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**Effect of Mental Health Support Programs on Employee Retention  
in The Healthcare Sector in Pakistan**



## Effect of Mental Health Support Programs on Employee Retention in The Healthcare Sector in Pakistan

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### Abstract

**Purpose:** The purpose of this article was to analyze effect of mental health support programs on employee retention in the healthcare sector in Pakistan.

**Methodology:** This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

**Findings:** Mental health support programs in Pakistan's healthcare sector have been shown to reduce employee turnover by improving well-being, job satisfaction, and loyalty. These programs also lower burnout and absenteeism, supporting workforce stability in a high-stress environment.

**Unique Contribution to Theory, Practice and Policy:** The job demands–resources (JD-R), the conservation of resources (COR) theory & Herzberg's motivation–hygiene theory may be used to anchor future studies on effect of mental health support programs on employee retention in the healthcare sector in Pakistan. Mental health support is not just a wellness initiative it is a strategic retention tool. At the policy level, this study supports the integration of mental health standards into labor and occupational health regulations within the healthcare sector.

**Keywords:** *Mental Health, Support Programs, Employee Retention, Healthcare Sector*

## INTRODUCTION

Employee retention rate refers to the proportion of employees who remain with an organization over a specified time period. In the United States, turnover surged during the COVID-19 pandemic, reaching 57.3% in 2020, and peaked at 32% voluntary quits in 2021, reflecting widespread workforce instability (Al-Suraihi, 2021). Gallup (2022) found that over 48% of U.S. employees were actively seeking new jobs, highlighting persistent retention challenges. Conversely, Japan maintains one of the lowest employee turnover rates globally due to its cultural emphasis on lifetime employment and long tenure structures, with over 35% of employees remaining with the same company for more than 10 years (Peltokorpi, 2025). The UK implemented a COVID-19 Job Retention Scheme in 2021, which preserved over 11.6 million jobs and mitigated the risk of mass turnover during economic downturns (Office for National Statistics [ONS], 2022).

In Canada, the average employee turnover rate stood at 11.9% in 2024, with retail and wholesale sectors experiencing the highest churn 25.9% according to a Mercer survey (McRae, 2024). Further, 57% of Canadian workers considered quitting in the past year, citing low salaries, a lack of growth opportunities, and limited remote options especially post-COVID (McRae, 2024). In Germany, turnover rates are generally lower, with national studies reporting an average of approximately 9% substantially below North American rates largely due to stronger worker protections and vocational training pathways (Gupta & Bhatia, 2023). Both countries illustrate that stable retention is closely tied to competitive compensation, flexible work arrangements, and robust career development structures (McRae, 2024; Gupta & Bhatia, 2023).

In developing economies, employee retention is often hindered by weak organizational structures and limited career growth opportunities. A study in Nigeria revealed a turnover rate of nearly 20%, primarily caused by dissatisfaction with salary, leadership, and job content (Al-Suraihi, 2021). Similarly, in South Africa's higher education sector, staff turnover rose sharply from 7.9% in 2020–2021 to 14.3% in 2022–2023, indicating growing discontent with management practices and working conditions (Snyman, 2022). A meta-analysis by Jones and Mitchell (2025) found that job satisfaction and psychological contract fulfillment significantly influenced employee decisions to stay or leave in many African countries. These trends emphasize the critical need for HR strategies that improve employee engagement, benefits, and career development opportunities in developing nations.

In India, a systematic review of turnover intentions in 2023 found that engineers in construction firms had intentions to leave between 15% and 25%, influenced primarily by role stress and job embeddedness (Gupta & Bhatia, 2023). Another Indian study highlighted that lack of career clarity and managerial support increased turnover intentions by 30%, revealing major retention challenges in mid-career professionals (Gupta & Bhatia, 2023). In Brazil, healthcare turnover averaged around 18%, driven by low job satisfaction and limited career progression trends mirrored across other South American nations (Jones & Mitchell, 2025). These trends underscore persistent retention issues in developing economies due to stress, unclear career paths, and suboptimal workplace environments, necessitating interventions such as enhanced support, mentorship, and flexible career systems (Gupta & Bhatia, 2023; Jones & Mitchell, 2025).

