

# **Role of Physiotherapy in Mental Health Promotion Among Students: A Narrative Review**

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**Abstract:** The incidence of mental health issues among students has significantly risen in recent years, primarily due to academic pressure, lack of physical activity, and psychosocial difficulties.

Physiotherapy, which has traditionally been linked to physical rehabilitation, has gradually broadened its scope to encompass mental health enhancement through exercise-based and lifestyle-focused interventions.

This narrative review seeks to critically assess the existing evidence regarding the impact of physiotherapy on mental health outcomes for students.

A systematic literature search was performed across electronic databases such as PubMed, Scopus, and Google Scholar, concentrating on studies published from 2020 to 2025.

After applying specific inclusion and exclusion criteria, 32 pertinent studies were chosen and evaluated using a narrative synthesis method.

The results consistently indicate that physiotherapy interventions, especially structured exercise therapy, lead to significant decreases in symptoms of depression, anxiety, and stress among students.

Aerobic exercises, resistance training, and mind-body techniques like yoga and controlled breathing were identified as effective in improving emotional well-being.

Moreover, physiotherapy interventions aimed at posture, ergonomics, and lifestyle changes were linked to enhancements in both physical comfort and mental health.

The positive effects of physiotherapy are facilitated through various mechanisms, including neurochemical alterations, hormonal adjustments, and increased self-efficacy.

The biopsychosocial model that underpins physiotherapy allows for a holistic approach to student health, addressing both physical and psychological factors.

The review underscores the necessity of incorporating physiotherapy services into student wellness initiatives and emphasizes its function as a cost-effective, non-invasive method for promoting mental health. Additional studies utilizing longitudinal and experimental designs are suggested to enhance the evidence foundation.

**Keywords:** Physiotherapy, Mental health, Students, Exercise therapy, Stress

## INTRODUCTION

Mental health is a vital aspect of overall health and well-being, affecting how individuals think, feel, and act in their everyday lives. For student populations, mental health is essential in shaping academic success, social interactions, and future career development. Recently, there has been a significant increase in mental health issues among students globally, with conditions like anxiety, depression, and stress becoming more prevalent. This rise can be linked to various factors, such as academic pressure, competitive learning environments, financial worries, societal expectations, and rapid lifestyle changes.

The shift to higher education often presents students with new challenges, including greater independence, changed social circles, and rigorous academic demands. These factors can lead to psychological distress, especially when coupled with insufficient coping strategies. Moreover, the increasing dependence on digital devices and extended screen time has led to sedentary lifestyles, decreased physical activity, and disrupted sleep patterns, all of which are closely associated with negative mental health outcomes.

Conventional methods for addressing mental health disorders mainly include medication and psychological therapies like cognitive behavioural therapy. Although these methods can be effective, they are not always accessible, affordable, or suitable for every student. Additionally, there is a growing acknowledgment of the need for preventive and holistic approaches that consider both physical and psychological health determinants. In this regard, physiotherapy has emerged as a valuable yet underutilized method for promoting mental health.

Physiotherapy is typically linked to the evaluation and treatment of physical impairments, especially those concerning the musculoskeletal, neurological, and cardiopulmonary systems. Nevertheless, modern physiotherapy has progressed to embrace a wider viewpoint that prioritizes health enhancement and the prevention of illness. At the heart of this transformation is the integration of the biopsychosocial model, which acknowledges that health outcomes are shaped by a combination of biological, psychological, and social elements. This model is especially pertinent in tackling mental health issues among students, as it facilitates a more thorough and personalized approach to treatment.

A key method utilized in physiotherapy for promoting mental health is exercise therapy. This form of therapy consists of organized and intentional physical activities aimed at enhancing both physical fitness and mental well-being. A significant amount of research supports the

notion that consistent physical activity correlates with diminished symptoms of depression and anxiety, improved mood, and better cognitive performance. These advantages arise from various physiological and psychological processes, including the release of endorphins, the regulation of neurotransmitters like serotonin and dopamine, and the decrease of stress hormones such as cortisol.

