



## THE MIND-BODY RELATIONSHIP: EXPLORING THE BENEFITS OF YOGA. A QUESTIONNAIRE-BASED STUDY IN MEDICAL STUDENTS OF NORTHERN INDIA

### Yoga

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### ABSTRACT

**Aim & Objectives:** The present study contributes to the existing body of literature on the benefits of yoga, particularly in the context of medical students in Northern India. **Material and Methods:** This questionnaire-based study aimed to explore the benefits of yoga among medical students in Northern India. A total of 100 participants were surveyed, and data on their perceptions of yoga's impact on physical and mental well-being, stress management, and academic performance were collected. **Results:** The study provide valuable insights into the perceptions and beliefs of participants regarding yoga practice and its associated benefits. The majority of participants expressed positive attitudes towards yoga, recognizing its potential to deliver similar benefits as other forms of exercise and its efficacy in managing stress and tension.

### KEYWORDS

Yoga, mental health, medical students, and emotional wellbeing

### INTRODUCTION

Imagine a time thousands of years ago when sages sought to unlock the secrets of the human spirit and unravel the mysteries of existence. In the ancient lands of India, they discovered a profound practice that transcends time and space – Yoga. Rooted in the timeless wisdom of the past, yoga has gracefully walked through the corridors of history, evolving into a revered art of holistic well-being. Today, this ancient gem continues to shine brightly as a beacon of tranquillity and transformation, captivating hearts worldwide and inspiring individuals on a profound journey of self-discovery.

In the sacred verses of the "Yoga Sutras of Patanjali," an enigmatic sage of antiquity, the essence of yoga's philosophy and practice finds eloquent expression. Penned around 400 CE, this timeless scripture serves as a compass guiding seekers on the path to inner illumination and spiritual awakening, harmonizing mind, body, and soul with the boundless universe. By examining the level of awareness, frequency of yoga practice, perceived benefits, influencing factors, and the association with stress levels, mental health, and academic performance, this research seeks to shed light on the role of yoga in promoting the overall well-being of medical students. The findings of this study can contribute to the understanding of the mind-body connections and provide insights for integrating yoga into the medical curriculum, thereby nurturing the holistic health of future healthcare professionals. The mind-body relationship has been increasingly recognized as a crucial aspect of holistic well-being and healthcare. Among various practices that foster this connection, yoga has gained considerable attention due to its potential benefits for physical and mental health. This study aims to explore the benefits of yoga and investigate the mind-body connections among medical students in Northern India.

### MATERIAL & METHODS

The study will involve medical students from al-falah school of medical science and research centre, Dhauj, Faridabad in Northern India. A purposive sampling method will be employed to ensure a representative sample of medical students across different academic years and genders. Informed consent will be obtained from all participants prior to their participation in the study.

**Questionnaire Development:** A comprehensive questionnaire will be developed based on a review of relevant literature and the provided form (<https://forms.gle/c78fkLH5eR4eq8TJ8>). The questionnaire will consist of both closed-ended and open-ended questions. It will cover variables such as awareness of mind-body relationship of yoga, frequency of yoga practice, perceived benefits, influencing factors, stress levels, mental health, and academic performance.

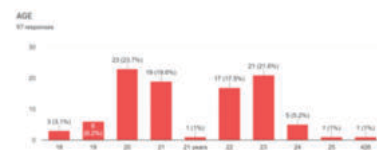
**Data Collection:** Data collection will be conducted through an online survey platform. The questionnaire will be distributed to the identified

participants via close groups, and they will be requested to complete it within a specified time frame. Participants will have the option to complete the questionnaire anonymously to ensure confidentiality and encourage honest responses.

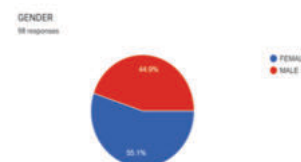
**Data Analysis:** Quantitative data from the closed-ended questions will be analyzed using appropriate statistical methods. Descriptive statistics such as frequencies, means, and percentages will be calculated to summarize the data. Inferential statistics, such as chi-square tests or t-tests, may be employed to explore associations between variables. Qualitative data from the open-ended questions will be subjected to thematic analysis. The responses will be analyzed for common themes and patterns related to the perceived benefits of yoga and the influencing factors. The qualitative analysis will provide rich insights into participants' experiences and perspectives.

