



Effect of Yoga Practice Integrated with Its Philosophical Teachings on Perceived Stress among Women

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Abstract. Aims: This study investigates the impact of yoga practice integrated with its philosophical teachings on perceived stress among women aged 50-70. The objective is to assess whether incorporating philosophical teachings enhances the stress-reducing effects of yoga. Methods: A total of 30 women were recruited and divided into two groups; Group 1: Practiced yoga integrated with philosophical teachings. Group 2: Practiced yoga with discussion sessions. The Perceived Stress Scale (PSS-10) was used to measure stress levels before and after the intervention. Statistical analysis included paired t-tests to evaluate within-group differences. Results: Group 1 showed a significant reduction in stress levels (Mean PSS Pre = 17.60, SD = 3.11; Mean PSS Post = 13.93, SD = 2.55; $p = 0.00013$). Group 2 exhibited minimal change (Mean PSS Pre = 18.73, SD = 2.43; Mean PSS Post = 18.53, SD = 2.36; $p = 0.826$). The findings suggest that integrating philosophical teachings enhances the stress-reducing effects of yoga. Conclusion: Yoga practice combined with its philosophical teachings significantly reduces perceived stress compared to yoga alone. The findings highlight the importance of a holistic approach to yoga that includes both physical and philosophical components. Future research should explore the long-term benefits and applicability to diverse populations.

Keywords. Yoga, Yoga Philosophy, Perceived Stress, Women

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Introduction

In recent years, there has been a growing interest in holistic approaches to health and well-being, particularly for its potential to alleviate perceived stress among various demographics. Among these, middle-aged and older women represent a unique population that often faces multifaceted stressors, including health changes, caregiving responsibilities, and societal expectations. As individuals navigate the complexities of aging, the need for effective stress management strategies becomes increasingly vital. Yoga, with its holistic approach that encompasses physical postures, breath control, and philosophical teachings, offers a comprehensive framework for addressing these challenges. The philosophical teachings of yoga rooted in ancient Indian traditions emphasize principles such as mindfulness, non-attachment, and ethical living (yamas and niyamas). These teachings not only enhance the physical aspects of yoga practice but also provide valuable tools for emotional regulation and mental clarity. By integrating these philosophical teachings into regular yoga practice, practitioners may cultivate a deeper understanding of themselves and their experiences, leading to improved mental health outcomes. The philosophical teachings of yoga play a crucial role in enhancing the effectiveness of physical practices. Yogic principles such as mindfulness and non-attachment are foundational to cultivating mental peace. Mindfulness (smriti) is a central concept in yoga philosophy [1]. Mindfulness encourages practitioners to focus on the present moment, alleviating anxiety related to past or future concerns. Non-attachment fosters emotional resilience by promoting acceptance of change and letting go of rigid expectations. For middle-aged and older women, who may experience heightened vulnerability to stress-related disorders, integrating these philosophical teachings into regular yoga practice can foster resilience and promote overall well-being. Ashtanga yoga, the eight-limbed path outlined in Patanjali's Yoga Sutras, which includes yamas (restraints), niyamas (observances), asana (physical posture), pranayama (breath regulation), pratyahara (sense withdrawal), dharana (concentration), dhyana (meditation), samadhi (transcendence). These philosophical teachings encourage practitioners to cultivate positive values and ethical conduct, contributing to overall psychological well-being and resilience against stress [2]. This research aims to explore the effects of yoga practice integrated with its philosophical teachings on perceived stress among middle-aged and older women. By examining the interplay between physical practice and philosophical understanding, this study seeks to high-

light how yoga can serve as a powerful intervention for enhancing mental health in this demographic.

