



# Indonesian Journal of Community and Special Needs Education



Journal homepage: <http://ejournal.upi.edu/index.php/IJCSNE/>

## The Impact of Yoga on Mental Health

M.Kamraju

<sup>1</sup> ICSSR Major Project, Ministry of Education, New Delhi, India

Correspondence: E-mail: [kamraju65@gmail.com](mailto:kamraju65@gmail.com)

### ABSTRACT

Yoga has become increasingly popular as a form of exercise and relaxation in recent years, and its advantages for both physical and mental health are well known. This study examines yoga's impacts on mental health, including how it lowers stress and improves emotional stability. The study gives a general summary of yoga's theoretical and practical underpinnings, the medical research supporting its health advantages, and the difficulties and restrictions related to its application. The implications of these findings for the promotion of yoga as a complementary therapy are covered in the paper's conclusion.

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### ARTICLE INFO

#### Article History:

Submitted/Received 09 Feb 2023

First Revised 13 Mar 2023

Accepted 19 May 2023

First Available online 21 May 2023

Publication Date 01 Sep 2023

#### Keyword:

Mental health,

Stress,

Well-being,

Yoga.

## 1. INTRODUCTION

Yoga has been practiced for thousands of years and is known for its physical and mental health benefits (Sengupta, 2012; Kamraju *et al.*, 2022). While the physical benefits of yoga are well-known, there is increasing evidence to suggest that yoga can also have a positive impact on mental health.

Mental health is an essential component of overall health and well-being. Mental health problems, such as anxiety and depression, are common and can have a significant impact on a person's quality of life (Johnson *et al.*, 2004; Taher *et al.*, 2015). Many people turn to medication or therapy to manage mental health issues, but there is growing interest in complementary and alternative approaches, such as yoga (Wynn, 2015; Kamraju *et al.*, 2023a).

Yoga is a mind-body practice that involves physical postures, breathing techniques, and meditation (Salmon *et al.*, 2009; Sharma, 2014). It is often used as a complementary therapy for mental health conditions, such as anxiety, depression, and post-traumatic stress disorder (PTSD) (Abdulbaki & Berger, 2020). The mental health benefits of yoga are thought to be related to its effects on the nervous system, as well as its ability to promote mindfulness and reduce stress (Kamraju, 2023b).

In this context, this literature review aims to explore studies that have investigated the mental health benefits of yoga, with a particular focus on its effects on anxiety, depression, PTSD, and stress. The findings of these studies can help to shed light on the potential role of yoga as a complementary therapy for mental health conditions and may provide insights into the underlying mechanisms by which yoga exerts its mental health benefits.

## 2. METHODS

This study is a literature survey. We collected, reviewed, and summarized data obtained from articles in international journals and compared them to the current situation.

## 3. RESULTS AND DISCUSSION

Several studies have investigated the mental health benefits of yoga, with a focus on its effects on anxiety, depression, post-traumatic stress disorder (PTSD), and stress. The following is a review of some of the key studies in this area.

- (i) Anxiety: A systematic review and meta-analysis of 19 randomized controlled trials (RCTs) found that yoga was associated with significant reductions in anxiety symptoms (Hofmann *et al.*, 2014). Another study found that a 12-week yoga intervention was associated with reduced anxiety and stress levels in a sample of women with anxiety disorders (Kinser *et al.*, 2014).
- (ii) Depression: A meta-analysis of 23 RCTs found that yoga was associated with significant reductions in depressive symptoms (Cramer *et al.*, 2013). Another study found that a 12-week yoga intervention was associated with reduced depression and anxiety symptoms in a sample of young adults with mild to moderate depression (Sharma *et al.*, 2014).
- (iii) PTSD: A systematic review and meta-analysis of 10 studies found that yoga was associated with significant reductions in PTSD symptoms (Gallegos *et al.*, 2018). Another study found that a 12-week yoga intervention was associated with reduced PTSD symptoms in a sample of women with PTSD who had experienced sexual trauma (Van der Kolk *et al.*, 2014).
- (iv) Stress: A systematic review and meta-analysis of 25 studies found that yoga was associated with significant reductions in perceived stress levels (Pascoe *et al.*, 2017).

