

# Effectiveness of practicing Yoga in minimizing Stress among College students in Thrissur district

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D. Bhanuprasad<sup>1</sup> and N. V. Madhusoodanan Kartha<sup>2</sup>

## Abstract

*In our ever-stressful world, the global recognition of Yoga's significance is undeniable. Amid skepticism, our study delves into the stress-alleviating potential of Yoga for college students. Utilizing a Stress Index model, our research demonstrates compelling evidence: practicing Yoga significantly reduces stress levels. Remarkably, this positive outcome is consistent across diverse socio-economic and demographic backgrounds, debunking skepticism. Our findings affirm Yoga as a universal stress-reduction tool, underlining its importance in promoting mental well-being among college students, regardless of their social or economic standing. This study not only validates Yoga's efficacy but also highlights its inclusivity and transformative impact on stress management.*

## Keywords

*Yoga and Stress*

## 1. Introduction

In ancient India, Yoga was a collection of physical, mental, and spiritual disciplines. The Sanskrit word 'YUJ', which means union or to unite, is where the word Yoga comes from. Historically, the Indus-Sarasvati culture in Northern India developed the earliest forms of Yoga over 5,000 years ago. In the Rig Veda, one of the oldest sacred books, the word yoga appears for the first time. As a body of writings, the Vedas contained hymns, mantras, and ceremonies used by Brahman Vedic priests. Upanishads, a massive work encompassing the practices and ideas of the Brahmins and Rishis (mystic seers), who

gradually improved and developed Yoga, are a record of their practices and ideas. (Yoga Ayush Ministry, n.d.).

One of India's earliest sages, Patanjali, is the author of the well-known treatise on Yoga known as the "Yoga Sutras." According to Patanjali, Yoga is the removal of the fluctuations of the mind, or "Yoga is the removal of mind fluctuations." Mind is chitha, mental impulses are vrittis, and elimination is nirodah. (Yoga Ayush Ministry, n.d.)

On a physical level, Yoga requires the coordination of various muscles, nerves, and organs to prevent interference or conflict. Numerous definitions of Yoga can be applied

<sup>1</sup> Advanced US Tax Consultant, Ernst & Young GDS, Kochi

<sup>2</sup> Assistant Professor of Commerce, Sri. C. Achutha Menon Government College, Thrissur

## Corresponding author:

N. V. Madhusoodanan Kartha Assistant Professor of Commerce, Sri. C. Achutha Menon Government College, Thrissur.

to all levels of awareness and existence. Inefficiency, lethargic behaviour, and clumsiness are the consequences of discord in countless physiological systems and parts. They also manifest themselves as ailments within the body. (Yoga Ayush Ministry, n.d.).

An Indian art form, Yoga can be practised to improve one's physical and mental health. Yoga is often used as a synonym for physical fitness, strength, and flexibility. Yoga emphasizes the coordination between the breath and the core muscles. Meditation, introspection, and coordinated breath movements are all components of Yoga. Yoga practice appropriately performed while in school, along with a diet rich in necessary nutrients, keeps women's bodies hydrated and supports maintaining an immune system capable of coping with stress. The truth is that Yoga resembles science rather than religion but has roots in Hinduism and ancient India. (Yoga Ayush Ministry, n.d.)

## **2. Initial reviews**

As part of a review, a portion of published knowledge is summarized, categorized and compared with prior research studies, literature and theoretical articles, which are revised. Various studies conducted on the topic have been reviewed in this section. Devan (2019) conducted a study on the significance of Yoga in enhancing academic performance in adolescents. It suggested that human bodies contain a universe, and the fusion of different Yoga paths is the most effective way to benefit from Yoga for adolescents' overall development and to improve their academic performance.

(Bordoloi, 2018) made research on the effectiveness of Yoga in managing stress among working women and suggested that Yoga has helped working women to find meaning in suffering. Besides serving as an escape from their health conditions, it has also contributed to their positive reactions to life's challenges at home and work. (Rawat, 2016) conducted research on Yoga for physical fitness in adolescents proved that children

who practised Yoga appeared to have higher physical fitness than non-practitioners and recommended Yoga to schools to improve physical fitness and respiratory functions.

According to Wolever et al. (2012), stress at various levels is shared among employees in the industry, as shown by a study conducted to determine the effectiveness of Yoga as a stress management technique. Considering the current industrial scenario, the amount of stress is rising daily. According to the results of this study, yoga practices significantly reduced the emotional, cognitive, behavioural, physical, and organizational effects of stress among employees. Therefore, yoga practices should be integrated into employees' daily schedules through the centre. When planning the exercise program, it is essential to consider the subjects' age, experience in sports activities, day-to-day situations, and gender. The researcher found that examination stress was associated with increased state anxiety and self-reported physical symptoms, except for heart complaints, which gradually declined over the three experimental phases.

