

Yoga as a Support for the Psychological Well-being of Children with Special Needs: A Conceptual Study

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Abstract: *Yoga is increasingly recognized as a holistic mind-body intervention that supports the physical, physiological, and psychological well-being of children with special needs. Children with special needs often experience stress along with behavioral challenges and emotional dysregulation, which adversely affect their psychological well-being and impact their quality of life. Although yoga is viewed as a holistic intervention to enhance psychological well-being, understanding of its benefits for children with special needs remains limited. The conceptual study examines several evidence-based studies on yoga for children with special needs using Braun and Clarke's thematic analysis. Five overarching themes emerged: Behavioral Management, Cognitive Skills, Emotional Regulation, Social Responsiveness, and Physical Health. The study integrates 45 studies from the current literature to propose yoga as a holistic intervention to support the psychological well-being of children with special needs. Findings revealed that Yoga for Behavioral Management was the most frequently reported outcome (n=25, 55%), primarily in children with special needs. However, significant gaps were observed for Yoga for Social Responsiveness (n=11, 24%) and Emotional Regulation (n=10, 22%), which emerged as minor themes and suggest a need for further empirical studies to explore their role in supporting the psychological well-being of children with special needs. The study relies on published studies; the themes are not mutually exclusive and do not establish causal relationships. The empirical findings thus suggest yoga's holistic role as a multifaceted intervention supporting the psychological well-being of children with special needs.*

Keywords: Yoga; Special needs; behavior; social skills; cognitive; emotion; psychological well-being

1. Introduction

Children with special needs have neurodevelopmental disabilities that require specialized assistance and therapies to address a range of developmental challenges, including physical, cognitive, emotional, and behavioral disorders (Khushaboo & Dua, 2022). Children with special needs is an umbrella term that encompasses a range of neurodevelopmental disabilities such as Autism Spectrum Disorder (ASD), Attention-Deficit Hyperactivity Disorder (ADHD), Down syndrome, Intellectual Disabilities (ID), and Learning Disabilities. These children often experience multiple cognitive, sensory, emotional, behavioral, and social challenges that affect their psychological well-being. Psychological well-being is a multidimensional construct that includes cognitive, emotional, and social well-being and contributes to positive mental health (Bornstein et al., 2018). For children with special needs, it refers to the capacity to experience positive emotions, effectively cope, regulate behavior, and maintain social connections for optimal daily functioning (Mbatt & Philips, 2024).

Yoga is widely regarded as a holistic mind-body intervention for children with special needs that can improve their holistic well-being. As a therapeutic intervention, yoga is now considered a systematic approach that uses postures, breathing practices, and relaxation techniques to foster physical, mental, and emotional harmony in children with special needs. Children with special needs often face challenges across multiple psychological domains that affect their overall psychological well-being (Maggu et al., 2025). There is growing awareness of the need to address the psychological challenges that affect children's daily

functioning and quality of life. Emerging research increasingly focuses on understanding the psychological well-being of children with special needs. Yoga is increasingly recognized as a holistic therapeutic approach that can significantly enhance the psychological well-being of children with special needs.

2. Conceptual Context and Research Gap

Recently, there has been a significant shift toward focusing on the psychological well-being of children with special needs. Several studies have explored yoga as an effective intervention for children with special needs across diverse areas of functioning. These studies highlight yoga's effect on improving children's psychological well-being. However, the relevant literature lacks conceptual clarity on yoga's role in enhancing the psychological well-being of children with special needs.

Several evidence-based studies highlight yoga's benefits for the psychological well-being of children with special needs, supporting emotional regulation, behavior control, and self-esteem (Laxman, 2022). However, the literature lacks conceptual clarity about yoga's role in improving the psychological well-being of children with special needs. Most studies focus more on outcomes than on a comprehensive understanding of yoga's role in supporting the psychological well-being of children with special needs. This conceptual study synthesizes evidence-based yoga studies on children with special needs and highlights yoga's significant contribution as a holistic mind-body intervention for their psychological well-being.

3. Methods

Data were obtained using keywords such as 'yoga,' 'neurodevelopmental disabilities,' 'cognitive skills,' 'behavior,' 'emotions,' 'social skills,' and 'special needs.' The search followed a stepwise process across search engines, including PubMed, Google Scholar, Web of Science, and SciVerse Scopus. The search was limited to studies on yoga and constructs that may contribute to the psychological well-being of children with special needs. Given the specificity of the search, all evidence-based studies from 2010, both qualitative and quantitative, were included. Studies based solely on physical outcomes, book chapters, reviews, and editorials were excluded.

