

## ORIGINAL RESEARCH ARTICLE

# A Study of Yogic Practices on Mental Health of Prospective Teachers

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### ARTICLE INFO

#### Article history:

Received on: 02-09-2024

Accepted on: 16-10-2024

Published on: 31-10-2024

#### Key words:

Emotional Resilience,  
Mental Health,  
Teacher Education,  
Yoga,  
Yogic Practice

### ABSTRACT

**Background:** The teaching profession demands high emotional and psychological resilience, making mental health a critical concern for prospective teachers. This study examines the effects of Yogic practices on mental health among future educators.

**Aim:** The aim of the study was to evaluate the impact of a structured Yoga intervention on the mental health of prospective teachers.

**Intervention:** Utilizing a quasi-experimental design, the study involved 60 participants from the Government College of Education in Chandigarh, randomly divided into an intervention group (30) practicing structured Yoga for nine weeks and a control group (30) receiving no intervention.

**Results:** Mental health was assessed pre- and post-intervention using the Mental Health Inventory (MHI). Results indicated a significant improvement in the mental health scores of the experimental group, with mean scores rising from 143.73 to 151.30. In contrast, the control group demonstrated minimal change, with scores shifting from 144.80 to 145.45. Descriptive statistics revealed increased variability in the experimental group's scores, indicating a diverse range of responses to the intervention.

**Discussion:** These findings support the hypothesis that Yogic practice can significantly enhance mental health among prospective teachers. The diverse responses highlight the potential benefits of tailored Yoga programs for emotional well-being.

**Conclusion:** The study underscores the importance of integrating Yogic practices into teacher education programs to foster emotional resilience. Future research should explore the long-term benefits and scalability of such interventions in diverse educational settings.

## 1. INTRODUCTION

Mental health has emerged as a critical focus area in the domain of educational research, particularly in relation to the well-being of prospective teachers. Teaching is a demanding profession that requires not only intellectual capability but also emotional and psychological resilience. Prospective teachers, in their formative years of training, are exposed to a variety of stressors, including academic pressure, performance anxiety, and the anticipation of professional responsibilities. This often leads to mental health challenges such as

anxiety, stress, and burnout. In this context, Yogic practice, rooted in ancient Indian wisdom, offer holistic methods that can support mental health by cultivating mindfulness, emotional regulation, and overall well-being. The integration of Yogic practices, such as *Āsanās*, *Prāṇāyāma*, and Meditation, into teacher education programs has shown promising results in improving mental health among prospective teachers.

Prospective teachers play a significant role in shaping future generations, making their mental health a priority. Mental health is not merely the absence of mental illness but encompasses a state of well-being in which individuals can realize their own potential, cope with normal stressors, work productively, and contribute to their community.<sup>[1]</sup> However, teacher training can often be an overwhelming

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experience for many students due to a combination of factors such as academic demands, peer competition, and uncertainty about their future careers. Studies have indicated that mental health issues, including stress, anxiety, and depression, are prevalent among pre-service teachers, potentially affecting their academic performance and overall professional development.<sup>[2]</sup>

Yogic practices offer a wide range of benefits that align with mental health needs, including stress reduction, enhanced emotional regulation, and improved focus. Yoga, which combines physical postures (*Āsanas*), breath control techniques (*Prāṇāyāma*), and meditation (*Dhyāna*), is known to have a profound effect on the autonomic nervous system, promoting relaxation and reducing the levels of cortisol, a stress hormone.<sup>[3]</sup> Yogic practices foster a sense of balance between the body, mind, and emotions, making them an ideal intervention for prospective teachers dealing with the pressures of their training.

Several studies have demonstrated the positive impact of Yogic practices on mental health. A study conducted by Khalsa<sup>[4]</sup> indicated that regular engagement in Yoga led to significant improvements in stress management and emotional well-being among pre-service teachers. Similarly, a study by Telles *et al.*<sup>[5]</sup> revealed that meditation practices improved cognitive functions such as attention, memory, and emotional regulation. These improvements contribute to better stress management, which is essential for teachers in training. Moreover, the practice of *Prāṇāyāma* has been shown to have a calming effect on the mind, as it increases the flow of oxygen to the brain and induces a state of relaxation.<sup>[6]</sup>

Incorporating Yogic practices into teacher training programs could serve as an essential preventive measure against mental health issues. These practices not only help prospective teachers manage stress but also empower them with the tools to maintain mental clarity and emotional balance throughout their professional lives. Furthermore, the inclusion of Yoga in teacher education could foster mindfulness, emotional intelligence, and resilience, which are crucial for effective teaching.