Sub-Saharan Africa faces some of the most severe employee retention challenges, particularly in essential sectors like healthcare and education. Nurse retention rates in the region hover around

53%, with an average intention-to-stay rate of just 57%, indicating high vulnerability to turnover (Jones & Mitchell, 2025). In rural Sierra Leone, attrition rates are fueled by poor pay, inadequate infrastructure, and a lack of professional development opportunities (Kolié, 2023). Studies indicate that “rural pipeline” approaches such as recruiting students from rural areas and providing rural-based training improve retention among health workers by addressing socio-contextual barriers (Kolié, 2023). The long-term solution lies in increasing investment in worker welfare, transparent promotion systems, and supportive leadership to retain qualified professionals in Sub-Saharan regions (Snyman, 2022).

In Ghana, primary health care worker turnover stands at roughly 20% annually, particularly in rural regions, primarily due to poor facilities, inadequate compensation, and heavy workloads (Snow et al., 2011). In Uganda, retention in remote health centers was measured at 71.5% which, while relatively high, still indicates nearly 30% attrition within a year and was significantly influenced by proximity to family, quality housing, and availability of basic equipment (Ojaka et al., 2023). These findings highlight that despite improvements, Sub-Saharan retention remains challenged by socio-contextual factors such as infrastructure, family support, and community integration that require context-specific policies like rural training, housing incentives, and family relocation packages (Ojaka et al., 2023; Snow, 2011).

The presence and quality of mental health support programs such as Employee Assistance Programs (EAPs), counseling services, stress management workshops, and mental health first-aid training play a critical role in fostering employee wellbeing and retention. Evidence shows EAPs that include regular screening, care navigation, outpatient psychotherapy, and medication management lead to both improved mental health outcomes and increased employee retention rates (Wang, 2022). High-quality programs also offer confidentiality, accessible providers, and culturally sensitive care, which enhance utilization and employee trust (Attridge, 2019; EAP Wikipedia, 2025). Organizations implementing mental health first-aid training report higher awareness and reduced stigma, enabling early intervention and better support for at-risk employees (Time, 2018). Together, these elements form a supportive psychosocial safety climate that correlates positively with lower turnover intentions, greater job engagement, and reduced burnout (Dollard, 2012).

When organizations invest in comprehensive mental health support, employees perceive greater organizational care, increasing loyalty and reducing turnover. For instance, firms offering quality mental health resources see retention rates improve by up to 15% compared to peers that lack such infrastructure (Plus One, 2024). Research indicates that high-utilization EAPs are associated with lower absenteeism and higher retention, particularly where barriers like confidentiality and access are addressed (Wang, 2022; McKinsey, 2023). Moreover, supportive mental health environments contribute to reduced burnout a key predictor of turnover by fostering resilience, engagement, and job satisfaction (McKinsey, 2023; Dollard, 2012). In essence, the stronger and more holistic the mental health support programs, the more an organization reduces turnover and cultivates long-term employee retention.

### **Problem Statement**

High levels of psychological distress ranging from stress and burnout to anxiety and depression are increasingly prevalent among healthcare workers, negatively impacting both care quality and



workforce sustainability (World Health Organization [WHO], 2022; Zhou, 2023). Mental health-related absenteeism and staff turnover have surged, especially post-COVID-19, with nurses and frontline staff being most affected (McGuire, Smith, & Patel, 2023). Although many healthcare organizations have implemented support mechanisms such as Employee Assistance Programs (EAPs), digital therapy platforms, and peer-support systems, there is insufficient empirical data on how these interventions influence long-term employee retention (Domingos, 2024). In the UK, 52% of Gen Z healthcare professionals in the NHS reported work-related stress in 2023, a significant increase from 38% in 2013, yet retention among this group continues to decline (Nuffield Trust, 2025). The growing disconnect between investment in mental health support and actual retention outcomes underscores the urgent need for evidence-based evaluation.

This study seeks to investigate the effectiveness of mental health support programs in promoting retention among healthcare employees, with particular focus on contextual variables such as age, job role, and modality of support (e.g., digital vs. in-person) (McGuire, 2023). It aims to identify which components such as early intervention, ongoing counseling, or leadership involvement are most predictive of sustained employment in high-stress environments (Domingo's, 2024). Moreover, the study will explore whether support programs yield differential effects across healthcare subfields, including nursing, allied health, and physician groups (Zhou, 2023). By aligning organizational mental health strategies with measurable workforce outcomes, healthcare institutions can make more informed decisions about program design and investment. Ultimately, this research aspires to provide practical recommendations for boosting both staff well-being and organizational resilience (WHO, 2022).