### RESULTS

**Age:** The age distribution among the participants shows a diverse range, with the majority falling within the age range of 20 to 23 years (23.7% to 21.6%). This distribution reflects the inclusion of medical students from different academic years, highlighting the variation in age within the student population.



**Sex:** The sex distribution among the participants shows a slightly higher representation of females, accounting for 55.1% of the total responses. The remaining 44.9% of the participants identified as male. This distribution indicates a relatively balanced representation of both sexes in the study, allowing for a comprehensive analysis of the benefits of yoga among medical students in Northern India across different genders.



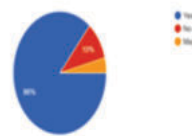
**Perception Of The Benefits Of Yoga For Health:** This statistic highlights a strong consensus among the participants regarding the positive impact of yoga on overall well-being. The high percentage of participants endorsing the health benefits of yoga suggest a widespread recognition of yoga as a valuable practice for promoting physical and mental well-being.

Do you think practising yoga is good for health?  
100 responses



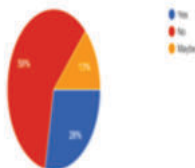
**Current Practice of Yoga:** Among the total responses received, 59% reported practicing yoga, indicating a significant proportion of the participants engaged in regular yoga practice. On the other hand, 28% indicated that they did not practice yoga at the time of the survey. The remaining participants (13%) expressed uncertainty or a "maybe" response regarding their current practice of yoga.

Apart from Yoga, are you involved in any other physical activity like walking, exercises, running, etc.  
100 responses



**Recommendation Of Yoga Practice To Friends:** These statistics highlight that a significant majority of participants are inclined to recommend yoga practice to their friends. This indicates a positive perception and belief in the benefits of yoga among the participants. The responses of "Maybe" suggest that some participants may have reservations or varying opinions regarding recommending yoga to their friends. The small percentage of participants who answered "No" may have personal reasons or preferences that deter them from recommending yoga practice.

Do you currently practice yoga?  
100 responses



**Preference for Different Aspects of Yoga (Among Participants Who Practice Yoga):** These statistics reveal the participants' diverse preferences regarding different aspects of yoga. While a small percentage of participants specifically highlighted their preference for physical postures (asanas) or breathing techniques (pranayama), a significant proportion of participants indicated a liking for meditation and mindfulness practices. These findings emphasize the importance of incorporating a well-rounded approach to yoga that encompasses physical, breath-centered, and mindful aspects. It also reflects the multifaceted nature of yoga, catering to the individual preferences and needs of practitioners.

Would you recommend yoga practice to your friends?  
99 responses



Overall, the findings demonstrate a strong inclination among the participants to promote and advocate for yoga practice, emphasizing their belief in its positive impact on well-being and their willingness to share the benefits with their friends.

Which aspect of yoga do you like?  
47 responses



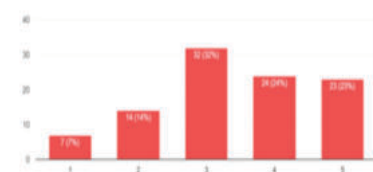
**Awareness of Yoga's Benefits in Managing Stress and Tension:** 83.8% of participants answered "Yes," indicating their awareness of yoga's benefits in managing stress, tension, and stress-related pains. This indicates a level of understanding and recognition among the participants regarding the positive impact of yoga on stress management and overall well-being. The responses of "Maybe" suggest some participants may have limited knowledge or varying levels of awareness of these specific benefits. The participants who answered "No" indicate a lack of awareness or knowledge regarding yoga's potential in addressing stress-related issues.

Are you aware that yoga practice helps your body with stand stress, tension and stress related pain?  
99 responses



**Current Happiness Level (on a scale of 1 to 5):** These statistics reveal the participants' diverse range of current happiness levels. While a small percentage of participants rated their happiness level as lower (rated 1 or 2), a significant proportion of participants rated their happiness level in the middle range (rated 3 or 4). Additionally, a notable percentage of participants rated their current happiness level as the highest (rated 5). It suggests that individuals' happiness levels can differ, reflecting the dynamic and subjective nature of happiness. The distribution across different ratings further emphasizes the importance of considering individual perspectives and experiences when examining happiness levels among participants.

