

10.0 Role Of Indian Knowledge Systems (IKS) Curriculum In Reducing Academic Stress Among Students

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Abstract

Academic stress has become a significant issue in contemporary education, affecting students' academic performance, mental health, emotional balance, and motivation. Many factors, such as heavy syllabi, frequent examinations, competitive learning environments, and high expectations from parents and institutions, often create pressure that exceeds coping abilities. The present study examines the role of the Indian Knowledge Systems (IKS) curriculum in reducing academic stress among students. The study adopts a conceptual research design based on secondary sources such as peer-reviewed journal articles, books, policy documents, and research reports related to academic stress, well-being, yoga, meditation, and Indian Knowledge Systems. A thematic review of literature was conducted to identify major causes of academic stress and the potential benefits of IKS-based practices. The analyses also connect IKS practices with psychological perspectives such as Self-Determination theory and the Transactional Model of Stress. Aligned with the National Education Policy (NEP) 2020, the study highlights that practices such as yoga, pranayama, meditation mindfulness, value-based education, and experiential learning can support student's emotional regulation, resilience and balanced development. The paper concludes that integrating IKS into the curriculum can promote holistic well-being and help students manage academic pressure more effectively.

Keywords: Academic stress, Indian Knowledge Systems, NEP 2020, yoga, value education, student well-being

Introduction

In the current academic landscape, academic stress has become one of the most pressing issues for students. The bulky syllabus, regular tests, and constant focus on grades are a source of stress for many students (Reddy et al., 2018). This increased stress not only has an adverse effect on students' academic achievement, but it also affects their mental well-being. High academic stress in students can have a negative impact on mental health, emotional stability, and motivation, as academic stress has an inverse relationship with emotional intelligence (Jassal, 2021). In recent years, education policies have paid more attention to issues related to the welfare of students. Academic stress has now become a global problem, which impacts learners across diverse cultures and educational contexts.

The National Education Policy (NEP) 2020 shifted its focus from achievement-based learning to all-around development in students. NEP 2020 encourages the integration of

Indian Knowledge Systems (IKS) into modern education. In the past, many research studies have examined academic stress and separate well-being techniques like yoga or mindfulness, but very few studies have examined IKS as an integrated curriculum framework for reducing academic stress. The inclusion of IKS into the modern curriculum provides a practical solution to improve students' mental and emotional well-being. Within this holistic shift, IKS provides culturally rooted, pedagogical, and value-based solutions that can support the students' all-round development. The purpose of this paper is to assess how an IKS-based curriculum, in line with NEP 2020, can help to reduce academic stress and promote students' holistic development.

Research Question

How can an IKS based curriculum help reduce academic stress among students?

Objective

1. To examine academic stress among students.
2. To explore the contribution of IKS Curriculum in reducing academic stress among students.

Concept of Academic Stress

Academic stress is a major concern among many students due to an unmanageable academic workload. The feeling of stress is a natural response to pressure in educational settings, manifesting when they perceive that exams, homework, and deadlines are more than what they can handle (Ahmead, 2025). Also, every student perceives academic stress differently. It may vary from person to person. According to Mishra & Choudhuri (2024), academic stress is a subjective process where students themselves analyse a particular event as a "threatening event" (like an exam or a deadline) and decide if they have the means to handle it.

When the level of stress goes beyond a student's ability to cope, the student becomes overwhelmed. Reshu et al. (2025) found that the post-pandemic return to classrooms has brought new challenges for the students, increasing their existing academic stress. The level of academic stress depends entirely on the student's ability to cope. The level of stress can be managed with proper support and guidance. The problem occurs only when the proper support or guidance is not provided to the students, which in turn impacts their mental and emotional well-being.

Sources of Academic Stress

According to Sailo & Varghese (2024), institutional, societal, and personal issues are major causes for increased academic stress among students. The academic stress among the students increases due to curriculum overload, severe workload, frequent assignments, and examination pressure, particularly owing to repeated examinations, tough questions, and strict time constraints (Bedewy & Gabriel, 2015; Mandal, 2021; Subramani & Venkatachalam, 2019). These academic demands are common in higher education. For medical students, the vast amount of content is a prime cause for their increased academic stress (Al-Dubai et al., 2021).

The social stresses, like parental expectations and living situations, may cause academic strain among the students. Family structure, number of siblings, and poor study surroundings are some of the reasons due which students have reduced focus and high stress (Akande et al., 2014; Elavarasi & Rajendran, 2021; Jassal, 2021). Fear of failure, job instability, and language difficulties are the major causes of academic anxiety among international or second-language learners (Bedewy & Gabriel, 2015; Lin et al., 2019; Reddy et al., 2018; Reshu et al., 2025). Institutional pressure as well as students' socio-ecological background also leads to increase in academic stress (Akande et al., 2014; Bedewy & Gabriel, 2015; Mandal, 2021).

