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Research Article

Embodied Rituals and Healing Practices in Turkish Health Culture: Implications for Contemporary Healthcare Environments

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Abstract

Throughout human history, movement has functioned not only as a physical activity but also as a ritual, considered a healing practice linked to meaning-making and social balance. Bodily performances and ritual-based practices—such as folk dances and mystical rituals—have historically supported the physical and emotional integrity of individuals. This paper examines the historical continuity of movement-based performative practices in Turkish health culture through religious and mystical rituals, folk dances, and music-associated healing traditions. The present analysis is structured around the relationships among ritual, movement, healing, and space, employing a conceptual, historical-comparative, and interpretive framework that draws on performance studies, health anthropology, art therapies, and architectural theory. The historical trajectory—from ancient rhythmic body practices to the multisensory spatial arrangements of Seljuk and Ottoman hospitals, and to contemporary complementary health approaches—reveals the continuity of healing through bodily experience and spatial interaction. Findings indicate that ritual components such as rhythm, repetition, breath, and centering can inform design strategies that promote sensory regulation, body awareness, and emotional balance in contemporary wellness spaces. Spatial elements, including music, soundscape, natural light, and rhythmic circulation, are highlighted as influential in shaping

the healing experience. This interdisciplinary inquiry argues that embodied ritual and movement practices rooted in Turkish health culture provide a conceptual basis for human-centered, healing-oriented spatial approaches within contemporary health structures, emphasizing analytical design principles rather than reproducing cultural practices as a descriptive background.

Keywords
Spatial design; healing space design; movement-based healing; Turkish health culture; therapeutic environments; ritual performance; healthcare facilities; art and design

1. Introduction

Movement has historically been conceptualized as a practical space in which physical, emotional, and social adjustments occur simultaneously, rather than as a solitary physical activity within healing experiences. At the most basic level, bodily movement is defined as the set of motor responses of the individual to internal sensations or environmental stimuli. It can occur at different intensities, ranging from gesture to holistic bodily use [1]. However, in cultural contexts, movement transcends physiological function, acquiring qualities such as meaning production, rhythm, repetition, and collective synchronization, placing individual experience within a societal framework.

Ritual practices are the basic structures that make this expanded meaning of movement visible. Bodily actions organized in a ritual context restructure the individual's relationship to his body and intensify movement temporally, symbolically, and sensorially. In this context, movement is not just an action “done”; It becomes a field of experience where bodily awareness, emotional regulation, and relationships with the community are produced simultaneously [2-5]. Current literature indicates that movement practices involving rituals can be effective for bodily regulation and emotional balance, particularly when repetition and rhythm are central to this process [2, 4].

The concept of healing is directly related to these bodily and emotional processes, but does not coincide with medical treatment [2, 6]. Recovery is not reduced to a specific clinical result; It is defined as a continuous process in which the relationships that the individual establishes with his body, emotions, and environment are rebalanced [7, 8]. In this process, spiritual balance emerges as a state of regulation that enables healing, rather than as the result of healing. Emotional regulation, bodily awareness, and a sense of subjective integrity are considered fundamental components of spiritual balance.

Movement-based ritual practices do not produce these healing and spiritual balance processes independently of the spatial context. Bodily experience always takes place in a certain environmental order and interacts with spatial features. The concept of healing space aims to make this interaction visible. Current research indicates that environmental factors such as light, acoustics, spatial organization, and circulation affect users’ emotional states and bodily awareness [8, 9]. In this framework, space is not a passive background for healing; it is considered an active component of the process.

Performative practices associated with movement in the Turkish context point to cultural constructs in which the relationship between the body, spirituality, and environment has historically

been regulated through religious rituals, folk dances, and collective bodily practices. These practices have produced balance, belonging, and emotional continuity by placing individual bodily experience within a social order [10-12]. However, the biomedical orientation of modern health research has limited the visibility of such physical and cultural practices within the field.

This article is structured as a conceptual and interdisciplinary analysis rather than an empirical study. In this context, the research examines the historical continuity of movement-based performative practices embedded in Turkey's health culture. It analyzes how these practices can be reinterpreted in contemporary health settings. The concepts of ritual, movement, healing, and space are discussed within a conceptual and comparative analysis. The research is structured around the following questions:

- Historically, what movement-based practices have served the function of healing and social solidarity, and how have these practices altered the symbolic and communal meanings?
- What are the experiential effects of folkloric dances, SEMÂ, and similar practices on the participants' perception of physical functioning, mental state, and social interaction?
- Through what spatial, sensory, and design strategies can the cultural practices associated with movement be reinterpreted in contemporary health spaces?

The increasing interest in movement, awareness, and art-based approaches in recent years suggests that these practices warrant reconsideration within contemporary healthcare settings. This orientation enables the analytical reinterpretation of the principles of rhythm, repetition, body awareness, and spatial arrangement embedded in movement, rather than the direct transmission of cultural rituals.

