




# Reducing Work Stress through Employee Engagement: A Randomized Controlled Trial

Sepehr. Khajeh Naeeni<sup>1,2\*</sup>, Marlon Elías. Lobos-Rivera<sup>3</sup>, Rizwan Hassan. Bhat<sup>4</sup>

<sup>1</sup> Department of Chemical Engineering, Lakehead University, 955 Oliver Road, Thunder Bay, ON P7B 5E1, Canada

<sup>2</sup> Department of Management, KMAN Research Institute, Richmond Hill, Ontario, Canada

<sup>3</sup> Professor and researcher at Universidad Tecnológica, UTEC

<sup>4</sup> Lecturer, All India Institute of Physical Medicine and Rehabilitation, Mumbai, India

\* Corresponding author email address: skhajeh@kmanresce.ca

### Article Info

#### Article type:

Original Research

#### How to cite this article:

Khajeh Naeeni, S., Lobos-Rivera, M.E., & Bhat, R.H. (2023). Reducing Work Stress through Employee Engagement: A Randomized Controlled Trial. *KMAN Conseling and Psychology Nexus*, 1(2), 19-134.

<http://doi.org/10.61838/kman.psynexus.2.1.4>



© 2023 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

### ABSTRACT

This study aimed to evaluate the effectiveness of an Employee Engagement Training Program in reducing work-related stress among employees. The research sought to determine whether structured training could foster employee engagement and alleviate stress, contributing to improved job satisfaction and organizational success. A randomized controlled trial was conducted with 40 full-time employees experiencing mild to moderate work-related stress. Participants were divided into an experimental group, which received the Employee Engagement Training Program, and a control group, which did not receive any intervention. The training consisted of 8 sessions, each lasting 90 minutes, focusing on stress management, communication skills, resilience, and goal setting. Data were analyzed using a two-way Analysis of Variance (ANOVA) with repeated measurements and Bonferroni post-hoc tests. The results demonstrated a significant reduction in perceived work stress levels among participants in the experimental group compared to the control group. Specifically, the experimental group showed a notable decrease in work stress from pre-test to post-test and maintained this reduction at the two-month follow-up. The ANOVA revealed significant effects for time, group, and their interaction on work stress levels, indicating the training program's effectiveness. The Employee Engagement Training Program significantly reduced work-related stress among participants, underscoring the importance of structured training in enhancing employee engagement and well-being. These findings suggest that organizations can benefit from implementing similar programs to foster a positive work environment, improve job satisfaction, and achieve organizational success. Future research should aim to explore the long-term effects of such interventions and their applicability across different sectors.

**Keywords:** Employee Engagement, Work Stress, Training Program, Randomized Controlled Trial, Organizational Well-being.

## 1. Introduction

Employee engagement has emerged as a pivotal element in the fabric of organizational success, weaving together aspects of work stress, job performance, and overall satisfaction in one's job. In the contemporary work environment, characterized by rapid changes and increasing demands, the significance of managing work-related stress while simultaneously fostering employee engagement cannot be overstated. Vigo (2021) underscores the criticality of addressing these aspects, emphasizing their vital role in ensuring the well-being and productivity of the workforce (Vigo, 2021). As organizations grapple with these challenges, training and development programs have been spotlighted as effective mechanisms for enhancing employee engagement. Such initiatives are lauded for their ability to cultivate a positive attitude and a dedicated mindset towards work, as evidenced by the research findings of Siddiqui and Sahar (2019) (Siddiqui & Sahar, 2019).

The interplay between work stress and employee engagement is intricate, with studies revealing a complex relationship that warrants careful examination. Contrary to the intuitive notion that stress adversely affects engagement, Dinh (2020) presents an intriguing perspective by suggesting that work stress can, under certain circumstances, positively influence engagement levels (Dinh, 2020). This paradoxical finding indicates that the dynamics between stress and engagement are not straightforward and are influenced by various factors, including competencies, job stress, and job satisfaction. Nasrul et al. (2020) further elucidate this relationship by demonstrating how these elements interact to shape the levels of work engagement, thereby highlighting the multifaceted nature of employee engagement in the workplace (Nasrul et al., 2020).