Indian Knowledge System (IKS): Conceptual Framework

Meaning of Indian Knowledge Systems (IKS)

The Indian knowledge system (IKS) is a vast collection of information gathered through methods like observation, experimentation, and philosophical investigation (Aurobindo 1999; Radhakrishnan 2009). According to Dalal & Misra (2010), IKS integrates knowledge from various disciplines, such as languages, medicine, mathematics, and spiritual sciences (Dalal & Misra 2010). IKS promotes a holistic approach by embracing harmony among individuals, societies, and the cosmos (Sinha, 2014). In IKS, knowledge acts as a tool for individual growth and societal well-being (Sharma & Sharma, 2015). The principles like dharma (ethics), karma (activity), and jnana (knowledge) are the basic foundation of IKS (Upanishads, 2014). IKS offers a comprehensive framework by combining logical, intuitive, and reflective ways of knowing.

Educational Significance of IKS

IKS, by combining value-based learning with experiential learning, enhances modern education (UNESCO, 2017). IKS prefer character development and ethical learning over rote memorisation (Aurobindo 1999; Radhakrishnan, 2009). This coincides exactly with the current aims of emotional intelligence.

Key educational benefits include:

- **Active learning:** The use of techniques like debate (vada), storytelling, and Guru-Shishya Parampara promotes critical thinking in students (Sinha, 2014).
- **Cultural relevance:** When academic concepts are connected to indigenous customs, it enhances the learning context (Sharma & Sharma, 2015).
- **Global citizenship:** IKS's concept, like Vasudhaiva Kutumbakam (the world is one family), promotes diversity and social responsibility among the students.

Integration of IKS into teacher training programs and curriculum frameworks promotes all-around development among students who are ethically and socially responsible (UNESCO, 2017).

IKS Components Useful for Stress Reduction

IKS offers a scientifically applicable framework for managing stress at physical, emotional, and spiritual levels (Saraswati, 2008).

1. **Yoga Practices:** Yoga, with the help of asanas (postures) and pranayama (breathing) control the physiological functions and increases resilience to worry.
2. **Meditation and Mindfulness:** The techniques like mantra repetition and silent observation relaxes the nervous system and allow for composure in stressful situations (Kabat-Zinn and Goleman, 2003; 2004).
3. **Ethical Living:** When the difficult situations are viewed as the opportunity rather than problem, it lowers the existential stress and boosts coping capacity (Radhakrishnan), 2009).
4. **Holistic Lifestyle:** The stress-related disorders can be protected by being attentive to dinacharya (daily routines) and natural rhythms.
5. **Spiritual Meaning-Making:** When the difficult situations are viewed as the opportunity rather than problem, it lowers the existential stress and boosts coping capacity (Radhakrishnan, 2009).

In summary, Indian Knowledge System provides a framework which is comprehensive and culturally grounded for education and mental health (Dalal & Mishra, 2010; UNESCO, 2017). The IKS is essential for reducing stress and intellectual enrichment because of the mind-body connection and ethical living (Iyengar, 2005; Saraswati, 2008). The solution to the contemporary psychological and educational problems can be solved by integrating IKS into present practice (Mshra, 2011; UNESCO, 2017).

Theoretical Basis: Linking IKS and Academic Stress Reduction

The primary cause of the rise in academic stress in students is due to education system's prioritising external obligations above student well-being. According to Self-Determination Theory, when students' basic needs for autonomy, competence, and relatedness are met, stress levels in the student decrease. However, regular exams and comparisons undermine these requirements and cause anxiety. In contrast, Indian Knowledge Systems (IKS) promotes self-control, discipline, and value-based learning. All of these lead to increase in motivation. Yoga, introspection, and ethical education can help students focus on personal growth, which improves emotional balance and reduces academic stress.

According to the transactional model of stress, stress is directly dependent on the student's ability to assess and respond to academic pressures (Lazarus & Folkman, 1984). The students feel pressured when they perceived the assignments and tests as intimidating and beyond their capacity. According to this theory, stress can be reduced through problem-focused coping (planning & skill development) and emotion-focused coping (meaning-making and emotional control). Indian Knowledge Systems support this coping mechanism by encouraging values, introspection, and self-discipline. Yoga, meditation, and ethical reflection can help students enhance their emotional balance and self-control. This helps students to respond more calmly to academic challenges and reduce academic stress.

