



University of Hormozgan

Authentic Leadership and Employee Mental Health: Examining the Mediating Role of Social Support in the Workplace

Abbas Babaeinejad¹✉, Hoda Sadat Shahamat², Milad Khajoueinab³, Khashayar Setoodeh⁴

1. Assistant Professor department of public administration, Kerman Branch, Islamic Azad university, Kerman, Iran, management7204020@yahoo.com

2. PhD Student of Public Administration, Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran

3. PhD Student of Public Administration, Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran

4. PhD Student of Public Administration, Department of Management, Kerman Branch, Islamic Azad University, Kerman, Iran

Article Info

ABSTRACT

Article type:

Research Article

Objective: The primary objective of this investigation was to elucidate the influence of authentic leadership on the mental health of employees, with a specific emphasis on the mediating function of social support.

Article history:

Received 14 Mar. 2024

Received in revised form 26 May 2024

2024

Accepted 13 Aug. 2024

Published online 01 Dec. 2024

Methods: A cross-sectional research design was employed, incorporating a sample of 300 employees from both governmental and non-governmental organizations located in Kerman, Iran, who were selected utilizing purposive sampling techniques. Data collection was facilitated through the administration of the Authentic Leadership Questionnaire, the Social Support Scale, and the 12-item General Health Questionnaire. The relationships among authentic leadership, social support, and mental health were evaluated using Pearson correlation analysis. Additionally, structural equation modeling (SEM) was applied to examine the mediating role of social support, while the bootstrap method was utilized to assess indirect effects.

Results: The findings revealed that the proposed model demonstrated a satisfactory fit with the empirical data ($CFI = 0.92$, $RMSEA = 0.059$). Specifically, the results indicated a positive and statistically significant correlation between authentic leadership and mental health ($r = 0.51$, $p < 0.01$), as well as a positive and statistically significant correlation between authentic leadership and social support ($r = 0.42$, $p < 0.01$). The analysis via structural equation modeling confirmed that social support serves as a mediator in the relationship between authentic leadership and mental health among employees, exhibiting a significant indirect effect ($\beta = 0.16$, $p < 0.05$).

Conclusions: These findings suggest that initiatives designed to enhance both authentic leadership and social support may prove effective in bolstering employees' mental health.

Cite this article: Babaeinejad, A., Shahamat, H. S., Khajoueinab, M. & Setoodeh, K. (2024). Authentic leadership and employee mental health: examining the mediating role of social support in the workplace. *Iranian Evolutionary Educational Psychology Journal*, 6 (4), 227-242.

DOI: <https://doi.org/10.22034/6.4.227>



© The Author(s).

DOI: <https://doi.org/10.22034/6.4.227>

Publisher: University of Hormozgan.

Introduction

The contemporary workplace is a complex and dynamic environment, shaped by the interplay of leadership styles, organizational culture, and employee well-being ([Akbari & Rashidi, 2020](#)). As organizations strive to achieve sustainable growth and enhance productivity, the mental health of employees has become a critical focal point. Mental health challenges such as stress, anxiety, depression, and burnout are increasingly prevalent in workplaces across the globe, impacting both individual performance and organizational outcomes ([Chopra, 2009](#)). Against this backdrop, leadership plays a pivotal role in shaping workplace experiences and fostering environments that promote psychological well-being ([Ilies et al., 2005](#)). Among the various leadership paradigms, authentic leadership has garnered significant attention due to its emphasis on transparency, ethical behavior, and genuine interpersonal relationships ([Durrah et al., 2024](#); [Iqbal et al., 2020](#)).

Authentic leadership is a leadership style characterized by self-awareness, balanced decision-making, relational transparency, and an internalized moral perspective ([Zhang et al., 2022](#)). Leaders who embody authenticity are committed to fostering trust, inspiring collaboration, and nurturing a supportive work environment. By aligning their actions with their values, authentic leaders create an atmosphere of psychological safety where employees feel valued and supported ([Duarte et al., 2021](#)). This leadership approach has been associated with numerous positive outcomes, including enhanced employee engagement, job satisfaction, and organizational commitment ([Goestjahjanti et al., 2020](#)).

