

# Effect of Daily Physical Exercise on Mental Health Among Student Teachers

**Dr. S. Velvizhi**

Director of Physical Education, Sri Sarada College of Education, (Autonomous), Salem -16

## **Abstract**

This study aimed to examine the effect of daily physical exercise on the mental health of female student teachers. One hundred female B.Ed. students aged between 18 and 22 years were selected using a random sampling method from Sri Sarada College of Education, Salem. Tamil Nadu Participants underwent 12 weeks structured daily physical exercise program consisting of warm-up routines, aerobic exercises, basic strength training, yoga asanas, and breathing practices. Mental health levels were assessed using the General Health Questionnaire (GHQ-28) before and after the intervention. The results indicated a significant improvement in mental health scores post-intervention. The findings support the inclusion of daily physical activity, including yoga and breathing practices, in teacher education to enhance mental well-being.

**Keywords:** Physical Exercise, Mental Health, Student Teachers, Yoga, GHQ-28, Female Students

## **INTRODUCTION**

Mental health is a key component of overall well-being and plays a vital role in an individual's ability to cope with stress, build positive relationships, and perform daily responsibilities effectively. Among student populations, mental health challenges are increasingly prevalent, often going unnoticed or untreated. Student teachers are exposed to multiple layers of stress, academic expectations, teaching practice, social adaptation, and personal development, all of which can adversely affect their mental state.

Female student teachers often face added emotional, social, and physiological challenges during their training period. Cultural expectations, hormonal fluctuations, and emotional sensitivity may further influence their psychological well-being. If left unaddressed, poor mental health can lead to increased anxiety, low self-esteem, reduced concentration, and poor academic performance, ultimately affecting their future roles as educators and role models in society.

Regular physical activity, including structured exercise routines, aerobic training, and yoga practices, has been widely documented for its positive impact on mental health. Exercise stimulates the release of endorphins, improves sleep, regulates mood, and promotes better cognitive function. Yoga combines physical postures with controlled breathing and mindfulness, offering a holistic approach to emotional and mental balance. These practices not only reduce stress and anxiety but also enhance self-awareness, emotional regulation, and resilience qualities essential for future teachers.

## **REVIEW OF RELATED LITERATURE**

Recent studies between 2023 and 2025 continue to affirm the significant impact of physical exercise on mental health, particularly among young adults and students. A study by Kumar et al. (2024) reported that

incorporating daily movement routines, including yoga and aerobics, led to reduced symptoms of anxiety and better emotional regulation among college-going females. Similarly, Mehta and Prakash (2023) found that structured physical activity improved attention span, sleep quality, and stress management in teacher trainees. In another study, Rajalakshmi et al. (2025) highlighted that a combination of physical exercise and mindfulness practices notably enhanced self-esteem and reduced depressive symptoms in pre-service teachers. These findings collectively support the integration of physical fitness programs in teacher education, emphasizing both mental and physical well-being.

## OBJECTIVES OF THE STUDY

- To study the pre-intervention mental health status of female student teachers.
- To implement a structured daily physical exercise program.
- To assess the post-intervention mental health levels.
- To analyze the effect of the physical exercise program on the mental health of the participants.

## METHODOLOGY

### Participants

The study was conducted among 100 female student teachers aged between 18 and 22 years, enrolled in the Bachelor of Education (B.Ed.) program at Sri Sarada College of Education, Salem, Tamil Nadu. Participants were selected using a simple random sampling method. All were physically healthy, not undergoing any psychological treatment, and gave informed consent to participate in the study.

### Research Design

A pre-test and post-test single-group experimental design was employed to measure the effect of the intervention. Mental health status was assessed using the General Health Questionnaire (GHQ-28) both before and after the 30-day physical exercise program.

### Physical Exercise Program

The physical exercise program was compulsory for all participants and was designed to enhance both physical fitness and mental well-being. It was implemented over a period of 12 weeks, with sessions conducted six days a week, each lasting approximately 45 minutes. Each session began with a 5-minute warm-up involving joint rotations and light stretching. This was followed by 10 minutes of aerobic activities, such as brisk walking or jogging, to stimulate cardiovascular health. Then, 10 minutes of strength training exercises such as squats, lunges, planks were included to improve endurance and posture. The following 10 minutes focused on yoga asanas such as Tadasana, Padmasana and Vrikshasana, to promote flexibility, emotional balance, and mind-body awareness. Finally, each session ended with a 5-minute cool-down consisting of pranayama techniques like Anulom Vilom and Bhramari, promoting relaxation and mental clarity. All sessions were mandatory and conducted under expert supervision to ensure uniformity and safety.

