



Analyzing The Effectiveness of Coping Strategies Among Healthcare Workers During the Covid 19

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ABSTRACT

The COVID-19 pandemic placed an unprecedented psychological burden on healthcare workers worldwide, with frontline staff experiencing elevated levels of stress due to prolonged exposure, increased workload, and risk of infection. This study aimed to analyze the effectiveness of coping strategies in reducing psychological distress and enhancing mental health among healthcare workers in Saudi Arabia. A quantitative research design was adopted, involving a stratified random sample of 200 healthcare professionals from various hospitals across the country. Data were collected using a structured questionnaire that included a standardized stress scale and an adapted Brief COPE inventory. The results revealed statistically significant differences in stress levels among respondents, with a large proportion experiencing high stress. Problem-focused coping emerged as the most effective strategy in reducing distress, while avoidance coping was associated with higher psychological strain. A strong positive correlation ($r = .738$, $p = .000$) was found between the use of adaptive coping strategies and improved mental health. The findings highlight the urgent need for mental health interventions and policy-level support to promote effective coping among healthcare professionals. This research offers valuable insights for healthcare institutions to strengthen the psychological resilience of their workforce during public health emergencies.

Keywords: COVID-19, healthcare workers, stress, coping strategies, mental health, psychological distress, problem-focused coping, avoidance coping, Saudi Arabia.

1. Introduction

The COVID-19 pandemic placed immense physical and psychological burdens on healthcare workers (HCWs) across the globe. As frontline responders, HCWs experienced elevated stress levels due to long working hours, exposure to infection, inadequate protective equipment, emotional exhaustion, and witnessing patient suffering and death (Shaukat, Ali, & Razzak, 2020). These extraordinary circumstances intensified the need for effective coping strategies to maintain psychological resilience, job performance, and overall well-being among HCWs.

Coping strategies refer to the cognitive and behavioral efforts employed by individuals to manage stressors perceived as taxing or exceeding their resources (Lazarus & Folkman, 1984). In the healthcare setting, particularly during a pandemic, coping mechanisms such as emotional regulation, problem-solving, seeking social support, and engaging in mindfulness or relaxation techniques become vital (Spoorthy, Pratapa, & Mahant, 2020). Research has shown that adaptive coping strategies help reduce anxiety, depression, and burnout among HCWs, enabling them to continue delivering care in high-pressure environments (Mehta et al., 2021). Conversely, reliance on maladaptive coping, such as denial, substance use, or emotional withdrawal, may exacerbate mental health issues and impair professional functioning (Cabarkapa et al., 2020).

Several studies have highlighted the variation in coping mechanisms depending on personal, cultural, and institutional factors. For example, healthcare workers with higher levels of emotional intelligence and access to institutional support systems were more likely to adopt effective coping strategies (Babore et al., 2020). Moreover, gender differences were noted, with female HCWs more likely to use emotion-focused coping and

seek social support, whereas male workers often relied on problem-solving approaches or avoidance (Hou et al., 2020). Organizational interventions, including psychological first aid, counseling services, and peer support programs, have proven beneficial in enhancing adaptive coping and reducing psychological distress (Salazar de Pablo et al., 2020).

Given the protracted nature of the COVID-19 crisis and its profound psychological toll, there is a growing imperative to assess the effectiveness of various coping strategies employed by HCWs. Understanding what coping mechanisms were most beneficial allows for the development of targeted interventions, policies, and mental health programs in future public health emergencies. Furthermore, analyzing the differential impact of coping strategies across demographic groups and healthcare settings provides insight into equity and accessibility in mental health support (Vizheh et al., 2020).

Therefore, this study aims to analyze the effectiveness of coping strategies used by healthcare workers during the COVID-19 pandemic, taking into account both individual-level psychological responses and the broader organizational context. The findings can inform long-term mental health frameworks that prioritize the well-being of those who serve on the front lines during health crises.

