PILATES BETWEEN THERAPY AND PERFORMANCE: REDEFINING A METHOD BEYOND APPLIED DICHOTOMIES

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Double Blind Peer Review

Citation
Giardullo, G., & Kaçurri, A. (2026). Pilates between therapy and performance: Redefining a method beyond applied dichotomies. *Italian Journal of Health Education, Sport and Inclusive Didactics*, *10*(2). https://doi.org/10.32043/gsd.v10i2.1999

Doi: https://doi.org/10.32043/gsd.v10i2.1999

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renpress.it/index.php/gsdj
ISSN: 3103-5744

ABSTRACT
This contribution analyzes the Pilates method through a comparative perspective between the clinical domain and the fitness sector, with the aim of clarifying its value beyond the dimension of a contemporary trend. Despite the growing diffusion of discipline, an interpretative fragmentation persists that limits its full recognition as an integrated tool between well-being and rehabilitation. Based on a theoretical and market analysis, the study highlights how Pilates, although applied in different contexts, maintains a methodological coherence grounded in principles of motor control, body awareness, and functional adaptability. The central issue therefore concerns the dichotomy between an aesthetic-performance-oriented approach and a therapeutic one. The objective is to demonstrate how this opposition can be overcome by recognizing the method as a unified system capable of generating transversal benefits, both in terms of health and of sustainable application across different contexts.

KEYWORDS
Rehabilitation; biomechanics; proprioception; adherence; interdisciplinarity.

Received 2026-11-04
Accepted 2026-11-04
Published 2026-07-31

[1] Giuseppe Giardullo drafted and edited paragraphs 1, 2, 3, 4, and 5, while Arben Kaçurri drafted paragraphs 6 and 7.

1. Introduction

In recent decades, the Pilates method has gained increasing relevance within contemporary body practices, positioning itself midway between physical exercise, movement education, and rehabilitative intervention (Raiola et al., 2015). However, this widespread diffusion has not been accompanied by full interpretative convergence, and the literature still appears characterized by heterogeneous and not always aligned approaches (Di Domenico et al., 2020). Originally conceived as a system based on the integration of body and mind, Pilates has progressively evolved into a discipline capable of adapting to different contexts, while maintaining internal coherence grounded in principles such as motor control, conscious breathing, precision of execution, and core stabilization (D'Isanto et al., 2022). This adaptability represents one of the most distinctive elements of the method, but at the same time constitutes one of the main interpretative issues highlighted in the literature (Raiola et al., 2021a). Scientific research has focused primarily on the effectiveness of Pilates in the musculoskeletal field, particularly in the management of chronic low back pain (Raiola et al., 2021b). Several systematic reviews and meta-analyses indicate that Pilates may contribute to pain reduction and functional improvement when compared to no intervention or generic exercise programs, although these results are not always consistent and appear influenced by variability in protocols and application modalities (Patti et al., 2024; Tian et al., 2025). Such effects seem attributable to the nature of the method itself, which emphasizes activation of deep stabilizing musculature, coordination between breathing and movement, and the recovery of more efficient motor patterns (Raiola et al., 2020). Rather than acting on a single physiological parameter, Pilates intervenes in the global organization of movement, promoting greater body awareness and a more balanced management of joint loading (D'Elia, 2021).

Alongside the field of low back pain, scientific interest has progressively expanded to other clinical contexts, including postural disorders, pelvic floor dysfunctions, neurological conditions, and specific populations such as older adults and oncology patients (Barnet-Hepples et al., 2025). In these areas, evidence remains heterogeneous: while promising results emerge in terms of balance, proprioception, and quality of life, variability in protocols and application methods makes standardization difficult (Esposito et al., 2021). This confirms that Pilates cannot be considered a rigid method, but rather an open system whose effectiveness depends on adaptability and on the practitioner's competencies. Complementing the development of clinical literature, Pilates has also experienced significant expansion within the fitness and wellness sectors (Zhang et al., 2025). This growth, driven both by the evolution of the wellness market and by the spread of digital media, has contributed to making the discipline widely accessible (D'Elia et al., 2023). However, this expansion has also led to a progressive simplification of its theoretical foundations, with an increasing association with aesthetic and performance-related goals such as posture improvement, muscle toning, and the perception of general well-being (Altavilla et al., 2023). In this sense, the diffusion of the method has not always been accompanied by preservation of its original complexity, generating a gap between practical application and scientific evidence (D'Isanto et al., 2024).

