Proceedings Bali Bhuwana Waskita: Global Art and Creativity Conference
2026, Volume 6, page 518-530, ISSN 3026-233X (online)
DOI: https://doi.org/10.31091/bbwp.v6i1.722

Music as a Therapeutic Medium in Integrative Health: An Interdisciplinary Framework Linking Sound-Based Practices, Traditional Herbal Medicine, and Hydration Practices

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ABSTRACT

Music has historically been associated with healing, ritual, social cohesion, and cultural identity across diverse societies. In contemporary health discourse, this historical relationship has been complemented by growing scholarly interest in music therapy, music-based interventions, and the broader role of musical engagement in psychological and social well-being. At the same time, traditional herbal medicine and culturally embedded wellness practices continue to constitute important components of health-related knowledge in many communities. This paper proposes an interdisciplinary conceptual framework that positions music as a connecting medium between sound-based practices, traditional herbal medicine, and hydration practices within an integrative health context. The study employs a narrative literature review and conceptual analysis. Literature concerning music and health, traditional and complementary medicine, cultural knowledge, and hydration practices is synthesized thematically rather than through a systematic-effect estimation. The paper distinguishes established evidence concerning music-based interventions from culturally situated interpretations and conceptual propositions. Particular attention is given to the distinction between professional music therapy and broader forms of musical participation, as well as to the limited clinical evidence concerning alkaline water. Accordingly, alkaline water is treated in this framework as a contextualized hydration and wellness practice rather than as an established therapeutic intervention. The proposed framework suggests that music may function as a cultural and experiential bridge through which emotional regulation, social interaction, meaning-making, and culturally embedded wellness practices can be considered within a broader conception of health. Traditional herbal medicine is approached primarily as a form of cultural and community-based health knowledge, while hydration practices are situated within everyday wellness rather than attributed unverified disease-preventive effects. The framework contributes to interdisciplinary dialogue by connecting creative practice, cultural heritage, traditional knowledge, and contemporary integrative health discourse. It also provides a conceptual basis for future empirical research examining culturally informed music practices and their relationship with psychological well-being, perceived quality of life, and experiences of health.

KEYWORDS

Music Therapy, Music and Health, Integrative Health, Traditional Medicine, Jamu, Cultural Knowledge, Hydration, Well-Being, Ethnomusicology

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Introduction

Music has accompanied human social and cultural life throughout history. In many societies, musical performance is associated not only with artistic expression but also with ritual, community participation, identity, spirituality, and practices concerned with health and well-being. Such relationships are particularly relevant to interdisciplinary approaches to health because they demonstrate that health-related experiences are not exclusively biomedical phenomena but can also be shaped by psychological, social, cultural, and experiential dimensions.

Contemporary scholarship has increasingly examined the relationship between music and health. Research in music therapy and music-based interventions has investigated outcomes including stress, emotional states, psychological well-being, rehabilitation, and quality of life. A systematic review and meta-analysis by de Witte et al. (2022), for example, identified a substantial body of empirical research concerning music therapy and stress-related outcomes. Importantly, the authors distinguish professional music therapy from other forms of music intervention, emphasizing the role of trained music therapists and individually tailored interventions. This distinction is important because the term “music” encompasses a much broader range of practices than professional music therapy.

The broader relationship between music, health, and well-being has also been addressed from conceptual and qualitative perspectives. MacDonald (2013) proposed a model that considers several pathways through which music may be associated with health and well-being, including music therapy, music medicine, community music, and everyday musical engagement. Such perspectives suggest that the health relevance of music cannot be reduced to a single clinical mechanism. Instead, musical experiences may operate through multiple psychological, social, behavioral, and cultural pathways.

The World Health Organization has similarly recognized the contribution of the arts to health and well-being. Its review of evidence concerning the arts and health identifies multiple ways in which arts engagement may contribute to health promotion, prevention, social connection, and well-being (Fancourt & Finn, 2019). These developments have encouraged broader consideration of creative and cultural practices within contemporary health discourse.