Yoga is an ancient art, science, and philosophy originally developed for spiritual progress and it regulates the function of various organs and helps to overcome digestive, metabolic and psychosomatic disorders [3]. The philosophical teachings inherent in yoga particularly those derived from the Yoga Sutras offer valuable insights into managing stress [4]. Following both yama and niyama people can improve their health by enhancing their physically mentally and spiritually wellbeing and having the balance healthy life style [5]. A systematic review by Wang & Szabo [6] highlighted that various types of yoga significantly reduce stress in healthy populations, emphasizing the need for further studies on long-term effects and psychological mechanisms involved. A meta-analysis by Rhoads et al. [7] on yoga as intervention for stress found a statistically significant moderate effect of yoga on reducing perceived stress. Barnes et al. [8] demonstrated that spiritual orientation positively moderates the relationship between stress and yoga practice, enhancing the effectiveness of yoga as a stress management tool. This highlights the importance of integrating spiritual teachings with physical practice to achieve optimal stress reduction. Engaging with spiritual teachings within yoga enhances self-awareness and fosters a sense of connectedness. Koenig et al. [9] found that spiritual well-being is associated with improved mental health outcomes, including reduced feelings of isolation and increased resilience against stressors. This connection is particularly relevant for middle-aged and older women who may experience loneliness or disconnection during life transitions. Cohen & Wills [10] emphasized the importance of social support in buffering stress effects. Participating in group yoga classes fosters connections among practitioners, providing emotional support that is crucial for managing stress effectively. This communal aspect aligns with the philosophical teaching of interconnectedness, reinforcing the idea that support from others enhances individual resilience. Park et al. [11] explored five psychosocial mechanisms mindfulness, interoceptive awareness, spiritual well-being, self-compassion, and self-control that explain how yoga reduces stress. The findings suggest that these mechanisms enhance emotional regulation and resilience, allowing practitioners to manage stress more effectively. Participants reported significant improvements in perceived stress levels after engaging in a 12-week yoga intervention that integrated these philosophical concepts into practice. Hagen & Hagen [12] explored yoga's role in managing occupational stress revealed that

practitioners experience increased well-being and improved coping mechanisms. The thematic analysis identified key aspects induced by yoga, such as self-awareness and calmness, which are aligned with the philosophical teachings of mindfulness and presence. These qualities help individuals navigate workplace challenges more effectively, demonstrating the practical application of yoga philosophy in real-world settings. Szaszko et al. [13] investigated the influence of Hatha yoga on stress and anxiety levels. The study found that participants who engaged in Hatha yoga experienced significant reductions in both state anxiety and perceived stress. This supports the notion that specific styles of yoga can effectively address stress-related issues through their structured practices and philosophical underpinnings. Zok et al. [14] emphasized the effectiveness of dynamic forms of yoga that incorporate fluid movements and synchronized breathing techniques for managing stress. Participants reported significant reductions in stress levels, suggesting that the physical embodiment of yoga philosophy through movement and breath enhances emotional well-being and resilience. Fischer et al. [15] compared the effects of integrative yoga which combined physical exercises, mindfulness training and ethical/philosophical aspects of traditional yoga and mindfulness training based on the principles of Mindfulness-Based Stress Reduction (MBSR) by Kabat-Zinn on stress reduction and concluded that both approaches were equally effective in managing stress, underscoring the importance of philosophical teachings in both practices. Study by Mandlik et al. [16] showing that a single session of yoga effectively reduces acute stress reactivity in adults, highlighting the immediate benefits of yoga components, including mindfulness and breath control, in managing stress. A review by Sharma [17] evaluated yoga's efficacy as a complementary approach for managing stress. A systematic review by Aakash [2] examined the effects of Ashtanga yoga on stress-related outcomes, highlighting mechanisms such as enhanced mindfulness, relaxation response, and emotional regulation. The findings indicated that regular practice significantly reduces perceived stress levels and improves overall well-being.

Objectives

To investigate how the integration of yoga philosophy influences the effectiveness of yoga practice in alleviating perceived stress among women.

Hypothesis

The integration of yoga practice with its philosophical teachings contributes to reducing stress lev-

els among women.

METHODS

Participants

The participants in the study were 30 women with mean aged 60.4 ± 7.4 years, equally divided into two groups, yoga practice with philosophical session ($n=15$) and yoga practice with discussion ($n=15$). They were recruited from a yoga center, and informed consent was obtained from all the participants to take part in the study after providing the comprehensive explanation of the study, addressing any queries they may have had.

Inclusion criteria

1. Women with age range between 50 to 70 years.
2. Women who have been practicing yoga for at least six months and above.
3. Physically and mentally healthy women.

Exclusion criteria

1. Person with known mental health condition.
2. Person who cannot commit to the study's duration of yoga sessions.
3. Person who express discomfort with the study requirement.

Study design

Two-group pretest-posttest design

Assessment

Before the intervention and two week after the intervention, the Perceive Stress Scale (PSS-10) was used to assess the stress. The Perceived Stress Scale is a comprehensive and widely utilized psychological assessment tool developed by Sheldon Cohen in 1983 to measure an individual's perception of stress. The PSS-10 demonstrates robust psychometric properties, featuring a two-dimensional structure that encompasses positively and negatively phrased items. The positive items reflect perceived self-efficacy, while the negative items represent perceived helplessness.