This interdisciplinary inquiry examines movement-based performative practices embedded within Turkey's health culture in a historical and conceptual framework. It examines how these practices relate to spatial and sensory design strategies in contemporary healthcare fields. The concepts of ritual, movement, healing, and space are evaluated on the same analytical plane without being reduced to each other. It is argued that the movement constitutes a field of knowledge that can contribute to healing space fictions beyond being a cultural representation.

2. Methodology

Performance rituals are considered multi-layered healing practices that operate through bodily experience by combining movement, rhythm, and collective participation. This study is structured as a qualitative theoretical research that deals with the healing potential of movement-based ritual practices in historical, cultural, and spatial contexts. The research aims to analyze the relationship between bodily experience and spatial arrangement at the conceptual level and to produce analytical design inferences for contemporary health spaces.

The methodological approach focuses on ritual and movement practices beyond cultural representation, making visible their relationship to bodily arrangement, sensory perception, and the production of spatial experience. In this direction, movement-based practices that show historical continuity in the context of Anatolian and Turkish health culture are discussed comparatively between different periods and spatial contexts.

The concepts of ritual, movement, healing, and space; performance studies are analyzed with an interpretive reading through the literatures of health anthropology, dance/movement therapy, and

architectural theory. Concepts are evaluated not only as definitional frameworks, but also through the relationships they establish with bodily experience and spatial perception production.

Through a combined reading of interdisciplinary literature, the research reveals the common bodily and sensory principles by which movement-based rituals can be associated with contemporary health spaces. This approach opens up an analytical discussion of how elements such as rhythm, repetition, breath, center, and circulation are reflected in both historical healing practices and contemporary health spaces.

The architectural inferences developed within the scope of the study are not direct suggestions; they are conceptual and analytical principles that can guide the design of contemporary health spaces. In this context, the research aims to contribute to current design discussions through body-sensory experience-space relations, rather than reproducing ritual and movement-based practices as cultural background information.

3. Performance Rituals on Healing

Performance rituals are considered multi-layered healing practices that operate through bodily experience by combining movement, rhythm, and collective participation. Current literature shows that these rituals are not limited to symbolic meaning production processes. It reveals that they create simultaneous effects on physiological regulation, emotional regulation, and social commitment [13].

The healing effects of movement-based ritual practices are explained primarily through neural and hormonal mechanisms. Rhythm and repetition-based movements are noted to balance autonomic nervous system activity, modulate stress responses, and are associated with processes that promote neuroplasticity [13]. Findings indicate that practices involving dance and rhythmic movements strengthen sensory integrity and regulate the body's responses to environmental stimuli [14].

It is seen that synchronized ritual movements performed in groups go beyond individual effects and play a regulatory role at the social level. The shared rhythm and synchronous movement create physiological synchronization among participants, reinforcing their sense of belonging, trust, and collective focus [5]. Such practices create a social healing ground that restructures the individual's bodily experience within the community.

Embodiment approaches provide a central theoretical framework for explaining the effects of ritual and movement practices on healing. According to this approach, perception and cognition are not abstract processes independent of the body; they are shaped by movement, posture, and physical interactions with the environment [15, 16]. The body is not positioned as a passive carrier of experience, but as an active component of the production of meaning and order.

From this perspective, ritual movements transform how an individual perceives their own body and reestablish it as a safe, orchestratable space. Elements such as rhythmic repetition, breathing patterns, and spatial centering support sensory integration by increasing bodily awareness [17, 18]. That shows that the healing process is structured not only on a psychological but also on a physical level.

Among modern therapeutic approaches, dance/movement therapy (DMT) is considered a clinically systematized equivalent of ritual-based movement practices. DMT is based on the assumption that movement mediates the expression of emotional and cognitive processes, and

aims to promote self-awareness and psychosocial integration through bodily expression [1, 19]. In this approach, movement is not a performative spectacle; It is considered an experiential and regulatory process.

When examining the function of ritual movements in historical and cultural contexts, it is evident that these practices mediate between individual purification and collective order. In examples such as Sufi rituals, the combined use of movement, breath, and music produces regulatory effects that promote bodily awareness and emotional balance in participants [5, 20]. Similarly, in different cultural contexts, ritual performances function as bodily thresholds that structure transitional states and facilitate inner transformation [15].

This multi-layered structure suggests that the healing effects of performance rituals cannot be explained solely through cultural symbolism. Ritual movements contribute to holistic healing processes that work through body awareness, sensory regulation, and social synchronization. In this context, movement-based rituals are not an alternative to modern medical treatments; they are considered complementary practices that support physical and sensory functioning [21].

Performance rituals in the literature are considered multidimensional healing practices that unfold along the axes of the body, movement, rhythm, and collective participation. Different theoretical and therapeutic approaches define the relationship between ritual and movement, sometimes through physiological regulation, sometimes through emotional integration, and sometimes through social bonding processes. When studies from health anthropology, performance studies, and art therapies are evaluated together, it becomes clear that the healing experience has a multi-layered structure that cannot be reduced to a single explanatory model. The conceptual intersections and divergences between these approaches enable a comparative reading of the healing potential of ritual and movement within the body-sensory experience-space relationship (Table 1).