Moreover, the emphasis on genuine relationships in authentic leadership provides a fertile ground for cultivating social support within the workplace. Social support, defined as the exchange of resources between individuals to enhance coping mechanisms and reduce stress, is a cornerstone of mental well-being ([Jolly et al., 2021](#)). In organizational settings, social support can manifest through collegial relationships, supportive supervisors, and a culture of mutual respect ([Hou et al., 2020](#)). The presence of robust social support systems within the workplace has been shown to buffer the adverse effects of stressors, promote resilience, and contribute to positive mental health outcomes ([Collins et al., 2016](#)). When authentic leaders actively foster an environment where social support thrives, they create a workplace ecosystem conducive to mental well-being ([Arici, 2018](#)).

The mental health of employees is a growing concern in organizational contexts, with significant implications for individual well-being and organizational performance ([Moreno Fortes et al., 2020](#)). Research highlights that poor mental health among employees can lead to decreased productivity, increased absenteeism, and higher turnover rates ([Voordt & Jensen, 2023](#)). In response, organizations have begun to prioritize strategies for fostering mental well-being. However, while the importance of leadership in shaping employee experiences is widely recognized, the specific pathways through which leadership styles impact mental health remain insufficiently understood.

Authentic leadership, with its focus on transparency, ethical conduct, and relational trust, offers a promising avenue for enhancing employee mental health. Leaders who exhibit authenticity create a psychologically safe environment, which is crucial for addressing mental health challenges ([Wei et al., 2020](#)). Despite its potential, the mechanisms underlying the relationship between authentic leadership and employee mental health are not yet fully understood. While studies have established the direct positive effects of authentic leadership on various employee outcomes ([Zhang et al., 2022](#)), the role of mediating factors such as social support remains underexplored.

Social support in the workplace serves as a critical buffer against stress and a facilitator of mental well-being. Employees who perceive higher levels of social support from colleagues and supervisors are better equipped to cope with workplace demands and maintain a positive psychological state. Authentic leaders, by virtue of their relational transparency and genuine interactions, are uniquely positioned to foster an environment rich in social support ([Ortiz-Gómez et al., 2022](#)). However, empirical evidence examining whether and how social support mediates the relationship between authentic leadership and employee mental health is lacking.

The absence of such research presents a critical gap in the literature. Without a nuanced understanding of this mediating role, organizations may miss valuable opportunities to design leadership development programs and workplace interventions that holistically address employee well-being. Furthermore, the increasing prevalence of mental health challenges in modern work environments, exacerbated by factors such as the COVID-19 pandemic and rapid organizational change, underscores the urgency of identifying effective strategies for promoting mental health through leadership.

This study addresses these gaps by investigating the mediating role of social support in the relationship between authentic leadership and employee mental health. By doing so, it seeks to contribute to the theoretical understanding of leadership and mental health while offering actionable insights for organizations striving to foster supportive and mentally healthy workplaces. Despite the growing body of literature on authentic leadership and its impact on employee outcomes, the mechanisms through which this leadership style influences mental health remain underexplored. Specifically, the mediating role of social support in the relationship between authentic leadership and employee mental health warrants further investigation. Understanding this relationship is particularly crucial in today's work environments, characterized by heightened uncertainty, rapid technological advancements, and evolving workforce demographics.

This study aims to fill this gap by examining the mediating role of social support in the workplace in the relationship between authentic leadership and employee mental health. By exploring how authentic leaders can foster social support and, in turn, enhance mental well-being, this research seeks to provide valuable insights for both scholars and practitioners. Furthermore, the findings will have practical implications for organizational policies, leadership development programs, and mental health initiatives, contributing to a more holistic understanding of the interplay between leadership, social support, and employee well-being.