The idea of holistic education explains that learning is more than just grades; it also includes student's emotional, social, and personal development. Holistic education considers feelings, thinking, and real-life experiences of the students as important parts of learning (Johnson, 2023). According to Mahmoudi et al. (2012), education should not solely rely on rote memorisation, but rather it should balance academic improvement with emotional well-being. However, the current education system continues to prioritise exams and results, which

increases pressure and decreases motivation in students. The Indian Knowledge System (IKS) uses a similar holistic education, encouraging balanced development and promoting physical, emotional, and psychological well-being (Patil 2024). Indigenous cultures also promote reflective and resilient learning (Inuitiq & Mearns, 2024). So, IKS-based learning may help in reducing academic stress among the students.

Methodology

The present research study has used a conceptual research design to examine the potential role of Indian Knowledge Systems (IKS) in reducing academic stress among students. The research is based on secondary sources, including peer-reviewed journal articles, books, policy documents, and reports related to academic stress, yoga, meditation, well-being, and Indian Knowledge Systems. A systematic review of related literature was conducted to identify key themes related to the causes of academic stress and the educational and psychological benefits of IKS practices. The study also applied theoretical analysis and conceptual synthesis to connect IKS practices with established psychological frameworks such as Self-Determination Theory and the Transactional Model of Stress.

The Role of an IKS-Based Curriculum in Reducing Academic Stress

The National Educational Policy marks a significant shift in Indian education. It is focused on students' all-round development. NEP 2020 is trying to create a stress-free environment. This goal can be achieved by integrating IKS into mainstream education. The integration of IKS can help improve emotional control, thinking habits, and create a healthier learning environment.

Emotional Regulation and Mental Well-Being

IKS provides students with techniques and strategies which help them cope with stress and the fast pace of modern life (Seema & Dalal, 2019). It supports the students by providing them tools which help them in handling at both the physical and mental levels.

- **Physiological stress reduction:** The simple practices like pranayama and basic yoga asanas help in calming the body and reducing the stress. These practices might help students relieve their tension, which they often feel due to exams and academic workloads (Bazzano et al., 2018; NCERT, 2025).
- **Cognitive support through values:** Value education when it is linked to the ideas such as Nishkam Karma encourages students to focus on their learning and effort instead of worrying about the results. The students link their academic success with their identity, which increases the stress among them (Mukherjee & Roy, 2024; NCERT, 2025).
- **Attention and mental strength:** The regular practice of yoga leads to a better attention span, increased alertness, and emotional stability (Seema & Dalal, 2019). The previous school-based studies suggest that even a short well-being programme can reduce symptoms of anxiety and depression in adolescents (Bazzano et al., 2022).

Yoga, Meditation, and Value Education as a Combined Support System

The past studies suggest that yoga, meditation, and value education work best if they are combined instead of separate activities.

- **Yoga:** The practice of yoga regularly develops self-discipline and emotional balance, enabling them to manage their academic stress in a healthier way (Chauhan & Saxena, 2024). The students who practise yoga regularly have improved their academic performance over time, likely due to better mental stability and focus (Seema & Dalal, 2019).
- **Meditation:** The meditation helps students to respond to the stressful situation in a very controlled way. Meditation helps in emotional regulation and improves psychological well-being (Bazzano et al., 2018). It makes the classroom environment calmer, which in turn benefits both students and teachers (Martin et al., 2024).
- **Values:** The integration of IKS into mainstream education helps students develop values like empathy, responsibility, and social sensitivity. Schools, with the help of daily interaction and learning, shape these values (Abrol, 2025). The students with high social values show fewer behavioural problems and better self-control, which support healthier relationships and reduce emotional conflict (Makarova et al., 2025).