4. Analysis

A mixed-methods content analysis approach was used, combining qualitative thematic analysis of the literature with a descriptive quantitative analysis of thematic prevalence. The collated data were analyzed using Braun & Clarke's (2006) six-phase thematic analysis framework. The systematic, structured approach included: 1) Familiarization with the data; 2) Generation of initial codes: Extraction of key points; 3) Generation of themes; 4) Theme review; 5) Conceptualization through review of codes and themes. The relative frequency of each theme was calculated as the number of studies per theme in proportion to the total number of identified studies.

5. Results

The search identified 45 eligible studies that met the inclusion criteria. These studies focused on six disabilities, including Autism Spectrum Disorder (ASD), Attention-Deficit Hyperactivity Disorder (ADHD), Down syndrome, Intellectual Disabilities (ID), Cerebral Palsy (CP), and Learning Disabilities (LD). The emerging codes were grouped into themes that constitute constructs of psychological well-being in children with special needs. These themes are not mutually exclusive, as several studies examined multiple outcomes.

Table 1: Frequency of Outcomes

Themes	Studies	Relative Frequency
Behavioral Management	25	55.55%
Cognitive Skills	17	38%
Social Responsiveness	11	24.44%
Emotional Regulation	10	22.22%
Physical Wellbeing	9	20%

The outcomes are not mutually exclusive

6. Discussion

Yoga is a holistic intervention for enhancing the psychological well-being of children with special needs. Within the scope of published papers, relative frequency analysis showed that studies on yoga for behavioral management (55.55%, $n = 25$) and cognitive skills ($n = 17$, 38%) contributed the most among children with special needs. In contrast, studies on emotional regulation ($n = 10$, 22%), social responsiveness ($n = 11$, 24%), and physical well-being ($n = 9$, 20%) were less common. Many studies on the effects

of yoga in different disabilities have used a range of outcomes. However, these themes have emerged primarily from the frequency of codes related to the outcomes measured in the studies. These themes intersect as mutually non-exclusive constructs that together have high relevance to the psychological well-being of children with special needs.

6.1 Behavioral Management

The high frequency of yoga studies on behavior suggests that yoga supports a mind-body approach to regulating and managing problem behaviors in children with special needs (Jayanthi & Valiammal, 2020; Gunaseelan et al., 2021). In children with special needs, behaviors can communicate unmet needs; problem behaviors may reflect these needs, making self-regulation difficult and manifesting as maladaptive behavioral responses. Behaviors can be compensatory and may reflect ineffective coping strategies due to impaired communication skills and unfavorable environmental factors. Children with special needs frequently exhibit problem behaviors for specific purposes. As such, behavioral management is essential for children's effective learning and optimal daily functioning. Yoga can soothe the sympathetic nervous system, restore autonomic balance, and calm physiological arousal in children with special needs. Yoga can regulate the nervous system, improve brain function, and address frontal lobe deficits, promoting calmness and eliciting cooperation and non-reactive, voluntary responses from children. The rhythmic, repetitive, structured movements in yoga can reduce stress responses and thus serve as an alternative coping strategy. Teaching children breathing exercises and structured movement in yoga can serve as positive coping strategies, empowering them to self-regulate and shift from problem behaviors to adaptive behaviors. As a multisensory intervention, yoga addresses various sensory dysfunctions in children with special needs, helping them relax and reduce hypervigilance. This relaxation response in yoga can reduce the need to engage in problem behaviors. Predictability and consistency are core requirements that provide a sense of security for children with special needs. Consistent, structured participation in yoga in a safe, non-competitive environment can holistically support effective behavioral management in children (Ju et al., 2024).