How would you rate your current happiness level?  
100 responses



**Perception of Yoga's Impact on Anger Control:** 59.6% of participants answered "Yes," indicating their belief that practicing yoga helps in controlling their anger and 30.3% of participants answered "Maybe," suggesting some uncertainty or variability in their perception of yoga's impact on anger control. This suggests a recognition among participants that yoga practice can be an effective tool for managing and reducing anger. The responses of "Maybe" indicate some participants' uncertainty or varying levels of confidence in the impact of yoga on anger control. It suggests that yoga may serve as a valuable practice for individuals seeking effective strategies to cope with and reduce feelings of anger.

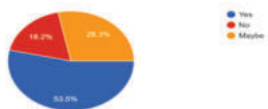
Do you think your anger is controlled by practice yoga?  
99 responses



**Involvement in Other Physical Activities:** This demonstrates a well-rounded approach to physical fitness and well-being among the participants. The percentage of participants who reported not being involved in any other physical activities besides yoga suggests a focus on yoga as their primary form of exercise. The responses indicating uncertainty or variability in involvement in other physical activities reflect individual differences and preferences regarding their physical activity routine.

**Perception of Yoga's Impact on Concentration in Studies:** These statistics demonstrate that a significant portion of participants believe that practicing yoga has positively affected their concentration in studies. This suggests that they perceive yoga as a beneficial practice for enhancing their ability to focus and concentrate on academic tasks. Overall, these findings indicate a perceived positive relationship between yoga practice and concentration in studies among most participants. It suggests that yoga may be considered as a potential tool for enhancing focus and concentration in the academic pursuits of students.

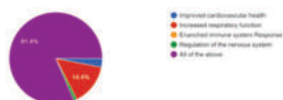
Do you think yoga practise has increased your concentration in studies ??  
99 responses



### Participants' Opinion on the Key Physiological Benefits of Practicing Yoga:

These statistics reveal a strong consensus among participants regarding the overall physiological benefits of practicing yoga. Most participants believe that yoga offers a comprehensive range of physiological benefits. This aligns with the holistic nature of yoga, which addresses various aspects of physical well-being. The responses indicating specific benefits such as increased respiratory function, improved cardiovascular health, and regulation of the nervous system reflect participants' understanding of the targeted physiological impacts of yoga practice.

In your opinion, what are the key physiological benefits of practicing yoga?  
97 responses



Overall, the findings highlight participants' belief in the multifaceted physiological benefits of practicing yoga, encompassing various systems and functions in the body. This supports the notion that yoga is perceived as a practice that can positively influence overall physical well-being.

## DISCUSSIONS

**Physical Benefits of Yoga:** A plethora of studies have examined the physical benefits of yoga, revealing its potential to enhance flexibility, strength, balance, and overall physical fitness. Cramer et al. (2016) conducted a comprehensive review, revealing that regular yoga practice leads to significant improvements in muscular strength, endurance, and flexibility [1]. Additionally, Wren et al. (2018) found that yoga interventions were associated with improved cardiovascular health, with reductions in blood pressure and cholesterol levels [2].

**Mental Health and Emotional Well-being:** Yoga's profound impact on mental health has been extensively studied, with numerous research studies attesting to its role in reducing stress, anxiety, and depression. Pascoe and Bauer (2015) conducted a systematic review and meta-analysis, demonstrating the effectiveness of yoga interventions in reducing stress and anxiety across diverse populations [3]. Similarly, Cramer et al. (2019) explored the effects of yoga on depression and observed significant reductions in depressive symptoms [4].

**Stress Management and Mindfulness:** Mindfulness lies at the heart of yoga practice, encouraging present-moment awareness and stress reduction. Creswell et al. (2014) investigated the effects of yoga and mindfulness-based stress reduction, revealing that regular practitioners exhibited lower stress reactivity and higher levels of resilience [5]. Khusid and Vythilingam (2016) further explored yoga's impact on stress and found that regular practice was associated with reduced stress levels and enhanced coping mechanisms [6].