Material and Methods

This study employs a cross-sectional correlational research design to examine the relationship between authentic leadership and employee mental health, with social support in the workplace as a mediating variable. This design allows for the exploration of the hypothesized relationships among the variables in a single time frame, facilitating the identification of potential mediating effects. The target population for this study includes employees across various sectors such as healthcare, education, and corporate organizations. A purposive sampling method was employed to recruit participants who have been working under the supervision of managers or leaders for at least six months. This ensures that the participants have sufficient experience to assess their perceptions of authentic leadership and social support in the workplace. A total sample of approximately 300 employees is anticipated, based on similar studies conducted in organizational contexts ([Gardner et al., 2005](#)).

Instruments

Authentic Leadership Questionnaire (ALQ): Authentic leadership was measured using the Authentic Leadership Questionnaire (ALQ) developed by [Walumbwa et al. \(2008\)](#). The ALQ consists of 16 items rated on a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The questionnaire measures four dimensions of authentic leadership: self-awareness, relational transparency, balanced processing, and internalized moral perspective. The ALQ has exhibited substantial reliability and validity across a variety of organizational contexts ([Walumbwa et al., 2008](#)). In the current investigation, its reliability was ascertained to be 0.82, which signifies an acceptable level of reliability.

The Multidimensional Scale of Perceived Social Support (MSPSS): The assessment of social support was conducted utilizing the Multidimensional Scale of Perceived Social Support, a prevalent self-report tool specifically crafted to evaluate an individual's perception of social support derived from three unique sources: family, friends, and significant others. This scale furnishes a thorough evaluation of perceived social support, which is paramount for comprehending its significance in diverse psychological and behavioral frameworks ([Zimet et al., 1988](#)). The MSPSS is comprised of 12 items, with 4 items allocated to each of the three subscales. Each item signifies the respondent's perceived accessibility and sufficiency of social support from the designated source. The MSPSS employs a 7-point Likert scale with responses ranging from: 1 = Very strongly disagree to 7 = Very strongly agree. The cumulative score for each subscale is determined by aggregating the scores of the corresponding items and dividing by the quantity of items within that subscale. Elevated scores are indicative of a higher perception of social support. The MSPSS has exhibited exemplary internal consistency across various demographic groups, with Cronbach's alpha values generally surpassing 0.85 for both the overall scale and each subscale. Furthermore, the MSPSS has demonstrated robust construct validity, exhibiting strong correlations with measures of emotional well-being and stress. Factor analysis consistently corroborates the three-factor structure, affirming the distinctiveness of the subscales ([Zimet et al., 1988](#)). In the present study, its reliability was determined to be 0.84, which denotes an acceptable level of reliability.

General Health Questionnaire (GHQ-12): Employee mental health was assessed utilizing the 12-item General Health Questionnaire (GHQ-12), a prevalent self-report instrument employed for

the screening of mental health disorders. The GHQ-12 encompasses various dimensions including anxiety, depression, and overall well-being, with responses evaluated on a 4-point Likert scale ([Goldberg & Williams, 1988](#)). The GHQ-12 has exhibited substantial reliability and validity across a myriad of populations ([del Pilar Sánchez-López & Dresch, 2008](#); [Wojujutari et al., 2024](#)). In the current investigation, its reliability was ascertained to be 0.79, indicating a satisfactory level of reliability.

Data Collection Procedure

Data collection was conducted through an online survey platform, ensuring accessibility and anonymity for participants. Ethical approval was obtained from the relevant institutional review board, and participants provided informed consent before completing the survey. The survey took approximately 15 minutes to complete, and participants were assured of the confidentiality of their responses.

Data Analysis

The collected data were analyzed using Structural Equation Modeling (SEM) to test the hypothesized relationships among the variables. Preliminary analyses included descriptive statistics, correlation coefficients, and reliability assessments for all scales. Mediation analysis was performed using the bootstrapping method to determine the indirect effects of authentic leadership on employee mental health through workplace social support.

Ethical Considerations

This study adheres to ethical research principles, including voluntary participation, informed consent, confidentiality, and the right to withdraw from the study at any time. The research was conducted following the guidelines outlined in the Declaration of Helsinki.