Intervention

The intervention lasted for two weeks and was conducted by qualified yoga teachers. Participants attended daily one-hour sessions, divided into a 30-minute practical yoga session and a 30-minute additional session, which varied between the two groups.

Yoga practice with Philosophical session

Participants in this group engaged in yoga practice followed by a theoretical session on yoga philosophy.

A. Practical yoga session (30 minutes) The session included:

- Breathing exercises: Hands in and out breathing, hands stretch breathing, ankle stretch breathing
- Dynamic movements: Jogging, twisting, side bending, forward bending, backward bending
- Relaxation techniques: Quick relaxation technique, deep relaxation technique
- Physical postures (Asanas):
 - Standing: Ardha kati chakrasana, Vrikshasana, Padahasthasana, Ardha chakrasana, Trikonasana
 - Sitting: Vajrasana, Shashankasana, Ustrasana, Paschimottanasana
 - Prone: Bhujangasana, Shalabhasana, Dhanurasana
 - Supine: Savasana
- Yogic breathing exercises (Pranayama): Kapalabhati, Nadi Shodhana, Bhramari
- Meditation: Om meditation

B. Philosophical session (30 minutes) The session covered fundamental yogic concepts, including:

- Principles of yoga practice: Yamas and Niyamas
- Asana and Pranayama in Yoga Sutras of Patanjali

- Yogic principles of healthy living: Ahaara (diet), Vihaara (lifestyle), Achaara (conduct), Vichaara (thought process)
- Overview of four schools of yoga: Raja Yoga, Karma Yoga, Bhakti Yoga, Jnana Yoga

Yoga practice with Discussion session

Participants in this group engaged in the same 30-minute practical yoga session as the Yoga practice with Philosophy group. However, instead of a philosophy session, they attended a 30-minute newspaper discussion session, where they discussed current events and general topics from newspapers.

Data Analysis

The data analysis for this study involved statistical evaluations of the Perceived Stress Scale (PSS-10) scores before and after the intervention. Descriptive statistics, including mean and standard deviation, were computed for both pre- and post-intervention stress levels. To determine the significance of changes in stress levels, paired t-tests were conducted for within-group comparisons. Table provides the Mean (SD) PSS scores and P value for both groups before and after the intervention. Group 1 (Yoga with Philosophical session) had a mean PSS score of 17.60 (SD = 3.11) pre-intervention and 13.93 (SD = 2.55) post-intervention, showing a significant reduction. In contrast, Group 2 (Yoga with Discussion session) had a mean PSS score of 18.73 (SD = 2.43) pre-intervention and 18.53 (SD = 2.36) post-intervention, indicating minimal change. The paired t-test for Group 1 yielded a p-value of 0.00013, confirming a significant reduction in perceived stress ($p < 0.05$). However, the paired t-test for Group 2 resulted in a p-value of 0.826, indicating no significant change ($p > 0.05$).

Group	Pre(Mean \pm SD)	Post(Mean \pm SD)	P Value
Group 1 (Yoga with Philosophical session)	17.60 \pm 3.11	13.93 \pm 2.55	0.00013
Group 2 (Yoga with Discussion session)	18.73 \pm 2.43	18.53 \pm 2.36	0.826

Table 1: A comparison of Perceive Stress Scale scores before and after intervention. Within group comparison using paired t-test, *P < 0.05, ** P < 0.01, *** P < 0.001.

Results

The results indicate that integrating philosophical teachings into yoga practice significantly reduces perceived stress levels among middle-aged and older women. Group 1, engaging in yoga and philosophi-

cal sessions, demonstrated a substantial improvement in mental health, with a significant reduction in PSS scores (Mean PSS Pre = 17.60, SD = 3.11; Mean PSS Post = 13.93, SD = 2.55; $p = 0.00013$). In contrast, Group 2, participating in yoga and discussion ses-

