

EFFECT OF YOGA-BASED INTERVENTION ON MENTAL HEALTH AND EMOTIONAL REGULATION AMONG CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER (ADHD): A QUALITATIVE ANALYSIS.

Bandana Gogoi ¹, Smita Sharma ², Dr. Juri Mahanta ³, Dr. Moyuri Sarma ⁴

¹Research Scholar, Department of Education, Cotton University & Assistant Professor and Head, Department of Education, North Kamrup College. bandanagogoi95@gmail.com

² Research Scholar, Department of Education, Gauhati University & Assistant Professor, Department of Education, Pandit Deendayal Upadhyaya Adarsha Mahavidyalaya, Tulungia, Bongaigaon. Smita.sharma28@gmail.com

³ Associate Professor, Department of Education, Cotton University. Jurimahanta66@gmail.com

⁴ Associate Professor, Department, Department of Education, Gauhati University. Moyurisarma89@gmail.com

Corresponding Author

Smita Sharma^{2*}

Email ID: Smita.sharma28@gmail.com

Abstract

Children with special needs often face challenges related to emotional regulation, anxiety, and behavioural adjustment, which may affect their overall mental wellbeing and classroom participation. In recent years, yoga has been recognised as a holistic mind-body practice that may support psychological wellbeing among children. The present study explores the perceived impact of a structured yoga-based intervention on the mental health and emotional regulation of children with special needs. A qualitative research design was adopted to gain an in-depth understanding of participants' experiences and behavioural changes following yoga practice. Data were collected through classroom observations, teacher interviews, and reflective notes during the implementation of an eight-week yoga program. Thematic analysis was used to identify recurring patterns and themes related to emotional stability, attention, behavioural regulation, and social interaction. The findings suggest that yoga practices contributed to improved calmness, better emotional control, enhanced concentration, and more positive classroom behaviour among children with special needs. The study highlights the potential of yoga-based interventions as a supportive educational strategy for promoting mental wellbeing in inclusive and special education settings.

Keywords: Yoga-based intervention, Mental health, Emotional regulation, Children with special needs, ADHD, Inclusive education.

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Introduction

Mental health constitutes a foundational dimension of children's holistic development, significantly influencing their emotional stability, social competence, behavioural adjustment, and academic engagement. During the formative years, children develop essential self-regulatory capacities that enable them to manage emotions, sustain attention, and engage effectively in learning environments. However, children with special needs including those diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) often experience persistent challenges in emotional regulation, behavioural control, and social communication. These difficulties frequently manifest in the form of anxiety, impulsivity, limited attention span, and reduced social interaction, thereby affecting their ability to participate meaningfully in classroom processes and develop positive peer relationships.

In contemporary educational discourse, there is a growing emphasis on the integration of mental health and socio-emotional learning within school systems. Educational institutions are increasingly recognising that academic achievement cannot be separated from emotional and psychological wellbeing. As a result, there is a pressing need to adopt holistic and inclusive pedagogical approaches that address the diverse developmental needs of learners, particularly those requiring additional support. Among various complementary approaches, yoga has emerged as a significant mind-body intervention with considerable relevance in educational settings. Rooted in ancient Indian philosophical traditions and increasingly supported by modern scientific research, yoga integrates physical postures (asanas), breathing techniques (pranayama), and meditative practices to promote harmony between the body and mind. These practices are known to regulate physiological responses, reduce stress, and enhance emotional balance by activating relaxation mechanisms within the nervous system.

From a psychological perspective, yoga facilitates the development of mindfulness and self-awareness, enabling individuals to observe their thoughts and emotions in a non-reactive manner. Such skills are particularly beneficial for children with special needs, who often struggle with emotional impulsivity and behavioural dysregulation. Regular engagement in yoga practices may help these children develop improved concentration, reduced anxiety, and greater control over their emotional responses. Yoga provides a structured yet non-competitive environment that accommodates individual differences in ability and learning pace. Unlike conventional physical activities that may emphasise performance and comparison, yoga encourages self-paced participation and internal awareness. This inclusive nature of yoga makes it especially suitable for children with special needs, as it fosters a sense of safety, acceptance, and self-confidence. Additionally, the repetitive and rhythmic elements of yoga practices contribute to behavioural consistency and routine formation, which are essential for enhancing adaptive functioning in such learners.