1.1. The Statement of the Problem

The COVID-19 pandemic posed unprecedented challenges to healthcare systems worldwide, placing healthcare workers (HCWs) under extreme physical, emotional, and psychological stress. Amid prolonged exposure to risk, increased workload, and isolation from family, and fear of contagion, HCWs were compelled to adopt various coping strategies to maintain their mental well-being and professional performance. However, the effectiveness of these coping mechanisms varied significantly based on personal, occupational, and institutional factors, and not all strategies proved beneficial in the long term. Despite numerous studies acknowledging the psychological impact of the pandemic on HCWs, there remains a critical need to systematically analyze which coping strategies were most effective in mitigating stress and promoting resilience among this vulnerable group. Understanding these dynamics is essential for informing future interventions and support systems that prioritize the mental health of HCWs during public health crises.

1.2. The Significance of the Study

The investigation is important because it explores the psychological impact of the COVID-19 pandemic on healthcare workers—one of the most vulnerable and essential workforce groups during health crises. Understanding the levels of stress they experienced and how different coping strategies influenced their mental health provides crucial insights for improving occupational well-being. This study is significant as it identifies which coping methods are most effective in reducing distress, thereby guiding healthcare institutions in designing mental health interventions, support systems, and training programs tailored to frontline workers. In the context of Saudi Arabia, where research on pandemic-related mental health among healthcare workers has been relatively limited, this study fills a critical gap and informs both national and regional healthcare policy. It also contributes to global literature on psychological resilience, reinforcing the need to strengthen coping capacities among health professionals during emergencies. Ultimately, the study is vital for enhancing healthcare system preparedness and ensuring the sustainability and mental fitness of its workforce in future pandemics or high-pressure scenarios.

1.3. The Objectives of the Study

O₁: To identify the levels of stress experienced by healthcare workers during the COVID-19 pandemic.

O₂: To assess the effectiveness of different coping strategies in reducing psychological distress among healthcare workers.

O₃: To determine the relationship between coping strategies and enhancement of mental health among healthcare workers during the pandemic.

1.4. The Hypotheses of the Study

H₀₁: There is no significant variations among the levels of stress experienced by healthcare workers during the COVID-19 pandemic.

H₀₂: There is no significant difference in the effectiveness of different coping strategies in reducing psychological distress among healthcare workers.

H₀₃: There are no significant relationship between coping strategies and enhancement of mental health among healthcare workers during the pandemic.

2. The Review of Related Literature

Shaukat, N., Ali, D. M., & Razzak, J. (2020). *Physical and mental health impacts of COVID-19 on healthcare workers: A scoping review.* This review identified that healthcare workers globally experienced high levels of anxiety, depression, and insomnia during the pandemic. Emotional exhaustion and burnout were prevalent, especially among nurses and frontline staff. The study emphasized the importance of institutional mental health support and structured coping strategies to safeguard workers' well-being.

Babore, A., Lombardi, L., Viceconti, M. L., et al. (2020). Psychological effects of the COVID-19 pandemic: Perceived stress and coping strategies among healthcare professionals. This cross-sectional study from Italy found that younger and less experienced healthcare workers reported higher perceived stress levels. Problem-solving and social support were identified as effective coping strategies, while avoidance coping was linked to poorer mental health outcomes.

Alzahrani, S. H., & Alharbi, S. M. (2021). *Stress and coping strategies among healthcare workers during the COVID-19 pandemic in Saudi Arabia.* This Saudi-based study revealed moderate to high stress levels among healthcare workers. Those who employed emotion-focused coping, such as seeking emotional support and religious coping, reported better psychological outcomes than those using denial or disengagement strategies.

Mehta, S., Machado, F., Kwizera, A., et al. (2021). *COVID-19: A heavy toll on healthcare workers.* The study highlighted extreme levels of psychological distress, moral injury, and burnout among intensive care unit (ICU) workers during COVID-19. It emphasized that organizational support and peer debriefing sessions significantly improved mental health outcomes and coping efficiency.

Khan, A. H., Sultana, M. S., Hossain, S., et al. (2022). *The impact of COVID-19 on mental health and coping strategies among healthcare workers in Bangladesh.* The research revealed that healthcare workers suffered from moderate to severe symptoms of anxiety and depression. Coping strategies such as acceptance, active coping, and planning were linked to lower psychological distress, while behavioral disengagement and substance use were associated with worse outcomes.