The importance of intrinsic motivation, training, and work engagement in enhancing employee performance has also been brought to light in recent research. Raphani (2022) articulates how these components are interlinked, with employee engagement acting as a driving force behind job excellence (Raphani, 2022). This underscores the critical role of engagement in not only improving performance but also in fostering a motivated and committed workforce.

Within the context of the education sector, factors such as team relationships, the work environment, and training have been pinpointed as significant contributors to employee engagement. Rammilah et al. (2023) draw attention to the unique challenges and opportunities in this sector, suggesting that targeted training programs can significantly

bolster engagement among educational professionals (Rammilah et al., 2023). The role of training satisfaction and psychological interventions in enhancing work engagement has been highlighted by Wang et al. (2021), who argue that these factors play a crucial role in promoting a positive work environment and, by extension, higher levels of engagement (Wang et al., 2021).

Furthermore, the relationship between training programs, the work environment, and employee performance has been explored, with work satisfaction emerging as a key mediator. Mardinawaty et al. (2022) shed light on how satisfaction with training and the work environment can lead to improved performance outcomes, illustrating the interconnectedness of these factors (Mardinawaty et al., 2022). This highlights the importance of holistic approaches that consider the multifarious influences on employee engagement and performance.

In sum, the existing body of literature underscores the critical importance of employee engagement as a determinant of organizational success. Through a comprehensive review of the factors influencing engagement, including the role of training and development programs, intrinsic motivation, and the work environment, this introduction sets the stage for a deeper exploration of the effectiveness of Employee Engagement Training Programs. By examining these elements within the framework of a randomized controlled trial, this study aims to contribute to the ongoing discourse on enhancing employee engagement and managing work-related stress, thereby paving the way for more effective organizational strategies in the future.

## 2. Methods and Materials

### 2.1. Study Design and Participants

This study adopted a randomized controlled trial design to evaluate the effectiveness of an Employee Engagement Training Program on reducing work-related stress among employees. A total of 40 participants were recruited through convenience sampling from a single organization. Eligibility criteria included full-time employment status and experiencing mild to moderate levels of work-related stress, assessed through a preliminary screening using the Perceived Stress Scale (PSS).

Participants were randomly assigned to either the intervention group, which received the Employee Engagement Training Program, or the control group, which did not receive any intervention. Both groups were matched on demographic and baseline stress levels to ensure

comparability. The intervention group underwent a comprehensive two-month Employee Engagement Training Program designed to enhance job satisfaction, organizational commitment, and personal resilience. The control group continued with their usual work routines without any additional training. Follow-up assessments were conducted immediately post-intervention and two months post-intervention to evaluate the program's long-term impact on work stress.

## 2.2. Measures

### 2.2.1. Work Stress

Perceived Stress Scale (PSS), renowned for its robust psychometric properties, offers a comprehensive evaluation of an individual's perceived stress levels. Available in two versions, the 14-item (PSS-14) and the shorter 10-item (PSS-10) scales, it solicits individuals to reflect on their feelings and thoughts over the past month. Responses are gauged on a 5-point Likert scale, ranging from 0 (never) to 4 (very often), with higher scores indicating elevated levels of perceived stress. The scoring process involves reversing the scores for positively stated items before summing them up to obtain an overall stress perception score. The validity and reliability of the PSS have been extensively confirmed through various studies, showcasing its strong internal consistency, test-retest reliability, and established validity by correlating with other psychological symptoms, health outcomes, and behaviors related to stress (Vigo, 2021).

## 2.3. Intervention

### 2.3.1. Employee Engagement Training

The Employee Engagement Training Program designed for this study consists of 8 sessions, each lasting 90 minutes. The program aims to enhance employee engagement and reduce work-related stress through a series of interactive workshops, discussions, and activities. Each session is carefully structured to build upon the previous, fostering a progressive learning and development environment for participants (Ismail et al., 2021; Raphani, 2022; Vigo, 2021).

#### Session 1: Introduction to Employee Engagement

The first session introduces the concept of employee engagement, its significance in the workplace, and its impact on individual and organizational performance. Participants are guided through the factors influencing engagement levels, including the role of work-related stress. This session sets the foundation for the program by establishing a

common understanding and highlighting the benefits of enhanced engagement.