Table 1 Analysis of the concepts of ritual, movement, and healing in the context of theoretical and therapeutic approaches (Created by the author analysing the sources [1, 15, 19-24]).

Theoretical/Therapeutic Framework	Definition of Ritual and Movement	Improvement Approach	Psychophysiological Mechanism	Spatial Implication/Response
Holistic health paradigm	Movement in physical, mental, and social integrity	Well-being and quality of life	Stress regulation, Cortisol reduction, emotional balance	Sensory awareness supported environments
Anthropological ritual theories	Repetition, rhythm, and collective movement	Purification, threshold experience, and transformation	Autonomic nervous system regulation, states of consciousness, and transitions	Centralized, gathering-oriented spatial orders that create a sense of orientation
Art therapies	Conscious and therapeutic use of the creative process	Emotional and cognitive integration	Emotional expression, self-regulation	Safe and controlled expression-oriented interiors
Dance/Movement Therapy	Spontaneous and structured movement	Psychosocial integration	Body awareness, self-regulation, somatic awareness, and regulation	Clinical and therapeutic spaces
Rhythmic and music-based interventions	Synchronized movement and sound, physiological balancing	Anxiety and stress reduction	Cardiorespiratory balancing	Acoustically sensitive spaces
Traditional ritual systems	Faith-based movement and repetition	Faith-based spiritual transformation and collective healing	Vestibular stimulation, breathing pattern	Symbolic center and ritual order, orientation

The approaches brought together in the table show that ritual and movement-based healing practices are clustered around certain structural principles despite their theoretical diversity. Components such as rhythm, repetition, collective participation, and bodily awareness appear to be common elements that structure the healing experience in both anthropological ritual theories and contemporary therapeutic approaches [1, 13, 15]. This intersection suggests that ritual and movement can be viewed not merely as symbolic practices specific to cultural context but as experiential constructs associated with bodily regulation processes.

This unity between the physiological, emotional, and social dimensions of healing aligns with approaches to embodied perception that are increasingly emphasized in the literature. It has been determined that bodily movement has simultaneous effects on sensory integration, autonomic nervous system regulation, and emotional balance; these effects are experienced not only at the individual level but also in the collective context [5, 17, 21]. That reveals that healing exhibits a multi-layered structure shaped on the axis of body-sensory experience-social interaction, rather than a singular physiological process.

The relationship between the psychophysiological mechanisms and spatial implications and correspondences in the table makes visible the interaction of movement-based practices with the physical environment. It is stated that elements such as rhythmic repetition, central focus, and sensory regulation, when taken together with certain spatial organizations, produce an atmosphere that supports the healing experience [18, 22]. Thus, movement is not merely a bodily act; it is situated as an experiential field that gains meaning through spatial conditions.

Across a broad spectrum, from traditional ritual systems to modern dance/movement therapies, performance-based practices offer a healing model that centers on the integrity of mind and body. These practices not only support biological regulatory processes but also enable individuals to make sense of their experiences and situate them within the context of the community [14, 25]. The articulation of meaning generation and sense of belonging to the healing process makes it possible for movement-based rituals to play a complementary role in modern medical approaches [21].

This theoretical framework is not limited to the practical level of ritual and movement practices; it also extends to spatial organization and the production of atmosphere. Such a reading provides a literature-based basis for discussions on how ritual, movement, and healing relations can be reinterpreted through health spaces in the following section.

3.1 Performance Rituals in Turkey

Performance rituals in Anatolia show historical continuity as multi-layered healing practices that operate through bodily movement, rhythmic sound, and collective participation. These practices are not limited to the production of symbolic meaning; they also involve physiological processes, emotional regulation, and community interaction processes simultaneously [10, 26]. Ritual dances, breath-matched movement sequences, and repetitive rhythms are directly associated with the physiological mechanisms that regulate bodily arousal levels.

The explanation of diseases by supernatural causes in early Anatolian communities paved the way for the organization of healing processes around collective dance, music, and rhythmic movement. These practices, performed with drums, hymns, and rhythmic melodies, increase body awareness by inducing trance-like states of consciousness; they regulate physiology through breathing, muscle tension, and rhythmic synchronization [20, 26]. At the same time, these processes

produce emotional regulation areas that contribute to the transformation of fear, anxiety, and uncertainty.

Historical narratives and traveler accounts in Anatolia indicate that holy water sources, grave visits, and collective chanting were perceived as healing places. The ritual marches, water-drinking rituals, and loud collective discourses reported by observers such as Evliya Çelebi enabled the sharing of individual pain in a collective context; this has strengthened the ritual's capacity to produce social commitment [13, 27]. Here, the ritual transforms healing from an individual experience into a practice of social solidarity.