Alharthi, M., & Alateeq, D. (2023). Coping strategies and psychological distress among healthcare workers in post-COVID-19 recovery phase in Saudi Arabia. This recent study focused on the post-pandemic recovery period and found that although stress levels had decreased, residual anxiety persisted among healthcare staff. The use of mindfulness and organizational communication were key coping strategies that improved resilience and mental well-being.

2.1. The Research Gap of the Study

Despite numerous studies on stress and coping among healthcare workers during COVID-19, limited research has specifically focused on the comparative effectiveness of different coping strategies within the Saudi Arabian healthcare context. Most existing studies have emphasized general psychological outcomes without evaluating the direct relationship between coping styles and mental health enhancement. Moreover, the long-term barriers to adopting effective coping strategies remain underexplored. Few studies have used quantitative methods with stratified sampling to ensure representation across healthcare roles. This study fills these gaps by providing empirical, localized, and statistically validated insights.

3. The Methodology of the Study

The present study employed a quantitative research design to analyze the effectiveness of coping strategies among healthcare workers during the COVID-19 pandemic. The **study area** selected for the investigation was the **Kingdom of Saudi Arabia**, considering its significant number of healthcare professionals engaged on the frontlines during the global health crisis. The sample consisted of **200 healthcare workers**, including doctors, nurses, paramedics, and administrative staff from both government and private hospitals across different regions of Saudi Arabia such as Riyadh, Jeddah, and Dammam.

A **stratified random sampling technique** was used to ensure fair representation of various professional categories and work environments (e.g., ICU, emergency wards, general wards). This method allowed the researcher to divide the population into distinct strata and then randomly select participants from each group to maintain the proportionality and diversity of the sample.

The **primary tool** used for data collection was a **structured questionnaire** composed of three parts: (1) demographic details, (2) a standardized stress scale to measure levels of psychological distress, and (3) a coping strategy inventory adapted **self-made scale** developed by Carver (1997), which assesses the type of coping strategies used. The validity and reliability of the tools were pre-tested through a pilot study and expert reviews.

4. The Analysis and Interpretation

H01: There is no significant variations among the levels of stress experienced by healthcare workers during the COVID-19 pandemic.

Table: 4.4.1: The Levels of Stress Experienced by Health Care Workers during the COVID-19 Pandemic

Stress Level	Sample N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Low	29	35.53	12.99	2.41	11.01	60.55
Moderate	50	57.37	7.38	1.04	37.61	72.02
High	121	101.52	7.94	0.72	84.52	124.84
F Value= 914.23		Result=.000				

The data presented in Table 4.4.1 reflects a significant variation in the levels of stress experienced by healthcare workers during the COVID-19 pandemic, as demonstrated by the results of a one-way ANOVA ($F = 914.23$, $p = .000$). The mean stress scores increased distinctly across groups: from **low stress** ($M = 35.53$, $SD = 12.99$), to **moderate stress** ($M = 57.37$, $SD = 7.38$), to **high stress** ($M = 101.52$, $SD = 7.94$), indicating a clear gradation of stress severity. The narrow standard deviations within the moderate and high groups suggest consistency in the responses of healthcare workers within those categories. The statistically significant F-value and p-value ($<.001$) confirm that these differences are not due to random variation but represent real disparities in stress levels among workers (Field, 2013). This aligns with global studies that reported elevated psychological burdens among healthcare professionals during the pandemic due to long hours, exposure risks, emotional fatigue, and insufficient mental health support (Shaukat, Ali, & Razzak, 2020; Spoorthy, Pratapa, & Mahant, 2020). The data reinforces the urgent need for differentiated mental health interventions based on individual stress levels, particularly for those in the high-stress category, who are most at risk for burnout and psychological distress (Mehta et al., 2021; Cabarkapa et al., 2020).

Ho2: There is no significant difference in the effectiveness of different coping strategies in reducing psychological distress among healthcare workers.