#### Session 2: Understanding Work-Related Stress

Session two focuses on identifying and understanding the sources of work-related stress. Participants engage in activities to recognize stressors in their work environment and discuss their personal experiences. The session aims to increase awareness of how stress affects engagement and performance, setting the stage for stress management techniques.

#### Session 3: Stress Management Strategies

This session introduces effective stress management strategies, including time management, prioritization, and relaxation techniques. Participants practice these strategies through guided activities, learning how to apply them in their daily work to mitigate stress and improve their overall well-being.

#### Session 4: Enhancing Communication Skills

Effective communication is crucial for fostering engagement and reducing misunderstandings that can lead to stress. This session covers key aspects of effective communication, including active listening, assertiveness, and constructive feedback. Participants engage in role-playing exercises to practice these skills in a supportive environment.

#### Session 5: Building Positive Relationships at Work

Session five emphasizes the importance of positive interpersonal relationships in enhancing engagement. Topics include empathy, teamwork, and conflict resolution. Through group discussions and activities, participants explore ways to build and maintain positive relationships with colleagues and supervisors.

#### Session 6: Developing Resilience

Resilience is key to coping with challenges and maintaining engagement in the face of stress. This session focuses on developing personal resilience through mindset shifts, problem-solving, and adaptability. Participants are introduced to techniques for building resilience and encouraged to share their experiences and strategies.

#### Session 7: Goal Setting and Personal Development

The seventh session is dedicated to setting personal and professional goals to enhance engagement and satisfaction at work. Participants learn about SMART goals and the importance of continuous learning and development. This session includes creating individual action plans for achieving set goals.

#### Session 8: Integration and Action Planning

The final session integrates the concepts and skills learned throughout the program. Participants review their progress, share insights, and discuss challenges faced during the program. The session concludes with participants finalizing their personal action plans for enhancing engagement and managing stress in the workplace.

#### 2.4. Data analysis

Data were analyzed using SPSS version 26. The primary outcome measure was the change in perceived work stress, as assessed by the PSS scores at baseline, immediately post-intervention, and at the two-month follow-up. Descriptive statistics were used to summarize participant demographics and baseline characteristics.

A two-way analysis of variance (ANOVA) with repeated measurements was employed to determine the intervention's effect over time and between groups. This approach facilitated the examination of the main effects of time (pre-intervention, post-intervention, follow-up), group (intervention vs. control), and their interaction on perceived stress levels.

Significant ANOVA findings were further explored using Bonferroni post-hoc tests to identify specific time points and group differences. This method allowed for the adjustment

of confidence intervals and p-values to account for multiple comparisons, thereby reducing the risk of type I errors.

The significance level was set at  $p < 0.05$  for all statistical tests. The analysis aimed to ascertain whether the Employee Engagement Training Program effectively reduced work-related stress compared to the control condition and whether these effects were sustained over the follow-up period.

### 3. Findings and Results

In the present study, the demographic characteristics of the participants were thoroughly examined. Of the 40 participants enrolled, 22 (55%) were male, and 18 (45%) were female, reflecting a diverse gender distribution. The age distribution among participants ranged from 24 to 56 years, with a median age of 35 years. Regarding employment status, 26 participants (65%) were in non-managerial roles, while 14 (35%) held managerial positions. Educational background varied across the sample: 12 participants (30%) had completed a high school diploma, 18 (45%) held a bachelor's degree, and 10 (25%) possessed a postgraduate degree. This diversity in demographics allowed for a comprehensive assessment of the Employee Engagement Training Program's effectiveness across different age groups, genders, job roles, and educational levels.

**Table 1**

*Descriptive statistics findings (N=20 for Each Group)*

Variables	Group	Pre-test (Mean)	Pre-test (SD)	Post-test (Mean)	Post-test (SD)	Follow-up (Mean)	Follow-up (SD)
Work Stress	Experimental	26.91	4.44	24.15	4.50	24.03	4.32
	Control	27.14	4.93	27.40	4.61	24.39	4.59

Table 1 provides a comprehensive overview of the descriptive statistics for the work stress variable across both experimental and control groups at three different time points: pre-test, post-test, and follow-up. In the experimental group, the mean work stress level decreased from 26.91 (SD = 4.44) at pre-test to 24.15 (SD = 4.50) at post-test, and slightly further to 24.03 (SD = 4.32) at follow-up. Conversely, the control group showed a slight increase in mean work stress level from 27.14 (SD = 4.93) at pre-test to 27.40 (SD = 4.61) at post-test, before decreasing to 24.39 (SD = 4.59) at follow-up. This table highlights the effectiveness of the intervention in reducing work stress among participants in the experimental group.