In a study conducted by Yadav (2012), it was found that Yoga can help reduce stress by promoting the parasympathetic nervous system and lowering blood pressure and heartbeat. As a result, the body requires less oxygen. It has been found that Yoga can assist in the effective removal of toxic waste and increase lung capacity. Effective application of this practice can also decrease anxiety and depression risks. (Kaur, 2017)) investigated the effects of Yoga and meditation on stress management among female prisoners in Delhi. This study attests to the fact that meditation enhances performance physiologically and psychologically. As a result, the prisoners' physical well-being may be improved. After practising meditation, Yoga, and other stress management techniques, female prisoners in Delhi reported positive and encouraging changes in their physical health.

Deshpande (2012) conducted a study on a healthy way to handle workplace stress through Yoga and meditation. As far as the success of an Indian organization is concerned, employee productivity is the most decisive factor. An organization must develop stress prevention as well as stress reduction techniques to ensure the health and well-being of its employees. Stress can affect one's health, work performance, social life, and relationships with family members. This research aims to examine how organizations use Yoga and meditation as an antidote to workplace stress by focusing on practices adopted by organizations to prevent, minimize and overcome stress. In her study (Shohini, 2018), she examined the effects of Yoga on women's stress, anxiety, and depression. According to the study, Yoga has been shown to reduce stress, anxiety, and depression and can be considered complementary medicine as well as reduce medical costs by reducing the use of drugs during treatment.

The reason behind the effects of Yoga on stress, anxiety, and depression is unclear to us and may be transient. Thus, future studies are suggested to investigate its long-term effects on stress, anxiety, and depression. According to the study, Yoga has existed for thousands of years and has been used to alleviate various problems since ancient times. Research evidence supports Yoga as a safe, effective method that patients can practice at home to alleviate anxiety symptoms. Anxiety is often a psychological symptom and has its determinants in the patient's environment. As a result, biological and pharmaceutical treatment may not always effectively reduce the patient's symptoms. Yoga may serve as an effective alternative to biological treatments for anxiety. Several yogic postures and exercises must be researched further in specific populations with specific anxiety disorders. According to the study, Yoga may be beneficial for treating depression, anxiety, or post-traumatic stress disorder. The evidence for unipolar depression is the strongest.

Diamantaire (2017) researched Yoga's effects on stress and psychological health among employees: an 8- and 16-week intervention. Health-care providers can assist patients in evaluating whether a given community-based yoga class is appropriate and safe for them. Compared to the control group, yoga practitioners demonstrated significant reductions in stress, anxiety, and general psychological health, as well as significant increases in well-being, compared to the control group. The group who did not practice Yoga showed significant decreases in stress, anxiety, depression, and insomnia after they crossed over and practised Yoga for eight weeks. Gym yoga effectively alleviates stress among workers experiencing stress and promotes psychological health.

### **3. Statement of the Problem**

Today, stress management is essential to everyone's life since the modern lifestyle is full of hassles, deadlines, frustrations, and heavy demands. Stress is an unavoidable consequence of modern living. Stress management involves understanding the psychology behind or causing the stress and finding strategies to deal with, reduce, or eliminate the stress. It is necessary for long, happy lives with fewer difficulties.

Students are facing a high level of stress nowadays in academic environments that are highly stressful and competitive. According to the review, performing Yoga can significantly reduce stress. Virtually everyone can see physical benefits from Yoga, and its practice can also give psychological benefits, such as stress reduction and a sense of well-being. Yoga has several mechanisms that influence stress levels; thus, it can minimize your stress levels in multiple ways. Thus, this study aims to determine whether yogasanas and meditative techniques can reduce the stress levels of college students by examining the stress levels of college students in various socio-demographic and geographic contexts.

#### 4. Objectives of the Study

- a) To study the influence of Yoga among college students of Thrissur district in reducing stress.
- b) To ascertain the influence of gender among Yoga practicing college students in the Thrissur district.
- c) To evaluate whether geographical region effects the stress level among college students in Thrissur district.
- d) To determine whether family income influences the stress level among Yoga practicing college students in the Thrissur district.
- e) To explore whether the educational institution has an effect on the Yoga practicing college.

#### 5. Hypotheses of the study

- H1:** College students practicing (vs not practicing) Yoga are expected to have lesser stress.
- H2:** Gender will moderate the effect of Yoga on college students.
- H3:** Geographical region will moderate the effect of Yoga on college students.
- H4:** Family income will moderate the effect of Yoga on college students.
- H5:** Educational institutions will moderate the effect of Yoga on college students.