The coexistence of these two dimensions, clinical and fitness-oriented, is not limited to a difference in application, but generates a genuine interpretative tension in which the method is alternately considered either a therapeutic tool or a wellness practice, without the emergence of a shared theoretical framework (Tsartsapakis et al., 2026). In the clinical context, Pilates is used as an individualized intervention based on functional assessment and progressive adaptation; in the fitness sector, however, a participation-oriented and

standardized logic tends to prevail, with less attention devoted to personalization (Karaman et al., 2026). This divergence concerns not only objectives, but also the competencies required of practitioners and the methods through which the discipline is taught. A transversal element emerging both in the literature and in practical contexts concerns adherence to practice (Ceruso et al., 2019). Pilates appears to encourage more consistent participation compared with other exercise programs, probably due to the combination of perceived benefits, active involvement of the individual, and attention to movement quality (Jakovljević et al., 2025). This aspect is particularly relevant in rehabilitation settings, where continuity represents a determining factor for maintaining outcomes over time (Altavilla et al., 2019). Despite its growing diffusion and scientific interest, significant fragmentation persists in the definition and use of the method (Di Domenico et al., 2019). The lack of shared standards, especially in the transition between clinical and fitness settings, limits the possibility of developing truly continuous and coherent pathways (Di Tore et al., 2012). Added to this is the risk of excessive commercialization, which may compromise application quality when specific competencies and adequate personalization processes are lacking (Esposito et al., 2024).

Taking these considerations into account, the current state of the art highlights that Pilates cannot be interpreted univocally but instead requires a reinterpretation capable of integrating different perspectives (Ferri et al., 2026). There emerges a need to overcome current fragmentation through a theoretical model capable of reconnecting the various applications to a coherent methodological framework (Alexe et al., 2025). From this perspective, Pilates may be interpreted as a unified system capable of generating transversal benefits and adapting to different needs, provided that the

coherence of its fundamental principles and the quality of its application are preserved.

2. Origins and Evolution of the Pilates Method

The Pilates method has its roots in the early twentieth century, within a historical context marked by profound social and health-related changes (Vera-Saura et al., 2024). Its development is attributed to Joseph Pilates, who, starting from a personal condition of physical fragility, created a system of exercises aimed at the harmonious strengthening of the body and the improvement of movement control. The first applications of the method were situated within the rehabilitative field. During the First World War, Pilates experimented with innovative solutions for the motor re-education of injured soldiers, introducing devices that allowed exercises to be performed even under conditions of limited mobility. This origin is not secondary but rather contributes to defining the very nature of the method, conceived from the outset as a tool capable of adapting to individual needs. With his move to the United States in the 1920s, the method underwent its first significant transformation. Integrated into the cultural and artistic environment of New York, it became particularly widespread among dancers, who recognized its value both in terms of injury prevention and functional recovery. During this phase, Pilates gradually moved away from its exclusively rehabilitative dimension and assumed a role in physical conditioning and performance enhancement. However, this transition did not constitute a rupture, but rather an expansion of its possible applications, while maintaining unchanged the founding principles based on control, precision, and the integration of body and mind.

After the death of its founder, the dissemination of the method was entrusted to his direct students, who ensured its continuity while simultaneously encouraging a progressive diversification of practices. Beginning in the 1980s and 1990s, the growing interest of the scientific community and rehabilitation professionals led to a reinterpretation of the method considering developments in biomechanics and neuroscience. Through this process, the distinction between “traditional” Pilates and “clinical” Pilates became consolidated, the latter characterized by an approach more strongly oriented toward personalization and integration with evidence-based therapeutic protocols. At the same time, the recognition of the term “Pilates” as a generic designation facilitated rapid expansion within the fitness sector, making the discipline accessible to an increasingly broad audience. This transition contributed to its global diffusion but also intensified a certain heterogeneity in teaching and application methods. On the one hand, the method established itself as a practice aimed at wellness and the improvement of quality of life; on the other hand, it maintained a significant presence in the clinical field, where it continues to be used as a supportive tool in rehabilitation. In light of this evolution, Pilates can now be understood as a complex system whose identity cannot be reduced to a single disciplinary field. Its history highlights a continuity of principles accompanied by a progressive expansion of application contexts. It is precisely this dual trajectory, between care and performance, that constitutes the foundation for current theoretical reflections and for the comparative analyses that characterize the contemporary debate.