Empirical evidence has increasingly highlighted the positive impact of yoga on children's mental health, including improvements in attention, emotional regulation, and behavioural outcomes (Khalsa & Butzer, 2016; Butzer et al., 2015). Studies focusing on children with developmental disorders have also reported enhanced social interaction and reduced anxiety following yoga-based interventions. However, a critical review of existing literature reveals that the majority of these studies adopt quantitative methodologies, primarily focusing on measurable outcomes through standardized instruments.

While quantitative findings provide valuable evidence of effectiveness, they often fail to capture the depth of lived experiences and contextual behavioural changes that occur within natural classroom

environments. Qualitative research, therefore, becomes essential to explore the subjective experiences, perceptions, and observed transformations associated with yoga practice. Such an approach allows for a more comprehensive understanding of how and why yoga interventions influence the mental health and emotional regulation of children with special needs.

Attention Deficit Hyperactivity Disorder (ADHD) is a neurodevelopmental condition characterised by persistent patterns of inattention, hyperactivity, and impulsivity that interfere with a child's functioning and development. It is one of the most commonly diagnosed behavioural disorders in childhood and has significant implications for academic performance, social interaction, and emotional wellbeing. Children with ADHD often experience difficulties in maintaining attention, regulating behaviour, and controlling impulses, which may lead to challenges in structured environments such as classrooms. These difficulties are not merely behavioural but are linked to differences in brain functioning, particularly in areas associated with executive functioning, self-regulation, and attention control.

The symptomatology of attention deficit hyperactivity disorder (ADHD) is typically conceptualised across three interrelated domains: inattention, hyperactivity, and impulsivity, each of which contributes to functional impairments in academic, social, and behavioural contexts.

Inattention is reflected in a persistent pattern of difficulties in sustaining focus, organising tasks, and processing information efficiently. Children exhibiting inattentive symptoms often struggle to maintain concentration during academic activities, leading to frequent careless errors and incomplete work. They may appear disengaged or unresponsive when addressed directly, indicating challenges in active listening and information retention. Additionally, such children commonly experience difficulties in following sequential instructions, managing time effectively, and organising tasks, which may result in academic underperformance. A heightened susceptibility to distraction by external stimuli, coupled with forgetfulness in routine activities, further exacerbates their challenges in structured learning environments.

Hyperactivity is characterised by excessive and developmentally inappropriate motor activity, reflecting an underlying difficulty in regulating physical movement and energy levels. Children displaying hyperactive tendencies often exhibit constant restlessness, including fidgeting, squirming, or an inability to remain seated in situations that require sustained attention. This heightened level of activity may manifest as excessive running, climbing, or an observable inability to engage in calm and quiet tasks. Furthermore, these children may demonstrate increased verbal activity, such as excessive talking, which can disrupt classroom dynamics and interfere with both individual and group learning processes.

Impulsivity represents deficits in inhibitory control and self-regulation, leading to premature or unplanned responses to stimuli without adequate consideration of consequences. Children with impulsive characteristics frequently interrupt conversations or activities, intrude upon others' personal space, and experience significant difficulty in waiting for their turn in structured or social situations. Their tendency to act spontaneously may result in blurting out responses before questions are fully articulated, reflecting impaired cognitive control and decision-making processes. Such behaviours can adversely affect peer relationships and classroom discipline, further impacting their social adjustment.

In the Indian context, where yoga holds both cultural significance and educational relevance, its integration into school practices offers a meaningful and contextually appropriate intervention strategy. Despite this, there remains a notable scarcity of qualitative studies examining the implementation and impact of yoga-based interventions within special and inclusive education

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settings, particularly in diverse socio-cultural contexts. Against this backdrop, the present study seeks to explore the perceived impact of a structured yoga-based intervention on the mental health and emotional regulation of children with special needs. By adopting a qualitative approach, the study aims to generate in-depth insights into behavioural changes, emotional development, and teacher perceptions, thereby contributing to the growing body of knowledge on holistic educational practices.