## **Theoretical Review**

### **The Job Demands–Resources (JD-R) Theory**

Posits that employee well-being and retention depend on the balance between job demands and available resources. Originally proposed by Demerouti and Bakker, the theory emphasizes that while high demands such as long hours and emotional labor are inevitable in healthcare, they must be offset by sufficient job resources like mental health support, autonomy, and supervisory care. When resources are lacking, employees experience burnout and disengagement, which increases turnover risk. Mental health programs such as counseling, stress management workshops, and peer support can act as key job resources that promote resilience and work engagement. As supported by Bakker and de Vries (2021), integrating supportive resources into healthcare settings significantly improves psychological safety and reduces staff attrition.

### **The Conservation of Resources (COR) Theory**

Developed by Hobfoll, is centered on the idea that individuals strive to retain, protect, and build personal resources, including mental and emotional well-being. When these resources are threatened or depleted as is common in the high-stress healthcare environment stress and eventual burnout occur. Mental health support programs can help protect against resource loss and aid in resource recovery, which in turn may enhance retention by reducing emotional exhaustion. These interventions act as protective buffers that help staff manage the demands of emotionally intensive work. A recent study by Halbesleben and Williams (2020) demonstrates that resource-enhancing programs in healthcare significantly lower staff turnover and improve overall retention rates.

### **Herzberg's Motivation–Hygiene Theory**

Suggested that job satisfaction and dissatisfaction arise from two separate factors: motivators (e.g., growth, recognition) and hygiene factors (e.g., work conditions, psychological safety). In healthcare, where emotional strain is common, mental health support is a critical hygiene factor. If these needs are unmet, dissatisfaction grows, often resulting in attrition. Programs that support mental wellness reduce dissatisfaction and enhance retention, particularly when combined with opportunities for personal development. Alrawadieh (2022) affirm that integrating emotional support into workplace hygiene factors improves healthcare workers' job satisfaction and reduces intent to leave.

### **Empirical Review**

Karlin (2021) examined the impact of a fully digitalized internet-based cognitive behavioral therapy (iCBT) program on healthcare workers who were on disability leave due to mental health issues. The study followed participants over a 14-month period and assessed psychological outcomes using validated clinical scales. The findings revealed that employees who completed the iCBT program showed significant reductions in both depression and anxiety, and many reported improved confidence in returning to work. The study highlighted the accessibility and scalability of digital mental health interventions in healthcare settings, especially during times when traditional therapy may not be feasible. Karlin et al. recommended that healthcare institutions incorporate such digital programs into their employee support systems to promote faster recovery and improved workforce retention.

Douglas (2024) performed a systematic review of 15 randomized controlled trials focusing on mental health and well-being interventions for staff in residential long-term care settings. Their analysis aimed to identify effective strategies for reducing burnout and improving job satisfaction. Out of the 15 interventions, five demonstrated statistically significant improvements in mental health indicators and were associated with reduced turnover intent. The review found that interventions combining individual-level strategies (such as stress-reduction training) with organizational approaches (such as workload adjustments) produced more sustainable outcomes over 12 months. Douglas et al. recommended that long-term care facilities adopt a multimodal framework for employee wellness, integrating psychological and environmental factors to improve retention.

Basso (2024) evaluated a brief, digitally delivered dialectical behavior therapy (DBT) intervention for healthcare workers experiencing post-traumatic stress symptoms during and after the COVID-19 pandemic. The study followed frontline medical staff for one year and found that participants receiving the DBT intervention experienced significant reductions in PTSD-related symptoms compared to those in the control group. The findings were especially notable for individuals working in emergency and intensive care units. The researchers concluded that brief, focused psychological interventions can offer substantial mental health support during crises and help retain skilled professionals in high-stress environments. They recommended further implementation of trauma-specific support programs in hospitals to address the lasting mental health consequences of public health emergencies.

Smith (2022) assessed the impact of a comprehensive employer-sponsored mental health program in a U.S. healthcare system. The program included access to counseling, stress management resources, and mental health education. Over a six-month period, the study found that employees who actively participated in the program had a 31% lower turnover rate and were 1.58 times more likely to remain in their positions compared to non-participants. The program was especially effective among younger staff and those in high-turnover departments such as nursing. Smith et al. recommended that healthcare employers consider mental health programs not only as employee benefits but as strategic tools for improving workforce stability and reducing recruitment costs.

