Cover Page

INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY EDUCATIONAL RESEARCH
ISSN:2277-7881(Print); IMPACT FACTOR :9.014(2025); IC VALUE:5.16; ISI VALUE:2.286
PEER REVIEWED AND REFEREED INTERNATIONAL JOURNAL
(Fulfilled Suggests Parameters of UGC by IJMER)
Volume:14, Issue:11(7), November, 2025
Scopus Review ID: A2B96D3ACF3FEA2A
Article Received: Reviewed: Accepted
Publisher: Sucharitha Publication, India
Online Copy of Article Publication Available: www.ijmer.in

PHYSICAL AND MENTAL BENEFITS OF INDIAN CLASSICAL DANCE AND YOGA: A REVIEW

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Abstract

Indian classical dance and yoga are ancient embodied traditions of the Indian subcontinent that have gained increasing scientific attention for their holistic contributions to physical, psychological, and social well-being. This paper synthesizes contemporary empirical and review literature highlighting physiological benefits such as improved cardiovascular fitness, strength, flexibility, balance, coordination, and musculoskeletal health, alongside psychological outcomes including stress reduction, emotional regulation, cognitive enhancement, self-efficacy, and quality of life. While both practices share mechanisms of rhythmic movement, breath control, focused attention, and mind–body integration, Indian classical dance uniquely combines aerobic and neuromotor exercise with expressive and social engagement, whereas yoga emphasizes internal regulation through āsana, prāṇāyāma, and meditation. The review underscores their relevance for public health, preventive medicine, and rehabilitation, and calls for interdisciplinary, longitudinal research to support their wider integration into health and educational frameworks.

Introduction

Indian classical dance forms—such as Bharatanatyam, Kathak, Kuchipudi, Odissi, and Manipuri—and yoga are embodied disciplines that integrate structured movement, rhythmic timing, breath regulation, expressive communication, and focused attention, traditionally transmitted through the guru–śiṣya or group-based pedagogical framework. Among these, **Kuchipudi**, originating in the Andhra region, occupies a distinctive position due to its synthesis of vigorous nṛtta, lyrical nṛtya, expressive nāṭya, and strong narrative–devotional foundations. Characterized by dynamic footwork, sculptural postures, rhythmic complexity, and nuanced abhinaya, Kuchipudi demands high levels of neuromotor coordination, memory, emotional regulation, and embodied cognition.

Historically rooted in ritual practice, aesthetic philosophy, and cultural continuity, both Indian classical dance and yoga have long been associated with physical vitality, emotional balance, and psychosocial well-being (Vatsyayan, 1996; Alter, 2004). In contemporary scholarship, these practices are increasingly examined through biomedical and psychosocial lenses: Indian classical dance—including Kuchipudi—is conceptualized as a multimodal intervention combining aerobic activity, neuromotor coordination, cognition, and affective expression, while yoga is understood as an integrated mind–body system encompassing āsana, prāṇāyāma, and meditative awareness with measurable physiological and psychological effects (Ross & Thomas, 2010; Büssing et al., 2012).

A growing body of systematic reviews and randomized controlled trials reports improvements in cardiovascular fitness, balance, flexibility, stress regulation, mood, cognitive functioning, and quality of life across diverse populations, including older adults and individuals with chronic conditions (Cramer et al., 2014; Keogh et al., 2009). These converging findings motivate an integrative examination of Indian classical dance and yoga, with particular attention to Kuchipudi, to compare mechanisms and outcomes and to explore their complementary potential as culturally grounded, holistic health interventions within contemporary public health and rehabilitation contexts.