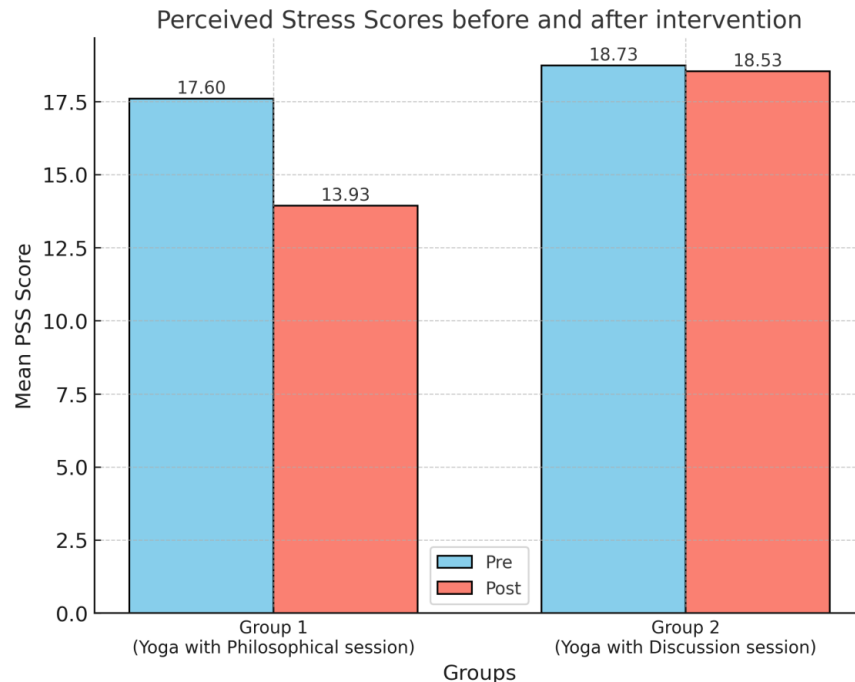


Figure 1: Group 1 shows a significant reduction in PSS scores after the intervention; Group 2 shows minimal change in PSS scores post-intervention.

sions, showed minimal changes in PSS scores, (Mean PSS Pre = 18.73, SD = 2.43; Mean PSS Post = 18.53, SD = 2.36; $p = 0.826$). The statistical analysis confirms that yoga combined with its philosophical elements is more effective in reducing perceived stress compared to yoga with general discussions.

Discussion

The findings align with existing literature emphasizing the importance of yoga's philosophical teachings in enhancing mental well-being. The integration of yoga philosophy appears to enhance the efficacy of physical practice by fostering mindfulness, self-discipline, and emotional regulation. This aligns with studies such as those by Rathore [4] and Park et al. [11], which emphasize the role of mindfulness and self-compassion in stress management. The significant reduction in PSS-10 scores post-intervention for Group 1 suggests that the combination of physical postures, breath regulation, and philosophical teachings creates a comprehensive stress-management strategy. This supports the holistic framework proposed in Patanjali's Yoga Sutras, which advocates for a multifaceted approach to mental well-being. The improved scores in Group 1 may indicate a strong integration of mindfulness (smriti), as a central concept in yoga philosophy as noted by Rathore et al. [1], fostered

present-moment focus, alleviating anxieties. Non-attachment, another yogic principle, likely fostered emotional resilience by encouraging acceptance and expectation release, pivotal for middle-aged women navigating life changes. The finding area also consistent with Aakash [2] that regular practice significantly reduces stress levels and improves overall well-being. The limited impact observed in Group 2 underscores the necessity of integrating both the physical and philosophical aspects of yoga for optimal benefits, as physical practice alone appears insufficient for stress reduction. This corroborates Barnes et al.'s [8] findings on the role of spiritual orientation positively moderating the relationship between stress and yoga practice, and the lack of spiritual orientation within Group 2 may account for the lack of significant statistical significance within this group. Moreover, the results suggest that participants with engagement in philosophical teachings experienced greater stress reduction, indicating that understanding and applying yoga philosophy may enhance an individual's ability to cope with stress. The findings underscore the significance of including theoretical components in yoga interventions to maximize benefits.

Limitations

The findings of this study support the efficacy of integrating yoga philosophy into practice for reducing perceived stress among middle-aged and older women. However, it's also important to consider the limitations of this study. The small sample size and limited demographic scope (women aged 50-70) may restrict generalizability. The short intervention duration of two weeks raises questions about long-term benefits. Future studies could benefit from larger, more diverse samples, longer intervention periods. Exploring specific yoga styles and philosophical teachings could also provide targeted insights into their stress-reducing mechanisms.