Indonesia provides a particularly relevant cultural context for this discussion. Traditional health practices may involve relationships among herbal knowledge, ritual, community participation, spirituality, artistic expression, and symbolic understandings of the natural environment. Jamu, for example, represents an important Indonesian tradition of herbal practice and is embedded within wider cultural knowledge concerning health and everyday life. In Bali, music and other performing arts have also historically occupied important positions within ritual and community life. These contexts provide an opportunity to examine how artistic and traditional health-related knowledge may coexist within culturally meaningful systems of well-being.

At the international level, the renewed attention to traditional, complementary, and integrative medicine further strengthens the relevance of this interdisciplinary perspective. The World Health Organization's Global Traditional Medicine Strategy 2025–2034 emphasizes strengthening evidence, ensuring safety and appropriate regulation, supporting culturally respectful integration, and recognizing the importance of traditional knowledge and community participation. The strategy does not assume that traditional practices are automatically therapeutic; rather, it emphasizes evidence-informed evaluation alongside respect for culture, Indigenous knowledge, sustainability, and health equity (World Health Organization, 2025).

The evidence surrounding individual traditional practices, however, is heterogeneous. Herbal medicines vary considerably according to botanical composition, preparation, dosage, indication, and context. Consequently, cultural recognition of a traditional practice should not automatically be interpreted as clinical evidence of efficacy. Research on herbal medicine has emphasized both its potential contribution to health and the importance of safety, quality control, adverse-event monitoring, and appropriate regulation (Ekor, 2014; Tangkiatkumjai et al., 2020).

A similar distinction is required in relation to water and hydration practices. Adequate hydration is an established component of general health, but claims concerning specific health benefits of alkaline water require careful evaluation. A systematic review examining alkaline, oxygenated, and demineralized water among healthy populations found that evidence for additional health benefits compared with mineral water was limited and heterogeneous (Sunardi et al., 2022). Consequently, the present paper does not position alkaline water as a clinically established therapeutic intervention. Instead, it considers hydration and water-related practices as contextual elements of contemporary wellness.

Against this background, a conceptual gap can be identified. Research concerning music and health, traditional medicine, cultural knowledge, and wellness practices has developed across partially separated scholarly fields. What remains less developed is an interdisciplinary conceptual framework that considers how music may operate as a connecting medium among these domains without conflating cultural meaning with clinical efficacy.

Therefore, this paper proposes a conceptual framework in which music functions as a bridge between artistic and sound-based practices, culturally embedded traditional herbal knowledge, and hydration-related wellness practices. The objective is not to demonstrate that these practices collectively produce a particular biomedical outcome. Rather, the objective is to explore how they may be understood together within an integrative conception of well-being while maintaining clear distinctions between empirical evidence, cultural knowledge, and conceptual interpretation.

Methods

1. Research Design

This study adopts a narrative literature review combined with conceptual analysis. The approach is appropriate because the objective is to synthesize interdisciplinary knowledge and

develop a conceptual framework rather than estimate the pooled clinical effect of a particular intervention.

The literature was considered across four interconnected domains:

1. music, music therapy, and music-based health practices;
2. music, culture, and psychological or social well-being;
3. traditional and herbal medicine as health-related cultural knowledge;
4. hydration, water-related wellness practices, and evidence concerning alkaline water.

The literature was interpreted thematically, with attention to the different epistemological status of clinical evidence, cultural knowledge, and conceptual propositions.

2. Analytical Orientation

The analysis follows three principles.

First, evidence and cultural meaning are distinguished. A practice may possess cultural importance without sufficient clinical evidence to establish a therapeutic effect.

Second, different forms of musical practice are distinguished. Professional music therapy should not be treated as synonymous with ordinary music listening, community music, ritual music, or other forms of sound-based cultural participation.

Third, integrative health is approached contextually rather than as a claim of therapeutic equivalence. The framework does not suggest that music, herbal medicine, and hydration practices have identical mechanisms or equivalent levels of scientific evidence.

The purpose of synthesis is therefore to identify conceptual relationships that may support future empirical investigation.

Result

1. THEORETICAL BACKGROUND

1.1 Music as a Therapeutic and Well-Being Medium

The relationship between music and health is multidimensional. At the clinical level, music therapy involves structured interventions provided by trained professionals. At broader levels, music may be experienced through listening, performance, participation, community activity, ritual, and everyday life.