#### 6. Research Methodology

The study is descriptive and analytical in nature. The study uses both primary and secondary data to analyze the experiences of Yoga practicing college students in the Thrissur district. Primary data was collected using the Stress Index Model, while secondary data was gathered from various publications, books, journals, and websites. Fifty samples were collected among the Yoga practicing college students of the Thrissur district. Snowball sampling was used to gather the samples. Extra attention has been taken to ensure the complete research population is fairly represented. The study envisages college students aged between 17 years to 22 years

#### 7. Analysis and Discussion

The survey data reveals common stress management concerns among college students through Yoga. A detailed analysis using non-parametric tests such as Mann Whitney U test, Kruskal Wallies H test, and Wilcoxon sign test, considering various objectives, is conducted.

**Table 1**

| Construct    | Tests of Normality              |    |      |              |    |      |
|--------------|---------------------------------|----|------|--------------|----|------|
|              | Kolmogorov-Smirnov <sup>a</sup> |    |      | Shapiro-Wilk |    |      |
|              | Statistic                       | Df | Sig. | Statistic    | Df | Sig. |
| Stress Index | .157                            | 50 | .004 | .950         | 50 | .035 |

Source: Primary data

Table 1 reveals a 0.035 significance level for the Kolmogorov- Smirnov test, rejecting the null hypothesis at a 5% level indicating the need for a non-parametric test for inferences.

**Table 2** *The Stress levels of students engaged in Yoga.*

| Construct    | N  | Descriptive Statistics |               |         |        | Sig |
|--------------|----|------------------------|---------------|---------|--------|-----|
|              |    | Mean                   | Std Deviation | Z Value |        |     |
|              |    | Mid value              | 50            | 3.0000  | .00000 |     |
| Stress Index | 50 | 2.8480                 | .51199        |         |        |     |

Source: Primary data

**H1** was supported. Wilcoxon signed-rank tests was conducted. There had been a significant difference in stress ( $Z = -2.102$ ,  $P < 0.05$ ). The dependent variable stress index shows that the college students performing Yoga consistently experiences lower stress levels, with a mean of 2.84 and a standard deviation of 0.5119.

**Table 3** *The disparities in stress index measurements between male and female individuals.*

| Construct    | Gender | N  | Mean  | Z     | Sig   |
|--------------|--------|----|-------|-------|-------|
|              |        |    | Rank  | value |       |
| Stress Index | Male   | 21 | 25.69 | -.079 | 0.937 |
|              | Female | 29 | 25.36 |       |       |
|              | Total  | 50 |       |       |       |

Source: Primary data

**H2** was not supported. Mann Whitney U test was conducted. There had been no significant difference in stress between male and female individuals ( $Z = -0.079$ ,  $P > 0.05$ ). The dependent variable stress index indicates no significant difference in stress index measurement between male and female respondents, suggesting Yoga is an equally effective stress management method for all genders.

**Table 4** The variation in stress index levels across various regions.

| Construct    | Region     | N  | Mean Rank | Chi-square | Sig   |
|--------------|------------|----|-----------|------------|-------|
| Stress Index | Rural      | 7  | 32.21     | 1.869      | 0.393 |
|              | Semi-Urban | 25 | 25.04     |            |       |
|              | Urban      | 18 | 23.53     |            |       |
|              | Total      | 50 |           |            |       |

Source: Primary data

**H3** was not supported. Kruskal Wallies H test was conducted. There had been no significant difference in stress index levels across various regions ( $Z = 1.869$ ,  $P > 0.05$ ). The dependent variable stress index indicates no significant difference in stress index measurement across various regions, suggesting Yoga is an equally effective stress management method for all regions.

**Table 5** The variation in stress index levels among different income groups.

| Construct    | Annual family income | N  | Mean Rank | Chi-square | Sig   |
|--------------|----------------------|----|-----------|------------|-------|
| Stress Index | Berlow100000         | 21 | 29.69     | 3.868      | 0.145 |
|              | 100000-500000        | 19 | 24.24     |            |       |
|              | Above500000          | 10 | 19.10     |            |       |
|              | Total                | 50 |           |            |       |

Source: Primary data

**Table 7** Reasons for stress

| Reasons                                       | N  | Mean | SD    | Rank |
|---|----|------|-------|------|
| Sometimes, I feel depressed                   | 50 | 3.22 | 1.200 | 1    |
| feel sad without any reason                   | 50 | 3.08 | 1.383 | 2    |
| I feel easily irritated                       | 50 | 3.04 | 1.195 | 3    |
| Sometimes, I lose my temper over minor things | 50 | 2.96 | 1.370 | 4    |
| I have anxiety problems                       | 50 | 2.94 | 1.132 | 5    |

