ruud, 2010; Stige, 2002; Wood, 2016)—revealed how music therapy became integrated into community life. Rituals emerged as structuring elements, transforming the sessions into meaningful spaces for expression and connection. Communitas was observed in the leveling of hierarchies and the emergence of camaraderie, particularly during musical interactions. Musicking facilitated spontaneous and joyful participation, while empowerment was reflected in the increasing ownership of the musical space and the emergence of collective initiatives.

The qualitative analysis of improvisations (Bruscia, 2001) highlighted the music therapist's essential role in energizing and structuring the sessions. Initially, improvisations were characterized by soft, disorganized sounds, indicating emotional distance and low group cohesion. The therapist adopted a semi-directive and facilitative role, introducing rhythmic anchors, modeling musical dialogue, and encouraging turn-taking. These strategies led to more cohesive musical interactions and expressions of enjoyment, signaling a gradual appropriation of the space and a strengthening of social bonds.

From the researcher's perspective, these transformations suggest that music therapy not only reflected existing community dynamics but also actively contributed to their evolution. The musical experiences served as a medium for articulating collective identity and fostering a sense of shared struggle, positioning music therapy as a tool for community integration and social reconstruction.

Group 2 – GARZÓN – Community Engagement Phase

This phase began with an initial session involving territorial coordinators of the organization Asoquimbo, followed by four sessions with Group 2 – GARZÓN. The objective was to engage the community and explore its internal resources through music therapy experiences, as developed in previous research (Hernández-Malaver, 2021; Salgado-Vasco & Monroy-Gómez, 2024). Qualitative methodologies (Bruscia, 2007; Hernández-Sampieri et al., 2010), an action-research design, and various data collection tools enabled the identification of key aspects of the community, including social relationships, lifestyles, organizational processes, and symbolic resources.

Using open coding and Atlas.ti (San Martín, 2014), the analysis revealed Community Social Cohesion as the main category, with Agreements selected as the most relevant determinant for this group. This choice reflects the community's need to strengthen collective participation and decision-making processes, which were observed to be fragmented and hierarchical.

The analysis of community music therapy units [ritual, communitas, musicking, and empowerment] (Bruscia, 2014; Ruud, 2010; Stige, 2002; Wood, 2016) provided insight into the group's dynamics. Rituals emerged as structuring elements, helping to establish regularity and meaning in the sessions. Communitas revealed intergenerational and power-related tensions, while musicking highlighted moments of joy and integration,

albeit in a less structured manner. Empowerment was present but manifested passively, with limited initiative from participants in shaping the musical space.

The qualitative analysis of improvisations (Bruscia, 2001) showed that while participants expressed enjoyment, their musical interactions were distant, passive, and lacked structure. These sonic patterns mirrored the observations recorded in field journals and interviews, which pointed to a lack of unity and a hierarchical social structure. From the researcher's perspective, these findings underscored the importance of designing the next phase around the strengthening of Agreements as a pathway to enhance community cohesion.

Group 2 – GARZÓN – Implementation and Closure Phase

During this phase, Group 2 – GARZÓN participated in five sessions: four focused on implementation and one on closure. Following the open coding process of Grounded Theory (Hernández-Sampieri et al., 2010; Strauss & Corbin, 2002) and using Atlas.ti (San Martín, 2014), data from field notes were analyzed and organized into the previously defined subcategories (Bonds, Identity, and Agreements) within the overarching category of Community Social Cohesion (Mendoza & González, 2016).

This group focused on strengthening the determinant of Agreements, which facilitates collective participation in decisions affecting community life. The analysis revealed increased joint participation in decision-making and the emergence of collective initiatives, such as a knowledge-sharing event and a communal "sancocho" during the final session. These actions reflected a growing sense of ownership and collaboration among participants.

The application of community music therapy concepts showed that session regularity and consistent attendance helped consolidate the music therapy space as a point of integration. While verbal interactions among older adults decreased, musical activities fostered positive engagement and interaction. Rituals provided structure, musicking enabled spontaneous expression, and empowerment was observed in the participants' increasing involvement in planning and executing group activities.

The qualitative analysis of improvisations (Bruscia, 2001) revealed disorganized and individualistic sounds, indicating emotional distance and limited cohesion. The music therapist played a facilitative and structuring role, using rhythmic prompts and dynamic variations to encourage interaction. Over time, participants collaborated on a musical composition that reflected the organization's history and collective identity, reinforcing the determinant of Agreements and contributing to the group's social cohesion.

From the researcher's perspective, this phase demonstrated how music therapy can serve as a catalyst for community organization and collective action. The musical experiences not only reflected the group's internal dynamics but also helped transform them, positioning music therapy as a tool for strengthening agreements and fostering participatory community life.