### Tool Used

Mental health was measured using the General Health Questionnaire (GHQ-28) developed by Goldberg and Hillier (1979). The tool consists of 28 items across four subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and severe depression. Each item is rated on a 4-point Likert scale, where higher scores indicate poorer mental health.

### Procedure

The intervention was carried out on 100 female student teachers from Sri Sarada College of Education,

Salem. A within-subjects (repeated measures) design was used, where the same participants completed both the pre-test and post-test assessments. The GHQ-28 was administered before the physical exercise program and again after the 30-day intervention. All participants took part voluntarily, and the program was implemented in a controlled environment under expert supervision to ensure safety and consistency.

## RESULT AND DISCUSSION

The primary objective of the paired ‘t’ test was to determine the significant difference between the mean scores of the Control Group and the Experimental Group among women student teachers.

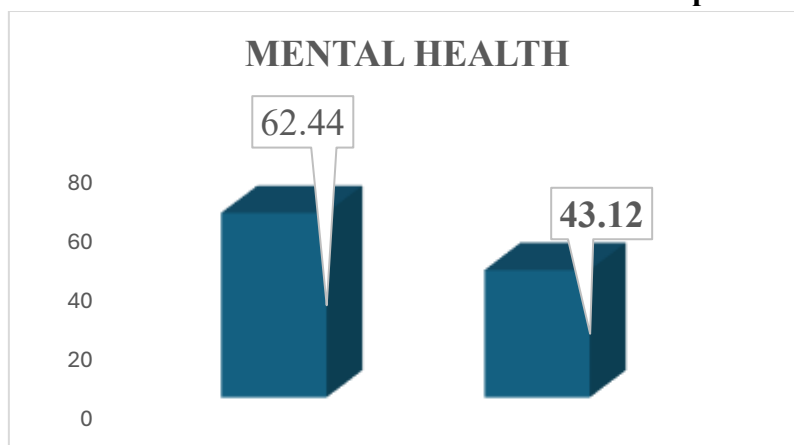
**TABLE – I**

**Showing Mean Difference Between Control and Experimental Groups Among Student Teachers on Mental Health Through Daily Physical Exercise**

Mental Health	N	Mean	SD	t-value	Significant/NS level
Control Group	100	62.44	12.25	13.10	S(0.01)
Experimental Group	100	43.12	7.85		

Required table value: 2.60 (0.01)

### Mental Health Scores of Student Teachers in Control and Experimental Groups



The results of the study clearly indicate that daily physical exercise has a significant positive effect on the mental health of student teachers. The obtained ‘t’ value of 13.10 is greater than the critical table value of 2.60 at the 0.01 level of significance for 1, 99 degrees of freedom. This confirms that there is a statistically significant difference between the control and experimental groups. The mean mental health score of the experimental group was 43.12, while the control group had a mean score of 62.44. According to the General Health Questionnaire (GHQ-28), a lower score reflects better mental health. Therefore, the experimental group, which engaged in daily physical exercise, showed improved mental well-being. These improvements may be attributed to the effects of physical activity in reducing somatic symptoms, lowering anxiety and insomnia, improving social functioning, and decreasing symptoms of depression. Thus, it can be concluded that regular physical exercise significantly contributes to better mental health among student teachers. It also builds self-discipline, confidence, and emotional stability qualities that are essential for future teachers. Since teacher trainees often face academic stress and emotional pressure, including

structured physical activities like yoga or fitness routines in teacher education programs can greatly support their mental health. This highlights the importance of promoting physical exercise as part of professional development for student teachers.

## CONCLUSION

The study concluded that daily physical exercise, which includes aerobic activities, strength training, yoga, and breathing exercises, significantly improves the mental health of female student teachers. Such practices can be an effective and low-cost intervention for promoting psychological well-being in academic environments. Regular engagement in physical activity was found to reduce symptoms of anxiety, stress, and depression while enhancing self-esteem, emotional balance, and overall cognitive functioning. These findings highlight the importance of incorporating structured physical exercise programs into teacher education curricula to support the holistic development of future educators. Furthermore, institutions should encourage and facilitate daily physical activities as a preventive measure to foster resilience and positive mental health among student teachers.

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