The combination of physical activity through *Āsanas*, the mental discipline developed through meditation, and the stress-relieving benefits of *Prāṇāyāma* create a comprehensive approach to mental health management. The practice of Yoga offers prospective teachers a way to cultivate a calm, focused, and resilient mindset, making them better equipped to handle the challenges of the classroom.

### 1.1. Aim

The aim of the study was to evaluate the impact of Yogic practices on the mental health of prospective teachers.

### 1.2. Objectives of the Study

The objective of the study was to study the effect of Yogic practices on the mental health of prospective teachers.

### 1.3. Delimitation

The study was delimited to a sample drawn from the Government College of Education, Sector-20D, Chandigarh, focusing on individuals within the age group of 21–40 years. The scope was further narrowed to investigate specific variables: Mental Health. By concentrating on this defined population and these variables, the study aimed to explore the

relationship and impact within a controlled educational environment, allowing for focused analysis while ensuring relevance to the target group. These delimitations helped maintain clarity and specificity in addressing the core objectives of the research.

## 2. METHODS

### 2.1. Design of the Study

This study utilized a quasi-experimental, parallel-arm design to evaluate the impact of Yogic practices on the mental health of prospective teachers. The research was structured in three distinct phases: Pre-testing, intervention, and post-testing.

1. Pre-Testing Phase: A comprehensive mental health evaluation was conducted using validated psychometric tools to assess baseline mental health status. A total of 60 prospective teachers were recruited and randomly assigned to two groups:
  - Intervention Group: 30 participants who would undergo the structured Yoga regimen.
  - Control Group: 30 participants who did not participate in any specific activities during the intervention period.
2. Intervention Phase: The intervention lasted for 9 weeks, during which the intervention group engaged in a structured Yoga regimen consisting of *asanas*, *pranayama*, and meditation practices. The control group maintained their usual activities without any Yoga-related interventions.
3. Post-Testing Phase: Following the completion of the 9-week intervention, a second round of mental health evaluations was administered to both groups using the same psychometric tools as in the pre-testing phase. This phase aimed to measure and compare the effects of the Yoga practices on mental health outcomes between the intervention and control groups.

### 2.2. Selection of the Sample

The study utilized random stratified sampling to select a sample of 60 prospective teachers from the Government College of Education, Sector 20, Chandigarh. This method was chosen to minimize sampling bias and ensure that all participants had an equal opportunity to be included. The sample was divided into two equal groups: An intervention group of 30 teachers who practiced Yoga and a control group of 30 teachers who received no intervention, facilitating a comparative analysis of the effects of Yogic practices on mental health.

### 2.3. Variables of the Study

The study examined two main variables:

- Independent Variable: Yogic Practices, which included *Shatkriyas*, *sukshma vyāyāma*, *āsanas*, *prāṇāyāma*, and *dhyāna*
- Dependent Variable: Mental health, which was assessed through changes in the participants' mental well-being after the intervention.

### 2.4. Assessment Criteria

The Mental Health Inventory (MHI) developed by Jagdish and Srivastava in 1992<sup>[7]</sup> was used as the primary tool for assessing mental health. The MHI consists of 54 items that assess various dimensions of mental health. Respondents chose from four options: "Always," "Most of the time," "Sometimes," and "Never." The MHI had been previously validated on a sample of 200 individuals from diverse backgrounds, ensuring its reliability and validity. Pre-tests and post-tests were administered to both groups to measure changes in mental health over the 8-week period.

## 2.5. Yoga Intervention Module

The intervention group participated in a daily 50-min Yoga session, 5 days per week, over the course of 9 weeks (45 days in total). The Yoga practices included:

1. Shat Kriyas (5 min) – *Jal Neti* and *Kapalbhati*
2. *Yogic Sukshma Vyāyāma* (10 min) – A series of neck, chest, abdominal, waist, and foot-strengthening exercises
3. *Āsanas* (15 min) – A combination of standing (*Tadāsana*, *Padhastāsana*), sitting (*Vajrāsana*, *Sashankāsana*), and lying (*Bhujangāsana*, *Dhanurāsana*, *Setubandhāsana*) postures
4. *Prāṇāyāma* (15 min) – *Suryabhedana*, *Bhramari*, and *Nadi Shodhana prāṇāyāmas*
5. *Dhyāna* (5 min) – Om chanting, meditation, and *Shavāsana* with awareness.

