



# Breathing Relief: Investigating Yoga's Effectiveness in Alleviating Occupational Stress Among Health Workers

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**Citation:** Dr. Sukanya, (2024). Breathing Relief: Investigating Yoga's Effectiveness in Alleviating Occupational Stress Among Health Workers, *Educational Administration: Theory and Practice*, 30(11) 1573-1576  
Doi: 10.53555/kuey.v30i11.9673

## ARTICLE INFO

## ABSTRACT

This study investigates the impact of yoga on reducing occupational stress among healthcare workers in Bengaluru, Karnataka, India. The research aims to compare the levels of occupational stress in Yoga practitioners and non - Yoga practitioners, and examining gender differences as well. A total of 100 health workers from different hospitals were selected, 50 Yoga practitioners and 50 non-Yoga practitioners, equally divided between genders. The study employs various stress scales to measure occupational stress, role overload, role conflict, and peer relations. The findings suggest that yoga practitioners report lower stress levels compared to their non-practicing counterparts, highlighting the beneficial effects of yoga in reducing occupational stress within healthcare settings.

**Keywords:** Yoga, Occupational Stress, Health Workers, Role Overload, Role Conflict, Peer Relations

## 1. INTRODUCTION

Yoga is an ancient and holistic practice that originated in India thousands of years ago. It encompasses a wide range of physical, mental, and spiritual disciplines, making it a comprehensive approach to overall well-being. At its core, yoga is a journey of self-discovery and self-improvement, aimed at achieving balance, harmony, and inner peace.

Occupational stress has become an increasingly prevalent issue in the healthcare industry due to the high demands placed on workers in these environments. Occupational stress is increasing with factors like work overload, long hours, exposure to sufferings, high patient expectations, and emotional strain contribute to the significant levels of stress that healthcare workers experience (Cooper & Quick, 2017). Occupational stress can lead to burnout, reduced job performance, and negative health outcomes (Maslach & Leiter, 2016). Yoga, a holistic mind-body practice that combines physical postures, breathing exercises, and meditation, has been suggested as a means of reducing stress (Catherine Woodyard, 2011). This study aims to explore the effect of yoga on occupational stress among health workers, comparing yoga practitioners and non- yoga practitioners in a hospital setting.

Occupational stress in healthcare workers is a significant concern. Studies have shown that healthcare workers face high levels of stress, with factors such as role overload, role conflict, and poor peer relations exacerbating the issue (Schaufeli & Enzmann, 1998). Yoga has been identified as a promising intervention to manage stress (Gilmartin et al., 2017). Research indicates that regular yoga practice can improve mental health by reducing anxiety, depression, and stress (Hofmann et al., 2016). The published literature indicates that yoga and other mind-body meditation programs provide some innovative solutions, scientifically recognized as effective methods to enhance empathy, reduce stress and improve physical work-related issues in healthcare professionals (Mathad, M.D 2017). Yoga programs have been readapted to meet the needs of the work environment as being structured in less time-invasive sessions to be held in the workplace, in association with daily meditation to be carried out individually at home . (Axén, I.; Follin, G 2017)

However, there is a lack of focused research on impact of yoga on healthcare workers, particularly in India. This study aims to fill this gap by examining the relationship between yoga practice and occupational stress in health workers.

### 1.1 OBJECTIVES

1. To compare the levels of occupational stress between yoga practitioners and non- yoga practitioners among healthcare workers.
2. To assess gender differences in the relationship between yoga practice and stress reduction.
3. To explore the impact of yoga on specific dimensions of stress, including role overload, role conflict, and peer relations.

### 1.2 HYPOTHESES

1. Yoga practitioners will report significantly lower levels of occupational stress compared to non-yoga practitioners.
2. Male yoga practitioners will experience lower levels of stress compared to their non- yoga practitioner counterparts.
3. Female yoga practitioners will experience lower stress levels than their non -yoga practitioner counterparts.
4. Yoga practitioners will demonstrate improved peer relations compared to non-yoga practitioners.

## 2. Methods

### 2.1 Sample Selection

The study includes 100 health workers from different hospitals in Bengaluru , Karnataka. 50 participants were yoga practitioners (25 male and 25 female), and fifty were non-yoga practitioners (25 male and 25 female). The participants were selected through stratified random sampling.

### 2.2 Research Design

A cross-sectional research design was used to assess the levels of occupational stress among yoga practitioners and non-practitioners. Pre-test data were collected on stress levels, role overload, role conflict, and peer relations. The data were analysed to identify differences between the two groups.