Conclusion

This research concludes that integrating philosophical teachings into yoga practice significantly enhances its effectiveness as a stress management strategy for middle-aged and older women. The statistical analysis confirms that participants in Group 1 experienced a notable decline in stress levels post-intervention ($p = 0.00013$), whereas those in Group 2 showed no significant change ($p = 0.826$), reinforcing the effectiveness of philosophical teachings in stress reduction. The findings suggest that a holistic approach to yoga incorporating both physical and philosophical elements can be an effective intervention for stress management. Future research should explore long-term effects and potential applications in diverse populations to further validate these outcomes.

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Compliance: Informed Consent forms were obtained from the participants.

Conflict of Interest: There is no conflict of interest related to this study. There was not any financial support used for the study.

References

- [1] Rathore VS, Choudhary S, Iyengar SS. Yoga as a lifestyle: stress reduction through mindful living. *Swadeshi Res Found.* 2023;10(6).
- [2] Aakash. The impact of Ashtanga yoga on stress management and mental well-being: a systematic review of recent evidence. *J Sports Sci Nutr.* 2024;5(2):95–104. [Link](#)
- [3] Jawanjal SA. Yoga an effective remedy for stress management. *J Emerg Technol Innov Res.* 2017;4(10).
- [4] Rathore V. A scientific exploration of stress management techniques in Patanjali Yog Sutra. *Yoga Mimamsa.* 2023 Jul 1;55(2):114–8. [Link](#)
- [5] Silva PA, Prabhawari AL, Jayawardhane KB. Yama and Niyama mention in Yoga Dharshana for balance life style. *Int Conf Sanskrit Stud.* 2017;Department of Sanskrit, University of Kelaniya, Sri Lanka.
- [6] Wang F, Szabo A. Effects of yoga on stress among healthy adults: a systematic review. *Altern Ther Health Med.* 2020 Jul 1;26(4):58–64.
- [7] Rhoads MC, Barber ME, Grevstad N, Kirkland RA, Myers S, Gruidel KA, et al. Yoga as an intervention for stress: a meta-analysis. *Health Psychol Rev.* 2024 Nov 8:1–21.
- [8] Barnes NG, Singh BR, Parayitam S. Yoga practice and stress management: spiritual belief as a moderator. *Int J Yoga-Philos Psychol Parapsychol.* 2019 Jan 1;7(1):21–32. [Link](#)
- [9] Koenig HG. Religion, spirituality, and health: the research and clinical implications. *Int Scholarly Res Not.* 2012;2012(1):278730. [Link](#)
- [10] Cohen S, Wills TA. Stress, social support, and the buffering hypothesis. *Psychol Bull.* 1985 Sep;98(2):310. [Link](#)
- [11] Park CL, Finkelstein-Fox L, Sacco SJ, Braun TD, Lazar S. How does yoga reduce stress? A clinical trial testing psychological mechanisms. *Stress Health.* 2021 Feb;37(1):116–26. [Link](#)
- [12] Hagen I, Hagen Ø. The impact of yoga on occupational stress and wellbeing: exploring practitioners' experiences. *Front Public Health.* 2024 Jun 5;12:1352197. [Link](#)
- [13] Szaszko B, Schmid RR, Pomper U, Maiworm M, Laiber S, Tschenett H, et al. The influence of hatha yoga on stress, anxiety, and suppression: a randomized controlled trial. *Acta Psychol (Amst).* 2023 Nov 1;241:104075. [Link](#)
- [14] Zok A, Matecka M, Bienkowski A, Ciesla M. Reduce stress and the risk of burnout by using yoga techniques: pilot study. *Front Public Health.* 2024 Apr 2;12:1370399. [Link](#)
- [15] Fischer JM, Kandil FI, Kessler CS, Nayeri L, Zager LS, Rocabado Hennhöfer T, et al. Stress reduction by yoga versus mindfulness training in adults suffering from distress: a three-armed randomized controlled trial including qualitative interviews (RELAX study). *J Clin Med.* 2022 Sep 26;11(19):5680. [Link](#)
- [16] Mandlik GV, Siopis G, Nguyen B, Ding D, Edwards KM. Effect of a single session of yoga and meditation on stress reactivity: a systematic review. *Stress Health.* 2024 Jun;40(3):e3324. [Link](#)
- [17] Sharma M. Yoga as an alternative and complementary approach for stress management: a systematic review. *J Evid Based Complement Altern Med.* 2014 Jan;19(1):59–67. [Link](#)