In the Ottoman period, bath culture, sweating, and purification practices reflect an approach in which the physiological balancing of the body and mental well-being are considered together. In the same period, music was considered as a therapeutic tool within the classical Islamic medicine tradition; It has been accepted that Makam-based vocal practices have regulatory effects on emotional states [28, 29]. In this context, sound is positioned not only as an aesthetic element but also as a performative component that supports emotional regulation.

Sufi traditions in Anatolia transformed the movement-based understanding of healing by establishing continuity with pre-Islamic shamanic bodily healing practices. Mevlevi SEMÂ ceremonies combine movement, breath, and music within a holistic ritual structure, simultaneously producing physiological regulation, emotional transformation, and collective synchronization [5, 30]. While rotational movement, rhythmic repetition, and breath control exert regulatory effects on the autonomic nervous system, symbolic gestures and musical accompaniment provide a framework that transforms the emotional intensity of the participant.

Sema and dhikr practices restructure the relationship between the individual and their body; they strengthen the sense of self-awareness, inner balance, and unity. Various neurophysiological and psychological studies have shown that these processes are associated with a decrease in anxiety levels and an increase in subjective well-being [20, 31]. The collective performance of the ritual reinforces social connectedness and trust, transforming the healing experience into a community-based process.

The withdrawal of sectarian structures from the public sphere during the Republican period transformed the contexts in which these rituals were applied; however, the study of movement, music, and ritual-based healing has continued to exist within the fields of cultural memory and performative representation [32]. Today, synchronized worship practices, such as congregational prayer, reproduce similar healing mechanisms through bodily harmony, rhythmic matching, and social bonding [4].

In this context, performance rituals in Turkey are considered as multi-layered healing practices that operate on the axes of physiological regulation, emotional regulation, and social commitment. Historical examples suggest that ritual structures the healing experience through bodily movement, auditory regulation, and collective participation; they also show that these processes are reproduced in cultural continuity and transformation.

The historical and conceptual framework presented above makes it necessary to consider performance rituals not only as symbolic or faith-based practices, but also as holistic healing mechanisms that operate through body, emotion, and social relations. Ritual and movement practices that emerged across different periods and cultural contexts exhibit structural similarities, indicating continuity along the axes of physiological, emotional, and social regulation. The combination of movement with rhythm simultaneously affects both physical and psychological

processes through repetition and collective participation. This situation reveals that healing extends beyond individual experience and is shaped by spatial and social phenomena. With historical transformations, the meaning of ritual and the contexts of practice change; however, the constitutive relationship between movement, sound, and space is preserved. To make this continuity and transformation relationship visible, the selected examples are evaluated together under the headings of historical periods, ritual types, healing understandings, spatial characteristics, and social-psychological effects (Table 2).

Table 2 Historical Continuity and Spatial Equivalents of Ritual, Movement, and Healing Practices in Turkey (Created by author analysing the sources [5, 10, 26-28, 30, 32, 33]).

Historical/Cultural Period	Type of Ritual and Movement	Improvement Mindset	Spatial Features	Social and Psychological Effects
Early communities	Collective ritual dances, drums, rhythmic sound, trance, breathing, and repeating movement patterns	There is an understanding that the disease is attributed to supernatural causes and that healing is aimed at through physical and mental purification	Open spaces, natural environment, circular layouts that support gathering at the center of the ritual	Strengthening community belonging, psychological consolation, and collective solidarity
Early Anatolian practices	Grave visits, mass marches, chanting, and rituals associated with water	Healing is interpreted through contact with sacred places and collective ritual experience	Holy water sources, burial circles, open and semi-open ritual areas	Sense of trust, consolidation of social ties, psychological relaxation
Ottoman period	Sweating and purification rituals, use of baths, and music therapy applications	Physical purification, mental balance, and physiological relaxation are handled together.	Baths, hospitals, acoustically controlled interiors	Supporting body-mind integrity, a sense of calmness, and balance
Sufi tradition and Mevlevi	Movement accompanied by whirling, dhikr, rhythmic turn, breathing, and music	Spiritual transformation, inner awareness, and cognitive restructuring are key goals	Central spaces defined by the dome, volumes that strengthen acoustics, and orders that allow rhythmic circulation	Reduced anxiety, increased self-control, sense of unity and belonging
Transformation of the Republican period	Limiting rituals in the public sphere, reducing them to representation	The concept of healing is drawn into a cultural and symbolic framework	Re-functioning of dervish lodges and zawiyas as museums or mosques	Risk of cultural rupture, weakening of the transmission of traditional knowledge
Modern and contemporary applications	Breathing and movement protocols, music therapy, and complementary health practices	Psychosocial resilience, stress management, and bodily awareness come to the fore	Non-clinical therapy spaces, flexible and multi-purpose spaces	Self-regulation, mental relaxation, support of well-being

As a result, ritual performances were established throughout Turkey. It is seen that there is a multi-layered continuity extending from ancient communities to the Ottoman therapeutic music tradition, from there to the mystical-ritual codes of Sufi practices, and to modern complementary health practices. When the movement-based healing repertoire, which has been preserved in the form of both symbolic and practical elements, is analyzed to transfer it to contemporary health fields, it is understood that components such as rhythm, collective participation, breath, and spatial focus make valuable contributions in terms of design and implementation [5, 27].