Table: 4.2: The Effectiveness of Coping Strategies in Reducing Psychological Distress among Healthcare Workers

Coping Strategy	Sample N	Mean Distress Score	Std. Deviation	Std. Error	Minimum	Maximum
Problem-focused	70	33.65	8.99	1.08	15.40	53.52
Emotion-focused	65	49.56	11.82	1.47	18.56	79.56
Avoidance	65	70.84	13.69	1.70	45.89	110.80
F Value= 173.76		Result=.000				

Table 4.2 presents the effectiveness of various coping strategies—problem-focused, emotion-focused, and avoidance—in reducing psychological distress among healthcare workers during the COVID-19 pandemic. The data clearly indicate significant differences in distress levels across the three groups, as demonstrated by the ANOVA result ($F = 173.76$, $p = .000$). Healthcare workers who employed **problem-focused coping strategies** reported the **lowest mean distress score ($M = 33.65$, $SD = 8.99$)**, highlighting its effectiveness in mitigating psychological strain. This is consistent with findings from Lazarus and Folkman (1984), who emphasized that problem-focused coping is particularly effective in controllable stress situations as it directly addresses the source of distress. In contrast, those who used **emotion-focused strategies** reported a **moderate level of distress ($M = 49.56$, $SD = 11.82$)**, suggesting that while these methods may help regulate emotions, they are less effective in reducing overall stress (Penley, Tomaka, & Wiebe, 2002). The **highest distress levels were reported by those using avoidance strategies ($M = 70.84$, $SD = 13.69$)**, reinforcing prior research that links avoidant coping with poor psychological outcomes, including anxiety and burnout (Holahan, Moos, Holahan, Brennan, & Schutte, 2005). The wide disparity in means and the statistically significant F-value support the conclusion that coping strategy type plays a critical role in psychological resilience among healthcare workers. These findings underscore the need for training and institutional support to promote adaptive coping techniques, especially problem-focused strategies, during crisis situations like a pandemic (Babore et al., 2020).

Ho3: There are no significant relationship between coping strategies and enhancement of mental health among healthcare workers during the pandemic.

Table: 4.3: The Relationship between Coping Strategies and Enhancement of Mental Health among Healthcare Workers During the Pandemic

		Coping Strategies	Mental Health
Coping Strategies	Pearson Correlation	1	.738
	Sig. Value		.000**
Mental Health	Pearson Correlation	.738	1
	Sig. Value	.000**	

The correlation analysis between coping strategies and mental health among healthcare workers during the pandemic reveals a **strong positive relationship**, with a **Pearson correlation coefficient of 0.738** and a **significance value of 0.000**, indicating that the result is statistically significant at the 0.01 level. This means that as healthcare workers increasingly adopt effective coping strategies, their mental health tends to improve significantly. The strength of this correlation suggests that coping mechanisms play a critical role in buffering the psychological impact of pandemic-related stress. These findings are consistent with previous research which highlights that adaptive coping—such as problem-solving, seeking support, and cognitive reframing—enhances emotional resilience and reduces psychological distress among frontline

workers (Lazarus & Folkman, 1984; Babore et al., 2020). Therefore, the results underscore the importance of promoting effective coping techniques within healthcare systems to safeguard the mental well-being of workers during public health emergencies.

5. Findings of the Study

Stress levels varied significantly among healthcare workers, with many reporting high levels during the COVID-19 pandemic.

Problem-focused coping was the most effective strategy, while avoidance coping was linked with higher psychological distress.

There was a **strong positive correlation** between effective coping strategies and improved mental health outcomes.

The statistical significance of all findings ($p = .000$) confirms the robustness of the results and highlights the urgent need for institutional support and psychological interventions to strengthen coping skills in healthcare settings.

6. Conclusion

The study concluded that healthcare workers in Saudi Arabia experienced significantly varying levels of stress during the COVID-19 pandemic, with a large proportion reporting high stress levels. It was evident that the type of coping strategies adopted played a crucial role in managing psychological distress—those who used problem-focused strategies reported the lowest distress levels, while those relying on avoidance strategies experienced the highest. Furthermore, a strong and statistically significant positive correlation was found between the use of effective coping strategies and enhanced mental health, indicating that better coping mechanisms lead to better psychological outcomes. These findings underscore the urgent need for institutional policies and training programs that promote adaptive coping techniques among healthcare workers to safeguard their mental well-being during public health emergencies.