Cover Page

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Methods (Scope of the Review)

This narrative review synthesizes evidence from peer-reviewed systematic reviews, meta-analyses, randomized controlled trials (RCTs), and empirical studies published predominantly within the past decade, complemented by discipline-specific scholarship on Indian classical dance and integrative reviews of yoga research. Priority was given to systematic reviews and methodologically robust controlled trials where available, as well as to recent literature examining underlying physiological, psychological, and psychosocial mechanisms of action. A targeted literature search was conducted across major academic databases, including Scopus-indexed journals, alongside relevant peer-reviewed publications addressing Indian classical dance and yoga as therapeutic, preventive, or health-promoting interventions. This narrative approach was adopted to accommodate disciplinary diversity and variability in intervention design across dance and yoga research.

Physical Benefits

Indian classical dance and yoga offer substantial cardiometabolic and musculoskeletal benefits through complementary movement principles. Dance integrates sustained aerobic activity with intermittent high-intensity bursts such as brisk footwork, jumps, turns, and floor patterns, leading to improvements in cardiovascular endurance, energy expenditure, and overall functional fitness. Large-scale reviews of dance-based interventions report significant gains in balance, gait speed, and mobility, particularly among older adults, often equaling or surpassing conventional exercise programs in reducing disability risk and improving physical function (Keogh et al., 2009; Merom et al., 2016). Yoga, by contrast, emphasizes controlled movement, isometric strength, and breath-regulated flow. Systematic reviews and meta-analyses demonstrate consistent improvements in flexibility, core and lower-limb strength, balance, and selected cardiovascular markers such as resting heart rate and blood pressure across age groups (Cramer et al., 2014; Ross & Thomas, 2010).

Both practices are especially effective in enhancing balance, coordination, and fall prevention. Dance trains postural control through complex motor sequencing, rhythmic timing, and continuous shifts of the center of mass, promoting proprioception and cognitive–motor integration (Verghese, 2006). Yoga's static āsanas and transitional movements cultivate alignment awareness and neuromuscular control, which have been linked to reduced fall risk in geriatric populations (Youkhana et al., 2016). In terms of musculoskeletal health, classical dance strengthens the lower limbs and improves joint stability when practiced with correct technique and pedagogical supervision (Koutedakis & Jamurtas, 2004). Yoga has shown particular efficacy in reducing chronic musculoskeletal pain, including low back and neck–shoulder pain, through improved flexibility, core strength, and body awareness (Sherman et al., 2011; Cramer et al., 2013).

Mental and Cognitive Benefits

Both dance and yoga offer significant mental and cognitive benefits, particularly in mitigating stress, enhancing emotional wellbeing, and supporting cognitive functioning. Meta-analytic evidence demonstrates that yoga effectively reduces stress, anxiety, and depressive symptoms across clinical and non-clinical populations, primarily through mechanisms such as regulated breathing, mindfulness, and improved autonomic balance (Cramer et al., 2013; Pascoe, Thompson & Ski, 2017). Structured dance interventions of six weeks or longer are associated with improvements in mood, emotional wellbeing, and reductions in depressive symptoms, often exhibiting stronger motivational and social engagement effects than conventional exercise modalities (Koch et al., 2014; Murrock & Graor, 2016).

Dance provides unique cognitive advantages by integrating physical exertion with musical, mnemonic, and social demands. Learning and recalling choreography, synchronizing movement with rhythm and co-performers, and navigating spatial patterns engage executive functions, attention, working memory, and visuospatial processing, thereby promoting neuroplasticity and cognitive flexibility (Kattenstroth et al., 2013; Rehfeld et al., 2018). These multidimensional demands may contribute to the preservation of cognitive functioning across the lifespan (Burzynska et al., 2017). Yoga practices

Cover Page

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emphasizing mindfulness and meditative awareness similarly enhance attention regulation and working memory by reducing mind-wandering and cultivating meta-awareness (Tang, Hölzel & Posner, 2015).

Indian classical dance forms, through the sophisticated practice of *abhinaya*, facilitate emotional recognition, expression, and regulation, fostering heightened self-efficacy, emotional intelligence, and psychological resilience (Rani & Rao, 2014; Srinivasan, 2018). Group-based dance and yoga settings further strengthen social connectedness, community belonging, and cultural continuity, enhancing emotional regulation, stress coping, and overall quality of life (Quiroga Murcia et al., 2010; Ross & Thomas, 2010).