Objectives of the Study:

The study is guided by the following objectives:

1. To explore the impact of yoga-based intervention on the mental health of children with attention deficit hyperactivity disorder (ADHD).
2. To explore the changes in emotional regulation, behavioural patterns, and social interactions among children diagnosed with ADHD following a structured yoga-based intervention.
3. To analyse teachers' perceptions regarding the effectiveness of yoga in special education settings.

Review of Related Literature

Previous research highlights the positive influence of yoga on psychological and behavioural outcomes among children. Yoga has been associated with reduced stress, improved attention, and enhanced emotional wellbeing (Butzer et al., 2015). Studies focusing on children with ADHD indicate that yoga can significantly improve attention span and reduce hyperactivity (Jensen & Kenny, 2004). Similarly, research on children with ASD suggests that yoga practices can enhance social communication and reduce repetitive behaviours (Koenig et al., 2012). Khalsa et al. (2012) reported that school-based yoga programs contribute to improved emotional regulation and classroom behaviour. Moreover, a study by Hagen and Nayar (2014) found that yoga interventions led to reduced anxiety and increased calmness among school students.

However, most existing studies employ quantitative methods, focusing primarily on measurable outcomes. There is a relative scarcity of qualitative investigations that capture experiential insights, behavioural observations, and teacher perspectives, particularly in the context of inclusive and special education in developing regions.

This gap highlights the need for qualitative exploration to better understand how yoga interventions influence the emotional and behavioural development of children with special needs.

Theoretical Framework

The study is based on an interdisciplinary theoretical framework combining developmental psychology, behavioural theory, and mind-body approaches to explain how yoga supports mental health and emotional regulation in children with ADHD. It draws on Self-Regulation Theory, which highlights difficulties children with ADHD face in controlling attention, emotions, and behaviour, and suggests that practices like pranayama and mindfulness can improve these abilities. Mindfulness Theory emphasises present-moment awareness, helping children enhance attention, reduce impulsivity, and develop emotional clarity. Behavioural Theory supports the role of structured and

repetitive yoga sessions in reinforcing positive behaviours, discipline, and self-control. Additionally, the Mind–Body Connection explains how physical movement, breathing, and relaxation work together to reduce stress, channel excess energy, and promote overall emotional stability, making yoga an effective holistic intervention for children with ADHD.

Research Methodology

The present study adopted a qualitative exploratory research design to examine the impact of a yoga-based intervention on the mental health and emotional regulation of children with Attention Deficit Hyperactivity Disorder (ADHD). Purposive sampling was used to select children diagnosed with ADHD from inclusive and special school settings, along with their classroom teachers as key informants. Prior permission and informed consent were obtained from school authorities, parents, and teachers, while ethical considerations such as confidentiality and voluntary participation were maintained throughout the study. The research procedure began with preliminary classroom observations to understand the behavioural, emotional, and attentional characteristics of the participants before the intervention. Subsequently, a structured eight-week yoga intervention program was implemented within the school setting, consisting of simple asanas, pranayama, mindfulness activities, and relaxation techniques designed to enhance emotional stability, concentration, behavioural regulation, and self-awareness. The sessions were conducted regularly during school hours in a supportive and non-competitive environment, with gradual progression from basic stretching and body-awareness exercises to breathing practices, balancing postures, and meditation activities. Continuous observation and monitoring were carried out throughout the intervention period to document behavioural and emotional changes among the participants. Data were collected through classroom observations, semi-structured teacher interviews, and reflective field notes, ensuring triangulation and enhancing the credibility of the findings. The collected data were analysed using the thematic analysis approach proposed by Braun and Clarke (2006), leading to the emergence of major themes related to emotional regulation, attention improvement, behavioural control, social interaction, self-regulation, and overall wellbeing among children with ADHD.

The demographic details of participants are presented in Table 1.