### 2.3 Research Tools

**Occupational Stress Index (OSI):** Dr. A. K. Srivastava and Dr. Ashok Pratap Singh (2023) Measures general occupational stress.

**Role Conflict Scale:** Beehr et al. (1976). Assesses conflict between job demands and personal values.

**Peer Relations Scale:** The IPPA was developed to assess adolescents' perceptions of the positive and negative affective/ cognitive dimension of relationships with their parents and close friends. Responses were recorded on five-point scale ranging from "almost never or never true" (1) to "almost always or always true" (5). It is scored by reverse scoring the negatively worded items and then summing up the response values in each section. Scores can range from 25 to 125. The peer attachment subscales has 25 items where 3 dimensions are broadly assessed: degree of mutual trust; quality of communication; and extent of anger and alienation. The reliability and convergent validity of the peer attachment sub-scale is 0.91 and 0.57 respectively. Measures the quality of interpersonal relationships at work.

### 2.4 Statistical Techniques Used

Descriptive statistics (mean, standard deviation, standard error) and inferential statistics (t-test) were used to analyse the data and compare differences between groups.

## 3. Results

**Table 1: Occupational Stress Levels in Yoga and Non-Yoga Health Workers**

Group	Mean Stress Level	Standard Deviation	Standard Error Mean	t-value	p-value
Yoga Practitioners (Male)	135.28	7.17	1.43	1.85	0.05
Yoga Practitioners (Female)	131.04	8.90	1.78		
Non-Yoga Practitioners (Male)	141.72	4.83	0.97	2.95	0.05
Non-Yoga Practitioners (Female)	147.20	8.03	1.61		

The data from Table 1 indicates that yoga practitioners report significantly lower occupational stress levels compared to non- yoga practitioners. This result holds true for both male and female participants, with female yoga practitioners showing the greatest reduction in stress levels. The t-tests reveal statistically significant differences ( $p\text{-value} < 0.05$ ) between the groups, particularly between the male yoga practitioners and non-yoga practitioners. This suggests that yoga may be an effective method for reducing occupational stress among healthcare workers.

**Table 2: Role Overload in Male and Female Health Workers**

Group	Mean Role Overload	Standard Deviation	Standard Error Mean	t-value	p-value
Yoga Practitioners (Male)	18.36	3.07	0.61	7.19	0.0001
Yoga Practitioners (Female)	12.84	2.30	0.46		
Non-Yoga Practitioners (Male)	22.32	2.59	0.52	3.85	0.0001
Non-Yoga Practitioners (Female)	24.84	1.99	0.40		

Table 2 shows significant differences in role overload between yoga practitioners and non-yoga practitioners. Both male and female yoga practitioners report lower levels of role overload compared to their non-practicing counterparts, with statistical significance ( $p$ -value  $< 0.05$ ). Health care providers are likely to experience stress due to their work conditions with more intense and stressful situations in caring for patients. This creates role overload and limited support may contribute fatigue burnout etc. By practicing yoga the level of stress experienced and coping with it can be increased. This suggests that yoga may play a critical role in alleviating the feeling of being overburdened at work, which is a significant component of occupational stress.

**Table 3: Role Conflict in Male and Female Health Workers**

Group	Mean Role Conflict	Standard Deviation	Standard Error Mean	t-value	p-value
Yoga Practitioners (Male)	15.00	1.50	0.52	1.65	0.10
Yoga Practitioners (Female)	13.92	1.98	0.40		
Non-Yoga Practitioners (Male)	15.60	1.50	0.30	0.25	0.79
Non-Yoga Practitioners (Female)	15.44	2.75	0.55		

Table 3 indicates that there were no significant differences in role conflict between yoga practitioners and non-yoga practitioners. Role conflict for female health workers often stemming from balancing work and family responsibilities can lead to stress burnout etc. While role conflict is an important aspect of occupational stress, the results suggest that yoga may not have a significant impact in reducing this specific form of stress. Workers who is able to fulfil the demands of the work and who have skills and abilities necessary for completing the work are less stressful in work. This might indicate that role conflict is more influenced by external work conditions or organizational factors than by individual stress management practices like yoga.