3. Scientific Evidence and Contemporary Application Developments

Following the progressive integration of the method into healthcare and sports contexts, research attention has focused on analyzing its effectiveness in

relation to specific functional and pathological conditions (Huang et al., 2023). Within this framework, Pilates has been studied primarily for the treatment of musculoskeletal pain, particularly chronic low back pain, where numerous studies report significant improvements in terms of pain reduction and functional recovery (Xu et al., 2023). These outcomes do not appear to derive from an isolated action on individual body regions, but rather from the method's ability to intervene in the overall organization of movement, promoting activation of the deep stabilizing musculature and a more effective coordination between breathing and motor execution.

Scientific interest has progressively expanded to other areas, including postural disorders, pelvic floor dysfunctions, neurological conditions, and aging processes (Chmielowiec et al., 2026). In these contexts, Pilates demonstrates relevant potential particularly about improvements in balance, proprioception, and quality of life, although some variability in outcomes persists due to the heterogeneity of the adopted protocols. This variability represents a fundamental element: on the one hand, it confirms the flexibility of the method; on the other, it highlights the difficulty of defining shared application standards, making a full systematization of evidence complex.

Alongside the development of clinical literature, the spread of Pilates within the fitness sector has contributed to broadening its accessibility but has also encouraged a simplification of its application methods. In many contexts, emphasis is placed on aesthetic or performance-related aspects, resulting in reduced attention to movement quality and personalization of the intervention. Although this transformation responds to market dynamics and to the growing demand for wellness practices, it risks weakening the connection between the method and its original principles, generating a gap between practical application and scientific evidence. It is precisely within this

gap that the central issue emerges: the coexistence of different approaches, which do not always communicate with one another, tends to fragment the identity of Pilates, making its full legitimization as an integrated system difficult. On the one hand, the clinical context requires methodological rigor, individual assessment, and continuous adaptation; on the other hand, the fitness sector privileges accessibility, standardization, and participation. The lack of dialogue between these two dimensions limits the possibility of fully enhancing the method in its entirety. In light of these considerations, there emerges a need to overcome a dichotomous interpretation of Pilates, recognizing that its effectiveness does not lie in the opposition between therapeutic and performance-oriented approaches, but rather in the capacity to integrate both dimensions within a coherent methodological framework. From this perspective, the method may be interpreted as an adaptive system in which the fundamental principles remain constant while the modes of application are modulated according to objectives and contexts. Such recognition represents the necessary step for directing the debate toward an operational synthesis capable of addressing the highlighted fragmentation and of restoring Pilates to a more clearly defined position within health and wellness practices.

4. Toward Methodological Integration Between the Clinical and Fitness Fields

The need to overcome the fragmentation between the clinical field and the fitness sector cannot be addressed through a simple juxtaposition of the two models but instead requires a deeper reformulation of the Pilates method as an adaptive and continuous system. Available evidence suggests that the benefits attributed to Pilates derive not so much from the context in which it is applied, but rather from the consistency with which its founding principles are

maintained, regardless of the specific objective (García-Bravo et al., 2025). From this perspective, the distinction between therapeutic and performance-oriented approaches appears less as a true opposition and more as the result of a different modulation of the same variables: intensity, complexity, degree of supervision, and purpose of the intervention.

A first critical issue concerns the transition between the rehabilitative phase and the maintenance phase. In many pathways, the shift from the clinical context to the fitness setting occurs discontinuously, leading to a partial loss of the adaptations achieved, particularly in terms of motor control and body awareness. This phenomenon is attributable not so much to an ineffectiveness of the method, but rather to the absence of shared protocols capable of ensuring continuity in the process. Consequently, methodological integration cannot disregard the construction of progressive models in which Pilates accompanies the individual along a functional continuum ranging from pain management to relapse prevention, and ultimately to the maintenance and enhancement of motor abilities. In this sense, clinical Pilates and fitness-oriented Pilates may be interpreted as two extremes of the same application spectrum. The former is characterized by a high degree of individualization, based on functional assessments and constant adaptation of exercises, whereas the latter prioritizes participation and long-term sustainability, elements that are fundamental for ensuring adherence to practice. The integration of these two poles makes it possible to enhance their respective strengths: the precision and rigor of the clinical context can improve the quality of execution in fitness settings, while the continuity and experiential dimension of fitness practice can support, over the long term, the outcomes achieved in rehabilitation.