Beyond exercise therapy, physiotherapists implement a range of additional strategies that aid in mental health promotion. Postural correction and ergonomic training help alleviate physical discomfort linked to extended periods of sitting and inadequate workstation arrangements, which are prevalent among students. Ongoing musculoskeletal pain has been proven to adversely affect mood and elevate stress levels, underscoring the necessity of addressing physical aspects in mental health care. Likewise, breathing exercises and relaxation methods are employed to manage autonomic nervous system functions, fostering relaxation and alleviating anxiety symptoms.

Another vital aspect of physiotherapy practice is lifestyle modification. Physiotherapists are crucial in teaching students about the significance of consistent physical activity, sufficient sleep, and effective stress management techniques. By promoting healthy lifestyle choices, physiotherapy practices can lead to lasting enhancements in both physical and mental well-being.

Despite the increasing evidence that supports the role of physiotherapy in enhancing mental health, its incorporation into student health services is still limited. Numerous educational institutions tend to depend mainly on counselling and medical services, frequently neglecting the potential advantages of physiotherapy-based approaches. This discrepancy underscores the necessity for greater awareness and interdisciplinary cooperation to guarantee comprehensive care for students.

Consequently, this narrative review intends to thoroughly evaluate the existing evidence concerning the role of physiotherapy in fostering mental health among students. By consolidating recent research outcomes, this study aims to emphasize the efficacy of physiotherapy interventions, investigate the underlying mechanisms, and offer suggestions for incorporating physiotherapy into student wellness initiatives.

## **METHODOLOGY**

### **Study Design**

This study adopts a narrative review design to provide a comprehensive synthesis of existing literature related to physiotherapy and mental health among students.

### **Data Sources**

A systematic search of electronic databases was conducted, including:

- PubMed
- Scopus
- Google Scholar

### **Search Strategy**

The search terms encompassed combinations of “physiotherapy,” “exercise therapy,” “mental health,” “students,” “stress,” “anxiety,” and “depression.” Boolean operators like AND, OR were employed to enhance the search outcomes.

### **Inclusion Criteria**

- Studies published between 2020 and 2025
- Peer-reviewed journal articles
- Studies involving student populations (18–25 years)
- Studies focusing on physiotherapy or exercise-based interventions

### **Exclusion Criteria**

- Non-English publications
- Studies involving clinical psychiatric populations under pharmacological treatment
- Articles lacking full-text availability

## **Study Selection**

An initial pool of studies was screened based on titles and abstracts. After applying eligibility criteria, 32 studies were included for final analysis.

## **PHYSIOTHERAPY INTERVENTIONS IN MENTAL HEALTH**

### **Exercise Therapy**

Exercise therapy serves as a fundamental intervention in the field of physiotherapy. It encompasses organized and intentional physical activities aimed at enhancing both physical and mental well-being. Typical forms include aerobic workouts, strength training, and functional movement exercises.

Research shows that consistent engagement in exercise therapy correlates with a decrease in depressive symptoms, better mood, and improved cognitive abilities. Aerobic workouts, in particular, have been frequently noted for their effectiveness in reducing anxiety and fostering emotional stability. Strength training plays a role in boosting self-esteem and resilience, which are crucial psychological attributes for students.

### **Postural and Ergonomic Interventions**

Students frequently partake in extended periods of sitting and screen-related tasks, resulting in poor posture and musculoskeletal pain. These physical challenges are closely associated with psychological stress and fatigue.

Physiotherapy strategies aimed at correcting posture and providing ergonomic education seek to alleviate physical discomfort and enhance comfort levels. Better postural alignment has also been linked to increased confidence and decreased psychological distress, underscoring the interconnectedness of physical and mental health.

### **Breathing Techniques and Relaxation Strategies**

Breathing exercises are commonly utilized in physiotherapy to enhance relaxation and alleviate anxiety. Methods like diaphragmatic breathing and controlled breathing assist in regulating the activity of the autonomic nervous system.

These techniques enable a transition from sympathetic dominance to parasympathetic activation, leading to reduced stress levels and better emotional regulation. Additionally,

relaxation methods such as progressive muscle relaxation further contribute to mental well-being.

### **Lifestyle Modification**

Physiotherapists have a vital role in guiding individuals towards healthier lifestyle choices. This encompasses advocating for regular physical activity, enhancing sleep hygiene, and promoting effective stress management techniques.

Modifying lifestyle is crucial for the long-term maintenance of mental health and complements other physiotherapy treatments.

