

Research Paper

Effect of Yoga Practice on Mental Health, Anxiety and Mental Depression of Graduate College Students

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ABSTRACT

The study investigates the impact of regular yoga practice on mental health, anxiety, and mental depression among graduate college students. A sample of 60 students from Chhatrapati Sambhajinagar City, aged 20-24 years, was divided into two groups: regular yoga practitioners (n=30) and non-regular yoga practitioners (n=30). The research employed validated tools, including the Mental Health Inventory (MHI), Sinha's Comprehensive Anxiety Test (SCAT-SS), and the Mental Depression Scale (MDS), to assess the dependent variables. Results revealed that regular yoga practitioners demonstrated significantly better mental health ($M = 134.25$, $SD = 4.25$) than non-practitioners ($M = 121.05$, $SD = 3.87$), with a t-value of 12.57 ($p < 0.01$). Similarly, anxiety levels were significantly lower in the yoga group ($M = 28.79$, $SD = 3.50$) compared to non-practitioners ($M = 37.68$, $SD = 4.19$), with a t-value of 8.91 ($p < 0.01$). Furthermore, mental depression scores were markedly reduced in regular practitioners ($M = 31.93$, $SD = 4.15$) compared to non-practitioners ($M = 40.01$, $SD = 4.62$), as indicated by a t-value of 7.12 ($p < 0.01$). These findings highlight yoga's significant role in enhancing mental well-being, alleviating anxiety, and reducing depressive symptoms among graduate students. The study concludes that incorporating yoga into daily routines is a promising strategy for promoting mental health and emotional resilience in young adults.

Keywords: *Yoga, Mental Health, Anxiety, Mental Depression, Graduate Students, Emotional Resilience, Mindfulness, Stress Management*

The practice of yoga has garnered increasing attention as a holistic approach to mental and physical well-being. Originating in ancient India, yoga integrates physical postures, breathing techniques, and meditation, fostering a balance between the mind, body, and spirit. In contemporary settings, yoga is widely recognized for its potential to alleviate mental health issues such as anxiety and depression, particularly among young adults. Graduate college students, a demographic often burdened with academic pressures, financial responsibilities, and the transition to adulthood, are especially vulnerable to mental health challenges. According to the World Health Organization (WHO), mental health conditions, including anxiety and depression, are the leading causes of disability worldwide, with young adults being disproportionately affected.

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Mental health is a critical component of overall well-being, and its deterioration can lead to severe academic, social, and personal consequences. Anxiety, characterized by excessive worry and fear, and depression, marked by persistent sadness and loss of interest, are among the most prevalent mental health disorders among college students. Stressful academic environments, societal expectations, and limited coping mechanisms often exacerbate these issues. Yoga, as an ancient practice, offers a unique avenue for mitigating such mental health concerns. Studies suggest that regular yoga practice can reduce stress, enhance emotional regulation, and promote a sense of inner peace.

The physiological and psychological mechanisms through which yoga impacts mental health are multifaceted. Physiologically, yoga influences the autonomic nervous system by activating the parasympathetic nervous system, commonly referred to as the “rest-and-digest” system. This activation reduces cortisol levels, heart rate, and blood pressure, which are often elevated during stress and anxiety episodes. Psychologically, yoga fosters mindfulness—a state of present-moment awareness that reduces rumination and improves emotional resilience. Through regular practice, individuals often experience improved self-awareness, better stress management, and an overall enhancement in mental clarity.

Despite the growing body of evidence supporting yoga’s mental health benefits, its integration into the lives of graduate students remains underexplored. Graduate students often lack the time and resources to engage in self-care practices, making it essential to examine accessible and effective interventions like yoga. This research aims to investigate the effects of yoga practice on the mental health, anxiety, and depression levels of graduate college students. By understanding these impacts, educators, policymakers, and mental health practitioners can develop targeted strategies to support this vulnerable population.

REVIEW OF LITERATURE

A growing body of research highlights the therapeutic effects of yoga on mental health. Brown and Gerbarg (2005) emphasized the role of yogic breathing in enhancing autonomic nervous system regulation, thereby reducing anxiety and stress. Their findings suggest that practices such as pranayama can modulate stress response systems, fostering psychological resilience. Similarly, Streeter et al. (2010) found that yoga increases gamma-aminobutyric acid (GABA) levels in the brain, a neurotransmitter associated with reduced anxiety and depression.