The distinction between music therapy and other music-based activities is important. De Witte et al. (2022) describe music therapy as involving personally tailored interventions initiated by trained and qualified music therapists, distinguishing it from music medicine and other forms of music intervention. Therefore, evidence obtained from clinical music therapy studies should not automatically be generalized to all forms of musical engagement.

Nevertheless, the wider literature indicates that music may be associated with emotional and psychological processes. Music can provide a medium for emotional expression, attention, memory, interpersonal interaction, and self-regulation. Saarikallio (2019), for example, examines music as a resource for emotional self-regulation throughout adulthood, while MacDonald (2013) presents a broader conceptual model of music, health, and well-being.

Neuroscientific research has further investigated how musical experiences interact with neural systems involved in emotion, perception, cognition, and social processing (Koelsch, 2018, 2020). These findings do not mean that music should be regarded as a universal medical treatment. Rather, they provide a scientific basis for investigating how particular forms of musical engagement may influence particular psychological or social processes.

Accordingly, the present framework conceptualizes music primarily as a medium of experience and interaction. Its potential relevance to well-being may arise through several pathways, including emotional regulation, social participation, cultural meaning, and personal engagement.

1.2 Traditional Herbal Medicine as Cultural Knowledge

Traditional herbal medicine represents more than the use of plant-derived substances. In many cultural contexts, it is connected to accumulated community knowledge, intergenerational transmission, beliefs concerning health, local environments, preparation techniques, and patterns of social interaction.

In Indonesia, jamu provides an important example of a traditional health-related knowledge system. Its significance may therefore be considered at several levels: medicinal practice, cultural heritage, everyday health behavior, and community knowledge.

At the same time, cultural significance should not be equated with clinical efficacy. Herbal products may vary substantially in chemical composition, dosage, preparation, contamination risk, interactions with medicines, and quality control. Research has therefore emphasized the need for appropriate evaluation of efficacy and safety (Ekor, 2014; Tangkiatkumjai et al., 2020).

The contemporary international discussion of traditional medicine increasingly recognizes this dual requirement. WHO's Global Traditional Medicine Strategy 2025–2034 emphasizes both respect for traditional knowledge and the strengthening of evidence, safety, quality, regulation, and appropriate integration into health systems (World Health Organization, 2025).

Within the proposed framework, traditional herbal medicine is therefore treated as cultural health knowledge that may contribute to people's understanding and practice of wellness, while clinical efficacy remains a separate empirical question.

1.3 Water, Hydration, and Wellness

Water is fundamental to physiological functioning, and adequate hydration is an established component of health. Beyond physiological functions, however, water may also have cultural, symbolic, ritual, and social meanings.

The present paper distinguishes between hydration as a general health practice and alkaline water as a particular type of water associated with contemporary wellness claims.

Available research does not justify broad claims that alkaline water independently prevents disease or produces generalized systemic health benefits. Sunardi et al. (2022), in a systematic review of studies among healthy populations, reported limited and heterogeneous evidence concerning additional health effects of alkaline water compared with mineral water.

Consequently, alkaline water is not treated in the present framework as a therapeutic agent. It is positioned more cautiously as a contextualized hydration or wellness practice whose cultural or experiential significance may be studied without making unsupported biomedical claims.

This distinction is central to the integrity of the proposed framework.

2. PROPOSED INTERDISCIPLINARY FRAMEWORK

2.1 Music as the Connecting Medium

The central proposition of this paper is that music may function as a connecting medium among artistic practice, cultural knowledge, and health-related experience.

The concept of a "bridge" does not imply that music biologically connects herbal medicine with water or that the three practices have a common pharmacological mechanism. Instead, the bridge is conceptual, cultural, experiential, and social.

The proposed pathway can be represented as follows:

Cultural and social context
↓
Music and sound-based practices
↓
Emotional, social, and experiential engagement
↓
Meaning-making and perceived well-being
↓
Interaction with culturally embedded wellness practices
↓
Contextualized integrative conception of well-being

Within this model, traditional herbal medicine and hydration practices are not treated as direct consequences of music. Rather, they form part of the broader cultural context in which people understand, experience, and practice wellness.

2.2 Emotional and Psychological Pathway

The first pathway concerns emotional and psychological experience.

