

The Taijiquan Time: The Potential of Chinese Integrative Practices for Functional Rehabilitation, Pain Management and Fall Prevention

Opinion

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Opinion

Interest in Taijiquan as a therapeutic and rehabilitative practice has increased significantly over the last three decades, particularly in studies involving chronic pain, functional decline and prevention of falls among older adults [1]. Research developed in China, the United States, Australia and several European countries has progressively associated Taijiquan practice with improvements in balance, proprioception, mobility, postural control and quality of life [2]. In systematic reviews and randomized clinical trials, the practice has also been linked to reductions in pain intensity in patients with osteoarthritis, fibromyalgia and chronic musculoskeletal disorders, as well as to improvements in functional autonomy and fear of falling among elderly populations. In this context, Taijiquan has increasingly been incorporated into discussions surrounding integrative medicine, non-pharmacological therapies and functional rehabilitation strategies [3,4].

Despite the growing body of evidence supporting the clinical application of Taijiquan, the narratives surrounding its therapeutic effects are not always homogeneous. Some studies emphasize biomechanical and physiological explanations centered on balance training, neuromuscular coordination and muscular endurance, while others highlight psychosocial, subjective and behavioral dimensions associated with body awareness, emotional regulation and the experience of movement [5–7]. In rehabilitation environments, Taijiquan is frequently described simultaneously as physical exercise, contemplative practice and therapeutic intervention [8]. This multiplicity of meanings produces important tensions regarding how the practice should be interpreted within biomedical frameworks, especially when com-

pared to conventional physiotherapeutic protocols based on standardized exercises and objective outcome measures.

Studies involving older adults indicate that falls rarely result exclusively from isolated biomechanical deficits [2]. Instead, they emerge from complex interactions involving fear, confidence, social participation, perception of vulnerability and progressive restrictions in mobility. In this scenario, Taijiquan has often been presented not merely as a strategy for strengthening muscles or improving gait, but as a practice capable of reorganizing the individual's relationship with movement and instability. Randomized controlled trials conducted in community-dwelling elderly populations demonstrate reductions in fall incidence and improvements in postural stability after regular practice, although the mechanisms responsible for these outcomes remain debated. While some authors attribute these results primarily to sensorimotor adaptations, others argue that cognitive attention, breathing regulation and meditative aspects play equally relevant roles in fall prevention [9,10].

Something similar occurs in studies related to chronic pain management. Although biomedical literature commonly seeks measurable explanations centered on inflammation, joint mobility or muscular conditioning, patients frequently describe the benefits of Taijiquan through subjective experiences involving relaxation, confidence, emotional stability and renewed bodily perception [11,12]. Particularly in cases of osteoarthritis and fibromyalgia, improvements reported by practitioners are not always fully explained by conventional clinical parameters alone. What appears in this gap between objective measurement and subjective experience is the possibility that pain management involves dimensions that exceed purely mechanical in-



terpretations of the body. In this sense, Taijiquan challenges reductionist approaches by combining slow movement, breathing regulation, attention and continuity of practice into a single therapeutic experience [13,14].

At the same time, the incorporation of Taijiquan into rehabilitation systems also reveals important disputes regarding legitimacy, scientific validation and therapeutic authority [15]. In many clinical environments, practices of Chinese origin are accepted only when translated into biomedical languages centered on measurable physiological outcomes and evidence-based protocols. As a consequence, dimensions historically associated with Taijiquan – such as philosophical principles, meditative aspects, notions of harmony and traditional Chinese understandings of the body – are often marginalized or reinterpreted as secondary elements. Similar to what occurs in other integrative health practices, there is frequently an attempt to separate what would be considered “objective therapeutic efficacy” from cultural or symbolic dimensions of the practice, producing tensions between traditional knowledge systems and biomedical rationalities that emphasize aspects like cardiovascular benefits [16].

Nevertheless, the expansion of research on Taijiquan in rehabilitation sciences suggests that its growing acceptance cannot be explained exclusively by physiological outcomes or epidemiological indicators. The increasing interest in non-pharmacological interventions, aging populations, chronic pain conditions and long-term functional care has created a broader context in which practices centered on body awareness, gradual movement and patient participation gain increasing relevance [8]. In this process, Taijiquan emerges not only as an exercise modality, but as part of a wider transformation in contemporary rehabilitation paradigms, particularly those emphasizing functionality, autonomy, integrative care and quality of life [1,16].

The incorporation of Taijiquan into rehabilitation practices increasingly affirms a model of care centered not exclusively on correction, intervention and symptom control, but on continuity, perception and functional adaptation [1]. Within this logic, rehabilitation no longer appears merely as the technical restoration of isolated bodily functions, but as a relational and experiential process involving movement, confidence, autonomy and the subjective perception of bodily capacity. The growing acceptance of Taijiquan in contexts of chronic pain management and fall prevention demonstrates that rehabilitation cannot always be reduced to linear biomedical models organized exclusively around diagnosis, prescription and measurable outcomes [2]. In many cases, what produces functional improvement is not simply the execution of movement itself, but the reorganization of the individual's relationship with instability, pain, fear and bodily limitation [6,17].

Perhaps this is precisely why Taijiquan frequently occupies an ambiguous place within rehabilitation sciences. While clinical protocols often seek objective evidence centered on balance indices, pain scales and muscular performance, practitioners frequently describe the experience through dimensions that escape purely quantitative evaluation. Patients refer to sensations of bodily confidence, emotional calmness, continuity of movement and reconnection with everyday activities [3]. In this space between biomedical evaluation and lived experience, important exchanges occur that are not always fully captured by standardized assessment instruments. The persistence of this gap suggests that the therapeutic effects attributed to Taijiquan may involve processes that exceed strictly physiological explanations and include forms of subjectivation related to aging, vulnerability, self-efficacy and autonomy [5,8].

The way individuals experience functional decline, chronic pain or fear of falling depends on multiple arrangements that occur throughout their trajectories of care, their social relationships, their perceptions of aging and their interactions with health systems [9]. Likewise, the effects attributed to Taijiquan, I insist, cannot be understood exclusively through isolated biomechanical parameters, because they are also influenced by adherence, continuity of practice, collective ex-

perience, cultural meanings and the forms through which individuals relate to movement and bodily vulnerability. The social and historical contexts in which rehabilitation takes place, access to integrative therapies and the legitimacy attributed to non-pharmacological interventions all produce different therapeutic experiences and distinct processes of subjectivation [14,16]. Otherwise, there is richness and unexplored combat tactics occult in this ancient martial art that have to be researched in the future [18]. For this reason, discussions surrounding Taijiquan in rehabilitation should not focus solely on efficacy, but also on the broader arrangements through which care, autonomy and bodily experience are organized within contemporary health practices. The actual time offers a unique opportunity for scientific inquiry to fully unveil the therapeutic and rehabilitative potential of Taijiquan in the fields of functional recovery and health promotion.

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