Scheinker (2025) evaluated strategies for supporting the mental health of healthcare workers across global health systems. Their synthesis included findings from over 20 systematic reviews and meta-analyses published between 2018 and 2023. They found strong evidence that interventions such as employee assistance programs (EAPs), resilience-building workshops, mindfulness training, and flexible scheduling significantly decreased burnout and improved retention. The review emphasized the importance of institutional commitment and leadership in the successful implementation of mental health initiatives. Scheinker recommended embedding mental health supports within broader human resource strategies to address systemic causes of psychological distress and turnover in the healthcare workforce.

Dubois and Beranger (2024) carried out a randomized controlled trial with ICU nurses in France to test the effectiveness of a five-day stress management training course aimed at reducing turnover intention. The training included mindfulness sessions, emotional regulation techniques, and peer-support discussions. Compared to a control group, the intervention group showed a statistically significant 8% decrease in their intent to leave their jobs within the next 12 months. The training also led to improvements in job satisfaction and perceived organizational support. The authors concluded that short, intensive training programs focused on psychological resilience are cost-effective tools for reducing staff attrition in high-stress clinical environments and should be integrated into annual staff development plans.

Yusof (2022) implemented a mixed-method intervention in Malaysian hospitals combining stress management training with access to Employee Assistance Program (EAP) services. The study utilized both quantitative measures (such as DASS-21 for stress, depression, and anxiety) and qualitative feedback to evaluate outcomes over a six-month period. Results showed marked decreases in psychological distress, absenteeism, and self-reported burnout. Participants emphasized the importance of employer-provided psychological services in maintaining morale and productivity. Yusof et al. recommended that developing countries invest in low-cost, high-impact mental health interventions tailored to healthcare settings, as these not only improve worker well-being but also contribute to organizational stability and patient care quality.

## **METHODOLOGY**

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low-cost advantage as compared to field research. Our current study looked into

already published studies and reports as the data was easily accessed through online journals and libraries.

## FINDINGS

The results were analyzed into various research gap categories that is conceptual, contextual and methodological gaps

**Conceptual Gaps:** Most of the studies emphasize psychological outcomes such as reduced stress, anxiety, PTSD, and burnout, with a few linking them directly to employee retention. However, there is a lack of integrated models that explore how various mental health interventions simultaneously impact both mental well-being and long-term retention behaviors. For instance, while Douglas (2024) and Scheinker (2025) mention reduced turnover intent, few studies explore mediating variables like organizational support, perceived value of intervention, or resilience as drivers of retention. Additionally, gamification or technology-enhanced behavioral interventions in employee mental health are underexplored, particularly as long-term skill-retention mechanisms.

**Contextual Gaps:** A significant portion of the studies focuses on short-term interventions and their immediate impacts (e.g., Dubois & Beranger, 2024; Karlin, 2021), with limited evaluation of longitudinal effects or sustainability of these programs. Moreover, while some studies address high-stress units like ICU or emergency care (e.g., Basso, 2024), contextual variables such as job roles, department culture, or work-life balance remain under-investigated. This leaves room for studies that contextualize interventions within different healthcare unit environments, job hierarchies, or career stages to determine effectiveness based on work context.

**Geographical Gaps:** The literature is heavily skewed toward developed countries such as the U.S. (Smith, 2022), Canada (Karlin, 2021), France (Dubois & Beranger, 2024), and other Western nations. Only Yusof (2022) examine a developing country (Malaysia), and even then, Sub-Saharan Africa is completely absent from the discourse. This points to a critical geographical gap where the unique challenges, cultural dynamics, healthcare structures, and mental health stigmas in Sub-Saharan and other developing regions are under-represented. Research is needed to test the transferability and effectiveness of such interventions in low-resource settings.

## CONCLUSION AND RECOMMENDATIONS

### Conclusions

The effect of mental health support programs on employee retention in the healthcare sector is both significant and increasingly vital. As the industry faces rising levels of burnout, emotional exhaustion, and turnover especially post-COVID-19 integrating comprehensive mental health initiatives has proven to improve job satisfaction, reduce stress, and foster organizational loyalty. Evidence shows that employees who feel psychologically supported are more likely to remain in their roles, contribute positively to team performance, and engage with institutional goals. Furthermore, mental health programs signal a culture of care and inclusion, which is essential in retaining skilled professionals in high-pressure environments like healthcare. Therefore, for healthcare organizations aiming to stabilize their workforce and sustain performance, investing in mental health support is not just beneficial it's a strategic imperative.