This systematic approach was designed to explore the effects of regular Yogic practices on the mental health of prospective teachers, offering a structured framework for mindfulness and physical well-being.

## 3. ANALYSIS AND INTERPRETATION OF THE DATA

The method of randomization employed in this study involved assigning the 60 prospective teachers into two groups: Experimental ( $n = 30$ ) and Control ( $n = 30$ ). Simple randomization was used to ensure equal and unbiased allocation. A computer-generated random number sequence was employed to randomly assign participants to either group. Each participant was assigned a number, and these numbers were randomly allocated to the groups. This method minimized selection bias and ensured that each individual had an equal chance of being placed in either the control or experimental group. This procedure ensured homogeneity between the groups for baseline characteristics.

Table 1 and Figure 1 reveal that the dataset provided pertains to the mental health scores of a control group of 30 prospective teachers, measured both before (pre-test) and after (post-test) an intervention or a specified period. The descriptive statistics reveal slight changes between the pre-test and post-test scores.

Initially, the mean mental health score was 144.80, which marginally increased to 145.45 in the post-test. The median scores also saw a slight decrease from 144.50 to 144. This indicates a very small shift in central tendency, suggesting that the overall mental health status of the group remained relatively stable over the period. The standard deviation, which measures the dispersion of scores around the mean, increased from 8.095 in the pre-test to 9.105 in the post-test. This suggests a slight increase in variability among the participants' mental health scores over time. The range of scores remained the same, with a minimum score of 131 and maximum scores of 153 and 154 for the pre-test and post-test, respectively. This constancy in the range indicates that the extremities of the scores did not change significantly.

Overall, these statistics suggest that there was minimal change in the mental health status of the control group over the period assessed. The slight increase in mean and variability indicates that while individual experiences may have varied slightly more in the post-test, the overall mental health of the group remained largely consistent.

Table 2 and Figure 2 the provided data summarizes the mental health scores of a group of 30 prospective teachers, assessed both before and after an intervention.

Initially, the analysis of the pre-test database depicts that the mean score of the group was 143.73 with a standard deviation of 8.078,

indicating some variation in the mental health scores among the individuals. The median score was 144.000, suggesting that half of the participants scored below this value and half above, closely aligning with the mean. The minimum score recorded was 130.500, and the maximum was 153.500.

Following the intervention, the analysis of the post-test database depicts the mean score increased to 151.30, showing an improvement in the group's mental health. The standard deviation also increased to 9.989, indicating a wider spread of scores post-intervention. The median score rose to 152.50, slightly higher than the mean, suggesting a positive shift in most participants' scores. The minimum post-test score was 140.500, and the maximum was 164.500, both higher than the pre-test extremes, reflecting overall improvement in the group.

The data indicates that the intervention positively impacted the mental health of the prospective teachers. The increase in mean and median scores suggests that most participants experienced improved mental health outcomes. The slight increase in standard deviation post-intervention shows more variability in the scores, suggesting that while most individuals improved, the extent of improvement varied. Overall, these results suggest that the intervention was effective in enhancing the mental health of the participants.

Table 3 and Figure 3 show that the provided data compares the pre-test and post-test scores of prospective teachers in two groups: A control group and an experimental (interventional) group, each consisting of 30 participants.

**Pre-Test Results:** For the pre-test, the control group had a mean score of 144.80 with a standard deviation (S.D.) of 8.095. The experimental group had a similar mean score of 143.73 with an S.D. of 8.078. The standard error of the difference (SED) between the two means was 2.088, and the calculated t-value was 0.5125. Given that the level of significance indicates the result was not significant, we can infer that there was no substantial difference between the control and experimental groups' performance on the pre-test. This suggests that both groups started at a comparable level before any intervention was applied.