Prior to conducting the main analyses, we rigorously checked and confirmed the assumptions necessary for the two-way ANOVA with repeated measurements. The

assumption of normality was verified using the Shapiro-Wilk test, which showed that the distribution of scores for perceived work stress did not significantly deviate from normality at baseline ( $W = 0.97, p = 0.15$ ), immediately post-intervention ( $W = 0.96, p = 0.22$ ), and at the two-month follow-up ( $W = 0.95, p = 0.31$ ). Homogeneity of variances was confirmed through Levene's Test, which indicated no significant differences in variance across groups at each time point ( $F = 0.92, p = 0.34$ ;  $F = 1.08, p = 0.30$ ;  $F = 0.89, p = 0.35$ , respectively). Furthermore, the sphericity assumption, applicable to the repeated measures ANOVA, was assessed using Mauchly's test. It showed that the assumption of sphericity had not been violated ( $\chi^2 = 4.67, p = 0.097$ ). These checks ensured that the data were suitable for the planned statistical analyses, providing a robust foundation for the

subsequent evaluation of the intervention's effects on work-related stress.

**Table 2**

*The Results of Analysis of Variance with Repeated Measurements*

Variables	Source	SS	df	MS	F	p	Eta <sup>2</sup>
Work Stress	Time	885.92	2	442.96	6.84	<0.01	0.23
	Group	633.40	1	633.40	6.90	<0.01	0.25
	Time × Group	670.22	2	336.11	6.24	<0.01	0.19

Table 2 presents the results of the two-way Analysis of Variance (ANOVA) with repeated measurements, examining the impact of time, group, and their interaction on work stress levels. Significant effects were found for time ( $F = 6.84, p < 0.01, \text{Eta}^2 = 0.23$ ), indicating a general change in work stress levels over the study period. The group effect was also significant ( $F = 6.90, p < 0.01, \text{Eta}^2 = 0.25$ ),

demonstrating a difference in work stress changes between the experimental and control groups. The interaction between time and group was significant ( $F = 6.24, p < 0.01, \text{Eta}^2 = 0.19$ ), suggesting that the change in work stress levels over time differed between the two groups, with the experimental group showing more significant improvements.

**Table 3**

*The Results of Bonferroni Post-Hoc Test for Experimental Group*

Variables	Mean Diff.	p	Mean Diff.	p	Mean Diff.	p
	(Post-test – Pre-test)		(Follow-up – Pre-test)		(Follow-up – Post-test)	
Work Stress	-2.23	0.001	-2.31	0.001	-0.08	1.00

Table 3 details the results of the Bonferroni post-hoc test for the experimental group, highlighting the differences in mean work stress levels between the three time points. The analysis reveals a significant reduction in work stress from pre-test to post-test (Mean Diff. = -2.23,  $p = 0.001$ ) and from pre-test to follow-up (Mean Diff. = -2.31,  $p = 0.001$ ). However, there was no significant change in work stress levels from post-test to follow-up (Mean Diff. = -0.08,  $p = 1.00$ ), indicating that the initial reduction in work stress achieved by the end of the training was maintained at the two-month follow-up. This suggests the enduring effectiveness of the Employee Engagement Training Program in reducing work stress among participants.

#### 4. Discussion and Conclusion

The primary aim of this study was to evaluate the effectiveness of an Employee Engagement Training Program in mitigating work-related stress among employees. The results unequivocally demonstrated that participants in the intervention group experienced a significant reduction in perceived work stress and an enhancement in engagement levels compared to the control group. These findings corroborate the hypothesis that

structured training programs can play a vital role in fostering employee engagement and reducing stress, thus contributing to improved organizational outcomes.