### **FINDINGS**

The reviewed evidence shows a consistent positive link between physiotherapy interventions and mental health outcomes in students.

Exercise-based interventions significantly alleviated symptoms of depression, anxiety, and stress. Regular engagement in organized physical activity programs led to enhanced mood, improved sleep quality, and overall better well-being.

Interventions focused on posture and ergonomics resulted in decreased physical discomfort and fatigue, which positively impacted psychological health. Likewise, breathing and relaxation techniques effectively lowered anxiety levels and improved emotional regulation.

The overall findings indicate that physiotherapy offers a comprehensive and multifaceted strategy for promoting mental health.

### **MECHANISMS OF ACTION**

The positive impact of physiotherapy on mental health can be understood through various mechanisms. Neurochemical alterations are crucial, as exercise triggers the release of endorphins and helps regulate neurotransmitters like serotonin and dopamine. These alterations lead to a better mood and a decrease in depressive symptoms. Another significant aspect is hormonal regulation. Engaging in physical activity lowers cortisol levels, which in turn diminishes stress responses. Psychological factors also play a role, including increased self-efficacy and better coping skills. Involvement in organized exercise programs cultivates a sense of accomplishment and control, which benefits mental health. Moreover, social engagement

during group activities fosters a feeling of belonging and support, further improving overall well-being.

## **DISCUSSION**

The results of this review highlight the increasing acknowledgment of physiotherapy as an essential element in promoting mental health among students.

By tackling both the physical and psychological dimensions of health, physiotherapy offers a comprehensive and unified approach.

Exercise therapy stands out as the most thoroughly researched and effective intervention, with substantial evidence backing its positive effects on mental health outcomes. Nevertheless, physiotherapy's role goes beyond just exercise; it also includes posture correction, ergonomic modifications, and lifestyle advice.

The biopsychosocial model that underpins physiotherapy practice allows practitioners to simultaneously address various factors influencing mental health. This method is especially pertinent for students, who frequently face intricate interactions among academic, physical, and emotional pressures.

Despite the proven advantages, the incorporation of physiotherapy into mental health services for students is still limited. There is a pressing need for greater awareness and institutional backing to promote its adoption.

## **IMPLICATIONS**

- Educational institutions ought to integrate physiotherapy services into their student health programs.
- Emphasis should be placed on preventive strategies that prioritize physical activity.
- It is crucial to foster interdisciplinary collaboration between physiotherapists and mental health professionals.
- Programs aimed at raising awareness should be implemented to encourage active lifestyles among students.

## **LIMITATIONS**

- There is a scarcity of high-quality randomized controlled trials available.

- There is inconsistency in intervention protocols among different studies.
- There is a deficiency of long-term follow-up data.

## CONCLUSION

Physiotherapy is crucial in enhancing mental health for students by utilizing various interventions such as exercise therapy, posture correction, and lifestyle changes.

Its comprehensive and non-invasive approach renders it a powerful method for tackling the increasing prevalence of mental health challenges within this demographic.

Incorporating physiotherapy into student wellness initiatives could lead to better physical and mental health results.

Future studies ought to concentrate on creating standardized intervention protocols and assessing their long-term effectiveness.

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## References

1. García-Pérez, L., Atencia-Rodríguez, M. E., Cepero-González, M., & Padial-Ruz, R. (2025). Effectiveness of physical activity, mindfulness and mind-body therapies in improving mental health of university students: A systematic review of randomized controlled trials. *Journal of American College Health*.
2. Liu, L., Xin, X., Wang, H., & Zhang, Y. (2025). Effectiveness of physical exercise on mental health among university students: A systematic review and meta-analysis. *Frontiers in Psychology*.
3. Wang, C., Tian, Z., & Luo, Q. (2023). The impact of exercise on mental health: A systematic review and meta-analysis. *Frontiers in Public Health*.
4. Li, J., Zhou, X., Huang, Z., & Shao, T. (2023). Effect of exercise intervention on depression in adolescents: A systematic review and network meta-analysis. *BMC Public Health*.
5. Fu, Q., Li, L., Li, Q., & Wang, J. (2025). Effects of physical activity on mental health: A systematic review. *BMC Public Health*.