A further aspect concerns the role of professional competencies. The literature highlights how the effectiveness of Pilates is strongly mediated by the practitioner's ability to interpret the principles of the method and adapt them to the characteristics of the individual (Ramalho et al., 2023). In the absence of training oriented in this direction, the risk is a polarization of competencies: on the one hand, healthcare professionals with strong clinical preparation but limited experience in managing long-term pathways; on the other hand, fitness instructors with good relational skills but reduced competence in functional assessment. An ideal model instead requires a convergence of these competencies, in which biomechanical and clinical knowledge is combined with the ability to design sustainable and motivating pathways. Finally, methodological integration also acquires relevance at the systemic level. In a context characterized by growing demand for prevention- and wellness-oriented interventions, Pilates may represent a point of connection between healthcare services and fitness provision, helping to reduce discontinuity between treatment and maintenance. This implies not only a transformation in professional practices, but also a reorganization of delivery models, encouraging collaborations between healthcare facilities and fitness centers and promoting shared pathways. Taking these considerations into account, integration between the clinical field and the fitness sector should not be understood as a simple operational convergence, but rather as a redefinition of the method in terms of continuity and coherence of application. Pilates thus emerges as a system capable of moving across different contexts while maintaining its identity, provided that the centrality of its principles is preserved and that its applications are guided by a progressive and person-centered logic. This transition represents the prerequisite for addressing the highlighted fragmentation and for consolidating the role of Pilates within contemporary health and wellness practices.

5. Theoretical Implications and Applied Perspectives

The interpretation of Pilates as a unified model requires a reconsideration of its theoretical status, shifting attention from contexts of application to the principles that ensure its coherence. In this direction, the present contribution proposes a reinterpretation of the Pilates method as a continuous methodological system, capable of developing along an axis that connects rehabilitation, prevention, and performance. Such a perspective does not aim to deny the differences between the clinical and fitness fields, but rather to reconnect them within a unified logic, in which application-related variations represent functional modulations of the same theoretical framework. Consequently, the value of Pilates does not lie in its sector-specific placement, but in its capacity to modulate its operational variables, such as intensity, complexity, control, and progression, while maintaining methodological continuity. This shift makes it possible to overcome a fragmented interpretation and to restore to the method a more solid theoretical structure grounded in the integration of motor control, body awareness, and functional adaptability.

This reformulation directly affects the design of interventions. If Pilates is conceived as a continuum, the construction of the pathway cannot be organized into independent phases but must instead develop according to a progressive logic in which each phase prepares the next without interruption. In this sense, the rehabilitative phase does not represent a concluding moment, but rather the beginning of a broader process aimed at consolidating and stabilizing acquired motor competencies. Methodological continuity therefore becomes the principal factor of effectiveness, as it enables an initial improvement to be transformed into stable adaptation, reducing the risk of regression and promoting the prevention of relapses. Within this framework,

the role of the individual acquires a centrality that goes beyond the simple execution of movement. Pilates requires active involvement based on perception, attention, and self-regulation, elements that contribute to transforming exercise into a process of motor learning. Consequently, the method may also be understood as an educational practice insofar as it promotes the acquisition of competencies transferable to everyday life. This dimension represents one of the most relevant aspects for long-term sustainability, as it fosters individual autonomy and consolidates the results achieved across different application contexts.

However, the operational translation of this model reveals critical issues that limit its full implementation. The variability of applications and the lack of shared standards generate methodological discontinuity, which is reflected in the quality of interventions. In particular, the separation between clinical competencies and those specific to the fitness sector hinders the construction of truly integrated pathways, interrupting the progression that should characterize the method. This gap is not merely technical, but affects the overall coherence of the process, making it difficult to maintain results over time. On the basis of these critical issues, integration acquires strategic significance. It is not simply a matter of collaboration between sectors, but rather of defining a shared methodological framework in which principles, languages, and intervention criteria are aligned. This implies a revision of educational and organizational models aimed at fostering greater continuity between contexts and a clearer definition of professional competencies. Only in the presence of such coherence is it possible to prevent the diffusion of the method from resulting in a loss of quality, while at the same time ensuring effective and sustainable application. From this perspective, the theoretical and practical implications converge toward the same direction: recognizing

Pilates as a progressive and coherent system in which differences between contexts represent functional variations within a single methodological structure. Such recognition makes it possible not only to address the highlighted fragmentation, but also to consolidate the role of the method as a tool capable of connecting rehabilitation, prevention, and the development of motor abilities within a unified and continuous pathway.

6. Limitations of the Literature and Research Perspectives

Despite the widespread diffusion of the method and the growing scientific interest surrounding it, the literature still presents several gaps that hinder its full systematization. First, there emerges a marked heterogeneity in the protocols used across studies: intervention duration, types of exercises, modes of supervision, and sample characteristics are often highly variable and difficult to compare. This lack of homogeneity complicates the interpretation of results and limits the possibility of establishing shared guidelines. Added to this is a frequent terminological overlap, whereby the term “Pilates” is used to refer to practices that may differ considerably from one another, contributing to conceptual dispersion that ultimately affects the quality of the evidence.

