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Effect of Mindfulness-Based Stress Reduction on Occupational Stress and Quality of Work Life among Secondary School Teachers

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Research Article

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Abstract

The study aimed to examine the effect of mindfulness practice on occupational stress and quality of work life among secondary school teachers in Bangalore city. A pre-test post-test control group design was used and participants were assigned to experimental (n = 15) and control group (n = 15). Participants completed the Occupational Stress Index (OSI) and Work-Related Quality of Life (WRQoL) scales, at baseline and post-intervention. The experimental group received Mindfulness Based Stress Reduction (MBSR) Intervention, it was an 8 week intervention and each session lasted for 45 minutes, while control group did not receive any intervention. The Gain scores of the experimental and control groups were compared using the Mann–Whitney U test. Results showed that teachers in the experimental group had significantly lower occupational stress and higher quality of work life compared to the control group. The findings suggested importance of mental health promotion in schools and at workplaces.

Introduction

With the growing demands of modern professional life, Occupational Stress has emerged as a critical concern across professional sectors, particularly in emotionally demanding fields such as education, healthcare, and social services. Continuous workloads, role ambiguity, interpersonal pressures, and organizational demands significantly impact employees' psychological well-being and work functioning. High levels of occupational stress have been associated with burnout, reduced job satisfaction, impaired performance, and long-term mental health consequences. While occupational stress affects many professions, teachers are particularly vulnerable due to the combination of heavy workloads, classroom management challenges, and the emotional investment required in teaching and student support.

Teaching is widely recognized as a high-stress profession, with secondary school teachers facing heavy workloads, classroom management challenges, and the pressure to meet educational standards (Kyriacou, 2001). Persistent occupational stress can negatively affect teachers' physical and mental health, reduce job satisfaction, and impair the quality of work life (Collie et al., 2012). While interventions to support teacher well-being exist, evidence-based strategies that effectively reduce stress and enhance work-related quality of life are limited.

The importance of recognizing psychological health in the workplace and practicing mindfulness programs have drawn significant attention as promising interventions for stress reduction. Mindfulness refers to the intentional, non-judgmental awareness of present-moment experiences (Kabat-Zinn, 1994). Mindfulness-based interventions (MBIs) such as Mindfulness-Based Stress Reduction (MBSR), Acceptance and Commitment Therapy (ACT), and workplace-adapted mindfulness programs have shown promise in enhancing emotional regulation, reducing stress, and improving well-being. Studies indicate that mindfulness training positively influences cognitive flexibility, attention control, and resilience, thereby buffering the negative impact of occupational stress (Hulsheger et al., 2013). Given the high levels of stress experienced by teachers, mindfulness-based approaches offer a potentially

effective means to improve both psychological well-being and work-related quality of life in this population.

In addition to stress reduction, mindfulness has been linked to improved Quality of Work Life (QWL), a multidimensional construct that reflects employees' perception of well-being at work, job satisfaction, work environment, psychological health, and home-work balance. Improved Quality of Work Life is associated with enhanced productivity, higher commitment, and reduced turnover intentions (Van Laar et al., 2007).

The present study aims to explore the effectiveness of Mindfulness Based Stress Reduction (MBSR) practice in reducing occupational stress and enhancing quality of work life among secondary school teachers, thereby contributing to the expanding literature on workplace mental health interventions.

The reviewed literature provides strong evidence that mindfulness practice is an effective intervention for reducing occupational stress and enhancing work-related quality of life. Research across professional settings demonstrates that mindfulness practices fosters adaptive coping, emotional regulation, resilience, and improved workplace functioning. However, further studies particularly profession specific randomized controlled trials and researches in diverse cultural contexts are needed to strengthen causal conclusions and generalizability.

The present study contributes to this growing body of literature by examining the effect of MBSR on occupational stress and QWL among teachers offering empirical insights relevant for both researchers and educational institutions.

Research Methodology

Research Questions

1. Does Mindfulness Based Stress Reduction have a significant effect on occupational stress of secondary school teachers?
2. Does Mindfulness Based Stress Reduction have a significant effect on quality of work life of secondary school teachers?

Objectives

1. To study the effect of Mindfulness Based Stress Reduction practice on occupational stress of secondary school teachers.
2. To study the effect of Mindfulness Based Stress Reduction practice on quality of work life of secondary school teachers.

Hypotheses

H1 - There will be a significant difference in the Occupational Stress levels between

secondary school teachers who underwent Mindfulness-Based Stress Reduction and those in the control group.

