

Research Paper

## Exploring Mental Health Outcomes in Girls Engaged in Yoga Versus Those Not Practicing

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### ABSTRACT

Yoga is a mind-body practice that has been used for centuries to promote physical, mental, and spiritual well-being. In today's era, it is very well known to us that most of the diseases are caused by unhealthy lifestyles such as eating fast food, lack of exercise, and taking rest irregularly. The present study attempted to compare the mental health of the girls who practice yoga and who do not. For this purpose, the sample comprised 40 girls, who were further divided into two subgroups, i.e., yoga practitioners and non-yoga practitioners. Results indicated a significant ( $t = 8.07$  and  $p < 0.01$ ) difference exists between the two groups. It means girls who practice yoga have better mental health.

**Keywords:** *Yoga, Mental health, Well-being, mind, practice*

*"Yoga is a practice, not a perfection."*

Yoga, an ancient practice originating in India, has evolved into a widely embraced method for promoting mental and physical well-being. Various researchers have suggested that yoga can be seen as an intellectual and mental exercise that improves health. For attaining physical and mental well-being the important objective is yoga. Yoga is often associated with physical postures, or asanas, which are designed to stretch and strengthen the body, improve flexibility and balance, and promote relaxation. There are many different styles of yoga, each with its own emphasis on particular aspects of the practice. Some popular styles include Hatha yoga, which focuses on physical postures and breathing techniques, and Kundalini yoga, which emphasizes meditation and the awakening of kundalini energy within the body. When it comes to mental health, yoga is more than just physical postures (asanas); it integrates mindfulness, breathing techniques (pranayama), and meditation, all of which play a vital role in mental and emotional health.

In addition to physical postures, yoga also incorporates breathing techniques, or pranayama, which are used to regulate the breath and calm the mind. Pranayama exercises can help to reduce stress and anxiety, increase energy, promote relaxation, and improve sleep.

Meditation is another important aspect of yoga practice. Meditation involves focusing the mind on a particular object, thought, or activity to achieve a state of calm and clarity.

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Regular meditation practice has been shown to have numerous health benefits, including reducing stress and anxiety, improving sleep quality, and increasing feelings of well-being. Various kriyas, asanas, and pranayama help one to get purified along with a good and sharp mind with a sound body. Yoga also develops the ability to harmonize and integrate the thoughts, desires, emotions, feelings, and aims of an individual. Many exercises help us to do so. According to Patanjali, yoga is a technique for calming the restless mind and controlling chittavritti. Yoga is a methodical, deliberate process that quickens a person's development and helps that person develop their entire personality. Numerous studies looking into the effects of yogic practice have found that when performed following the individual's environment, place, and time, asana, pranayama, bandha, mudra, dhyana, and other practices have positive effects on both physical and mental health.

There are numerous benefits to practicing yoga. Yoga practice has been found to reduce levels of the stress hormone cortisol, which is associated with anxiety and depression. A study published in the *Journal of Psychiatric Practice* found that yoga can help reduce symptoms of anxiety and depression in patients with psychiatric disorders. It also helps to improve mood, as yoga practice has been found to increase levels of the neurotransmitter GABA, which is associated with positive mood and reduced anxiety. A study published in the *Journal of Alternative and Complementary Medicine* found that yoga can help to improve mood and reduce symptoms of depression. Yoga practice has been found to improve emotional regulation and increase feelings of well-being. A study published in the *International Journal of Yoga* found that yoga can help to reduce symptoms of stress, anxiety, and depression and improve overall quality of life. Yoga practice has been found to enhance cognitive function, including memory and attention. A study published in the *Journal of Alzheimer's Disease* found that yoga can help to improve cognitive function in older adults with mild cognitive impairment. Yoga practice has been found to promote relaxation and enhance the quality of sleep. A study published in the *Journal of Clinical Psychology* found that yoga can help to enhance the quality of sleep in patients with insomnia.

Yoga and its impact on mental health is a well-researched area with various studies supporting its benefits.

The study by Liu Yan in 2024 finds that mindfulness yoga significantly enhances individuals' emotional stability, alleviates stress and anxiety, and promotes inner peace and spiritual growth. This finding not only enriches the research perspective in the field of mental health but also provides theoretical and practical support for the application of mindfulness yoga in mental health management, offering individuals more comprehensive mind-body health care. A study was conducted by Lydia Munns et al. in 2023 which concluded that Yoga-based interventions may offer a promising and effective intervention for maternal mental health and well-being. A study was conducted by Brinsley, J et al. (2020) discovered proof that yoga has benefits beyond standard medical treatment for easing depressive symptoms in patients with a variety of mental conditions. It might be an additional or substitute method for getting depressed persons to engage in worthwhile physical activity. Ketut N, Dwijendra A (2020) discovered Pranayama, yoga, and wellness have a very positive effect on society in this modern era. By practicing pranayama people can control their breath and this can also control their minds and if they can control their minds, the stress level in society can decrease. A research was conducted by Shohani et al. (2018) that showed that Yoga can be viewed as an alternative medicine because of its effectiveness in lowering stress, anxiety, and depression. It also reduces the usage of