6.2 Cognitive skills

The major cognitive skills compromised in children with disabilities are attention and executive functioning, which often manifest as cognitive impairments due to dysfunction of the peripheral and central nervous systems, particularly in children with ASD and ADHD (Ramanathan et al., 2019). Most studies on yoga in children with special needs have measured attention, which plays a foundational role in cognitive development. Attention is a complex, multidimensional cognitive process crucial to daily functioning and quality of life. Children with special needs often experience working memory overload because they struggle to process and filter irrelevant information, which can lead to cognitive impairments that affect attention and learning. Yoga can ease cognitive overload through structured, predictable practices that repeatedly reinforce memory and attention. These practices, which require focused attention and repeated redirection, may help develop better

attentional control. As a mind-body practice, yoga's core benefit primarily supports this by promoting voluntary attention as a top-down (proactive) function (Tanksale et al., 2020). Yoga promotes attentional regulation through nonjudgmental monitoring of attention and breath, enhancing alertness to different body parts, subtly encouraging concentration, and providing a relaxation effect that further supports it. Regular mind-body practices like yoga can strengthen engagement in neural circuits connected to self-regulation, such as the prefrontal cortex, improving focused attention and emotional regulation (Chou & Huang, 2017). Few recent studies have examined the importance of cognitive skills in children with neurodevelopmental disorders, their crucial contribution to attention and other functional aspects, and the influence of yoga; however, this area remains in its nascent stage.

6.3 Social Responsiveness

Evidence-based research on yoga to improve social responsiveness in children with special needs is emerging, with empirical studies emphasizing the importance of social skills as foundational to children's psychological well-being. This construct is evolving in the yoga literature for children with special needs and is gaining recognition for its holistic approach to developing social skills. Social skills are the abilities to interact with others in a social context in a mutually beneficial way (Asyari & Astuti, 2022). Social skill deficits are common in children with special needs and include difficulties with social cognition, nonverbal gestures, communication, joint attention, eye contact, turn-taking, impulsivity, understanding social cues, empathy, reciprocal conversation, and peer interaction (Frye, 2018). For children with ASD, integrating mind and body, feelings, and emotions can create difficulties in effective social functioning. Children face communication challenges, including difficulty expressing themselves and limited understanding of others and their environment.

Yoga can nurture social skills in children with ASD, such as gestural communication and imitation, fostering greater receptivity to verbal commands, spatial awareness, peer relationships, and social interaction. Regular yoga provides opportunities to develop verbal and nonverbal communication through imitation of speech and motor actions. It facilitates key motoric aspects of social reciprocity by naturally fostering imitation skills that form the foundation of social communication. These may include nonverbal communication skills such as eye contact and facial expressions, developed through imitation of the yoga teacher's actions and by following verbal instructions. Group yoga contributes to social interaction in children, improves socially directed verbal communication and generalized joint attention skills, and enhances social communication in children with ASD, leading to increased eye contact, responsiveness to instructions, and tolerance for different social settings (Shanker & Pradhan, 2023).

6.4 Emotional Regulation

A few studies on yoga for children with special needs have examined emotional regulation as a key aspect of psychological well-being. Emotional regulation is a

fundamental psychological process that involves identifying and understanding emotions and managing them effectively, leading to positive behavioral and social outcomes (Gross, 2015). Emotional regulation also plays a key role in the overall development and the expression of problem behaviors. Children with ASD, ADHD, ID, and Down syndrome often display prominent challenges with emotional regulation. Yoga fosters psychological balance by cultivating self-awareness and mindfulness, helping individuals observe emotions in a nonreactive way. Physical postures, breathing exercises, and relaxation connect the body, mind, and feelings, bringing awareness to the present moment. Rhythmic, repetitive yoga practices with multisensory cues reduce impulsivity and calm physiological arousal. Regular yoga practice is associated with fewer mood disturbances. Yoga can help children learn effective coping strategies to regulate emotional arousal, expression, and responsiveness, thereby supporting emotional regulation. These strategies hone body awareness, build self-esteem and confidence, and help children feel more attuned to themselves and in control of their environment (Hardy, 2015). Studies on yoga have yet to explore its holistic impact on emotional regulation in children with special needs.

6.5 Physical Health and Well-being

Findings indicate that only a few studies address physical well-being, underscoring its interrelated importance to the overall psychological well-being of children with special needs. Yoga supports bottom-up regulation at the physiological level, and its structured movements can soothe sympathetic arousal and increase body awareness, fostering physical well-being (Stoelers et al., 2026). Physical health and well-being are essential and support psychological well-being in children with special needs. Several studies on children with ASD used physical health and well-being as primary outcome measures (Narasimharao et al., 2018). Yoga can help regulate children's stress levels by shifting them into parasympathetic mode, fostering a sense of optimal health and well-being.