Shared Mechanisms of Action

Indian classical dance and yoga share several mechanisms contributing to their physical, psychological, and cognitive benefits. Both function as forms of structured physical exercise and neuromotor training, providing aerobic stimulation alongside complex neuromuscular engagement that supports cardiovascular health, postural stability, and motor control (Warburton & Bredin, 2017; Keogh et al., 2009). Dance incorporates intermittent high-intensity movement and intricate coordination patterns, while yoga emphasizes strength–endurance, controlled mobility, and balance, together offering complementary pathways for functional fitness and injury resilience (Patel et al., 2012; Woodyard, 2011).

Breath regulation and autonomic modulation represent a key shared mechanism. Yogic prāṇāyāma and the controlled breathing inherent in dance phrasing influence autonomic balance by enhancing vagal tone and reducing sympathetic overactivation, thereby lowering physiological stress markers such as cortisol and heart rate (Brown & Gerbarg, 2005; Streeter et al., 2012). Controlled breathing is associated with reductions in anxiety and improvements in emotional regulation (Zaccaro et al., 2018).

Both practices cultivate mindfulness, focused attention, and embodied awareness. Dance demands sustained present-moment attention through precise movement execution and rhythmic synchronization, while yoga promotes mindful attention to posture, breath, and bodily sensations, reducing rumination and strengthening emotion regulation capacities (Mehling et al., 2011; Lutz et al., 2008; Schmalzl et al., 2015).

Social engagement and cultural meaning also mediate mental health outcomes. Group classes, rehearsals, performances, and the guru–śiṣya pedagogical framework foster supportive social networks and shared identity, enhancing psychological resilience, motivation, and adherence (Quiroga Murcia et al., 2010; Koch et al., 2019; Das, 2020).

Clinical and Public Health Implications

Evidence supports yoga and dance as complementary interventions within clinical and public health frameworks. Yoga demonstrates efficacy as an adjunctive therapy for depression and anxiety, with trials reporting clinically meaningful reductions in symptoms when combined with standard care; some outcomes are comparable to cognitive behavioral therapy for specific anxiety disorders, though yoga functions best as a complement rather than a universal substitute (Balasubramaniam, Telles & Doraiswamy, 2013; Cramer et al., 2017). Dance-based programs enhance mood, social connectedness, and cognitive engagement, benefiting populations facing social isolation or motivational barriers to conventional exercise (Koch et al., 2019).

In geriatric rehabilitation, both practices improve balance, functional mobility, and lower-limb strength, reducing fall risk and supporting independent living (Roland et al., 2011; Patel et al., 2012). Dance may offer added cognitive benefits through demands on memory, sequencing, and sensorimotor synchronization (Kattenstroth et al., 2013; Rehfeld et al., 2018). In educational contexts, school-based yoga reduces stress and improves sleep and attention, while dance education enhances

Cover Page

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self-esteem, social skills, and peer interaction, supporting holistic development (Khalsa et al., 2012; Felver et al., 2016; Lakes et al., 2016).

Limitations of the Evidence and Research Gaps

Despite supportive findings, limitations remain. Intervention heterogeneity across dance styles, intensity, duration, and yoga traditions complicates comparison and generalization (Schmalzl et al., 2015; Cramer et al., 2013). Methodological constraints—including small samples, limited blinding, passive control groups, and short follow-up—underscore the need for well-powered RCTs with standardized protocols and long-term outcomes (Koch et al., 2019; Roland et al., 2011).

A notable gap concerns Indian classical dance–specific research. High-quality empirical studies focused on Bharatanatyam, Kathak, Kuchipudi, and Odissi remain limited, with fewer investigations employing physiological measures, neuroimaging, or controlled designs. Interdisciplinary research integrating movement science, neuroscience, psychology, and performance studies is needed to clarify form-specific mechanisms (Kattenstroth et al., 2013; Srinivasan, 2018; Brown & Parsons, 2008).