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medicines during treatments, which reduces the cost of care overall. Given that the cause of yoga's effect on stress, anxiety, and depression is unclear to us and may be temporary, it is advised that further research be done to examine yoga's long-term impact on stress, anxiety, and depression. In 2017 Hendriks et al. discovered that Yoga is a powerful tool for lowering potentially harmful levels of stress, anxiety, and sadness. When yoga was evaluated against no intervention but not against physical activity, it was discovered to significantly increase psychological well-being. No discernible benefits of yoga over inactive or active controls were found for life happiness (emotional well-being), social interactions (social well-being), or mindfulness.

In 2016 Kumar P. examined that, Yoga not only considers physical health but also mental health which includes life satisfaction, self-esteem, self-reliance healthy habits, optimism, and pro-social behaviour which is very important in today's hectic life schedule.

### **METHODOLOGY**

The study attempted to compare the mental health of the girls who practiced yoga and who do not. The ex-post facto design was used to find the difference between concerning two groups. T-test was applied to find the correlation between two groups i.e. Girls who practice yoga and girls who don't.

#### *Sample*

The sample comprised 40 girls out of which 20 girls practiced yoga and 20 girls do not. The sample was collected from DSVV, Haridwar, with the ages ranging from 18 years to 24 years and was matched on gender, age, and educational backgrounds i.e. the subjects were pursuing either bachelor's or master's degree.

#### **Hypothesis- HYPOTHESIS USED IN THIS WORK: NULL HYPOTHESIS**

In the present study following null hypothesis have been constructed-

There will be no significant effect of Yoga on the mental health of girls.

**Measures-** The Mental health scale was developed to measure the mental health scale. The Mental Health was prepared by Dr. Kamlesh Sharma in 2002. This scale consisted of a total of 60 statements out of which 30 are negative and 30 are positive items. Every statement has three responses: 'Yes', 'Indefinite', and 'No', the subject has chosen only one response. The scheme of scoring it has low on positive statements 2 marks for 'yes', 1 mark for 'indefinite', and 0 marks for 'no', and for negative statements marking -2 for 'no', 1 mark for 'indefinite', and 0 mark for 'yes'.

**Reliability & Validity - Reliability:** The test-retest (interval of 2 months) and split-half reliability coefficient was found 0.86 & 0.83 respectively. **Validity:** The validity coefficient was calculated by comparing the scale with the mental health checklist of Pramod Kumar and was found 0.79.

**Procedure-** For the present research subjects were contacted personally and initial rapport-building was done. Instructions were given related to the tests and subjects were requested to cooperate and answer the questions given in various testing schedules accurately and truthfully. They were assured that their personal information would keep confidential.

**Statistical Analysis:** The following statistical techniques are used to compute the result and data.

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### T- VALUE

$$T = \frac{M_1 - M_2}{\sigma_D}$$

MEAN: The statistical mean refers to the mean or average that is used to derive the central tendency of the data in the question.

$$M = \frac{\sum X}{N}$$

Where,

$\sum X$  stands for the sum of scores or values of the items and N for the total number of items in a group.

### STANDARD DEVIATION

In statistics, the standard deviation is a measure of the amount of variation or dispersion of a set of values.