Musical engagement may provide opportunities for emotional expression, regulation, relaxation, attention, and personal reflection. Existing research supports continued

investigation of these relationships, although effects depend on the type of music intervention, population, setting, and outcome measured (de Witte et al., 2022; Saarikallio, 2019).

The proposed framework therefore uses emotional regulation as an intermediate conceptual pathway rather than claiming that music directly produces generalized health improvement.

2.3 Cultural and Social Pathway

The second pathway concerns social and cultural meaning.

Music can operate as a form of communication and collective participation. In culturally embedded settings, musical activity may reinforce identity, memory, social relationships, ritual participation, and intergenerational knowledge transmission.

This pathway is especially relevant to traditional knowledge because cultural practices are rarely isolated from other aspects of community life. Music may provide an environment in which knowledge concerning health, ritual, nature, and community is experienced and transmitted.

Thus, the contribution of music may be located not only in individual psychological responses but also in the social organization of meaning.

2.4 Traditional Knowledge Pathway

The third pathway involves traditional herbal knowledge.

In the proposed model, herbal medicine contributes primarily through the domain of cultural knowledge and wellness practice. This does not establish that particular herbal preparations are clinically effective. Instead, it recognizes that traditional health systems may contain knowledge, practices, values, and social relationships that shape how communities understand health and well-being.

This perspective is consistent with contemporary international approaches that call for evidence-based evaluation while simultaneously recognizing cultural heritage and Indigenous knowledge (World Health Organization, 2025).

2.5 Hydration and Water-Related Wellness Pathway

The fourth pathway concerns hydration.

Hydration is treated as a basic health-supporting behavior. The additional meaning assigned to alkaline water is considered culturally and contextually rather than as established clinical efficacy.

This conservative position is intentional. By separating the general health importance of hydration from unsupported claims concerning the therapeutic superiority of alkaline water, the framework avoids converting a conceptual discussion into an unsubstantiated medical claim.

Discussion

1. From Separate Practices to an Interdisciplinary Framework

The primary contribution of this paper lies in bringing several scholarly domains into dialogue.

Music and health research generally focuses on musical intervention, participation, psychological processes, rehabilitation, or well-being. Traditional medicine research addresses cultural practices, therapeutic substances, safety, efficacy, regulation, and knowledge systems. Research concerning hydration generally focuses on physiological requirements and health behavior.

The proposed framework does not argue that these domains share the same evidence base. Instead, it suggests that they may be examined within a common contextual model of well-being.

This distinction is important because interdisciplinarity should not mean simply placing different practices next to one another. An interdisciplinary framework must explain how the domains relate conceptually while maintaining their distinct epistemological and empirical characteristics.

2. Why Music Can Function as a Bridge

Music is particularly suitable as the connecting medium because it operates simultaneously at individual, interpersonal, and cultural levels.

At the individual level, music may be associated with emotion, memory, attention, and self-regulation.

At the interpersonal level, musical participation can facilitate interaction, communication, and shared experience.

At the cultural level, music can carry symbolic meanings and participate in ritual, identity, and transmission of knowledge.

This multidimensional character allows music to function as a conceptual bridge between creative practice and broader cultural approaches to well-being.

The proposed bridge is therefore not a biomedical mechanism but a cultural-experiential mechanism.

3. Evidence, Cultural Knowledge, and Conceptual Interpretation

One of the central methodological implications of the framework is the need to distinguish three forms of knowledge.

First: empirical evidence

This includes controlled studies, systematic reviews, meta-analyses, and other forms of research designed to evaluate specific outcomes.

Second: cultural and traditional knowledge

This includes knowledge transmitted through communities, traditions, practices, rituals, and intergenerational experience.

Third: conceptual interpretation

This refers to theoretical relationships proposed by researchers to organize existing knowledge and generate future research questions.

The present paper deliberately operates across all three levels but does not treat them as interchangeable.

This distinction is particularly important in integrative health research. A culturally important practice may warrant preservation and investigation even when clinical evidence remains incomplete. Conversely, the absence of clinical evidence does not justify presenting a practice as clinically effective.

4. Implications for Cultural Sustainability

The framework also has implications beyond individual well-being.