**Post-Test Results:** After the intervention, the control group's mean score slightly increased to 145.45 with an S.D. of 9.105. The experimental group showed a more pronounced improvement with a mean score of 151.30 and an S.D. of 9.989. The SED in this case was 2.468, and the t-value was calculated to be 2.3707. This t-value is significant, indicating a statistically meaningful difference between the post-test scores of the control and experimental groups.

The data indicates that the intervention had a positive effect on the experimental group's performance. While both groups were at similar levels initially (as shown by the non-significant difference in pre-test scores), the significant increase in the post-test scores of the experimental group compared to the control group suggests that the intervention was effective in improving the performance of the prospective teachers in the experimental group. This improvement was statistically significant, reflecting the impact of the intervention on enhancing the skills or knowledge measured by the test.

## 4. DISCUSSION

The current study explored the effects of Yogic interventions on the mental health of prospective teachers. The results indicate a noteworthy impact of the intervention on the experimental group, which received

Yogic practices for nine weeks. In contrast, the control group, which did not receive any intervention, exhibited minimal changes in mental health scores. The slight increase in the control group's mean score from pre-test to post-test suggests stability rather than improvement, corroborating previous findings that indicated limited effects of non-intervention periods on mental health.<sup>[8]</sup>

In the experimental group, the mean mental health score rose significantly following the intervention, reflecting a substantial enhancement in participants' mental well-being. The increase in the mean score and median value indicates that a majority of participants experienced improvements in their mental health, aligning with the research by Sharma and Gupta,<sup>[9]</sup> who found that Yoga and mindfulness practices effectively reduce stress and improve mental health outcomes. The marked improvement in the experimental group, as evidenced by the standard deviation increase, suggests that while most participants benefited, there was variability in individual responses to the Yogic practices. This aligns with findings by Khalsa *et al.*,<sup>[10]</sup> which noted that the effects of Yoga on mental health can vary widely among individuals due to differing personal, psychological, and physical factors.

The pre-test scores were slightly negatively skewed, indicating that some participants experienced lower mental health levels, while post-test scores showed a nearly symmetric distribution. This shift toward symmetry suggests that the intervention may have addressed the needs of those with more severe mental health issues, potentially leveling the playing field among participants. This is in line with the findings of Khalsa *et al.*,<sup>[11]</sup> who noted that Yoga can effectively help individuals with varying mental health statuses. The significant difference in post-test scores between the control and experimental groups indicates that Yogic practices are not merely beneficial but also have measurable effects on mental health. This finding supports the hypothesis that Yogic interventions can significantly enhance mental health levels among prospective teachers, contributing to their overall well-being and potentially improving their teaching efficacy.<sup>[12]</sup>

Overall, the results underscore the importance of integrating Yogic practices into teacher training programs, as they can foster improved mental health and resilience among educators. Future studies should explore long-term effects and the potential for scaling these interventions across different educational contexts to maximize their benefits.

## 5. CONCLUSION

The analysis reveals that the Yogic intervention positively influenced the mental health of prospective teachers. Comparing the mental health scores of the control and experimental groups demonstrated that both groups began at similar levels before the intervention, indicating no significant difference. However, following the 9-week Yogic practices, the experimental group exhibited a notable improvement in their mental health scores, contrasting with the control group, which showed only minimal change.

The findings suggest that while the control group's mental health status remained relatively stable, the experimental group experienced substantial benefits, as indicated by the significant increase in their post-intervention scores. This improvement highlights the effectiveness of Yogic practices in enhancing mental health among prospective teachers. In addition, the increased variability in the experimental group's scores post-intervention suggests that the impact of the Yogic practices varied among individuals, indicating a range of personal experiences and responses. Overall, the study underscores the

potential of incorporating Yogic interventions in educational settings to promote better mental health outcomes among teachers, contributing positively to their well-being and professional efficacy.

## 6. ACKNOWLEDGMENT

Nil.

## 7. AUTHORS' CONTRIBUTIONS

All the authors contributed equally to the design and execution of the article.

## 8. FUNDING

Nil.

## 9. ETHICAL APPROVALS

This study was approved by the Chandigarh Yog Institutional Ethical Committee (CYIEC).

## 10. CONFLICTS OF INTEREST

Nil.

## 11. DATA AVAILABILITY

This is an original manuscript and all data are available for only review purposes from principal investigators.