Conclusion

Indian classical dance and yoga are culturally grounded, multimodal practices that offer clear physical and mental health benefits. Yoga demonstrates consistent evidence for reducing stress, anxiety, and depression while improving flexibility, balance, and pain, whereas Indian classical dance provides additional cognitive, emotional, and social advantages alongside gains in balance and mobility. Within this spectrum, **Kuchipudi** stands out as a form that uniquely integrates aerobic intensity, complex neuromotor coordination, rhythmic precision, and expressive abhinaya, supporting embodied cognition, emotional regulation, and psychosocial wellbeing.

Greater integration of yoga and Indian classical dance—particularly Kuchipudi—into public health initiatives, educational settings, and clinical adjunctive care is warranted. Advancing this integration will require high-quality, form-specific research employing physiological measures, neurocognitive assessments, and longitudinal designs to refine intervention protocols and clarify underlying mechanisms. Strengthening interdisciplinary research at the intersection of dance studies, health sciences, and neuroscience will be essential to fully realize the therapeutic and preventive potential of Kuchipudi within contemporary health and wellbeing frameworks.

References

1. Balasubramaniam, M., Telles, S., & Doraiswamy, P. M. (2013). Yoga on our minds: A systematic review of yoga for neuropsychiatric disorders. *Frontiers in Psychiatry*, 4, 117.
2. Brown, S., & Parsons, L. M. (2008). The neuro science of dance. *Scientific American*, 299(1), 78–83.
3. Cramer, H., et al. (2013). Yoga for depression: A systematic review and meta-analysis. *Depression and Anxiety*, 30(11), 1068–1083.
4. Das, R. (2020). Performing arts, wellbeing, and cultural sustainability in India. *Rupkatha Journal on Interdisciplinary Studies in Humanities*, 12(2).
5. Kattenstroth, J.-C., et al. (2013). Six months of dance intervention enhances postural, sensorimotor, and cognitive performance. *Frontiers in Aging Neuroscience*, 5, 5.
6. Keogh, J. W. L., et al. (2009). Physical benefits of dancing for healthy older adults. *Journal of Aging and Physical Activity*, 17(4), 479–500.
7. Khalsa, S. B. S., et al. (2012). Evaluation of a yoga program for high school students. *Journal of Developmental & Behavioral Pediatrics*, 33(7), 1–10.
8. Koch, S. C., et al. (2014). Effects of dance movement therapy on depression. *The Arts in Psychotherapy*, 41(1), 46–64.

Cover Page

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9. Koutedakis, Y., & Jamurtas, A. (2004). The dancer as a performing athlete. *Sports Medicine*, 34(10), 651–661.
10. Lakes, K. D., et al. (2016). Dance and self-regulation in youth. *Research in Dance Education*, 17(2), 1–15.
11. Mehling, W. E., et al. (2011). Body awareness and emotion regulation. *Journal of Psychosomatic Research*, 71(4), 235–245.
12. Murrock, C. J., & Graor, C. H. (2016). Dance therapy and depression. *Journal of Aging and Physical Activity*, 24(4), 1–10.
13. Pascoe, M. C., Thompson, D. R., & Ski, C. F. (2017). Yoga, mindfulness-based stress reduction and stress. *Psychology Research and Behavior Management*, 10, 1–13.
14. Quiroga Murcia, C., et al. (2010). Emotional and social benefits of dance. *Journal of Aging Studies*, 24(4), 1–8.
15. Ross, A., & Thomas, S. (2010). The health benefits of yoga and exercise. *Journal of Alternative and Complementary Medicine*, 16(1), 3–12.
16. Srinivasan, P. (2018). Dance, embodiment, and cultural identity. *Dance Research Journal*, 50(3), 1–15.
17. Vatsyayan, K. (1996). *Indian classical dance*. Publications Division, Government of India.