Traditional knowledge can be vulnerable to fragmentation or loss when cultural practices become disconnected from the communities that sustain them. Music, ritual, performance, and other creative practices can contribute to the continuity of cultural knowledge by providing social settings for intergenerational participation.

In this context, cultural sustainability does not mean freezing traditional practices in an unchanging form. Rather, it involves enabling knowledge to remain meaningful while being examined critically within contemporary contexts.

This approach is compatible with the contemporary direction of WHO's traditional medicine strategy, which emphasizes evidence, cultural respect, sustainability, community engagement, and protection of traditional knowledge (World Health Organization, 2025).

5. Implications for Integrative Health

The proposed framework suggests that integrative health research may benefit from a broader definition of the context in which health practices occur.

Rather than examining music, traditional medicine, and wellness practices only as isolated interventions, researchers may examine how individuals experience combinations of practices within particular cultural environments.

Such research could address questions such as:

- How does culturally meaningful music influence perceived well-being during traditional wellness practices?
- How do participants interpret the relationship between music, ritual, herbal practices, and hydration?

- Which components of such experiences are associated with emotional regulation or social connectedness?
- How can culturally informed music practices be evaluated without reducing their cultural meaning to biomedical outcomes?
- What ethical principles are required when research involves traditional knowledge?

These questions provide a more appropriate basis for future empirical research than simply asking whether the entire cultural system "works" as a medical treatment.

6. LIMITATIONS

This paper has several limitations.

First, it is a conceptual study based on narrative literature synthesis rather than a systematic review with formal meta-analysis. Therefore, the framework should not be interpreted as evidence of causal relationships among music, traditional herbal medicine, hydration, and health outcomes.

Second, the evidence base for the different domains is uneven. Music therapy and music-based interventions have been studied through numerous empirical investigations, whereas some culturally embedded practices may be supported primarily by ethnographic, qualitative, historical, or community-based knowledge.

Third, the term "traditional herbal medicine" encompasses highly diverse practices. The framework therefore does not establish the efficacy or safety of individual herbal preparations.

Fourth, alkaline water is intentionally treated conservatively. The current evidence does not justify broad therapeutic claims, and the framework should not be interpreted as endorsing claims that alkaline water prevents disease or improves immune function.

Fifth, the cultural context of Indonesia, including Bali, cannot be generalized to all traditional health systems. Future research should therefore investigate specific communities, practices, practitioners, and cultural settings rather than assuming cultural uniformity.

7. Future Research

The conceptual framework provides several directions for empirical research.

First, qualitative research could investigate how participants describe the experience of culturally informed musical practices in relation to health and well-being.

Second, mixed-method studies could combine psychological measures with interviews and ethnographic observation to examine both measurable outcomes and culturally meaningful experiences.

Third, intervention studies could investigate carefully defined music-based practices while maintaining appropriate distinctions between music therapy and other forms of musical participation.

Fourth, research on traditional herbal medicine should incorporate appropriate safety, quality, pharmacological, and regulatory considerations rather than assuming therapeutic efficacy from cultural use alone.

Fifth, studies concerning hydration should distinguish ordinary hydration from claims concerning the specific properties of alkaline water.

Finally, future research could examine whether culturally integrated approaches contribute to outcomes such as perceived quality of life, stress, emotional regulation, social connectedness, cultural identity, and engagement with health-promoting practices.

Such research would allow the conceptual framework proposed here to be evaluated empirically rather than treated as an established model.

Conclusion

This paper proposes an interdisciplinary conceptual framework that positions music as a connecting medium among sound-based practices, traditional herbal knowledge, hydration practices, and culturally contextualized well-being.

The framework does not claim that music, herbal medicine, or alkaline water constitute equivalent therapeutic interventions. Instead, it distinguishes empirical evidence from cultural knowledge and conceptual interpretation. Music is positioned as a multidimensional medium capable of operating at psychological, social, experiential, and cultural levels. Traditional herbal medicine is understood as both a health-related practice and a form of cultural knowledge that requires appropriate scientific evaluation. Hydration is recognized as relevant to general health, while alkaline water is treated cautiously as a contextualized wellness practice rather than an established therapeutic intervention.