## 12. PUBLISHERS NOTE

This journal remains neutral with regard to jurisdictional claims in published institutional affiliation.

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**How to cite this article:**

Samita, Sharma S. A Study of Yogic Practices on Mental Health of Prospective Teachers. IRJAY. [online] 2024;7(10):6-12.

**Available from:** <https://irjay.com>

**DOI link-** <https://doi.org/10.48165/IRJAY.2024.71002>

**Table 1:** Descriptive statistics of mental health for pre- and post-phase of control group of prospective teacher

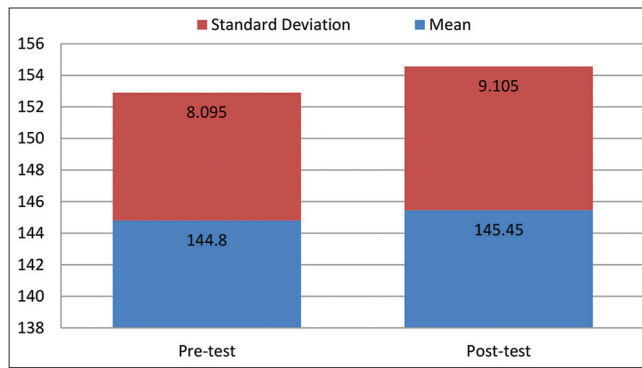
Mental Health (Control Group)		
Variables	Pre-test	Post-test
<i>n</i>	30	30
Mean	144.80	145.45
Median	144.50	144
Standard Deviation	8.095	9.105
Minimum	131.000	131.000
Maximum	153.000	154.000

**Table 2:** Descriptive statistics of mental health for pre- and post-phase of interventional group of prospective teacher

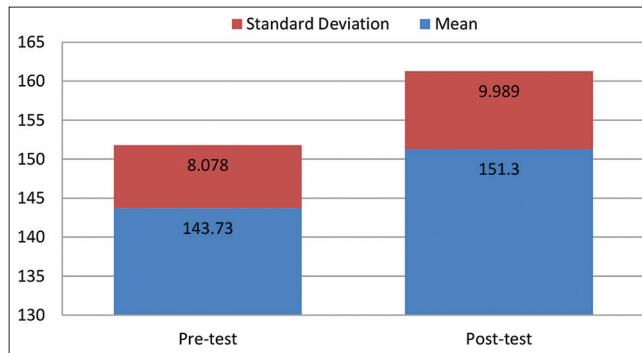
Mental Health (Interventional Group)		
Variables	Pre-test	Post-test
<i>n</i>	30	30
Mean	143.73	151.30
Median	144.000	152.50
Standard deviation	8.078	9.989
Minimum	130.500	140.500
Maximum	153.500	164.500

**Table 3:** Descriptive statistics of mental health at pre-test and post-test scores of control and experimental groups of prospective teacher

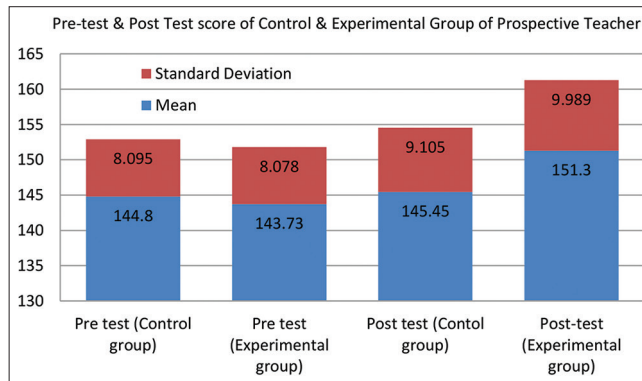
Groups	<i>n</i>	Mean	S.D	SED	t-value	Level of significance
Pre-test						
Control group	30	144.80	8.095	2.088	0.5125	Not Significant
Experimental group	30	143.73	8.078			
Post-test						
Control group	30	145.45	9.105	2.468	2.3707	Significant
Experimental group	30	151.30	9.989			



**Figure 1:** Mean value and SD of mental health for pre- and post-phase of control group of prospective teacher



**Figure 2:** Mean value and SD of mental health for pre- and post-phase of interventional group of prospective teacher



**Figure 3:** Mean scores with standard deviation of pre-test and post-test scores of mental health of prospective teachers