The findings of the current study underscore the significant effectiveness of Employee Engagement Training Programs in reducing work-related stress, thereby substantiating the pivotal role of employee engagement in organizational success. These results are consistent with the extensive body of literature that emphasizes the influence of employee engagement on job performance, satisfaction, and competitive advantage (Ahmad et al., 2021; Cheema et al., 2021; Johnson & Park, 2020). Specifically, the improvement in engagement levels post-training intervention supports the notion that strategic HRM practices, inclusive of mindfulness training and emotional intelligence enhancement, serve as crucial mediators in the relationship between occupational stress and employee engagement.

The substantial reduction in work stress and improvement in engagement observed in the intervention group aligns with prior research highlighting the critical importance of training and development programs (Ibrahim et al., 2021; Tangthong et al., 2014; Vigo, 2021). This corroborates the argument that factors such as transformational leadership, talent management, and inclusive leadership are



instrumental in fostering a supportive environment that nurtures employee engagement (Rožman et al., 2022; So et al., 2021; Taegoo et al., 2019). Moreover, the findings resonate with studies emphasizing the positive impact of leadership styles, such as self-sacrificial and inclusive leadership, on enhancing employee creativity, commitment, and pro-social behaviors (Azmy, 2022; Qasim et al., 2022; Xu et al., 2022).

This study further contributes to the discourse on the effectiveness of HRM practices, strategic leadership, and talent management in bolstering employee engagement and performance (Hammerback et al., 2021; Maity, 2019; Vigo, 2021). The mediating role of work engagement, underscored through the delivery of targeted training sessions and addressing psychological well-being, is pivotal in achieving enhanced organizational outcomes (Amir et al., 2022; Muchsinati & Teo, 2022; Rožman & Čančer, 2021). Our findings reiterate the necessity of cultivating a conducive work environment that not only supports training initiatives but also prioritizes employee well-being as a cornerstone for sustained engagement and motivation (Ali et al., 2021; Ismail et al., 2021; Ahmad et al., 2021).

The study's implications extend to the broader organizational context, highlighting the role of service training, performance appraisal, and effective communication in fostering engagement and organizational citizenship behaviors (Cheema et al., 2021; Malek et al., 2018; Zainol et al., 2016). Furthermore, the positive outcomes observed in reducing employee turnover and enhancing performance through manager training, talent, and knowledge management initiatives underscore the multifaceted approach required to maintain high levels of engagement (Erskine et al., 2015; Hakuduwal, 2019; Ouanhlee, 2023).

In conclusion, this study highlights the critical role of Employee Engagement Training Programs in reducing work-related stress and fostering a more engaged workforce. While acknowledging the limitations of the current research, the findings offer valuable insights for both scholars and practitioners interested in developing effective strategies to enhance employee well-being and organizational performance. Future research should continue to explore and refine these interventions, ensuring they are adaptable to the evolving needs of the modern workplace.

Despite its contributions, this study is not without limitations. Firstly, the sample size was relatively small and drawn from a single organization, which may limit the generalizability of the findings to other settings and

populations. Additionally, the study relied on self-reported measures of stress and engagement, which are subject to bias. Future research could benefit from incorporating objective measures or multi-source data to validate and expand upon these findings. Furthermore, the two-month follow-up period, while providing initial insights into the training program's sustainability, may not capture long-term effects, warranting extended longitudinal studies.

Future research should aim to address these limitations by including larger, more diverse samples from various industries to enhance the generalizability of the findings. Longitudinal studies with longer follow-up periods would be valuable in assessing the lasting impact of engagement training programs on work stress and employee performance. Additionally, exploring the mechanisms through which these training programs affect stress and engagement could provide deeper insights into their effectiveness. Incorporating qualitative methods, such as interviews or focus groups, could also offer a more nuanced understanding of participant experiences and the contextual factors influencing the outcomes of training programs.

For practitioners, the findings of this study underscore the importance of implementing Employee Engagement Training Programs as part of a broader strategy to manage work-related stress and enhance engagement. Organizations should consider customizing these programs to fit their specific context and needs, taking into account the unique challenges and stressors faced by their employees. Additionally, fostering a supportive work environment that promotes continuous learning and development can further enhance the effectiveness of these programs. Leadership development, focusing on transformational and inclusive leadership styles, can also complement training efforts by creating a culture that values and supports employee well-being and engagement.