$$\sigma = \sqrt{\frac{\sum x^2}{N}}$$

### STANDARD ERROR OF MEAN

$$S_M = \frac{SD}{\sqrt{N}}$$

### STANDARD ERROR

$$SE_D = \sqrt{\sigma M_1^2 + \sigma M_2^2 - 2r\sigma M_1 \cdot \sigma M_2}$$

### DEGREE OF FREEDOM

$$df = N - 1$$

## RESULTS TABLE

### HYPOTHESIS – 1

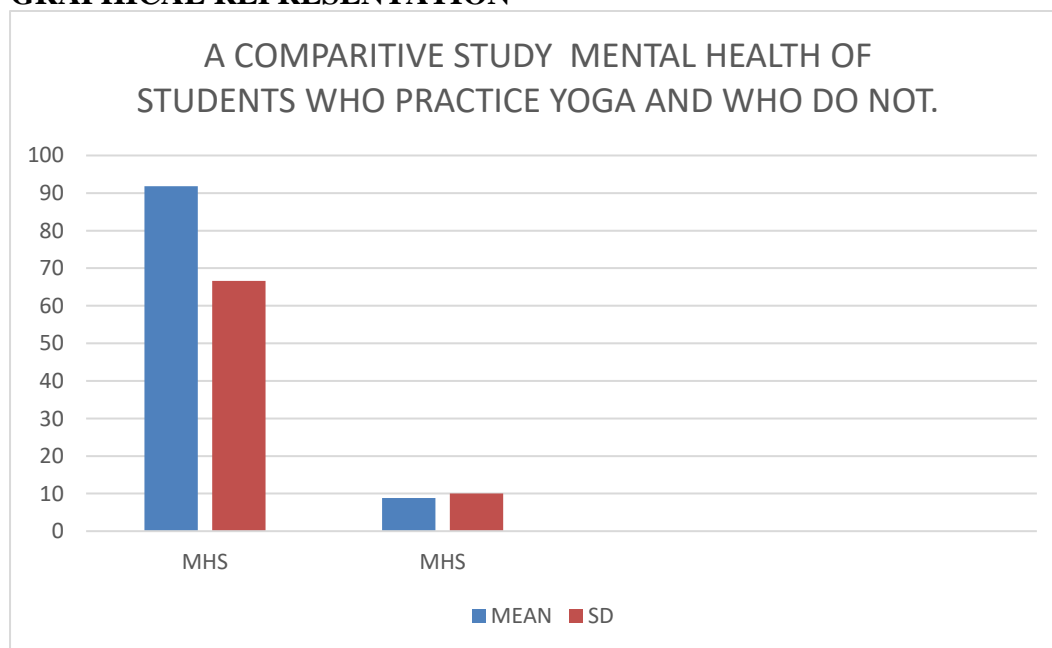
*There will be no significant effect of Yoga on the mental health of the students.*

VARIABLE	N	M	SD	SE <sub>D</sub>	r	t-value	SIGNIFICANCE
MENTAL HEALTH SCALE	40	91.85	8.85	3.12	-0.201	8.07	<b>P&lt;0.01</b>
		66.65	10.05				

**Degree of freedom is 39.**

Mean for students who practice Yoga is 91.85. Standard deviation is 8.85. Mean for students who do not practice Yoga is 66.65. Standard Deviation is 10.05. T-test formula was applied to get the results and the final t- value is 8.07. Correlation is -0.201. This means that the result is significant at 0.01 level. Therefore, the null hypothesis is rejected which means Yoga increases the level of mental health of the students.

## GRAPHICAL REPRESENTATION



## INTERPRETATION AND DISCUSSION

In the present study, I compared the level of mental health of students who practice Yoga and students who do not. I collected my samples from DSVV. Here, I kept my sample size at 40 girls, i.e., 20 who practice yoga and 20 who do not. The result was calculated statistically using the t-test method. From the hypothesis, which is the effect of yoga on the mental health of the students the t- value is 8.07 and it is significant at 0.01 level. So according to this it can be depicted that there is a significant effect of yoga on the mental health of the students.

An article also reports that yoga has a positive effect on reducing depression and anxiety and improving cognitive functions such as attention, and memory,<sup>7</sup> and it is significant at 0.01 level. So according to this, it can be depicted that yoga has a significant effect on the student's mental health. An article reports that there is a positive effect of Yoga in reducing depression and anxiety—also, improvement in cognitive functions such as attention, memory, and information processing. In 2016 Kumar P. examined that, Yoga not only considers physical health but also mental health which includes life satisfaction, self-esteem, self-reliance healthy habits, optimism, and pro-social behavior which is very important in today's hectic life schedule. A study was conducted by Sivaramakrishnan et al. in 2019 that studied the effect of yoga on mental health, it was a meta-analysis of randomized control trials, which showed that there is a positive impact of yoga on reducing stress, anxiety, depression, and improving overall psychological well being.

## CONCLUSION

In this study, researchers have compared mental health among the students who practice Yoga and students who do not. The samples were collected from DSVV using the Quota sampling method. The null hypothesis was formulated to carry on the research. On the basis of interpretation, it is concluded that Yoga have positive effects on mental health, physical health, and stress reduction. Also, it enhances mindfulness and present-moment awareness. This can lead to a greater sense of clarity, calmness, and overall mental stability as it focuses on breathing and observing it's rhythm. It also increases the ability to let go of intrusive or

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negative thoughts. Moreover, yoga is a practice that can be adapted to suit individuals of all ages and fitness levels, making it a truly accessible and beneficial form of exercise and self-care. Overall, incorporating yoga into one's regular routine can be a powerful tool for achieving greater health and well-being in all aspects of life.

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### ***Conflict of Interest***

The author(s) declared no conflict of interest.

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