Table 1: Demographic Characteristics of Participants

Participant Code	Age	Gender	Diagnosis	Class Level	School Type
C1	10	Male	ADHD	Class V	Inclusive School
C2	11	Female	ADHD	Class VI	Inclusive School
C3	10	Male	ADHD	Class V	Special School
C4	12	Male	ADHD	Class VII	Inclusive School
C5	10	Female	ADHD	Class V	Special School

Yoga Intervention Procedure

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A structured yoga intervention program was implemented over a period of eight weeks within the school setting to support the mental health, emotional regulation, and behavioural development of children with ADHD. The intervention was carefully designed according to the attention span, behavioural characteristics, and developmental needs of the participants, ensuring that the activities remained simple, engaging, and child-friendly. Each session was conducted regularly during school hours in a calm and supportive environment and lasted approximately 30–40 minutes. The intervention followed a gradual and systematic progression, beginning with basic stretching exercises and Tadasana during the initial weeks to develop body awareness, improve posture, and reduce physical restlessness among children. During the middle phase, balancing and flexibility-oriented asanas such as Vrikshasana and Bhujangasana were introduced to enhance concentration, coordination, balance, and attentional control. In the later stages of the intervention, breathing techniques including Anulom-Vilom and Bhramari Pranayama were practiced to promote relaxation, emotional stability, and stress reduction by encouraging controlled breathing and mindfulness. The final weeks focused on guided meditation and relaxation practices aimed at improving calmness, self-control, emotional balance, and self-regulation skills. The sessions were conducted in a non-competitive and encouraging atmosphere, allowing children to participate comfortably according to their individual abilities and attention capacities. Continuous observation during the intervention indicated gradual improvements in classroom behaviour, emotional responses, attention span, participation, and peer interaction, suggesting the effectiveness of yoga as a holistic mind–body intervention for children with ADHD. The detailed structure of the intervention is presented in Table 2.

Table 2: Structure of Yoga Intervention Program

Week	Activities	Duration	Focus Area
Week 1–2	Basic stretching, Tadasana	30 min	Body awareness
Week 3–4	Vrikshasana, Bhujangasana	35 min	Balance & focus
Week 5–6	Anulom-Vilom, Bhramari	40 min	Emotional regulation
Week 7–8	Meditation & relaxation	40 min	Calmness & self-control

Data Collection Methods

The details of the data collection methods are presented in Table 3.

Table 3: Sources of Data Collection

Method	Participants	Purpose
Classroom Observation	Children	Behaviour and engagement
Teacher Interviews	Teachers	Perceptions and changes
Field Notes	Researcher	Reflection and interpretation

Data for the present study were collected using multiple qualitative methods, including classroom observations, semi-structured teacher interviews, and reflective field notes, in order to obtain a

comprehensive understanding of the impact of the yoga intervention on children with ADHD. The use of multiple sources of data enabled methodological triangulation, thereby enhancing the credibility, dependability, and trustworthiness of the findings. Classroom observations were conducted before, during, and after the intervention to closely examine children's behavioural patterns, attention span, emotional responses, classroom participation, peer interaction, and overall engagement in learning activities. Particular attention was given to behaviours such as impulsivity, restlessness, distractibility, emotional outbursts, cooperation, and compliance with classroom instructions. Semi-structured interviews were conducted with classroom teachers, as they interacted regularly with the children and were in a suitable position to observe behavioural and emotional changes over time. The interviews provided valuable insights into teachers' perceptions regarding improvements in attention, emotional regulation, classroom behaviour, participation, and social interaction following the yoga intervention. In addition, reflective field notes were maintained by the researcher throughout the study to document observations, participant responses, contextual details, classroom atmosphere, and emerging patterns during the intervention process. These field notes supported deeper interpretation of the data and helped capture subtle behavioural and emotional changes that may not have emerged directly through interviews or observations. The integration of these qualitative methods allowed for a richer and more holistic understanding of the effectiveness of yoga-based practices in supporting the mental health and emotional wellbeing of children with ADHD.