4. Turkey's Health Culture, Understanding of Healing, and Places

The concepts of health and disease are considered not only as biomedical dysfunctions, but also as multi-layered experiences shaped by social meaning-making processes and cultural narratives. Arthur Kleinman's distinction between disease, defined as a biological condition, and illness, experienced by the individual experientially and culturally, makes visible the emotional and social dimensions that modern medicine often neglects [25, 34]. This theoretical framework is based on the healing culture in Turkey, not only from therapeutic interventions; It shows that the individual exhibits a holistic structure consisting of ways of making sense of the distress experienced, collective support networks, and the spatial contexts in which these processes take place [14].

Turkey's health culture has been shaped by a syncretic structure in which pre-Islamic shamanic traditions and Islamic ritual practices are intertwined. The hearth tradition, which develops within this framework, is defined as "folk Islam" and offers a performative healing space based on the intergenerational transmission of healing knowledge, in which verbal prayers are combined with bodily interventions [25, 35]. Rather than providing a direct physiological treatment, applications such as lead pouring, flame, or tempe activate the "meaning response" by creating a strong expectation of recovery in the individual [6, 14]. In this context, healing is designed as an experience in which bodily regulation and emotional regulation work together.

Mevlevi sema ceremonies, which hold a central place in Turkey's spiritual heritage, exemplify a powerful performance ritual that integrates movement, rhythm, and music. The repetitive rotational movements, breathing pattern, and musical structure during the sema create an intense state of inner focus and emotional balance in the participants [12, 31]. Current neuroscience-based studies reveal that such ritualistic movements promote neuroplasticity, increase the pain threshold by increasing endorphin secretion, and regulate stress responses [13, 21]. Thus, ritual becomes a healing practice in which physiological regulation and symbolic catharsis operate in concert.

The spatial organization of ritual-based healing practices is a distinguishing feature of health culture in Turkey. In collective worship such as congregational prayer, the physical positioning of individuals side by side and without gaps creates synchronization of bodily posture and heart rhythm; this reinforces a sense of social connectedness and trust [4]. Similarly, receptions held in traditional healers' homes or semi-open spaces offer a more permeable, spacious, and relationship-based healing atmosphere than modern clinical spaces [25]. In this context, space does not function as a passive background of healing, but as an active component that structures the experience.

During the Seljuk and Ottoman periods, hospitals were designed as holistic structures where health, worship, and social life were intertwined. These spaces, supported by acoustic arrangements, the sound of water, music, and herbal scents, have produced a sense of peace and belonging in patients while promoting bodily relaxation [28]. Treatment has been considered not only as a

medical intervention, but also as a part of emotional and social regulation. Although health spaces have evolved into a more technical and functional structure with modernization processes over time, it is seen that sensory arrangement-based improvement approaches have not completely disappeared.

In today's Turkey, practices that integrate traditional healing elements into modern clinical settings are gaining attention. Non-verbal Turkish music concerts, especially used during painful medical procedures, create a "positive distraction" mechanism that reduces stress and anxiety by transforming the auditory environment. These practices have been experimentally demonstrated to reduce cortisol levels, alleviate pain perception, and enhance overall feelings of comfort [36]. Thus, historical healing practices are reproduced as complementary tools that support bodily and emotional regulation in contemporary health spaces.

When these examples are evaluated together, the understanding of healing in Turkey reveals a multilayered structure operating along the axes of physiological regulation, emotional regulation, and social commitment. These practices, in which ritual, movement, music, and space are constructed together, consider healing not only as a clinical result but also as a holistic experience with physical, emotional, and social dimensions. This approach necessitates rethinking healthcare spaces as not only functional but also sensory and relational healing environments.

5. The Relationship Between Ritual, Movement, and Health Spaces

The evaluation presented in this section does not aim to produce architectural form directly from cultural ritual analysis; It discusses which conceptual design orientations ritual and movement-based healing practices point to for contemporary health spaces in the context of body awareness, sensory integration, and spatial organization. To bridge theory and practice, clarify how these theories translate into specific architectural design principles, aiding professionals in applying these concepts effectively.

Movements performed in a ritual context have regulatory effects on the autonomic nervous system; Various studies have shown that rhythmic repetition, breathing, and synchronized movements reduce stress responses by supporting parasympathetic activity [2, 37, 38]. This shared structure, observed in shamanic rituals, sema practices, or contemporary dance-movement therapies, suggests that movement operates not only as expressive but also as a direct physiological and emotional regulatory tool [13].

The rhythmic and continuous nature of movement enhances individual bodily awareness while fostering social synchronization through simultaneous engagement, thereby inspiring the audience to view healing as a collective process that builds trust and belonging [4, 39].