Source: Primary data

Table 7 reveals that respondents' stress is primarily caused by depression, followed by

**H4** was not supported. Kruskal Wallies H test was conducted. There had been no significant difference in stress index levels among different income groups ( $Z = 3.868$ ,  $P > 0.05$ ). The dependent variable stress index indicates no significant difference in stress index measurement among different income groups, suggesting Yoga is an equally effective stress management method for all income groups.

**Table 6** The variation in stress index levels among various colleges.

| Construct    | Type of Educational Institution | N  | Mean Rank | Chi-square | Sig  |
|--------------|---------------------------------|----|-----------|------------|------|
| Stress Index | Government                      | 9  | 28.89     | 6.298      | 0.43 |
|              | Aided                           | 24 | 29.29     |            |      |
|              | Private                         | 17 | 18.35     |            |      |
|              | Total                           | 50 |           |            |      |

Source: Primary data

**H5** was not supported. Kruskal Wallies H test was conducted. There had been no significant difference in stress index levels across educational institutions ( $Z = 6.298$ ,  $P > 0.05$ ). The dependent variable stress index indicates no significant difference in stress index measurement across educational institutions, suggesting Yoga is an equally effective stress management method for all educational institutions.

feelings of sadness, irritation, minor temper issues, and anxiety problems.

**Table 8** A ranking-based analysis of the ways in which Yoga assists respondents in managing their stress.

| Benefits                                | N  | Mean | SD    | Rank |
|---|----|------|-------|------|
| Yoga is a form of relaxation            | 50 | 4.08 | 1.007 | 1    |
| Yoga aids in physical well-being        | 50 | 3.98 | .958  | 2    |
| Yoga maintains a state of calmness.     | 50 | 3.86 | .904  | 3    |
| Yoga as a stress reliever.              | 50 | 3.86 | .857  | 4    |
| Yoga promotes healthy emotional growth. | 50 | 3.80 | .969  | 5    |
| Yoga promotes healthy emotional growth  | 50 | 3.70 | .953  | 6    |
| Yoga for spiritual growth               | 50 | 3.68 | .999  | 7    |
| Yoga as depression treatment            | 50 | 3.66 | .939  | 8    |

Source: Primary data

The study evaluates the effectiveness of Yoga in stress management among college students in Thrissur district, highlighting its benefits in relaxation, emotional growth, mental equilibrium, spiritual growth, and overcoming depression.

The study is conducted to evaluate the effectiveness of Yoga in stress management among the college students of Thrissur district. The significant findings and conclusions are included in this chapter.

## 8. Findings

- The survey revealed that among the 50 respondents, college students who practice Yoga have a low-stress level.
- The analysis reveals that Yoga's effectiveness remains consistent across genders, with both male and female individuals experiencing the same reduction in stress.
- The study reveals that Yoga's efficacy in reducing stress among college students remains consistent regardless of their region's status.
- The study reveals no significant difference in annual family income among college students regarding stress index measurement or the effectiveness of stress reduction measures.
- The study found no significant difference in stress index measurements among students performing Yoga in different educational institutions, indicating the same effectiveness of Yoga in reducing stress.

- The study revealed that Yoga can help reduce significant stress indexes such as depression, sadness, irritability, losing temper, and anxiety problems.
- The study ranked Yoga's benefits among respondents for relaxation, physical well-being, calmness, stress relief, emotional growth, mental equilibrium, spiritual growth, and depression overcoming.

## 9. Suggestions

- Yoga should be included in schools and colleges' curriculum to promote mental and physical fitness, reduce stress, and enhance mental and physical well-being.
- Yoga can be a beneficial practice for employees of all ages, as it has been found to reduce stress.
- Hotels and public spaces are advised to provide free yoga spaces and stress-relieving foods for stress management.

## 10. Conclusion

It is believed that many students who practice Yoga regularly can manage stress very effectively, as evidenced by the study conducted among college students in the Thrissur district. No matter one's region, gender, educational institution, age, or income, practicing Yoga continuously reduces stress. There is no difference in the effectiveness of Yoga based on the respondent's region, gender, educational institution, age, or family income of the respondent. The main benefit of stress

management through Yoga is the ability to relax. The most common symptoms of stress are depression due to feelings of sadness without any apparent reason, irritation, losing one's temper over minor things, and anxiety problems.

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