Analysis and Interpretation

The qualitative data gathered through classroom observations, semi-structured teacher interviews, and reflective field notes were analysed using the thematic analysis approach developed by Virginia Braun and Victoria Clarke (2006). The process involved becoming familiar with the data, generating codes, identifying and reviewing themes, and interpreting the findings, while triangulating multiple data sources to strengthen credibility. Overall, the analysis revealed that the yoga intervention led to noticeable improvements across several areas of development in children with ADHD. Teachers reported reduced emotional outbursts, anxiety, and irritability, which was also supported by observations showing more stable moods and fewer impulsive reactions; this suggests that practices like pranayama and mindfulness helped children develop better emotional awareness and control. There was also a clear enhancement in attention and concentration, as children were more engaged in classroom activities, maintained focus for longer periods, and needed fewer reminders, indicating that the structured and repetitive nature of yoga may have supported cognitive control and sustained attention. In terms of behaviour, a decline in restlessness, fidgeting, and impulsive actions was observed, with children becoming more disciplined and responsive to classroom rules, likely because yoga provided a constructive outlet for excess energy while promoting body awareness and self-regulation. Socially, children showed improved interaction with peers, including better cooperation, sharing, and participation in group tasks, along with reduced conflicts, which can be linked to improved emotional regulation and calmer behaviour. Finally, the field notes reflected an overall enhancement in wellbeing, with children appearing more enthusiastic, positive, and actively involved in classroom activities, suggesting that the combined effects of physical postures, breathing exercises, and mindfulness contributed to their holistic development supporting not just behavioural outcomes but also emotional and psychological wellbeing.

The findings of the study highlight several important educational implications, particularly for inclusive and special education contexts. The observed improvements in emotional regulation, attention, behaviour, and social interaction indicate that yoga-based interventions can be effectively incorporated into regular school practices. Schools may include structured yoga sessions within daily or weekly timetables, using simple asanas, pranayama, and mindfulness techniques to enhance

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students' readiness to learn and foster a quiet, focused classroom environment. As a non-competitive and adaptable practice, yoga supports inclusive education by benefiting children with ADHD alongside their peers, promoting participation, equity, and holistic development. To ensure effective implementation, teachers should receive proper training in basic yoga and mindfulness strategies through professional development programs, enabling them to use these techniques for both instruction and classroom management. The reduction in disruptive behaviour and improved concentration further suggest that yoga can serve as a proactive tool for maintaining discipline and focus, especially during transitions or challenging tasks. Additionally, yoga contributes significantly to students' emotional wellbeing by reducing stress, anxiety, and emotional instability, making it a valuable component of school mental health initiatives. It also fosters self-awareness and self-regulation skills, which are essential for academic success and lifelong learning. Strengthening collaboration between schools and families is equally important, as parents can reinforce these practices at home with appropriate guidance from schools. At the policy level, integrating yoga and mindfulness into educational frameworks and school health programs can facilitate wider and more systematic adoption. However, it is crucial to tailor yoga practices to meet the individual needs, abilities, and comfort levels of children with ADHD to ensure meaningful engagement and effectiveness. Overall, the study establishes yoga as a practical, cost-effective, and holistic approach to enhancing both the learning environment and developmental outcomes for children with ADHD.

Major Findings of the Study-

The thematic analysis of qualitative data collected through classroom observations, teacher interviews, and field notes led to the identification of several key themes related to the impact of the yoga-based intervention on children with Attention Deficit Hyperactivity Disorder (ADHD). The major themes and their corresponding sub-themes are presented in Table 4.

Table 4: Summary of Themes and Sub-Themes

Main Theme	Sub-Themes	Description
Emotional Regulation	Reduced anxiety, calmness	Children showed fewer emotional outbursts, reduced irritability, and improved ability to manage emotions during classroom activities.
Attention Improvement	Focus, task completion	Students demonstrated improved concentration, longer attention span, and increased engagement in academic tasks
Behavioural Regulation	Reduced impulsivity	Noticeable decline in restlessness and disruptive behaviour, with better adherence to classroom rules.
Social Interaction	Cooperation, peer interaction	Improved peer relationships, increased group participation, and reduced conflicts among students.

Self-Regulation Skills	Self-awareness, behavioural adjustment	Children developed better control over impulses and responded more appropriately in different situations.
Overall Wellbeing	Calmness, positivity	Students appeared more relaxed, emotionally balanced, and actively engaged in classroom activities.
School-Based Effectiveness	Feasibility, adaptability	Yoga intervention was effectively implemented within the school routine with observable consistent benefits.
Teacher Perspectives	Observational insights, behavioural monitoring	Teachers reported clear improvements and emphasized the importance of continuous observation and support.