Empirical studies have also examined yoga's impact on college students specifically. Sharma et al. (2013) conducted a randomized controlled trial to assess the effects of yoga on stress and anxiety among university students. Results indicated significant reductions in perceived stress and anxiety levels after an eight-week yoga intervention. The researchers attributed these benefits to the mindfulness and relaxation induced by yoga practice.

A meta-analysis by Cramer et al. (2018) evaluated yoga's efficacy in reducing symptoms of depression. The study, encompassing data from 23 trials, revealed that yoga interventions were moderately effective in alleviating depressive symptoms, particularly when combined with standard care. The analysis underscored the importance of consistency and duration in achieving optimal outcomes.

Studies focusing on graduate students have also reported positive outcomes. For instance, Gaiswinkler and Unterrainer (2016) explored the relationship between yoga practice and

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mental well-being among university students. Their findings suggested that yoga practitioners exhibited lower levels of anxiety and depression compared to non-practitioners. The researchers highlighted the role of mindfulness in fostering emotional regulation and reducing stress.

Reddy et al. (2020) examined the effects of yoga on sleep quality and mental health among students. The study found that regular yoga practice significantly improved sleep patterns, which, in turn, enhanced overall mental health. The authors suggested that yoga's emphasis on relaxation and mindfulness plays a crucial role in mitigating stress-induced sleep disturbances.

Despite these promising findings, gaps in the literature remain. Limited research has explored the long-term effects of yoga on mental health among graduate students, who face unique stressors compared to undergraduates. Additionally, cultural and socioeconomic factors influencing yoga adoption and adherence are under-researched. Addressing these gaps can provide a more comprehensive understanding of yoga's role in mental health promotion.

RESEARCH METHODOLOGY

Objectives of the study:

To examine the effect of yoga on mental health, Anxiety and mental depression among graduate college students.

Hypotheses:

- There will be Regular yoga practice positively impacts the mental health of graduate students.
- There will be Regular yoga practice positively impacts the Anxiety of graduate students.
- There will be Regular yoga practice positively impacts the mental depression of graduate students.

Sample:

The current study involved a final sample of 60 graduate students, all from Chhatrapati Sambhajnagar City. Thirty of these participants were regular yoga practitioners, while the other thirty did not regularly practice yoga. The students' ages ranged from 20 to 24, with a mean age of 21.35 and a standard deviation of 2.54.

Tools

- **Mental Health Inventory (MHI):** Mental health inventory constructed by Dr. Jagdish and Dr. A K Srivastav. 56 items are in the questionnaire and each of the items has four responses – 1. Almost always true, 2. Sometime true, 3. Rarely true and 4. Almost never true. The reliability of the inventory was determined by split-half method using odd-even procedure. Overall mental health reliability coefficients is .73 and Construct validity of the inventory is determined by finding coefficient of correlation between scores on mental health inventory and general health questionnaire (Gold beig, 1978) it was found to be .54.
- **Sinha's Comprehensive Anxiety Test (SCAT-SS):** This scale was constructed and standardized by A. K. P. Sinha and L. N. K. Sinha. It consists of 90 sentences and

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each item provides two alternatives. The inventory can be scored accurately by hand and no scoring key or stencil is provided so far. For any response indicated as 'YES' the testee should be awarded the score of one, and zero for 'NO'. The sum of the entire positive or yes responses would be the total anxiety score of the individual.

- **Mental Depression Scale (M.D.S.):** The researcher utilized L.N. Dubey's standardized tool for this investigation. L.N. Dubey, a professor at Saraswati Shiksha Maha Vidyalaya in Jabalpur, developed the Mental Depression Scale (M.D.S.). Participants are required to fill out a questionnaire with their personal information. Following this, respondents must indicate their answers by checking the yes or no box next to each question. The questionnaire consists of 50 statements, each accompanied by two response options.