The relationship between movement and body in health structures is read not only through circulatory schemes or functional organization, but also through the rhythm and continuity of spatial experience [8, 9, 15, 40, 41]. However, discuss potential challenges or limitations in translating these theories into architectural design, helping professionals anticipate and address practical constraints in implementation.

Interdisciplinary approaches emphasize that health fields should be addressed not only in accordance with medical requirements but also in conjunction with art therapies, environmental psychology, and sensory design principles [9, 15, 41]. Incorporate examples of existing healing

spaces that successfully integrate these principles to illustrate practical implementation and inspire design innovation.

Elements such as the sound of water, music, natural light, and rhythmic circulation in healing spaces offer spatial strategies that can be reinterpreted to promote emotional stability and trust, reassuring your audience of the power of multisensory design [8, 15, 27, 42].

Spatial thresholds, transitions, and sequences of experiences produce gradual changes in the physical and mental state of the individual. Repetitive acts of entry, waiting, and orientation in daily life have a healing potential when consciously constructed [15]. The relationship between the collective synchronization of ritual movements and spatial arrangement forms a conceptual basis for the design of healing spaces [4].

Studies on the autonomic nervous system reveal that rhythmic movement, controlled breathing, and voice use support emotional regulation and strengthen bodily homeostasis [37, 38]. These mechanisms explain why music therapy, dance-movement therapy, and mindfulness-based practices are effective as complementary health tools [2, 3, 5, 21]. In the context of ritual, repetitive movements maintain the body within a regulatory framework, thereby sustaining the healing process.

The relationship among ritual, movement, healing, and space is considered a holistic process that extends from human bodily experience to architectural organization. While ritual makes the body the carrier of meaning, movement constitutes the sensory and visible dimension of this meaning. Healing, on the other hand, is not only a medical outcome but also a multi-layered experience based on the restoration of the balance between body, mind, and environment. Mixed-methods research makes the reorganization of user experience, especially in crisis conditions, visible [43]. The space, which is the scene of this experience, prepares the ground for the formation of a human-centered and healing design language as an effective component that strengthens these relations under all circumstances [8, 9, 15, 41].

The relationship among ritual, movement, healing, and space represents a holistic process that extends from human bodily experience to spatial design. Ritual transforms the body into the carrier of meaning; movement constitutes the visible and sensible dimension of this ritual. The rhythmic and repetitive nature of movement translates into healing through individual focus and communal cohesion. Healing, on the other hand, is not just a medical outcome but an experience that restores balance between the body, mind, and environment. The space, the scene of this process, is not a passive shell; it is regarded as an active element that amplifies the effects of ritual and movement. Thus, in the line extending from historical practices to the design of today's health buildings, this conceptual framework has the potential to form the basis of a human-centered and healing design language. The conceptual framework of the study was created in this direction (Scheme 1).

Scheme 1 Conceptual approach of the study (Created by author, 2025).

The relationship among ritual, movement, and healing is often discussed in the literature through cultural representations, symbolic meanings, or therapeutic practices [10, 44]. However, a significant part of the studies remain at the level of historical description or have difficulty in

establishing analytical continuity in interdisciplinary transitions [42]. That makes it difficult to justify design inferences from cultural rituals to contemporary health spaces.

This study does not define ritual and movement-based healing practices as a descriptive cultural space; rather, it focuses on bodily regulation, sensory synchronization, and psychophysiological well-being processes [2, 37, 38]. Mechanisms such as rhythmic repetition, collective participation, and symbolic framing suggest that recovery is structured along the axes of physiological regulation, emotional regulation, and social connectedness [4].

While creating a framework that supports movement, trust, and the production of meaning at the ritual level, the repetition of movement at the bodily level is associated with autonomic nervous system regulation and body awareness [2, 3]. Rhythm and synchronization strengthen physiological adaptation and social bonding by taking the individual experience to the collective level [4].

Recovery is not a singular result in this context; It is defined as a holistic transformation in which bodily, emotional, and symbolic processes operate simultaneously [6, 7]. Space, on the other hand, is not considered as a passive ground where this transformation takes place, but as an active component that regulates the process through multisensory stimuli [8, 9, 15, 41] because space is not only a physical arrangement, but also a phenomenological experience area of its essence [45]. In line with this conceptual framework, the relations among ritual, movement, healing, and space are examined analytically by examining how they are mediated through bodily regulation, sensory synchronization, and psychophysiological effects. In the following table, these relations are presented in a comparable structure together with the basic mechanisms defined in the literature and their spatial equivalents (Table 3).

Table 3 Conceptual Stages and Mechanisms Analytically Explaining the Relationship Between Ritual, Movement, and Healing (Created by the author through literature synthesis).