The present study explored the impact of a yoga-based intervention on the mental health and emotional regulation of children with ADHD using a qualitative exploratory approach. Based on thematic analysis, the following major findings were derived:

Theme 1: Emotional Regulation

The study found a significant improvement in emotional stability among children with ADHD. There was a noticeable reduction in emotional outbursts, anxiety, irritability, and impulsive reactions. Children demonstrated better control over their emotions during classroom activities.

Theme 2: Attention and Concentration

Children showed improved attention span and focus following the intervention. Teachers reported increased on-task behaviour, reduced distractibility, and greater engagement in academic tasks, indicating that yoga practices positively influenced cognitive functioning.

Theme 3: Behavioural Regulation

A decline in hyperactivity, restlessness, and disruptive behaviours was observed. Children became more compliant with classroom rules and exhibited improved behavioural control, contributing to a more conducive learning environment.

Theme 4: Social Interaction

The study revealed better peer relationships and social skills among children. Increased cooperation, sharing, and participation in group activities were noted, along with a reduction in conflicts and social withdrawal.

Theme 5: Development of Self-Regulation Skills

Yoga practices helped children develop greater self-awareness and self-control. They were better able to manage impulses, regulate their behaviour, and respond appropriately in different situations.

Theme 6: Overall Wellbeing

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Children exhibited a general sense of wellbeing, including increased calmness, positivity, and enthusiasm in classroom participation. The intervention contributed to both psychological and emotional health.

Theme 7: Effectiveness of School-Based Intervention

The findings indicate that implementing a structured yoga program within the school setting is both feasible and effective. Teachers observed consistent improvements over the eight-week period, highlighting the practicality of such interventions.

Theme 8: Teacher Perspectives

Teachers provided valuable insights into behavioural and emotional changes in children. Their observations confirmed the effectiveness of the intervention and emphasized the importance of teacher involvement in monitoring student progress.

Selected illustrative quotes supporting the identified themes are presented in Table 5.

Table 5: Illustrative Quotes from Teachers

Theme	Quote
Emotional Calmness	"Students appeared more relaxed after breathing exercises and showed fewer emotional outbursts."
Attention	"They were able to focus longer on tasks and needed fewer reminders to stay engaged."
Behaviour	"There was less disruption in the classroom, and students followed instructions more consistently."
Social Interaction	"Students started interacting more positively with peers and participated actively in group activities."
Self-Regulation	"Some children showed better control over their impulses and responded more calmly in difficult situations."
Overall wellbeing	"Children seemed happier, more positive, and more enthusiastic during classroom activities."
School- based Effectiveness	"The yoga sessions were easy to incorporate into the school routine and showed consistent improvements over time."
Teacher Perspectives	"As teachers, we could clearly observe positive behavioural and emotional changes in students after the intervention."

Observational changes corresponding to the identified themes before and after the yoga intervention are presented in Table 6.

6. Table: Observational Changes During Yoga Intervention.

Theme/Behaviour Indicator	Before Intervention	After Intervention
Emotional Calmness	Frequent emotional outbursts; irritability; difficulty staying calm.	More relaxed; reduced emotional outbursts; improved emotional stability.
Attention	Easily distracted; difficulty sustaining focus; required repeated instructions.	Improved concentration; sustained attention; able to complete tasks independently.
Behaviour	Hyperactive; impulsive; frequent classroom disruptions.	Reduced impulsivity; more controlled behaviour; better adherence to rules.
Social Interaction	Limited peer interaction; conflicts; occasional social withdrawal.	Improved cooperation; positive peer interaction; active participation in group work.
Self-Regulation	Poor impulse control; difficulty managing reactions.	Better self-control; improved ability to regulate behaviour and responses.
Overall Wellbeing	Signs of stress, frustration, and lack of interest.	Increased positivity; enthusiasm; emotionally balanced behaviour.
School-Based Effectiveness	Difficulty maintaining structured activities; inconsistent engagement.	Smooth integration of yoga sessions; consistent participation and routine adherence.
Teacher Perspectives	Teachers reported frequent behavioural challenges and emotional instability.	Teachers observed noticeable improvements in behaviour, attention, and emotional control.