Results

Data were analyzed using SPSS (version 27) and AMOS for structural equation modeling (SEM). First, descriptive statistics to summarize the characteristics of the variables are presented in Table 1.

Table 1. Mean, standard deviation and correlation coefficients between the variables of the present study

	Variable	Mean	SD	1	2
1	Authentic leadership	42.58	3.54	-	
2	Mental health	22.61	2.68	0.59**	-
3	Social support	31.87	4.11	0.51**	0.57**

A correlation matrix was created to examine the relationships between the main study variables. Authentic leadership showed a positive and significant correlation with mental health ($r = 0.59$, $p < 0.001$) and social support ($r = 0.51$, $p < 0.001$). Also, mental health was positively correlated with social support ($r = 0.57$, $p < 0.001$). These preliminary findings suggest that higher levels of perceived authentic leadership are associated with employees perceived mental health and social support. To test the mediating role of social support in the relationship between authentic leadership and mental health, mediation analysis was conducted using structural equation modeling (SEM). The proposed model included authentic leadership as the independent variable, social support as the mediator, and mental health as the dependent variable.

SEM analysis indicated a good fit of the model to the data, as confirmed by the following fit indices: comparative fit index (CFI) = 0.92, Tucker-Lewis's index (TLI) = 0.91, and root mean square error of approximation (RMSEA) = 0.059. These values indicate that the model adequately represents the relationships among the study variables.

Table 2. Direct effects of variables in the proposed model

Path	Direct effect	P
Authentic leadership to mental health	0.51	0.01
Authentic leadership to social support	0.42	0.01
Social support to mental health	0.39	0.01

According to Table 2, the direct path from authentic leadership to mental health was significant ($\beta = 0.51$, $p < 0.01$), indicating that higher scores of authentic leadership are associated with higher

levels of employee mental health. The direct path from authentic leadership to social support was also significant ($\beta = 0.42$, $p < 0.01$), indicating that employees who have higher perceptions of authentic leadership tend to report better social support. Finally, the direct path from social support to mental health was also positive and significant ($\beta = 0.39$, $p < 0.01$). Bootstrap analysis with 5000 samples confirmed that the indirect effect of authentic leadership on mental health through social support was significant ($\beta = 0.16$, $p < 0.05$). These findings support the hypothesis of social support mediating the relationship between authentic leadership and mental health. The proposed model of current study was provided in figure 1.

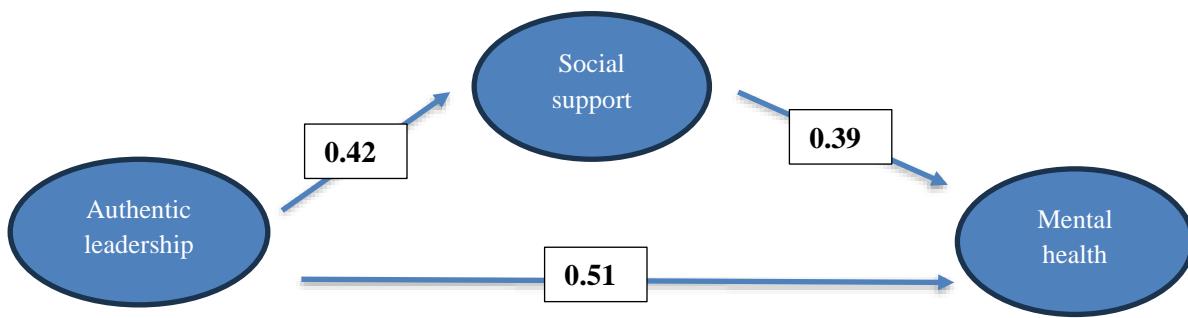


Figure 1. The proposed model of current study

According to the proposed model (Figure 1), authentic leadership has a positive relationship with mental health in employees, and this relationship is mediated by social support.