Analytical Level	Conceptual Focus	Basic Mechanism Defined in the Literature	Proven Psychophysiological/ Psychosocial Effects	Spatial and Design Implications
Ritual	The signifying and framing structure of movement	Structuring states of consciousness through rhythmic repetition, symbolic order, collective participation [15, 24, 44]	Sense of trust, meaning production, stress reduction, community belonging, "meaning response" [7, 14]	Producing safe and meaningful experiences through thresholds, transition sequences, central spaces, symmetry, and rhythmic arrangements
Movement	The active regulatory role of the body	Sensory-motor integration through embodiment and inactive processes [1, 15]	Increased body awareness, autonomic nervous system regulation, endorphin release, anxiety reduction [21, 37, 38]	Fluid circulation, rhythmic direction, spatial continuity centered on the body, controlled speed, and pause areas
Rhythm and Synchronization	Collective regulation	Physiological adaptation and social bonding through synchronized movement and breathing [4, 13]	Cardiorespiratory synchronization, increased pain threshold, social commitment, empathy [22, 23]	Circular plans, common focal points, acoustic integrity, and spatial organization that support group use
Healing	Processual and holistic transformation	Psychophysiological regulation + symbolic signification [7, 8]	Emotional balance, resilience, self-awareness, spiritual integrity [8, 21]	Calming, sensorially balanced, human-scale health spaces that go beyond medical function
Space (Area)	The bodily context of healing	Nervous system regulation through multisensory environmental stimuli [17, 18]	Feeling of trust, peace, attention, participation in the healing process [15, 18]	Production of a healing atmosphere with light, acoustics, water sound, material texture, and rhythmic circulation
Synthesis Level	Ritual-Movement-Space Cycle	The cyclical structure in which ritual is the framework, movement is the tool, and healing is the process [2, 46]	Body-mind-environment integrity, collective and individual regulation [8, 16]	Design strategies that do not mimic cultural representation, but translate rhythm, repetition, and body awareness into spatial language

Rereading the relationship between ritual, movement, and space contributes to the development of a human-centered design approach in healthcare buildings. This approach sees the space not only as an environment that houses medical functions. It requires considering it an area in where bodily awareness, mental balance, and social interaction are supported. Healing fields, examined through interdisciplinary perspectives, reveal a new spatial paradigm that integrates historical memory with contemporary therapeutic approaches. The spatialization of healing can be interpreted as the process of transferring the body's relationship with healing movements to architectural experience through the environmental senses. Design elements such as light, acoustics, circulation order, and spatial hierarchy support the search for bodily rhythm and psychological balance. In this context, healing areas are considered not only as structures that perform therapeutic functions, but also as areas of experience that nurture sensory and spiritual integrity.

Neurophysiological research shows that rhythmic and repetitive movements regulate the autonomic nervous system. It shows that it positively affects vagal tone, respiratory-cardiac synchronization, and emotional regulation processes [37, 38]. Rhythm, continuity, and breath harmony observed in ritual practices are considered complementary regulation mechanisms that reduce stress responses and strengthen bodily balance. Within this framework, movement is positioned as an active tool that supports healing processes through nervous system regulation, rather than merely as an expressive act [2].

The continuity of ritual and movement from historical contexts to the design of contemporary health structures suggests that elements such as rhythmic repetition, bodily awareness, and spatial focus underpin the individual and communal dimensions of the healing experience. Although forms of expression differ across historical, cultural, and contemporary contexts, body-centered experience, rhythmic repetition, individual or collective focus, and the organizing role of the spatial center remain continuous. This suggests that healing should not only be considered as a biomedical process, but as a multi-layered phenomenon that integrates with bodily awareness, sensory regulation, and spatial experience. Therefore, approaches from the past to the present vary in rituals and types of movement, in the understanding and expectations of healing, and in spatial features, and these factors feed into one another (Table 4).

Table 4 Conceptual Analysis of the Concepts of Ritual, Movement, and Healing in the Context of Health Spaces (Created by the author through literature synthesis).

Historical/Cultural Period	Type of Ritual and Movement	Improvement Mindset	Spatial Features	Social and Psychological Effects
Historical ritual practices	Repetition, rhythm, collective movement, use of natural oils and elements [15, 47]	Spiritual and physical purification, consciousness transition, healing culture [25], perception of diseases as punishment in some cultures [14]	Central focus, multisensory environment, use of courtyards, and a foundation nature established by philanthropists [48, 49]	Belonging, collective balance [4, 14], cultural shame, and discrimination by disease type [47]
Modern therapeutic approaches	Structured/spontaneous movement, periodic medical interventions, systematic screenings [13, 14, 36]	Psychosocial integration, scientific methodology, preventive medicine, and public health [21, 34]	Controlled but flexible space, daylight and green space relationship [13], pavilion-type formation [47]	Self-awareness, regulation, social control, and awareness [4]
Contemporary health spaces	Experience-oriented body movement, technological hardware-centered patient follow-up, multidisciplinary clinical approaches [21, 22]	Holistic healing is a holistic care approach that prioritizes patient comfort and privacy [16, 50]	Sensory continuity, rhythmic circulation, multi-storey monumental complexes, focus on relating to the environment [9, 15]	Relaxation, social cohesion [22], sensory comfort [17], structures in urban memory [9, 15]

When the theoretical framework in question is evaluated together, it is seen that ritual and movement-based practices offer multi-layered healing processes that operate through the interaction of body-mind-space, beyond the level of cultural representation. Embodiment, psychophysiological regulation, and sensory integration approaches indicate that ritual practices provide a theoretical basis for contemporary complementary health approaches. Thus, ritual and movement are repositioned as complementary healing tools that operate beyond the cultural narrative through bodily experience and spatial arrangement.