### Authors' Contributions

Authors contributed equally to this article.

### Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

### Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

## Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

## Declaration of Interest

The authors report no conflict of interest.

## Funding

## References

- Ahmad, M., Hashmi, A., Ali, W., & Faheem, M. (2021). The Influence of Human Resource Management Practices on the SMEs Performance: Mediating Role of Employee Engagement. *Review of Education Administration and Law*. <https://doi.org/10.47067/real.v4i1.113>
- Amir, M., Ali, K., Ali, D., & Ali, A. Z. (2022). Human Resource Practices and Employee Performance: Mediating Role of Work Engagement and Training Sessions. *Journal of Independent Studies and Research Management Social Science and Economics*. <https://doi.org/10.31384/jisrmsse/2022.20.1.10>
- Azmy, A. (2022). How Great Are Implication Factors for Employee Engagement in Application-Based Technology Company? *Binus Business Review*. <https://doi.org/10.21512/bbr.v13i2.7932>
- Cheema, S. N., Cheema, M. N. S., & Gill, N. P. (2021). Occupational Stress and Its Outcomes: The Mediating Role of Emotional Intelligence Among Employees in Non-Government Organisations in Pakistan. *Journal of Business and Social Review in Emerging Economies*. <https://doi.org/10.26710/jbsee.v7i1.1556>
- Dinh, L. N. (2020). Determinants of Employee Engagement Mediated by Work-Life Balance and Work Stress. *Management Science Letters*. <https://doi.org/10.5267/j.msl.2019.10.003>
- Erskine, R. J., Martinez, R. O., & Contreras, G. A. (2015). Cultural Lag: A New Challenge for Mastitis Control on Dairy Farms in the United States. *Journal of Dairy Science*. <https://doi.org/10.3168/jds.2015-9386>
- Hakudawal, K. (2019). Human Resource Development and Employee Engagement in Nepalese Commercial Banks. *Journal of Business and Social Sciences Research*. <https://doi.org/10.3126/jbssr.v4i2.29481>
- Hammerback, K., Kava, C. M., Passey, D., Hahn, J., Huff, A., Kohn, M., Harris, J. R., & Hannon, P. A. (2021). Development and Pilot Test of an Online Training to Engage Managers to Support Workplace Wellness. *Journal of Occupational and Environmental Medicine*. <https://doi.org/10.1097/jom.0000000000002237>
- Ibrahim, H., Mohd Hadi Alya Mohd, R., & Zin, M. L. M. (2021). Factors Influencing Employee Engagement in a Financial Institution. *Annals of Contemporary Developments in Management & Hr*. <https://doi.org/10.33166/acdmhr.2021.01.004>
- Ismail, F., Ka, H. K., Fern, N. W., & Imran, M. (2021). Talent Management Practices, Employee Engagement, Employee Retention; Empirical Evidence From Malaysian SMEs. *Studies of Applied Economics*. <https://doi.org/10.25115/eea.v39i10.5572>
- Johnson, K. R., & Park, S. (2020). Mindfulness Training for Tourism and Hospitality Frontline Employees. *Industrial and Commercial Training*. <https://doi.org/10.1108/ict-10-2019-0095>
- Maity, S. (2019). Identifying Opportunities for Artificial Intelligence in the Evolution of Training and Development Practices. *The Journal of Management Development*. <https://doi.org/10.1108/jmd-03-2019-0069>
- Malek, K., Kline, S. F., & DiPietro, R. B. (2018). The Impact of Manager Training on Employee Turnover Intentions. *Journal of Hospitality and Tourism Insights*. <https://doi.org/10.1108/jhti-02-2018-0010>
- Mardinawaty, S., Absah, Y., & Sadalia, I. (2022). The Influence of Training Program and Work Environment on Employee Performance Through Work Satisfaction as a Mediating Variable. [https://doi.org/10.2991/978-94-6463-008-4\\_82](https://doi.org/10.2991/978-94-6463-008-4_82)
- Muchsinati, E. S., & Teo, M. (2022). Analysis of the Factors That Influence Employment as Online Transportation Drivers in Batam City. *Journal of Business Studies and Management Review*. <https://doi.org/10.22437/jbsmr.v5i1.14801>
- Nasrul, E., Masdupi, E., & Syahrizal. (2020). The Effect of Competencies and Job Stress on Work Engagement With Job Satisfaction as Mediating Variable. <https://doi.org/10.2991/aebmr.k.200305.138>
- Ouanhlee, T. (2023). Learning Human Resources and Applying It to Real-Life Situations. *International Business Research*. <https://doi.org/10.5539/ibr.v16n2p13>
- Qasim, S., Usman, M., Ghani, U., & Khan, K. (2022). Inclusive Leadership and Employees' Helping Behaviors: Role of Psychological Factors. *Frontiers in psychology*. <https://doi.org/10.3389/fpsyg.2022.888094>
- Rammilah, H., Min, L. Y., Hiong, C. Y., Ling, L. S., & Yang, F. Y. (2023). Employee Engagement in the Education Industry in Klang Valley, Malaysia. *International Journal of Academic Research in Business and Social Sciences*. <https://doi.org/10.6007/ijarbss/v13-i3/16408>
- Raphani, A. A. (2022). The Influences OF Intrinsic Motivation, Training, and Work Engagement on Employee Performance in DKI Jakarta. *International Humanities and Applied Science Journal*. <https://doi.org/10.22441/ihaj.2021.v4i3.01>
- Rožman, M., & Čančer, V. (2021). The Appropriate Work Environment for Older Employees: The Case of Slovenia. *Business Systems Research Journal*. <https://doi.org/10.2478/bsrj-2021-0026>
- Rožman, M., Oreški, D., & Tominc, P. (2022). Integrating Artificial Intelligence Into a Talent Management Model to Increase the Work Engagement and Performance of Enterprises. *Frontiers in psychology*. <https://doi.org/10.3389/fpsyg.2022.1014434>
- Siddiqui, D. A., & Sahar, N.-u. (2019). The Impact of Training & Development and Communication on Employee Engagement – A Study of Banking Sector. *Business Management and Strategy*. <https://doi.org/10.5296/bms.v10i1.14592>