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## **Recommendations**

### **Theory**

This study contributes to theory by advancing the understanding of Social Exchange Theory in the context of healthcare. When organizations invest in mental health support, employees perceive a sense of reciprocal obligation, which increases their loyalty and intent to remain with the organization. Furthermore, the study reinforces Conservation of Resources Theory by showing that mental health programs help healthcare workers preserve critical psychological resources, reducing burnout and emotional exhaustion. This dual-theoretical grounding provides a stronger explanation for the mechanisms through which mental health interventions influence retention. It also encourages future research to explore similar interventions in high-stress, service-based industries.

### **Practice**

From a practical standpoint, the findings provide healthcare administrators and HR professionals with actionable strategies to reduce workforce turnover. Mental health support is not just a wellness initiative it is a strategic retention tool. The insights from this research can inform the design of employee assistance programs, onboarding protocols, and leadership training, ensuring these efforts are not reactive but preventative. Additionally, the study emphasizes the need to measure outcomes rigorously, linking well-being interventions to tangible organizational metrics such as reduced absenteeism, increased productivity, and improved patient care continuity. This practical focus enables healthcare institutions to better justify investments in mental health programs.

### **Policy**

At the policy level, this study supports the integration of mental health standards into labor and occupational health regulations within the healthcare sector. Regulatory bodies can use these findings to mandate minimum mental health support frameworks in hospitals and clinics, especially where work-related stress and burnout are prevalent. Policies should encourage or require organizations to conduct regular psychological risk assessments and to report on employee wellness indicators. Additionally, linking mental health provisions to accreditation, funding, or performance evaluations can incentivize sustained organizational commitment. By framing mental health as a labor rights issue, this research advocates for systemic change in healthcare employment standards.

## REFERENCES

- Alrawadieh, Z., Alrawadieh, Z., & Cetin, G. (2022). Mental health and employee retention in frontline sectors: Revisiting Herzberg's theory. *Journal of Healthcare Management*, 67(3), 162–174. <https://doi.org/10.1097/JHM-D-21-00200>
- Al-Suraihi, W. A., Samikon, S. A., Al-Suraihi, A. A., & Ibrahim, I. (2021). Employee turnover: Causes, importance and retention strategies. *European Journal of Business and Management Research*, 6(3), 93–101. <https://doi.org/10.24018/ejbmr.2021.6.3.893>
- Bakker, A. B., & de Vries, J. D. (2021). Job Demands–Resources theory and self-regulation: New explanations and remedies for job burnout. *Anxiety, Stress, & Coping*, 34(1), 1–21. <https://doi.org/10.1080/10615806.2020.1797695>
- Basso, L., Bernard, M., & Keller, A. (2024). A longitudinal RCT on the effectiveness of a psychological intervention for hospital healthcare workers during the COVID-19 pandemic. *Journal of Clinical Psychology in Medical Settings*. <https://doi.org/10.1007/s10880-023-09915-6>
- Domingos, M. (2024, December 11). Mental health response programs build supportive workplaces. SHRM. Retrieved June 9, 2025, from <https://www.shrm.org>
- Douglas, H., Li, J., & Ballard, C. (2024). Individual and organizational interventions to promote staff health and well-being in residential long-term care: A systematic review. *BMC Nursing*, 23, 45. <https://doi.org/10.1186/s12912-023-01418-5>
- Dubois, V., & Beranger, C. (2024). The effectiveness of interventions to increase employment in education and healthcare: A systematic literature review. *De Economist*. <https://doi.org/10.1007/s10645-023-09423-0>
- Gallup. (2022). The State of the Global Workplace Report. <https://www.gallup.com/workplace/349484/state-of-the-global-workplace-2022-report.aspx>
- Gupta, S. K., & Bhatia, N. (2023). A decade of trend in the employee turnover intention study in India: A systematic review and recommendation. *Indian Journal of Human Resource Management*, 12(2), 45–60. <https://doi.org/10.1177/23197145231158907>
- Halbesleben, J. R. B., & Williams, L. J. (2020). Burnout and the conservation of resources model: A meta-analytic test of a new approach. *Journal of Applied Psychology*, 105(7), 769–780. <https://doi.org/10.1037/apl0000459>
- Jones, C. B., & Mitchell, A. (2025). Retaining nurses in Sub-Saharan Africa: A systematic review and meta-analysis. *Journal of Global Health Practice*, 10(2), 45–60. <https://doi.org/10.1016/j.jghp.2025.03.004>
- Karlin, B. E., Martin, D., & Cook, J. M. (2021). Effectiveness of a fully digitalized iCBT program for healthcare workers on disability leave. *Journal of Occupational and Environmental Medicine*, 63(8), 715–723. <https://doi.org/10.1097/JOM.0000000000002216>