The design implications developed in the study provide a framework for reconceptualizing body, movement, and sensory-experience-based healing approaches within healthcare structures, rather than producing directly applicable architectural solutions. In this context, the study contributes to the early conceptualization stages of the architectural design process.

6. Conclusions

Throughout history, the human body has been regarded as a tool for restoring physical and mental balance through movement. Ritual performances are fundamental components of health cultures, serving as processes that integrate the inner transformation of the individual, their bond with the community, and the spatial relationships they establish with their environment. Turkey's health culture represents a multi-layered continuity that combines this historical accumulation with modern health practices. It is evidence that the healing experiences produced by traditional practices (such as whirling dervishes, music therapy, and sounds of natural elements) on a physical, emotional, and social levels constitute an important reference for the rethinking of contemporary health spaces. The ritual-based forms of healing from the past lay the groundwork for today's therapeutic approaches, which aim to achieve the individual's bodily awareness, inner balance through breath and rhythm, and integration with the community.

The idea that movement is not merely a bodily activity but a process that produces meaning contributes to the redefinition of user experience in contemporary healthcare structures. In this context, the relationship among ritual, movement, and space parallels the creation of an experiential space that strengthens the sense of emotional healing, belonging, and trust in health care structures. Examples such as whirling dervishes, music therapy, and the tradition of darüşşifa demonstrate that space can be constructed not only as a functional shell, but also as an environment that transforms both the physical and spiritual experiences.

The evaluation of the study's tables and the analyses that were read together reveal that, although the relationship among ritual, movement, and healing transforms across temporal and cultural contexts, it shows continuity through spatial experience. This continuity provides a strong conceptual basis for developing a human-centered, sensory, and experience-oriented design language in healthcare buildings. The spatial equivalents of ritual and movement-based approaches allow contemporary health spaces to be rethought not only as treatment-oriented but also as holistic environments that support well-being.

Furthermore, the integration of movement-based practices rooted in culture into healthcare spaces should be considered not only as an aesthetic or symbolic transfer but also as a design strategy that supports psychophysiological balance. The semantic connections established by elements such as rhythm, repetition, center, light, and acoustics in ritual practices in space design offer an infrastructure that supports both individual and collective healing. In this respect,

contemporary interpretations of multisensory experiences observed in historical health institutions (such as hospitals) offer opportunities to ensure the continuity of spatial healing. In short, especially for the fields of health, in the footsteps of research questions.

- Utilizing spatial strategies that support the multisensory experience.
- Including sensory focus areas in accordance with the nature of the functions (center-periphery relationship).
- To enable them to transform from structures that serve only treatment into areas of experience that foster trust, peace, and a sense of belonging.
- Integration of water and natural elements with space.
- To include light orientation, reflection, sound distribution, shading, daylight control, and echo parameters in the design in a way that creates a calming effect on the user.
- Creating rhythmic circulation routes.
- To benefit from spatial setups that allow silence and community participation.
- Evaluate the effect of acoustically controlled spaces on emotion regulation and stress reduction.
- To include spatial configurations that enhance users' sense of orientation and focus.
- Including areas of collective experience.
- To enable the production of a multisensory atmosphere with sensory synchronization that increases users' body awareness.
- Making use of materials and forms that contribute to cultural continuity constitutes a design parameter applicable to contemporary health buildings.

As a result, the healing power of movement and ritual can be integrated into contemporary health spaces as a heritage nourished by Turkey's health culture. This integration brings a new perspective to both the disciplines of architecture and public health; it contributes to the formation of a healing paradigm that redefines the relationship between humans and their bodies, space, and community. This interdisciplinary inquiry conceptually lays the groundwork for the development of human-centered, healing, and culturally rooted spaces in architecture and healthcare by enabling the principles of cultural continuity, sensory arrangement, and collective participation to be more consciously integrated into the future design of health buildings.

Author Contributions

The author did all the research work of this study.

Competing Interests

The author has declared that no competing interests exist.

AI-Assisted Technologies Statement

Artificial intelligence (AI) tools were used in the preparation of this manuscript solely for basic grammar correction, language refinement, and facilitating the reading and organization of reference materials. Specifically, OpenAI's ChatGPT and Grammarly were utilized to enhance the readability and linguistic clarity of the English text. At the same time, Notebook LM was employed ethically to aid in reviewing and summarizing source materials. The author independently developed all

scientific content, data analyses, interpretations, and conclusions. The author has carefully reviewed all AI-assisted outputs for accuracy and assumes full academic responsibility for the content of the manuscript.

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