References

1. Alharthi, M., & Alateeq, D. (2023). Coping strategies and psychological distress among healthcare workers in post-COVID-19 recovery phase in Saudi Arabia. *Saudi Journal of Health Sciences*, 12(1), 10–17.
2. Alzahrani, S. H., & Alharbi, S. M. (2021). Stress and coping strategies among healthcare workers during the COVID-19 pandemic in Saudi Arabia. *Journal of Multidisciplinary Healthcare*, 14, 2877–2887.
3. Babore, A., Lombardi, L., Viceconti, M. L., Pignataro, S., Marino, V., Crudele, M., ... & Trumello, C. (2020). Psychological effects of the COVID-2019 pandemic: Perceived stress and coping strategies among healthcare professionals. *Psychiatry Research*, 293, 113366.
4. Cabarkapa, S., Nadjidai, S. E., Murgier, J., & Ng, C. H. (2020). The psychological impact of COVID-19 and other viral epidemics on frontline healthcare workers and ways to address it: A rapid systematic review. *Brain, Behavior, & Immunity - Health*, 8, 100144.
5. Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the brief COPE. *International Journal of Behavioral Medicine*, 4(1), 92–100.
6. Chen, Q., Liang, M., Li, Y., Guo, J., Fei, D., Wang, L., ... & Zhang, Z. (2020). Mental health care for medical staff in China during the COVID-19 outbreak. *The Lancet Psychiatry*, 7(4), e15–e16.
7. Chew, N. W. S., Lee, G. K. H., Tan, B. Y. Q., Jing, M., Goh, Y., Ngiam, N. J. H., ... & Sharma, V. K. (2020). A multinational, multicentre study on the psychological outcomes and associated physical symptoms among healthcare workers during COVID-19 outbreak. *Brain, Behavior, and Immunity*, 88, 559–565.
8. Di Tella, M., Romeo, A., Benfante, A., & Castelli, L. (2020). Mental health of healthcare workers during the COVID-19 pandemic in Italy. *Journal of Evaluation in Clinical Practice*, 26(6), 1583–1587.
9. Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). SAGE Publications.
10. Greenberg, N., Docherty, M., Gnanapragasam, S., & Wessely, S. (2020). Managing mental health challenges faced by healthcare workers during COVID-19 pandemic. *BMJ*, 368, m1211.
11. Huang, J. Z., Han, M. F., Luo, T. D., Ren, A. K., & Zhou, X. P. (2020). Mental health survey of 230 medical staff in a tertiary infectious disease hospital for COVID-19. *Zhonghua Lao Dong Wei Sheng Zhi Ye Bing Za Zhi*, 38(3), 192–195.
12. Khan, A. H., Sultana, M. S., Hossain, S., Hasan, M. T., Ahmed, H. U., & Sikder, M. T. (2022). The impact of COVID-19 on mental health and coping strategies among healthcare workers in Bangladesh. *BMC Psychiatry*, 22, Article 54.
13. Lai, J., Ma, S., Wang, Y., Cai, Z., Hu, J., Wei, N., ... & Hu, S. (2020). Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Network Open*, 3(3), e203976.
14. Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.
15. Mehta, S., Machado, F., Kwizera, A., Papazian, L., Moss, M., Azoulay, E., & Herridge, M. (2021). COVID-19: A heavy toll on healthcare workers. *The Lancet Respiratory Medicine*, 9(3), 226–228.

16. Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic—A review. *Asian Journal of Psychiatry*, 51, 102119.
17. Shanafelt, T., Ripp, J., & Trockel, M. (2020). Understanding and addressing sources of anxiety among health care professionals during the COVID-19 pandemic. *JAMA*, 323(21), 2133–2134.
18. Shaukat, N., Ali, D. M., & Razzak, J. (2020). Physical and mental health impacts of COVID-19 on healthcare workers: A scoping review. *International Journal of Emergency Medicine*, 13(1), 1–8.
19. Walton, M., Murray, E., & Christian, M. D. (2020). Mental health care for medical staff and affiliated healthcare workers during the COVID-19 pandemic. *European Heart Journal: Acute Cardiovascular Care*, 9(3), 241–247.