



## Effect of Yogic Practice on Stress and Resting Heart Rate Among Stressed Middle-Aged Men Police Personnel in Kerala Police Academy Thrissur

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Article History	Abstract
Received: 06 June 2023 Revised: 05 Sept 2023 Accepted: 15 Nov 2023	<p><i>This research paper investigates the impact of yogic practice on stress levels and resting heart rates among middle-aged male police personnel experiencing high levels of stress at the Kerala Police Academy in Thrissur. The study addresses the pressing issue of stress management in a high-stress profession and explores the potential benefits of incorporating yoga as a complementary intervention. A sample of thirty stressed middle-aged male police personnel was recruited, and a structured yogic program was implemented over a period of 12 weeks. Stress levels were assessed using validated psychological measures, and resting heart rates were recorded before and after the intervention. The findings reveal a significant reduction in stress levels and a notable decrease in resting heart rates among the participants following the yogic practice. The results suggest that yogic practices can serve as an effective means of stress reduction and cardiovascular health improvement for stressed middle-aged male police personnel. This research highlights the potential of integrating yoga as a holistic approach to enhance the well-being and resilience of individuals working in high-pressure occupations, such as law enforcement. Further studies and long-term assessments are recommended to consolidate these findings and explore the broader applicability of yogic interventions in stress management programs.</i></p> <p><b>Keywords:</b> Yogic practice, Stress management, Resting heart rate, Middle-aged men, Police personnel, Kerala Police Academy</p>
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### 1. Introduction

Stress has become a pervasive issue in contemporary society, affecting individuals across various walks of life. Middle-aged male police personnel, in particular, are exposed to high levels of stress due to the physically and mentally demanding nature of their profession. The negative consequences of chronic stress on both physical and mental well-being are well-documented, making it essential to explore effective stress management strategies tailored to this specific demographic.

This research paper aims to investigate the potential benefits of yogic practice as a stress management tool for middle-aged male police personnel within the context of the Kerala Police Academy, located in Thrissur, India. The study focuses on understanding how structured yoga programs can positively impact stress levels and resting heart rates, potentially enhancing overall well-being and performance among these police personnel.

### 2. Materials And Methods

The study participants consist of thirty middle-aged male police personnel, aged 35-45 years, who are members of the Kerala Police Academy in Thrissur. Participation in the study is voluntary, and informed consent is obtained from each individual.

## Procedure

1. **Baseline Assessment:** At the outset of the study, participants undergo an initial assessment. This assessment includes the administration of standardized questionnaire (Stress questionnaire by Latha Sathish) to measure stress levels and the recording of resting heart rates. These baseline measurements provide a clear understanding of the participants' starting point in terms of stress and cardiovascular health.
2. **Yoga Intervention:** A structured 12-week yoga program is then conducted under the guidance of experienced yoga instructors. The program is designed to encompass a combination of physical postures, breath control exercises(pranayamas), suryanamaskar, loosening exercises and yoga nidra. These practices are aimed at promoting relaxation, reducing stress, and improving overall well-being.
3. **Post-Intervention Assessment:** Following the completion of the 12-week yoga program, participants are once again assessed for stress levels and resting heart rates. This post-intervention assessment allows for the evaluation of the program's impact on the participants' stress levels and cardiovascular health.