Overall, the findings of the study indicate that yoga-based intervention has a positive and holistic impact on children with ADHD. Improvements were observed in emotional regulation, attention, behavioural control, social interaction, and overall wellbeing, highlighting the effectiveness of yoga as a supportive strategy in educational settings.

Discussion

The present study provides significant insights into the effectiveness of yoga-based intervention in improving the mental health and emotional regulation of children with Attention Deficit Hyperactivity Disorder (ADHD) within a school setting. The findings of the study indicate that regular engagement in yoga practices contributes positively to multiple dimensions of development, including emotional stability, attention, behavioural control, social interaction, and overall wellbeing. These outcomes highlight the relevance of yoga as a holistic and integrative approach in addressing the complex behavioural and psychological challenges faced by children with ADHD.

One of the most prominent findings of the study was the improvement in emotional regulation among children. The reduction in emotional outbursts, anxiety, and irritability suggests that yoga practices,

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particularly breathing techniques and mindfulness components, may enhance children's ability to manage their emotions effectively. This finding is consistent with the work of Hariprasad et al. (2013), who reported that yoga as an adjunct intervention significantly improved emotional and behavioural functioning in children with ADHD. Similarly, Hagen and Nayar (2014) emphasised that yoga promotes mental calmness and emotional balance by fostering mind-body awareness. The structured nature of yoga practices appears to provide a safe and predictable environment, enabling children to develop greater emotional control.

The study also revealed notable improvements in attention and concentration. Children demonstrated increased focus, reduced distractibility, and greater engagement in classroom activities following the intervention. These findings align with previous research indicating that yoga enhances cognitive functioning and executive control. Jensen and Kenny (2004) found that yoga-based practices improved attention and behaviour in children with ADHD, while Diamond and Lee (2011) highlighted that structured interventions involving self-regulation and mindfulness can support executive function development. The repetitive and rhythmic elements of yoga, combined with breath control, may contribute to improved neural regulation and sustained attention.

In terms of behavioural regulation, the study observed a decline in hyperactivity, impulsivity, and disruptive classroom behaviours. Children became more compliant with classroom norms and demonstrated better self-discipline. This finding supports earlier studies suggesting that yoga can serve as an effective behavioural management strategy. Khalsa and Butzer (2016) noted that school-based yoga programs contribute to improved classroom behaviour and emotional control. The physical component of yoga may help channel excess energy in children with ADHD, while mindfulness practices enhance awareness and control over impulsive actions.

The improvement in social interaction observed in the study further underscores the holistic benefits of yoga. Children exhibited better cooperation, increased participation in group activities, and reduced conflicts with peers. These findings suggest that enhanced emotional regulation and behavioural control may indirectly support social competence. Durlak et al. (2011) emphasised that interventions focusing on social and emotional learning significantly improve interpersonal skills and social behaviour among students. Yoga, as a non-competitive and inclusive activity, may provide opportunities for collaborative engagement, thereby strengthening peer relationships.

Another important outcome of the study was the development of self-regulation skills among children. The ability to manage impulses, control behaviour, and respond appropriately in different situations reflects improved self-awareness and internal regulation. This finding is consistent with theoretical perspectives that link mindfulness practices with self-regulation processes. Yoga integrates attention control, body awareness, and emotional regulation, which are essential components of self-regulatory development. As highlighted by Diamond and Lee (2011), interventions that strengthen executive functioning can have long-term benefits for academic and behavioural outcomes.

The findings also indicated a positive impact on the overall wellbeing of children. Increased calmness, positivity, and enthusiasm in classroom participation reflect improvements not only in behavioural functioning but also in psychological health. Telles et al. (2012) suggested that yoga contributes to stress reduction and emotional wellbeing by regulating physiological responses and promoting relaxation.

The integration of physical postures, breathing exercises, and relaxation techniques appears to create a balanced state of mind and body, supporting holistic development.