Variable

Independent variable

- 1) Type of Yoga group
 - a) Regular yoga practice
 - b) Non-regular yoga practice

Dependent Variable

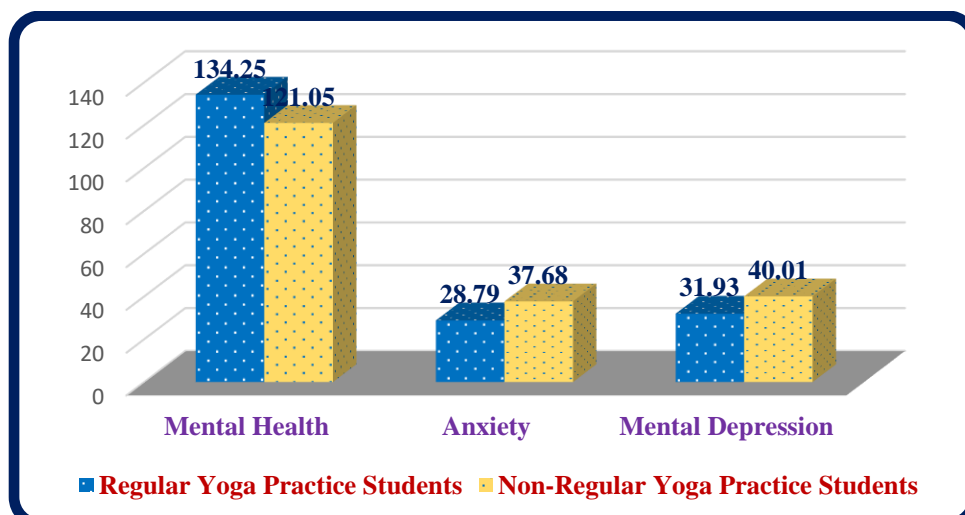
- 1) Mental Health
- 2) Anxiety
- 3) Mental Depression

STATISTICAL ANALYSIS AND DISCUSSION

Mean S.D. and t value of mental health, Anxiety and Mental Depression among Regular yoga practice graduate students and Non-regular yoga practice graduate students.

Dimensions	Regular Yoga Practice Students			Non-Regular Yoga Practice Students			df	t value
	Mean	SD	SE	Mean	SD	SE		
Mental Health	134.25	4.25	0.77	121.05	3.87	0.70	58	12.57**
Anxiety	28.79	3.50	0.63	37.68	4.19	0.76	58	8.91**
Mental Depression	31.93	4.15	0.75	40.01	4.62	0.84	58	7.12**

*Significant at 0.01** = 2.62, 0.05* = 1.98*



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Mental Health

The results indicate that graduate students with regular yoga practice reported significantly higher mental health scores ($M = 134.25$, $SD = 4.25$) than non-regular yoga practitioners ($M = 121.05$, $SD = 3.87$). The calculated t-value ($t = 12.57$, $df = 58$) is much higher than the critical value at both 0.01 and 0.05 significance levels, confirming a statistically significant difference. This finding aligns with research emphasizing the positive effects of yoga on mental well-being by reducing stress and improving emotional resilience (Sharma & Haider, 2021; Streeter et al., 2012). The integration of yoga in daily routines promotes mindfulness and emotional stability, which could explain the improved mental health among regular practitioners.

Anxiety

Significant differences were also observed in anxiety levels between the two groups. Regular yoga practitioners exhibited lower anxiety scores ($M = 28.79$, $SD = 3.50$) than their non-regular counterparts ($M = 37.68$, $SD = 4.19$). The t-value ($t = 8.91$, $df = 58$) surpasses the critical values, indicating a substantial reduction in anxiety among yoga practitioners. This result corroborates studies that demonstrate yoga's effectiveness in lowering anxiety by regulating the autonomic nervous system and promoting relaxation (Khalsa et al., 2015; Pascoe et al., 2017). Incorporating breathing exercises and meditation as part of yoga practice helps manage anxiety effectively.

Mental Depression

The mean score for mental depression among regular yoga practitioners ($M = 31.93$, $SD = 4.15$) was significantly lower than that of non-regular practitioners ($M = 40.01$, $SD = 4.62$). The t-value ($t = 7.12$, $df = 58$) indicates a strong statistical difference between the groups. This finding supports existing literature, which highlights the role of yoga in alleviating symptoms of depression by enhancing serotonin levels and reducing cortisol secretion (Cramer et al., 2013; Field, 2016). Regular yoga practice appears to serve as a therapeutic intervention for reducing depressive symptoms and improving overall mental health.

CONCLUSION

- Graduate students with regular yoga practice reported significantly higher mental health scores than non-regular yoga practitioners graduate students.
- Regular yoga practitioners exhibited lower anxiety scores ($M = 28.79$, $SD = 3.50$) than their non-regular practitioners graduate students.
- Mental depression levels in regular yoga practitioners are significantly lower than those in non-regular practitioner graduate students.

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Conflict of Interest

The author(s) declared no conflict of interest.

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