H2 - There will be a significant difference in the Quality of Work Life between secondary school teachers who underwent Mindfulness-Based Stress Reduction and those in the control group.

Research Design

A pre-test and post-test control group design was used to examine the effect of an 8-week Mindfulness Based Stress Reduction (MBSR) on Occupational Stress and Quality of Work Life.

Sample

The sample comprised 30 secondary school teachers drawn from eight private CBSE schools in Bangalore. Participants were selected using a convenience sampling technique,

based on availability and willingness to participate, and were subsequently assigned to experimental (n = 15) or the control group (n = 15). Both groups were assessed at base line (pre-test) and post intervention using two standardized questionnaires measuring Occupational Stress and Quality of Work Life. (screening - Moderate to high stress levels?)

Inclusion Criteria	Exclusion Criteria
1. Only schools in Bangalore city were considered for study	1. Schools in rural part of the city were not considered.
2. Full time teachers were considered for study	2. Teachers who already practicing MBSR intervention were not included or this study
3. Only CBSE teachers were considered for study	3. Teachers who were not willing to provide consent were not considered for study.
4. More than 2 years of teaching experience were considered for study	4. Teachers having no B.Ed. qualification were excluded from the study

Tools Used

SL No.	Variable	Tools	Author	Reliability	Validity
1	Occupational Stress	Occupational Stress Index (OSI)	Dr A.K. Srivastav & Dr A.P. Singh (1984)	0.89	0.67
2	Quality of Work life	Work-Related Quality of Life Scale (WRQoL)	Santosh Dhar, Upinder Dhar and Rishi Roy (2006)	0.89	0.94

Mindfulness Based Stress Reduction Program

The intervention module was based on Jon Kabat-Zinn's Mindfulness Based Stress Reduction. The duration was for 45 minutes each session, all the 15 teachers in the experimental group had participated in the training program for entire 8 weeks. The components of programs consisted of breathing exercises, body scan, mindful movement, meditation and daily home practice (20 minutes).

Weekly Activity	Practices
Week 1	Raisin Exercise
Week 2	Mindful Breathing and Body Scan
Week 3	Hatha Yoga Sitting and Walking Meditation
Week 4	Techniques to deal with Physiological and Psychological stressors
Week 5	Handle and control reactions in Unpleasant situations/events
Week 6	Transformational Coping – learning effective communication skills
Week 7	Self-reflection and Daily activities that can be practiced
Week 8	Review and sharing the feedback of the whole program and give descriptive of how they felt and experienced

Procedure

Participants in experimental group and control group completed the 2 tools and then only experimental group underwent 8-week Mindfulness Based Stress Reduction (MBSR) program that comprised of weekly sessions practices conducted in school premises and home practices were also provided as part of MBSR training program, while control group did not receive any intervention or treatment. After completion of this intervention program post-test was administered to experimental and control group.

Statistical Analysis

The data were analysed using both descriptive and inferential statistical techniques. Tests of normality were conducted to examine the distribution of the data. The results of the normality tests indicated that the data were not normally distributed. Thus, non-parametric statistical methods were employed. Gain scores were computed for both the experimental and control groups by calculating the difference between post-test and pre-test scores. The Mann–Whitney U test was then applied to compare the gain scores of the experimental and control groups in order to determine the effect of the mindfulness intervention on occupational stress and quality of work life. The obtained results are presented hypothesis wise and discussed as follows.

Results and Discussion

H1 - There will be a significant difference in the Occupational Stress levels between secondary school teachers who underwent Mindfulness-Based Stress Reduction and those in the control group.

Table 1
Shows comparison of Occupational Stress Gain scores between the Experimental and Control Groups

Variable	Group	N	Median Gain Score	Mean Rank	U	Z	p
Gain Scores (OSI)	Experimental Group	15	−57.00	53.95	344.5	-9.62	<. 001
	Control Group	15	0.50	147.06	-	-	-

Note: statistically significant (p < .05)

An examination of the above table indicates differences in Occupational Stress Index (OSI) gain scores between the experimental and control groups. The analysis revealed a statistically significant difference in gain scores between the two groups, U = 344.50, Z = − 9.62, p < .001. The experimental group (N = 15) demonstrated a substantially greater reduction in occupational stress (Median = − 57.00, Mean Rank = 53.95) compared to the control group (N = 15; Median = 0.50, Mean Rank = 147.06). The negative Z value indicates that participants in the experimental group showed significantly lower gain scores, reflecting a greater decrease in occupational stress following the intervention. Therefore, the hypothesis stating that there will be a significant reduction in occupational stress among participants who underwent the intervention compared to the control group is supported.