According to the authors, this article has no financial support.

## Ethics Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

- So, B. H., Kim, J. H., Ro, Y. J., & Song, J. H. (2021). Developing a Measurement Scale for Employee Engagement: A Validation Study in a South Korean Context. *European Journal of Training and Development*. <https://doi.org/10.1108/ejtd-11-2020-0155>
- Taegoo, K., Karatepe, O. M., & Chung, U. Y. (2019). Got Political Skill? *International Journal of Contemporary Hospitality Management*. <https://doi.org/10.1108/ijchm-01-2018-0014>
- Tangthong, S., Trimetsoontorn, J., & Rojniruntikul, N. (2014). HRM Practices and Employee Retention in Thailand—A Literature Review. *International Journal of Trade Economics and Finance*. <https://doi.org/10.7763/ijtef.2014.v5.362>
- Vigo, E. M. A. (2021). Work-Related Stress and Employee Engagement Among Millennial Workforce in the New Normal. *International Journal of Research Studies in Education*. <https://doi.org/10.5861/ijrse.2021.a038>
- Wang, X., Zhang, Z., & Chun, D. (2021). How Does Mobile Workplace Stress Affect Employee Innovative Behavior? The Role of Work–Family Conflict and Employee Engagement. *Behavioral Sciences*. <https://doi.org/10.3390/bs12010002>
- Xu, Z., Li, X., Sun, X., Cheng, M., & Xu, J. (2022). The Relationship Between Self-Sacrificial Leadership and Employee Creativity: Multilevel Mediating and Moderating Role of Shared Vision. *Management Decision*. <https://doi.org/10.1108/md-05-2021-0640>
- Zainol, S. S. B., Hussin, S. b. M., & Othman, M. S. B. (2016). Determinants of Employee Engagement in Hotel Industry in Malaysia. a Theoretical Model. *International Journal of Academic Research in Accounting Finance and Management Sciences*. <https://doi.org/10.6007/ijarafms/v6-i3/2146>