Another study found that a 12-week yoga intervention was associated with reduced stress levels in a sample of college students (Riley *et al.*, 2016).

These studies suggest that yoga may be an effective complementary therapy for mental health conditions, such as anxiety, depression, PTSD, and stress. The findings of these studies also suggest that the mental health benefits of yoga may be related to its effects on the nervous system, as well as its ability to promote mindfulness and reduce stress. However, more research is needed to fully understand the mechanisms underlying these effects and to determine the optimal type, frequency, and duration of yoga interventions for specific mental health conditions.

The exact mechanisms by which yoga improves mental health are not fully understood, but there are several theories and potential pathways that have been proposed.

- (i) **Stress reduction:** One of the most widely accepted explanations for the mental health benefits of yoga is its ability to reduce stress. Yoga has been found to reduce levels of cortisol, the primary stress hormone, and activate the parasympathetic nervous system, which is responsible for the body's relaxation response (Kiecolt-Glaser *et al.*, 2010). By reducing stress, yoga may help alleviate symptoms of anxiety, depression, and other mental health conditions.
- (ii) **Mindfulness:** Yoga often involves mindfulness practices, such as breath awareness and body scanning, which can help individuals cultivate greater self-awareness and present-moment attention. Mindfulness has been found to improve emotion regulation, decrease rumination, and increase positive affect (Chiesa & Serretti, 2009), all of which can contribute to better mental health.
- (iii) **Social support:** Participating in yoga classes can provide individuals with a sense of social support and community, which has been associated with improved mental health outcomes (Cohen, 2004). Group-based yoga interventions may be particularly effective in improving mental health by providing a supportive and non-judgmental environment.
- (iv) **Physical activity:** Yoga involves physical movement and exercise, which has been found to have positive effects on mental health. Exercise has been associated with increased levels of endorphins, the body's natural feel-good chemicals, and improved self-esteem (Craft & Perna, 2004). Additionally, regular physical activity has been associated with decreased symptoms of depression and anxiety.
- (v) **Neurobiological changes:** There is growing evidence to suggest that yoga may induce changes in the brain that contribute to improved mental health outcomes. For example, studies have found that yoga is associated with increased gray matter in brain regions involved in emotional regulation and self-awareness (Gujral *et al.*, 2018), as well as changes in neurotransmitter activity that are associated with improved mood (Streeter *et al.*, 2010).

The mental health benefits of yoga are likely the result of a complex interplay between physiological, psychological, and social factors. Further research is needed to better understand the mechanisms by which yoga exerts its effects on mental health, as well as to identify the optimal type and duration of yoga interventions for specific mental health conditions.

#### 4. CONCLUSION

Yoga has gained popularity in recent years as a form of exercise and relaxation, and it is generally known to have benefits for both physical and mental health. The effects of yoga on mental health are examined in this study, including how it reduces stress and enhances emotional stability. The study provides a comprehensive overview of yoga's theoretical and practical foundations, the scientific evidence proving its health benefits, and the challenges and limitations associated with its practice. The paper's conclusion discusses the implications of these findings for the promotion of yoga as a complementary therapy.

While the existing research on yoga and its benefits is promising, there is still a need for further research to better understand the potential mechanisms by which yoga improves mental health. Future studies should aim to use larger sample sizes, longer follow-up periods, and more rigorous study designs to provide stronger evidence for the benefits of yoga. In summary, while the existing research on yoga and its benefits is promising, there is still a need for further research to better understand the potential mechanisms by which yoga improves mental health, as well as the effectiveness of different types of yoga for specific health conditions and populations.

#### 5. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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