**Table 4: Peer Relations in Male and Female Health Workers**

Group	Mean Peer Relations	Standard Deviation	Standard Error Mean	t-value	p-value
Yoga Practitioners (Male)	13.12	2.40	0.48	5.02	0.0001
Yoga Practitioners (Female)	15.92	1.41	0.28		
Non-Yoga Practitioners (Male)	8.52	1.81	0.36	0.95	0.35
Non-Yoga Practitioners (Female)	8.08	1.44	0.29		

Table 4 reveals that male yoga practitioners report significantly better peer relations than their non-yoga practitioners. This suggests that yoga may contribute to improved interpersonal dynamics at work, which can be an important factor in reducing overall stress levels. However, female yoga practitioners did not show a statistically significant difference in peer relations compared to non-yoga practitioners. This could suggest that other factors, beyond yoga practice, might influence peer relations among female healthcare workers.

#### 4. Discussion

Overall, the findings suggest that yoga can significantly reduce certain aspects of occupational stress, such as role overload and peer relations, among healthcare workers. While yoga appears effective in reducing stress in male healthcare workers, the results were less consistent for female health workers. As indicated by Bhandari and his colleagues (Hartfiel, N, Havenhand, 2011), yoga at the workplace can enhance people's wellbeing and their performance at work as well.

Much research on yoga in the workplace was done by Hartfiel and his colleagues (Hartfiel, N, Burton 2012), who found that people who practiced yoga experienced more meaning and satisfaction in life and had greater self-confidence when approaching stressful situations. The findings in the present study are supported by other studies that have also shown that yoga practice is related to low levels of self reported stress (Michaelson et al., 2005). Further research is needed to explore the gender-specific effects of yoga on stress reduction and to examine other variables that may influence the results, such as work environment and organizational support.

## 5. Conclusion

Yoga's multidimensional approach to well-being, encompassing physical, mental, and spiritual dimensions, makes it a potent tool for stress and anxiety reduction. This study demonstrates the beneficial effects of yoga in reducing occupational stress among healthcare workers. Yoga practitioners experienced lower stress levels and better peer relations compared to non- yoga practitioners. Implementing yoga as a regular practice could be an effective strategy for healthcare institutions to mitigate stress and improve the well-being of their staff. Yoga has the potential to reshape habitual stress responses, cultivating resilience and emotional balance over time.

## References

1. Cooper, C. L., & Quick, J. C. (2017). *The handbook of stress and health: A guide to research and practice*. Wiley-Blackwell.
2. Gilmartin, P. H., Goyal, A., Hamati, M. C., Mann, J., Saint, S., & Chopra, V. (2017). Brief mindfulness practices for healthcare workers. *The American Journal of Medicine*, 130(11), 1217-1219.
3. Hofmann, S. G., Sawyer, A. T., Witt, A. A., & Oh, D. (2016). The Efficacy of mindfulness-based stress reduction: A meta-analytic review. *Journal of Psychosomatic Research*, 63(6), 611-623.
4. Maslach, C., & Leiter, M. P. (2016). *Burnout: A social psychological perspective*. In M. P. Leiter & C. Maslach (Eds.), *The handbook of burnout* (pp. 99-126). Springer.
5. Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase quality of life. *Journal of Yoga*, 49(2), 49-54.
6. Mathad, M.D.; Pradhan, B.; Sasidharan, R.K. Effect of Yoga on Psychological Functioning of Nursing Students: A Randomized Wait List Control Trial. *J. Clin. Diagn Res.* **2017**, *11*, KC01–KC05. [
7. Axén, I.; Follin, G. Medical yoga in the workplace setting—Perceived stress and work ability—A feasibility study. *Complement. Ther. Med.* **2017**, *30*, 61–66.
8. Klatt, M.; Steinberg, B.; Duchemin, A.M. Mindfulness in Motion (MIM): an onsite Mindfulness Based Intervention (MBI) for chronically high stress work environments to increase resiliency and work engagement. *J. Vis. Exp.* **2015**, *101*, e52359.
9. Hartfiel, N, Havenhand, J, Khalsa, SB, Clarke, G, and Krayner, A. The effectiveness of yoga for the improvement of well-being and resilience to stress in the workplace. *Scand J Work Environ Health*. (2011) 37:70–6. doi: 10.5271/sjweh.2916
10. Hartfiel, N, Burton, C, Rycroft-Malone, J, Clarke, G, Havenhand, J, Khalsa, SB, et al. Yoga for reducing perceived stress and back pain at work. *Occup Med.* (2012) 62:606–12. doi: 10.1093/occmed/kqs168
11. Michaelson A., Grossman, P., Acil, A., Langhorst, J., Ludtke, R., Esch, T. Stefano, G. B., Dobos, G. J. (2005). Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program. *Medical Science Monitor*, 11 (12), 555-561.