Comparative Analysis

The comparative analysis of the results from both groups was conducted within the framework of Grounded Theory, which guided the processes of open coding, conceptualization, and constant comparison (Hernández-Sampieri et al., 2010; Strauss & Corbin, 2002). Analytical tools such as Atlas.ti (San Martín, 2014), the objectives matrix, the units and categories matrix (Hernández-Sampieri et al., 2010), and qualitative analyses of improvisations (Bruscia, 2001) and songs (Hernández-Sampieri et al., 2010) were used to organize and interpret the data. These tools supported the identification of patterns, relationships, and emerging themes across both groups and phases, allowing for a deeper understanding of the similarities, differences, and transformative processes observed

throughout the music therapy intervention.

In both groups, the main category was Community Social Cohesion (Mendoza & González, 2016). However, the subcategories differed: Group 1 - HOBO identified the Community Determinant of Identity, while Group 2 - GARZÓN focused on the Community Determinant of Agreements. These differences reflect the distinct stages in the development of Community Social Cohesion. Group 1 needed to create a space for group encounters, whereas Group 2 emphasized strengthening agreements to promote participation in decisions impacting the personal and social lives of its members.

The objectives matrix was valuable in both groups for aligning with the general and specific objectives that emerged throughout the process, guiding session planning. Additionally, the units and categories matrix facilitated tracking key concepts in community music therapy and their respective subcategories.

Regarding the units of analysis:

- Ritual: Rituals emerged in both groups, highlighting the importance of the music therapy space for fostering integration, unity, and community strengthening. These included the preparation and organization of the meeting space, the symbolic recognition of participants through musical instruments and songs, and the genuine sharing of food and beverages during or after sessions. Additionally, closing dialogues became a recurring practice, where participants expressed perceived well-being and emphasized the need to involve more community members. In Group 1 – HOBO, a particularly significant ritual was the incorporation of music therapy into private organizational meetings, which served as a strategy to reinforce group participation and deepen the sense of collective engagement.

- Communitas: Both groups experienced hierarchical relationships within their communities, yet music therapy contributed to participation, integration, and role leveling during musical interactions. This was reflected in the music through moments of spontaneous imitation, shared rhythmic patterns, and call-and-response improvisations, where participants engaged in musical dialogue as equals. In several sessions, participants began to respond musically to one another's ideas, rather than waiting for direction, creating a sense of mutual listening and co-creation. These interactions broke down social roles and fostered a horizontal dynamic, aligning with Turner's (1969) concept of communitas—a temporary state of equality and shared experience. The emergence of group compositions, where lyrics and melodies were collectively created and refined, further exemplified this musical communitas.

- Musicking: Enjoyment was observed during improvisation, recreation, and composition experiences, evidenced by expressions of joy such as laughter, applause, dancing, and singing, reflecting group interaction and integration.

- Empowerment: In both groups, participants progressively embraced the music therapy space, and several initiatives emerged to foster integration and community strengthening. These included the organization of a communal "sancocho" during the closing session in Group 2 – GARZÓN, which was proposed, planned, and executed collectively by the participants. In Group 1 – HOBO, participants initiated the inclusion of music therapy in private organizational meetings, recognizing its value in enhancing group cohesion. Additionally, both groups proposed inviting other community members to future sessions, and some participants took on facilitator roles, helping to guide musical activities and encourage others to participate. These actions reflect a growing sense of ownership, agency, and belief in their collective capacity to act and transform their social environment.

Relevant aspects of the community determinants were recorded for each group, reflecting their distinct needs and contexts. In Group 1 – HOBO, the determinant of Identity was central. Participants expressed strong identification with their roles as artisanal fishermen and defenders of the Magdalena River. This was reflected in musical compositions that referenced the river, their customs, and the organization's history. For example, the song "Por el río Magdalena luchamos" included lyrics about resistance, territorial belonging, and collective memory, reinforcing their shared identity and cultural roots.

In Group 2 – GARZÓN, the determinant of Agreements was more prominent. Participants emphasized the importance of collective decision-making and organizing community actions. This was evident in initiatives such as the planning of a communal "sancocho" during the closing session, and the collaborative creation of the song "La lucha de Asoquimbo," which incorporated phrases and reflections about their organizational goals, struggles, and unity. These expressions demonstrated how music therapy facilitated dialogue, consensus-building, and the strengthening of community agreements.

Qualitative analysis of improvisations in both groups revealed initial patterns of distant, fragmented, and disorganized sounds, which were interpreted as sonic indicators of emotional detachment, low group cohesion, and unfamiliarity with the musical space. Over time, these patterns evolved into more structured and interactive musical expressions, including rhythmic imitation, call-and-response exchanges, and moments of synchrony. These changes reflected a growing sense of trust, active listening, and collective engagement.

The music therapist played a facilitative and adaptive role, adjusting their level of direction according to the group's needs. In early sessions, a more directive approach was necessary to establish structure and encourage participation, using techniques such as rhythmic anchoring, modeling musical dialogue, and prompting turn-taking. As the sessions progressed, the therapist gradually shifted toward a participatory and co-creative stance, allowing participants to take initiative and shape the musical experience. This dynamic role was essential within the action-research framework, as it supported the emergence of musical interactions that mirrored and transformed the social relationships within each group.