Discussion

The present study aimed to investigate the role of authentic leadership in influencing employee mental health, with a focus on the mediating role of social support. The results demonstrated a significant positive relationship between authentic leadership and mental health, corroborating the hypothesis that leadership styles rooted in transparency, self-awareness, and ethical practices contribute to improved employee well-being. The findings further revealed that social support mediates this relationship, indicating that authentic leadership fosters an environment that enhances social interactions and emotional connections, which, in turn, positively affect mental

health. The significant indirect effect of social support highlights its essential role in translating the benefits of authentic leadership into tangible mental health improvements.

Authentic leadership has emerged as a pivotal concept in leadership studies, characterized by a leader's self-awareness, relational transparency, internalized moral perspective, and balanced processing of information (Walumbwa et al., 2008). This leadership style emphasizes authenticity in interactions and decision-making processes, fostering trust, collaboration, and ethical behavior within organizations. Unlike traditional leadership models that may prioritize performance and profitability over employee well-being, authentic leadership integrates personal integrity and ethical responsibility, thus promoting an inclusive and supportive work environment (Gardner et al., 2005).

The origins of authentic leadership can be traced back to positive psychology and transformational leadership theories, which advocate for a focus on individual strengths and ethical practices. Avolio et al. (2018) argued that authentic leaders create a ripple effect within organizations, enhancing employee morale, job satisfaction, and organizational commitment. These leaders serve as role models by aligning their actions with their core values and beliefs, which, in turn, inspire employees to adopt similar behaviors.

One of the most significant aspects of authentic leadership is its emphasis on self-awareness. Leaders with high self-awareness recognize their strengths, weaknesses, and emotional triggers, enabling them to make informed and ethical decisions (Gardner et al., 2021). Additionally, relational transparency allows leaders to build trust with their followers by openly sharing information and maintaining honest communication (Gardner et al., 2011). This transparency reduces ambiguity in the workplace, fostering an environment where employees feel valued and understood.

Balanced processing is another critical dimension of authentic leadership, involving the objective evaluation of relevant information before making decisions. This aspect ensures that leaders consider diverse perspectives, reducing the likelihood of biased or unethical decisions (Walumbwa et al., 2008). Furthermore, an internalized moral perspective guides leaders in adhering to ethical principles even in the face of adversity, reinforcing the importance of integrity and accountability in leadership practices (Gardner, 2005).

The implications of authentic leadership extend beyond individual and organizational outcomes. Research indicates that authentic leadership positively impacts employee mental health by creating a psychologically safe environment where employees can express themselves without fear of judgment or retaliation (Leroy et al., 2012). This leadership style has been associated with reduced employee stress, increased job satisfaction, and enhanced well-being, making it particularly relevant in today's dynamic and often stressful work environments (Gardner et al., 2011).

Moreover, authentic leadership fosters the development of social capital within organizations by promoting collaborative and inclusive practices. Leaders who demonstrate authenticity encourage employees to build meaningful relationships, enhancing social support and teamwork (Raso, 2019). This social support acts as a buffer against workplace stressors, further contributing to employee well-being and organizational resilience.

Despite its numerous benefits, authentic leadership is not without challenges. Critics argue that the emphasis on self-awareness and relational transparency may lead to over-sharing or vulnerability, potentially undermining a leader's authority (Cooper et al., 2005). Additionally, cultural differences may influence the perception and effectiveness of authentic leadership, suggesting a need for context-specific adaptations.

The findings of this study align with prior research emphasizing the importance of leadership styles in workplace mental health. For instance, Gardner et al. (2011) identified authentic leadership as a pivotal factor in creating psychologically safe work environments. Similarly, Walumbwa et al. (2008) argued that authentic leadership enhances employee well-being by fostering trust and a sense of belonging. The mediating role of social support is consistent with findings by Ortiz-Gómez et al. (2022), who demonstrated that workplace social support acts as a buffer against stress and anxiety, improving overall mental health. However, this study extends the literature by quantifying the mediating effect of social support, contributing nuanced insights into the mechanisms through which authentic leadership influences mental health.