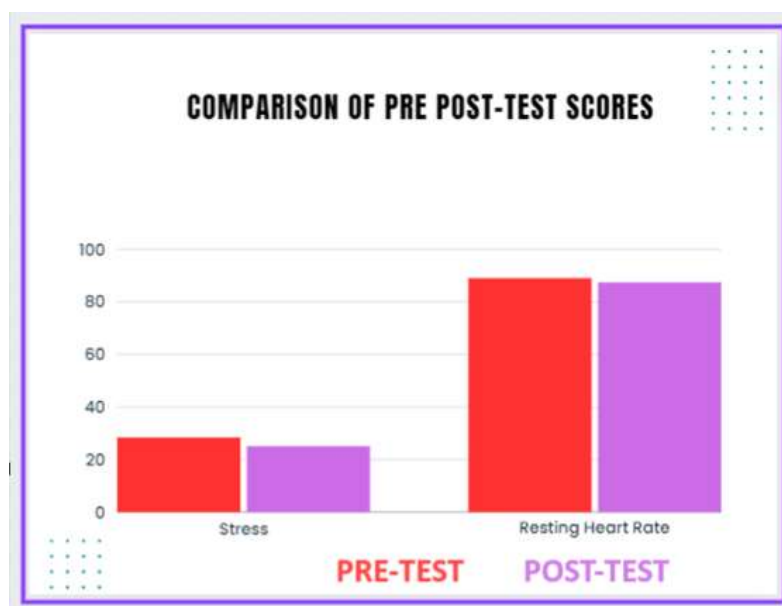
## Data Analysis

The data collected is subjected to statistical analysis. Techniques such as paired t-tests is utilized to determine the significance of changes in stress levels and resting heart rates before and after the yoga intervention.

## 3. Results and Discussion

All the participants successfully completed the 12-week intervention. The data has shown a reduction in the Stress Scores from 28.40 ( $\pm 8.93$ ) to 25.10 ( $\pm 7.83$ ). This has shown a statistical significance as the calculated paired test value of  $t=6.020$  was greater than the tabulated value  $p<0.001$ .

Resting Heart Rate decreased significantly from an initial score of 89.00 ( $\pm 7.33$ ) to 87.40 ( $\pm 5.87$ ). This has shown a statistical significance as the calculated paired test value of  $t=3.238$  was greater than the tabulated value  $p<0.01$ .



**Figure 1.** Comparison of Pre and Post-Test Scores

The findings of this study indicate that the structured yoga program led to a significant reduction in stress levels and a decrease in resting heart rates among the middle-aged male police personnel who participated in the study. This suggests that yoga has the potential to be an effective stress management strategy for this specific demographic.

The results of this research offer valuable insights into the potential benefits of yoga as a stress management tool for middle-aged male police personnel within the Kerala Police Academy. The study demonstrates that yoga not only reduces stress levels but also positively influences resting heart rates, indicative of improved cardiovascular health.

These findings have practical implications for police academies and similar high-stress work environments. Implementing yoga-based stress reduction programs can help enhance the well-being

and performance of police personnel, ultimately contributing to a healthier and more resilient workforce. The following studies support this study.

The practice of yoga has been shown to have positive effects on stress reduction and well-being among various populations, including middle-aged men and police personnel. A study by Ray et al. Kavuri et al. (2015) found that a six-month practice of yogic asanas increased trunk, hip, neck, and shoulder flexibility in middle-aged men, suggesting that yoga can have physical benefits that may contribute to stress reduction.

In the context of police personnel, who often experience high levels of stress, yoga has been found to be beneficial. Khadse and Jagtap Khadse et al. (2020) highlight that training in relaxation practices such as deep breathing, meditation, or yoga can improve the mental health of police personnel and help them cope with stress positively. Similarly, Violanti (1992) explored coping strategies among police recruits in a high-stress training environment and found that the use of coping strategies, such as those taught in yoga, can have a positive impact on stress management.

#### **4. Conclusion**

The effects of yoga on stress reduction have also been investigated in other populations. Sullivan et al. conducted a study on the effects of yoga on stress and found that a 12-week yoga intervention significantly reduced perceived stress levels in participants.

It's important to acknowledge certain limitations of this study, including the voluntary nature of participation and the potential influence of uncontrolled variables on stress levels. To further advance the field, future research could investigate the long-term effects of yoga as a stress management tool among police personnel. Additionally, exploring variations in yoga program design and duration may optimize stress reduction outcomes for this specific demographic.

#### **Acknowledgments**

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