The principal contribution of the framework is therefore conceptual. It provides a way of examining how creative practice, cultural heritage, traditional knowledge, and contemporary integrative health discourse may intersect without collapsing their distinct forms of evidence.

In relation to the conference theme *Parama-Jnana-Patra (True Knowledge in Context)*, the framework emphasizes that knowledge concerning health is situated within cultural, social, experiential, and scientific contexts. The challenge is not to choose between traditional knowledge and contemporary science, but to develop responsible forms of dialogue in which cultural knowledge is respected, empirical claims are critically evaluated, and future research can investigate promising relationships without exceeding the available evidence.

Music, in this context, may serve not only as an artistic practice but also as a medium through which people experience meaning, community, cultural continuity, and well-being. Further empirical investigation is required to determine which elements of this conceptual relationship can be demonstrated, measured, and appropriately integrated into contemporary health research.

References

Aalbers, S., Fusar-Poli, L., Freeman, R. E., Spreen, M., Ket, J. C. F., Vink, A. C., Maratos, A., Crawford, M., Chen, X.-J., Gold, C., & others. (2017). Music therapy for depression. *Cochrane Database of Systematic Reviews*, CD004517.

Bradt, J., Dileo, C., Magill, L., & Teague, A. (2021). Music interventions for improving psychological and physical outcomes in people with cancer. *Cochrane Database of Systematic Reviews*, 10, CD006911.

Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. *Trends in Cognitive Sciences, 17*(4), 179–193.

Cross, I. (2014). Music and communication in music psychology. *Psychology of Music, 42*(6), 809–819.

de Witte, M., Pinho, A. L., Stams, G. J., Moonen, X., Bos, A. E. R., & van Hooren, S. (2022). Music therapy for stress reduction: A systematic review and meta-analysis. *Health Psychology Review, 16*(1), 134–159. https://doi.org/10.1080/17437199.2020.1846580

Ekor, M. (2014). The growing use of herbal medicines: Issues relating to adverse reactions and challenges in monitoring safety. *Frontiers in Pharmacology, 4*, 177.

Fancourt, D., & Finn, S. (2019). *What is the evidence on the role of the arts in improving health and well-being? A scoping review*. World Health Organization Regional Office for Europe.

Koelsch, S. (2018). Investigating the neural encoding of emotion with music. *Neuron, 98*(6), 1075–1079.

Koelsch, S. (2020). A coordinate-based meta-analysis of neural correlates of music-evoked emotions. *Nature Reviews Neuroscience, 21*, 705–718.

MacDonald, R. A. R. (2013). Music, health, and well-being: A review. *International Journal of Qualitative Studies on Health and Well-being, 8*, 20635. https://doi.org/10.3402/qhw.v8i0.20635

Moreno-Morales, C., Calero, R., Moreno-Morales, P., & Pintado, C. (2020). Music therapy in the treatment of dementia: A systematic review and meta-analysis. *Frontiers in Medicine, 7*, 160.

Saarikallio, S. (2019). Music as emotional self-regulation throughout adulthood. *Music & Science, 2*, 1–15.

Sihvonen, A. J., Särkämö, T., Leo, V., Tervaniemi, M., Altenmüller, E., & Soinila, S. (2017). Music-based interventions in neurological rehabilitation. *The Lancet Neurology, 16*(8), 648–660.

Sunardi, D., Chandra, D. N., Medise, B. E., Manikam, N. R. M., Friska, D., Lestari, W., & Insani, P. N. C. (2022). Health effects of alkaline, oxygenated, and demineralized water compared to mineral water among healthy population: A systematic review. *Reviews on Environmental Health, 39*(2), 339–349. https://doi.org/10.1515/reveh-2022-0057

Tangkiatkumjai, M., Boardman, H., & Walker, D. M. (2020). Potential factors influencing herbal medicine use and safety. *BMC Complementary Medicine and Therapies, 20*, 1–12.

World Health Organization. (2019). *What is the evidence on the role of the arts in improving health and well-being? A scoping review*. WHO Regional Office for Europe.

World Health Organization. (2025). *Global traditional medicine strategy 2025–2034*. Geneva: World Health Organization.

World Health Organization. (2026). *WHO global research priorities and agenda for traditional, complementary and integrative medicine 2025–2034*. Geneva: World Health Organization.