The study underscores the critical importance of promoting authentic leadership within organizational contexts to improve employee mental health. Organizations should consider implementing training programs aimed at developing authentic leadership competencies, such as self-awareness, ethical decision-making, and transparency. Additionally, fostering a culture of social support by encouraging team collaboration and providing resources for social interaction

can amplify the positive effects of authentic leadership on employee well-being. Policymakers and human resource professionals can use these findings to design interventions that integrate leadership development with mental health initiatives, ultimately creating healthier and more productive workplaces.

Although the study provides valuable insights, it also opens avenues for future research. Longitudinal studies could be conducted to explore the sustained effects of authentic leadership on mental health over time. Investigating the role of other potential mediators, such as job satisfaction or organizational commitment, could further elucidate the pathways through which authentic leadership impacts mental health. Future research should also consider cross-cultural comparisons to determine whether the observed relationships hold in diverse cultural and organizational settings.

Despite its contributions, this study has several limitations. The cross-sectional design precludes causal inferences, leaving the directionality of the relationships open to interpretation. The use of self-reported measures may introduce response bias, as participants might overestimate or underestimate their perceptions of leadership, social support, or mental health. Additionally, the sample was limited to employees in Kerman, Iran, which may restrict the generalizability of the findings to other regions or organizational contexts. Addressing these limitations in future research would enhance the robustness and applicability of the results. Future research should explore its cross-cultural applicability and long-term effects on employee outcomes.

In conclusion, authentic leadership represents a paradigm shift in leadership practices, emphasizing ethical behavior, self-awareness, and relational transparency. By fostering trust and social support, this leadership style contributes to employee well-being and organizational success.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by ethics committee of Payam e Noor University.

Author contributions

All authors contributed to the study conception and design, material preparation, data collection and analysis. All authors contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

Akbari, T., & Rashidi, A. (2020). The role and role of genuine leadership components in predicting organizational health with the mediating role of psychological capital in the higher education system. *Applied Educational Leadership*, 1(1), 87-99.
https://ael.uma.ac.ir/article_962_c9b6d319cc97159b971a4b4fbacf003c.pdf

Akbarpour Niko, A., & Najarpour Ostadi, S. (2021). The effectiveness of teaching positive thinking skills on academic vitality and emotion regulation in female students of the first secondary school. *New Advances in Psychology, Educational Sciences and Education*, 34(4), 1-13.

Akhlaghi, M., Etesam, F., Heidarnejad, M. H., Akbarpour, S., Goudarzi, F., & Sadeghian, M. H. (2021). Evaluation the Hopelessness of Medical Students and Related Factors [Research

Article]. *Iranian Journal of Forensic Medicine*, 27(2), 127-134. <http://sjfm.ir/article-1-1250-fa.html>

Arici, H. E. (2018). Perceived supervisor support and turnover intention: Moderating effect of authentic leadership. *Leadership & Organization Development Journal*, 39(7), 899-913.

Chopra, P. (2009). Mental health and the workplace: issues for developing countries. *International Journal of Mental Health Systems*, 3, 1-9.

Chui, R. C., & Chan, C.-K. (2020). Positive thinking, school adjustment and psychological well-being among Chinese college students. *The Open Psychology Journal*, 13(1).

Collins, A. M., Hislop, D., & Cartwright, S. (2016). Social support in the workplace between teleworkers, office-based colleagues and supervisors. *New Technology, Work and Employment*, 31(2), 161-175.

del Pilar Sánchez-López, M., & Dresch, V. (2008). The 12-Item General Health Questionnaire (GHQ-12): reliability, external validity and factor structure in the Spanish population. *Psicothema*, 20(4), 839-843.

Duarte, A. P., Ribeiro, N., Semedo, A. S., & Gomes, D. R. (2021). Authentic leadership and improved individual performance: affective commitment and individual creativity's sequential mediation. *Frontiers in Psychology*, 12, 675749.

Durrah, O., Charbatji, O., Chaudhary, M., & Alsubaey, F. (2024). Authentic leadership behaviors and thriving at work: Empirical evidence from the information technology industry in Australia. *Psychological reports*, 127(4), 1911-1940.