The significant difference in post-test stress between the experimental and control groups indicates that mindfulness practice had a substantial impact on reducing occupational stress. While the control group showed an increase in stress over time, the experimental group experienced a marked reduction. This finding is consistent with prior research demonstrating that mindfulness intervention fosters emotional regulation, decreases rumination, and enhances coping in high-stress work environments (Hülsheger et al., 2013; Shapiro et al., 2005).

H2 - There will be a significant difference in the Quality of Work Life between secondary school teachers who underwent Mindfulness-Based Stress Reduction and those in the control group.

Table 2
Shows comparison of Quality of Work Life Gain scores between the Experimental and Control Groups

Variable	Group	N	Median Gain Score	Mean Rank	U	Z	p-
Gain Scores (QWL)	Experimental Group	15	24.00	144.79	9428.5	10.82	< .001
	Control Group	15	−1.50	56.22	—	—	—

Note: statistically significant (p < .05)

The analysis of Mann–Whitney U test conducted on gain scores revealed a statistically significant difference in Quality of Work Life (QWL) gain scores between the experimental and control groups. The analysis revealed a statistically significant difference in gain scores between the two groups, U = 9428.5, Z = 10.82, p < .001. The experimental group (N = 15) demonstrated substantially greater improvement in QWL (Median = 24.00, Mean Rank = 144.79) compared to the control group (N = 100), which showed a slight decline in QWL (Median = − 1.50, Mean Rank = 56.22). The positive Z value indicates that participants in the experimental group had significantly higher gain scores, reflecting a marked improvement in quality of work life following the intervention. Based on the group findings, hypothesis H2 is supported, indicating that Mindfulness-Based Stress Reduction is effective in significantly improving the quality of work life among secondary school.

The findings of the present study indicate that Mindfulness Based Stress Reduction has a positive and significant impact on Quality of Work Life among participants in the experimental group. Teachers who underwent MBSR training reported improved perceptions of their work environment, job satisfaction, and overall work-related well-being compared to those in the control group.

In contrast, the control group, which did not receive the mindfulness intervention, showed comparatively lower or negative gain scores in Quality of Work Life. This suggests that improvements in QWL are not merely due to passage of time or routine work experience, but are more likely attributable to the structured mindfulness-based intervention. The present findings are consistent with earlier research demonstrating that mindfulness-based interventions improve job satisfaction, work engagement, and psychological well-being (Hülsheger et al., 2013; Good et al., 2016; Lomas et al., 2017).

Conclusion

The study provides strong empirical evidence that mindfulness based stress reduction significantly enhances quality of work life and reduces occupational stress. These findings have meaningful implications for teachers and educational institutions who are seeking cost effective strategies to improve mental health, productivity, and overall job satisfaction. The simultaneous decrease in

occupational stress and increase in QWL suggests that mindfulness practices can holistically reducing negative psychological states while enhancing positive work experiences.

Implication

1. The results suggest that schools and various other educational institutions can integrate structured MBSR intervention as part of teacher development programs.
2. School Administrators can use the findings to promote evidence-based wellness initiatives, creating healthier and more supportive work environments.
3. The intervention can be adapted as a cost effective mental health strategy, especially beneficial in resource constrained schools.

Limitations of the Study

1. Limited Sample Size and Generalizability - The sample was restricted to a specific region of teachers in Bangalore city, which may limit the generalizability of the findings to larger or more diverse populations. (Pilot study)
2. Lack of Control Over External Variables – Teacher s' stress levels may be influenced by external factors such as workload changes, school events, personal life issues, or organizational policies, which were not controlled fully.
3. Short Duration of Intervention and Follow-up -The mindfulness program was administered over a limited period, and long-term effects were not assessed.

Future Recommendations

1. Education institutions may incorporate MBSR or other mindfulness based interventions and stress management modules in their training curriculum.
2. Schools should offer regular mindfulness sessions, peer support groups, or wellness workshops to maintain the benefits over time.
3. Administrators should adopt policies that reduce unnecessary workload, encourage breaks, and promote mental health awareness to complement mindfulness programs.
4. (Further Studies/ future research)

Declarations

Participant Consent Statement Informed consent was obtained from all individual participants included in the study. Participants were informed about the purpose of the research, and their participation was voluntary. Confidentiality and anonymity were maintained throughout the study. Consent for Publication Not applicable. Conflict of Interest The authors declare no conflict of interest. Funding No funding was received for this study. Data Availability The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

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