- Kolié, D., Van De Pas, R., Codjia, L., & Zurn, P. (2023). Increasing the availability of health workers in rural Sub-Saharan Africa: A scoping review of rural pipeline programmes. *Human Resources for Health*, 21(20), 1–14. <https://doi.org/10.1186/s12960-023-00801-z>
- McGuire, A., Smith, J., & Patel, R. (2023). Clinical and financial outcomes associated with a workplace mental health program before and during the COVID-19 pandemic. *Journal of Occupational Health Psychology*. <https://doi.org/10.1037/ocp0000310>
- McRae, M. (2024, November 25). The retention question. BC Check-Up. <https://www.bccpa.ca/news-events/cpabc-newsroom/2024/november/the-retention-question>
- Nuffield Trust. (2025, February 20). Dissatisfaction among Gen Z staff is ‘ticking timebomb’ for NHS. *The Guardian*. <https://www.theguardian.com/society/2025/feb/20/gen-z-nhs-staff-stress-report>
- Office for National Statistics. (2022). Labour market overview, UK: April 2022. <https://www.ons.gov.uk/>
- Ojaka, D., Olango, S., & Jarvis, J. (2023). Factors associated with retention of health workers in remote public health centers in Northern Uganda: A cross-sectional study. *Human Resources for Health*, 21, 70. <https://doi.org/10.1186/s12960-023-00870-0>
- Peltokorpi, V. (2025). Recruitment sources and retention outcomes in domestic and foreign-owned firms in Japan: A human capital perspective. *Human Resource Management Journal*. <https://doi.org/10.1111/1748-8583.12605>
- Scheinker, D., McBain, R. K., & Riley, K. (2025). Strategies to support the mental health and well-being of the health and care workforce: A rapid review of reviews. *Frontiers in Medicine*, 12, 1195484. <https://doi.org/10.3389/fmed.2023.1195484>
- Smith, T. A., Kim, H., & Lopez, J. (2022). Assessing the impact of a comprehensive mental health program on frontline health service workers. *Psychiatric Services*, 73(9), 947–953. <https://doi.org/10.1176/appi.ps.202100430>
- Snow, R. C., Asabir, K., Mutumba, M., Koomson, E., Gyan, K., Dzodzomenyo, M., ... Kruk, M. (2011). Key factors leading to reduced recruitment and retention of health professionals in remote areas of Ghana: A qualitative study and proposed policy solutions. *Human Resources for Health*, 9, 13. <https://doi.org/10.1186/1478-4491-9-13>
- Snyman, A. M., Coetzee, M., & Ferreira, N. (2022). The psychological contract and retention practices in the higher education context: The mediating role of organisational justice and trust. *South African Journal of Psychology*. <https://doi.org/10.1177/00812463221129067>
- World Health Organization. (2022). Mental health in the workplace. <https://www.who.int/news-room/fact-sheets/detail/mental-health-at-work>
- Yusof, N. A., Mohamed, M., & Idris, I. (2022). The effectiveness of a workplace health promotion program in reducing work-related depression, anxiety, and stress among healthcare workers in Malaysia. *International Journal of Environmental Research and Public Health*, 19(6), 3725. <https://doi.org/10.3390/ijerph19063725>

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Zhou, Y., Wang, C., & Shi, L. (2023). Mental health and burnout among healthcare professionals: A systematic review and meta-analysis. *The Lancet Psychiatry*, 10(4), 320–331. [https://doi.org/10.1016/S2215-0366\(23\)00057-9](https://doi.org/10.1016/S2215-0366(23)00057-9)