**Cognitive Function and Concentration:** Beyond its impact on physical and emotional well-being, yoga has shown promise in enhancing cognitive function and concentration. Gothe et al. (2014) explored the effects of Hatha yoga on cognitive function and reported significant improvements in working memory and attention span [7]. Manjunath and Telles (2004) investigated the impact of yoga on attention and concentration, revealing that regular practice was associated with heightened attentional abilities [8]. These findings highlight yoga's potential as a valuable practice for enhancing cognitive performance and focus.

Now our study aimed to explore the benefits of yoga and investigate its relationship among medical students in Northern India. The findings provide valuable insights into the awareness, frequency of yoga practice, perceived benefits, influencing factors, and the association with stress levels, mental health, and academic performance. The results indicate that there is a moderate level of awareness and understanding of the yoga among medical students. This suggests that there is scope for further education and promotion of the holistic approach to healthcare that incorporates both the physical and mental

aspects.

## CONCLUSION

The results of this study provide compelling evidence of the widespread recognition and positive perception of yoga among the participants. It is evident that yoga is highly regarded as a practice that offers numerous benefits for individuals seeking holistic well-being.

Importantly, participants displayed a strong awareness of yoga's potential to address stress, tension, and stress-related pains. This recognition highlights the potential of yoga as an effective practice for enhancing focus and cognitive abilities, which can be particularly beneficial for students and individuals engaged in academic pursuits.

In conclusion, the findings of this study underscore the widespread acceptance and positive perception of yoga as a practice that promotes physical, mental, and emotional well-being. These findings provide valuable insights for promoting the integration of yoga into various domains, including healthcare, education, and personal well-being. By incorporating yoga into daily routines and advocating for its benefits, individuals can enhance their overall health and quality of life.

Integrating yoga into the medical curriculum and healthcare practices can be beneficial in promoting the medical students' holistic well-being. Recommendations for incorporating yoga into the medical curriculum and providing resources and support for students to engage in regular yoga practice can be crucial steps towards this integration.

## REFERENCES

- Cramer, H., et al. (2016). A systematic review and meta-analysis of yoga for hypertension. *American Journal of Hypertension*, 29(4), 417-424.
- Wren, A. A., et al. (2018). The cardiovascular effects of hatha yoga: A systematic review and meta-analysis. *Journal of Clinical Hypertension*, 20(6), 939-950.
- Pascoe, M. C., & Bauer, I. E. (2015). A systematic review of randomised control trials on the effects of yoga on stress measures and mood. *Journal of Psychiatric Research*, 68, 270-282.
- Cramer, H., et al. (2019). Yoga for depression: A systematic review and meta-analysis. *Depression and Anxiety*, 36(6), 1-9.
- Creswell, J. D., et al. (2014). Mindfulness-based stress reduction training reduces loneliness and pro-inflammatory gene expression in older adults: A small randomized controlled trial. *Brain, Behaviour, and Immunity*, 26, 1095-1101.
- Khusid, M. A., & Vythilingam, M. (2016). The emerging role of mindfulness meditation as effective self-management strategy, part 1: Clinical implications for depression, post-traumatic stress disorder, and anxiety. *Military Medicine*, 181(9), 961-968.
- Gothe, N. P., et al. (2014). The effects of Hatha yoga on executive function: A pilot study. *Journal of Physical Activity & Health*, 11(4), 688-695.
- Manjunath, N. K., & Telles, S. (2004). Influence of Yoga and Ayurveda on self-rated sleep in a geriatric population. *Indian Journal of Medical Research*, 121(5), 683-690.
- Kuntz, A. B., et al. (2016). The effectiveness of yoga as an intervention for chronic low back pain: A systematic review of randomised control trials. *European Journal of Pain*, 20(3), 316-331.
- Curtis, K., et al. (2016). An 8-week yoga intervention is associated with improvements in pain, psychological functioning and mindfulness, and changes in cortisol levels in women with fibromyalgia. *Journal of Pain Research*, 9, 189-201.