The effectiveness of the school-based yoga intervention observed in this study highlights its practical applicability in educational settings. The structured program was successfully integrated into the school routine, and teachers reported consistent improvements over time. This supports the findings of Khalsa et al. (2012), who demonstrated that yoga interventions in school settings can lead to measurable improvements in mental health and behavioural outcomes. The feasibility and adaptability of yoga make it a valuable tool for inclusive education, particularly for children with special needs.

Teacher perspectives played a crucial role in understanding the impact of the intervention. As primary observers of children's behaviour in the classroom, teachers provided valuable insights into the changes in emotional, behavioural, and social functioning. Their observations reinforced the credibility of the findings and highlighted the importance of teacher involvement in implementing and monitoring such interventions. The use of multiple data sources, including observations, interviews, and field notes, ensured triangulation and enhanced the trustworthiness of the study.

Overall, the findings of the present study contribute to the growing body of literature supporting the use of yoga as a complementary intervention for children with ADHD. By addressing emotional, cognitive, behavioural, and social dimensions simultaneously, yoga offers a comprehensive approach to child development. The study also highlights the importance of integrating holistic practices into educational frameworks to promote mental health and wellbeing. In the context of inclusive education, yoga can serve as an effective strategy to support diverse learners and create a more balanced and supportive learning environment.

Limitations of the Study

While the present study provides valuable insights into the effectiveness of a yoga-based intervention for children with ADHD, certain limitations need to be acknowledged. Firstly, the study adopted a qualitative exploratory design with a relatively small and purposively selected sample, which may limit the generalisability of the findings to a broader population. Secondly, the duration of the intervention was limited to eight weeks; a longer intervention period may have produced more sustained or deeper behavioural and emotional changes. Thirdly, the study relied primarily on classroom observations, teacher interviews, and reflective notes, which, despite triangulation, may be subject to researcher and respondent bias. The absence of quantitative measures or standardized assessment tools also restricts the ability to measure the extent of change objectively. Additionally, the study was conducted within a specific school context, and variations in socio-cultural and institutional settings may influence the applicability of the findings elsewhere. Lastly, parental perspectives were not included, which could have provided a more comprehensive understanding of behavioural changes across home and school environments.

Suggestions for Further Research

In light of these limitations, several directions for future research are recommended. Future studies may adopt a mixed-methods approach by combining qualitative insights with quantitative measures to provide a more comprehensive and robust understanding of the impact of yoga interventions. Expanding the sample size and including participants from diverse geographical, socio-cultural, and educational backgrounds would enhance the generalisability of findings. Longitudinal studies are also needed to examine the long-term effects and sustainability of yoga-based interventions on children with ADHD. Further research could explore comparative studies between yoga and other behavioural

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or therapeutic interventions to better understand relative effectiveness. Including multiple stakeholders, such as parents, school administrators, and special educators, would provide a more holistic perspective on the intervention's impact. Additionally, future studies may investigate the differential effects of specific components of yoga (e.g., asanas, pranayama, mindfulness) to identify which elements contribute most significantly to particular developmental outcomes. Research focusing on the integration of yoga into formal school curricula and its scalability across different educational systems would also be valuable. Overall, continued research in this area can strengthen the evidence base and support the systematic inclusion of yoga as a holistic intervention in inclusive and special education settings.

Conclusion

The present qualitative study explored the impact of a yoga-based intervention on the mental health and emotional regulation of children with Attention Deficit Hyperactivity Disorder (ADHD) in a school setting. The findings indicate that regular participation in yoga practices contributed to significant improvements in emotional stability, attention, behavioural regulation, and social interaction. Through thematic analysis of observations and teacher perspectives, the study revealed enhanced self-regulation, reduced anxiety and impulsivity, and increased classroom engagement among children. Additionally, improvements in peer relationships and overall wellbeing highlight the broader developmental benefits of yoga. As a holistic, low-cost, and non-invasive approach, yoga emerges as a practical strategy for supporting the psychological and educational needs of children with special needs. However, further research with larger samples and extended intervention periods is recommended to strengthen the evidence base and validate these findings across diverse educational contexts.

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