Most studies have examined behavioral management as the primary outcome measure, consistent with yoga's core mind-body principle of fostering self-regulation, calm, and mental well-being (Mochan, 2017). Behaviors are a primary aspect of functioning in children, and their management is closely considered because they can severely impact quality of life. This explains the higher frequency of studies analyzing the effects of yoga interventions on various behaviors in children with special needs. Yoga is a mind-body practice grounded in self-regulation as a key mechanism for promoting optimal mental health and psychological well-being. Self-regulation involves dynamic interactions among cognitive, emotional, and behavioral aspects and is rapidly gaining prominence across various disciplines of psychology. Self-regulation is a core capacity of human functioning that controls thoughts, emotions, and behavior to achieve a goal. It is a normal developmental process that matures with age and depends on the individual's temperament, as well as social and environmental factors. As a learned behavioral skill, it is highly valued for developing adaptive functioning and is a crucial tool for children with special needs.

Self-regulation is a dynamic interplay between regulatory processes: top-down skills that regulate attention, control, and higher executive functioning, and bottom-up physiological inputs. Contemplative practices such as yoga support self-regulation by integrating bidirectional top-down neurocognitive and bottom-up neurophysiological mechanisms between the brain and body.

These processes are hallmarks of mind-body interventions such as yoga, which regulate the autonomic nervous system and neuroendocrine, behavioral, and emotional arousal, optimizing an individual's response to various challenges. Through feedforward and feedback loops that influence multiple systems, yoga promotes psychological and physical well-being. It reinforces self-regulation through top-down executive functions and bottom-up mechanisms that support autonomic regulation, influencing behavior, cognition, emotion, and physiology, thereby increasing psychological well-being and quality of life (Gard et al., 2014). Yoga systematically supports effective self-regulation through physical postures, breathing, and relaxation, cultivating mindfulness and integrative physical, mental, and emotional harmony in children with special needs.

Research shows that yoga, as a holistic intervention, can offer myriad benefits for children with special needs. Yoga works on multiple levels and can serve as an effective, integrative therapeutic intervention for children (Shanker & Pradhan, 2022). Several evidence-based studies show that yoga supports children's psychological well-being (Khunti et al., 2022). Bottom-up strategies that support physiological changes also regulate the limbic brain, which generates emotions, rather than the frontal brain, which controls cognitive regulation. Thus, yoga as a movement modality is better suited to children with special needs who face various cognitive challenges (Moreno, 2017). Breathing empowers children with nonverbal self-regulatory coping strategies. Yoga fosters body awareness in children, deepening their conscious connection to their physical selves and reinforcing kinesthesia, or the body's awareness of movement and the position of its parts. Body awareness promotes better balance, creating a feeling of control and security in the body and the environment. This can further lead to lower anxiety and depression, nurturing a calm mind, health, and psychological well-being (Sinha et al., 2021). The relationship among multidimensional constructs of psychological well-being is reciprocal, with each affecting the others in a cascading manner. The bidirectional feedback loop of yoga mechanisms interlinks psychological and physiological factors that influence one another. Thus, within this context, yoga contributes significantly to the overall psychological well-being of children with special needs.

Research on adaptive psychological functioning in neurodevelopmental disabilities is emerging and examines several positive psychological outcomes, but it has yet to identify and establish the factors that promote psychological well-being. In this context, psychological well-being for children with special needs can be understood as an increase in positive experiences and a decrease in negative experiences (Coiffait & Leedham, 2016). The themes emerging from the literature are not exhaustive and are drawn from existing research. The yoga mechanisms relevant to the constructs

examined in the study, as shown by the themes, reflect the current understanding of how yoga can function in multifaceted ways for children with special needs. As a systematic approach, the holistic mechanism of yoga was found to have cumulative, far-reaching effects on several psychological constructs in children with special needs. Thus, yoga can have promising implications as an inclusive support for the psychological well-being of children with special needs.

7. Future Directions

Yoga as a support for psychological well-being is increasingly acknowledged, yet evidence-based studies establishing its efficacy on psychological constructs that influence the adaptive functioning of children with special needs remain limited. Future research on yoga as a holistic support for children with special needs should focus on psychological well-being, which may help enhance their adaptive functioning and quality of life.

8. Conclusion

Every child with special needs has unique strengths and limitations. Several evidence-based studies highlight the benefits of yoga as an integrative modality for improving psychological well-being by promoting behavioral management, emotional regulation, cognitive skills, and social responsiveness in children with special needs. Thus, yoga can serve as a multifaceted, holistic approach to supporting the psychological well-being of children with special needs.

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