Finally, the qualitative analysis of songs demonstrated how the experience of music therapy-based composition contributed to the subcategories Identity and Agreements, enabling the collective expression of ideas and opinions through the creation of lyrics aligned with the objectives and themes proposed by the community. For instance, in Group 1 – HOBO, the song "Por el río Magdalena luchamos" included references to the river as a symbol of life and resistance, the participants' identity as fishermen, and their connection to ancestral territory. In Group 2 – GARZÓN, the song "La lucha de Asoquimbo" expressed themes such as organizational unity, historical struggle, and the defense of collective rights, incorporating phrases like "Rivers for life, not for death!" and "Fish don't swim in dammed rivers!" These examples illustrate how musical creation became a vehicle for articulating shared values, political stances, and emotional experiences.

Conclusions

In both groups, Community Social Cohesion emerged as the main category, emphasizing the importance of social cohesion as a foundation for community development. However, the specific needs of each group revealed distinct approaches: while Group 1 – HOBO required a strengthening of community identity, Group 2 – GARZÓN focused on building agreements to improve participation in collective decision-making.

Music therapy played a crucial role throughout the process, both during the community engagement phase and the implementation and closure phase. Through the integration of

rituals, the creation of communitas spaces, and the promotion of collective expression via improvisation and composition, it strengthened the bonds among community members. Music served as a medium to bridge social and structural distances, fostering enjoyment, participation, and integration.

Both groups demonstrated significant progress in appropriating the music therapy space. In Group 1, although there was an initial lack of participation, there was an increase in camaraderie and greater integration during the sessions. In Group 2, interactions were initially less structured, but progress was made in creating community initiatives, such as the sancocho, reflecting increased commitment to the collective.

The music therapist played a fundamental role in energizing the sessions, particularly during moments of disordered or distant interactions. Their role evolved throughout the process, beginning with a semi-directive approach that provided structure and encouraged participation through rhythmic anchoring, modeling of musical dialogue, and turn-taking prompts. As the sessions progressed and participants became more engaged, the therapist transitioned into a facilitator and co-creator, allowing space for spontaneous musical expression and collective decision-making. This flexible positioning—alternating between directive and participatory—was essential for adapting to the group's emotional and relational dynamics. Rather than imposing hierarchy, the therapist fostered horizontal relationships, promoting communitas and empowering participants to take ownership of the musical space. This approach aligned with the principles of community music therapy and the action-research methodology, supporting the achievement of objectives related to the determinants of Identity and Agreements.

Identifying Identity and Agreements as key determinants for strengthening the social cohesion highlights the importance of building a sense of belonging and active participation in community life. While Group 1 needed to build a collective identity space, Group 2 focused its efforts on strengthening agreements to foster more active and organized participation.

The results of this study suggest that music therapy interventions, through the integration of rituals and the creation of communitas spaces, have the potential to be a valuable resource for strengthening the community social cohesion. Focusing on identity and agreements, combined with using music as a tool for integration and expression, can significantly contribute to building more cohesive and participatory communities.

In summary, this community music therapy process not only strengthened social bonds within each group but also provided a platform for creating new agreements and reinforcing collective identities. Such consolidation establishes a foundation for greater participation and community collaboration in the future.

Recommendations

The music therapy process lasted approximately seven months. If extended over a longer period, it could better adapt to the characteristics of populations affected by socio-environmental conflicts, which often involve challenges such as limited availability, irregular attendance, displacement, precarious living conditions, and disrupted social structures. A longer-term approach would allow for deeper integration and continuity, essential for sustaining the effects of community music therapy.

It is also recommended to broaden the reach of the process to other groups within the same community. Considering the geographical dispersion of the population, expanding the intervention could enhance coverage and impact, allowing more members to benefit from the therapeutic and organizational effects observed in the pilot groups.

Future research should explore the application of community music therapy in other socio-environmental conflict contexts, such as those related to oil extraction, mining, or

large-scale agribusiness. Comparative studies could help identify common patterns and context-specific adaptations, contributing to the development of more robust and responsive methodologies.

In addition to using musical composition as a tool for organizing ideas and expressing collective narratives, its potential should be explored as a method for documenting cultural and identity-related elements. This includes rhythms, environmental sounds, spontaneous expressions, and musical forms unique to each community, which can serve as valuable records of intangible heritage and resistance.

Given that community transformation processes require time, future interventions should be designed with a long-term perspective. This includes planning for sustained engagement, follow-up strategies, and mechanisms for community ownership of the process.

Finally, when working with organizations in socio-environmental conflict settings, it is essential to understand their political stance, historical trajectory, and level of mobilization. This contextual awareness fosters trust and empathy, enabling more assertive and respectful communication with both the organizational structure and the broader community. Such understanding is key to ensuring that the music therapy process aligns with the community's values and contributes meaningfully to its goals.

Additionally, it is recommended to incorporate community-led facilitation in future processes. Training local leaders or participants to co-facilitate sessions could enhance sustainability, reduce dependency on external professionals, and strengthen the community's capacity for self-care and collective organization through music.

Acknowledgments

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