Gardner, W. L., Avolio, B. J., Luthans, F., May, D. R., & Walumbwa, F. (2005). "Can you see the real me?" A self-based model of authentic leader and follower development. *The leadership quarterly*, 16(3), 343-372.

Goestjahjanti, S. F., Novitasari, D., Hutagalung, D., Asbari, M., & Supono, J. (2020). Impact of talent management, authentic leadership and employee engagement on job satisfaction: Evidence from south east asian industries. *Journal of Critical Reviews*, 7(19), 67-88.

Goldberg, D., & Williams, P. (1988). General health questionnaire. In: Granada Learning Group London.

Hashemian, M., Namdari, K., & Abedi, A. (2022). The Effectiveness of Hope-Therapy on the Dimensions of Life Quality and Self-Esteem of Depressed Adolescent Girls [Research]. *Journal of counseling research*, 21(81), 309-331. <https://doi.org/10.18502/qjcr.v21i81.9501>

Hou, T., Zhang, T., Cai, W., Song, X., Chen, A., Deng, G., & Ni, C. (2020). Social support and mental health among health care workers during Coronavirus Disease 2019 outbreak: A moderated mediation model. *PloS one*, 15(5), e0233831.

Ilies, R., Morgeson, F. P., & Nahrgang, J. D. (2005). Authentic leadership and eudaemonic well-being: Understanding leader–follower outcomes. *The leadership quarterly*, 16(3), 373-394.

Iqbal, S., Farid, T., Khan, M. K., Zhang, Q., Khattak, A., & Ma, J. (2020). Bridging the gap between authentic leadership and employees communal relationships through trust. *International journal of environmental research and public health*, 17(1), 250.

Jolly, P. M., Kong, D. T., & Kim, K. Y. (2021). Social support at work: An integrative review. *Journal of Organizational Behavior*, 42(2), 229-251.

Krifa, I., Hallez, Q., van Zyl, L. E., Braham, A., Sahli, J., Ben Nasr, S., & Shankland, R. (2022). Effectiveness of an online positive psychology intervention among Tunisian healthcare students on mental health and study engagement during the Covid-19 pandemic. *Applied Psychology: Health and Well-Being*, 14(4), 1228-1254.

Moreno Fortes, A., Tian, L., & Huebner, E. S. (2020). Occupational stress and employees complete mental health: a cross-cultural empirical study. *International journal of environmental research and public health*, 17(10), 3629.

Ng, W., & Ong, K. R. (2022). Using positive psychological interventions to improve well-being: are they effective across cultures, for clinical and non-clinical samples? *Journal of Contemporary Psychotherapy*, 52(1), 45-53.

Ortiz-Gómez, M., Molina-Sánchez, H., Ariza-Montes, A., & de Los Ríos-Berjillos, A. (2022). Servant leadership and authentic leadership as job resources for achieving workers' subjective well-being among organizations based on values. *Psychology research and behavior management*, 2621-2638.

Seligman, M. E., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *American psychologist*, 60(5), 410.

Voordt, T. V. D., & Jensen, P. A. (2023). The impact of healthy workplaces on employee satisfaction, productivity and costs. *Journal of Corporate Real Estate*, 25(1), 29-49.

Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of management*, 34(1), 89-126.

Wei, H., King, A., Jiang, Y., Sewell, K. A., & Lake, D. M. (2020). The impact of nurse leadership styles on nurse burnout: A systematic literature review. *Nurse Leader*, 18(5), 439-450.

Wojujutari, A. K., Idemudia, E. S., & Ugwu, L. E. (2024). The evaluation of the General Health Questionnaire (GHQ-12) reliability generalization: A meta-analysis. *PloS one*, 19(7), e0304182.

Zhang, Y., Guo, Y., Zhang, M., Xu, S., Liu, X., & Newman, A. (2022). Antecedents and outcomes of authentic leadership across culture: A meta-analytic review. *Asia Pacific Journal of Management*, 39(4), 1399-1435.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The multidimensional scale of perceived social support. *Journal of personality assessment*, 52(1), 30-41.