Scientific Perspective on IKS and Stress

The scientific connection between IKS-based practices, such as yoga, pranayama, and meditation, emphasizes harmony between the body, breath, and mind. Evidence from psychological studies suggests that sustained engagement with yogic practices contributes to a gradual normalization of HPA axis activity, particularly among students exposed to chronic academic stress (Sengupta, 2012). Yogic breathing and meditation practices activate the parasympathetic nervous system, reducing heart rate and blood pressure. Pranayama practices like slow breathing, alternate nostril breathing, and humming techniques restore autonomic balance by enhancing vagal tone, which plays an important role in emotional regulation and stress adaptation (Schleinker et al., 2024). Regular practices of yoga and meditation increase level of serotonin and dopamine-neurotransmitters essential for mood stabilization, motivation, and reward processing (Castellote-Caballero et al., 2024). Enhanced serotonin activity plays an important role to improved sleep, emotional balance, and reducing anxiety, while dopamine release supports motivation, confidence, and cognitive engagement. In addition to this, dynamic yogic practices stimulate the release of endorphins, which acts body's natural painkillers, producing analgesic and mood-enhancing effects. Meditation practices are linked to oxytocin release, fostering feelings of safety, social bonding, and emotional security. Together, these neurochemical changes help in the reduction of anxiety, mental fatigue, and emotional instability among students engaging in IKS-based practices. Regular meditation enhances activity in the prefrontal cortex, responsible for executive functions, emotional control, and decision-making (Krishnakumar and Telles, 2015). Increased prefrontal activation enables students to manage academic pressures more effectively and respond to stressors with great emotional regulation. Meditation reduces hyperactivity in the amygdala, the brain's threat detection centre. Reduced amygdala activity is associated with lower anxiety levels and improved stress resilience (Manjunath and

Telles,2023). These neural adaptations support traditional IKS views that meditation regulates mental clarity, emotional stability, and inner peace. The IKS framework, such as yoga, pranayama, and meditation, is an integrated system rather than isolated techniques. From a scientific perspective, this integration produces synergistic effects as yoga postures improve bodily awareness and autonomic regulation, the programme modulates respiratory-linked neural pathways, and meditation strengthens cognitive and emotional control networks. These findings are consistent with earlier neuroimaging and hormonal studies examining contemplative practices (Gothe et al.,2019). Thus, the traditional IKS principle that harmony between body, breath, and mind leads to happiness and mental equilibrium finds strong validation in contemporary scientific research.

Curriculum and policy perspective under NEP 2020

The aim of NEP 2020 is to shift the Indian education system from rote learning to a holistic and student-centred approach. NEP 2020's 5+3+3+4 framework aligns schooling with the developmental needs and reduces academic stress while providing flexibility at the secondary level (Ministry of Education [MoE], 2020; Khuntia, 2025). NEP 2020 also encourages the Indian Knowledge System (IKS), which includes yoga and value education as part of students' academic journey (MoE, 2021). The integration of IKS into mainstream education is possible through sports and arts (NCERT, 2025).

The experiential learning and holistic assessment might reduce the overreliance on examinations and grade-based evaluations (MoE, 2020). The policy is trying to reduce the academic stress among the students by shifting its focus from rote memorisation to all-around development. Practices like yoga and mindfulness can reduce the anxiety and enhance the concentration and mental well-being of the students (Bazzano et al., 2018; Seema & Dalal, 2019).

To reduce grade-based stress among the students, NEP 2020 is focusing on ideas like empathy and ethical learning as well as concepts like Nishkam Karma. NISHTHA 2.0 focuses on teachers' social-emotional development, which improves teacher readiness (MoE, 2021; Mukherjee & Roy, 2024). Overall, the policy encourages student wellness through yoga, principles, and holistic educational approaches (Khalsa & Butzer, 2016).

Educational implication

This study will have major implications on educational practice, teacher development, and institutional policy. The present study emphasises that to strengthen student support systems and long-term academic growth, evidence-based improvements in education are required (UNESCO, 2020). The educational interventions are well planned; they can enhance students' academic engagement, psychological well-being, and social adjustment. The students develop a stronger sense of belongingness and motivation, when schools recognise their diverse backgrounds and experiences (Bronfenbrenner, 1979). The students feel less stressed in a learning environment which promotes diversity and equity; this in turn improves their learning outcomes (UNESCO, 2020).

The reflective teaching and continuous professional development are essential for teachers and institutions. The teachers who understand the student's socio-educational needs are able to adopt responsive strategies that improve engagement and performance (Darling-Hammond

et al., 2017). The inclusive policies, improved curriculum design, balanced assessment methods, and collaborative school climate are the necessary requirements for sustainable reforms. The research informed planning can enhance educational equity, align academic goals with societal needs, and promote human capital development; all of these are only possible when the reforms are consistently implemented and monitored (UNESCO, 2020).

Conclusion

The result-based education system has an adverse effect on students' academic performance, mental health, emotional stability, and motivation, which increases the academic stress among the students. The academic stress among the students is influenced by curriculum overload, societal expectations, and their coping abilities. Indian Knowledge System (IKS) integrates intellectual growth, emotional regulation, ethical values, and physical well-being to provide a culturally grounded and holistic approach to managing stress. Learners can improve their resilience and coping mechanisms by practices like yoga, meditation, and value education. NEP 2020 further strengthened this approach by the learner centred and experiential learning. The empirical research is needed to validate the long-term effectiveness of IKS-based stress reduction initiatives.

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