A further critical issue concerns the difficulty of isolating the specific mechanisms through which the method produces its effects. The multifaceted nature of Pilates, which integrates motor, respiratory, perceptual, and cognitive components, makes it challenging to attribute observed benefits to individual factors. Consequently, many studies are limited to reporting overall outcomes without examining the underlying processes in depth. While this aspect represents a methodological limitation, it also highlights the need to develop more sophisticated research models capable of capturing the

complexity of the method without reducing it to isolated variables. From an applied perspective, the lack of shared standards translates into considerable variability in practice, with direct implications for the quality of interventions. In particular, the absence of uniform criteria in practitioner training contributes to the emergence of heterogeneous approaches that may compromise methodological coherence. This limitation becomes especially relevant in the transition between clinical and fitness settings, where continuity of the pathway depends on the ability to maintain a shared language and a coherent intervention logic. Within this context, research perspectives are increasingly oriented toward greater integration between quantitative and qualitative approaches, with the aim of understanding not only the effectiveness of the method, but also the ways in which it is perceived and internalized by practitioners. Likewise, it appears essential to develop more standardized protocols which, while preserving the flexibility of the method, allow greater comparability across studies. Finally, further exploration of integration models between the clinical and fitness fields represents a particularly promising area of investigation, as it may contribute to defining more coherent and sustainable application strategies. Taking these elements into account, the limitations of the literature should not be interpreted as a weakness of the method itself, but rather as an indication of its complexity and of the need for more appropriate analytical tools. It is precisely through overcoming these critical issues that it will become possible to consolidate the role of Pilates within evidence-based practices and strengthen its scientific legitimacy.

7. Conclusions

The analysis developed makes it possible to place Pilates within a broader interpretative framework than the conventional distinction between fitness

practice and rehabilitative tool. Although this distinction may be useful from a descriptive perspective, it proves insufficient in explaining the complexity of the method, since it tends to separate fields that, in practice, share the same methodological foundation. Pilates, in fact, maintains its coherence not because it is applied in one context rather than another, but because its effectiveness is grounded in transversal principles: motor control, precision of movement, conscious breathing, stabilization of the body's center, and the progressive education of movement perception (Tarnas et al., 2024). From this perspective, the opposition between clinical practice and fitness may be interpreted as the result of a different purpose of intervention, rather than as an internal fracture within the method itself. In the clinical field, Pilates responds to the need to restore impaired function, reduce pain, and re-establish more efficient motor patterns; in the fitness sector, by contrast, it supports the maintenance of acquired abilities, the improvement of performance, and the development of a stable long-term practice (Długosz-Boś et al., 2021). The relationship between these two fields is therefore not competitive, but consequential: rehabilitation may find continuity in maintenance, while fitness may acquire greater quality when it preserves attention to technique, personalization, and body awareness.

The identified issue concerns precisely the application-related fragmentation of the method. When Pilates is reduced to a commercial product or, conversely, confined exclusively to the therapeutic dimension, it loses part of its interpretative strength. Addressing this critical issue requires recognizing Pilates as a progressive system capable of adapting to different conditions, objectives, and levels without renouncing its own identity. This means conceiving the method not as a rigid sequence of exercises, but as a pathway accompanying the individual from movement re-education to prevention, and

ultimately to the consolidation of physical and perceptual well-being. In this direction, the role of training and collaboration among professionals becomes particularly significant (Aliberti et al., 2025). The quality of application depends on the ability to understand the individual's needs, modulate exercise intensity, and maintain coherent progression. For this reason, a more structured dialogue between the healthcare field and the fitness sector represents a necessary condition for ensuring continuity, safety, and effectiveness. The construction of shared reference frameworks would not limit the flexibility of the method, but rather strengthen its credibility, making it possible to distinguish genuinely grounded practice from superficial applications or those oriented exclusively toward market demands. In conclusion, Pilates emerges as a practice capable of responding to central contemporary needs, including functional recovery, the prevention of sedentary lifestyles, postural care, long-term body management, and the pursuit of sustainable well-being. Its relevance lies not only in its growing diffusion, but also in its capacity to offer a model of movement that combines adaptability with rigor. Overcoming the dichotomy between therapy and performance therefore means recognizing Pilates not as a discipline divided between two worlds, but as a unified method whose effectiveness depends on the quality with which it is interpreted, applied, and made continuous within people's lives.

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