SOURCES AND MITIGATION STRATEGIES FOR STRESS AMONG HEALTH CARE WORKERS IN CENTRAL HOSPITAL, BENIN CITY: EXPLORING THE ROLE OF AI-DRIVEN INTERVENTIONS

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Abstract
Health care workers face unprecedented levels of stress, burn-out and fatigue, compromising their wellbeing and the quality of care they provide. This study therefore aimed to identify the sources and mitigation strategies for stress among healthcare workers, focusing on the emerging role of AI-driven interventions. Descriptive survey design was adopted for the study. The population consisted of 363 healthcare workers at Central Hospital, Benin City. Proportionate sampling technique was employed to select 50% of the workers drawn from across various professional cadres, to give of total 182 respondents (Doctors (38), Nurses (54), Pharmacist (18) Laboratory technicians (24) Others (48). The instrument for data collection was a self-structured questionnaire designed to elicit information on the sources and mitigation strategies for stress among health care workers. The reliability of the instrument which yielded a coefficient of 0.83 was established using the test-retest method. Data collected were analyzed using frequency counts, percentages, mean and standard deviation. The findings revealed that healthcare workers at Central Hospital, Benin city experience high levels of stress arising from multiple workplace-related and emotional factors such heavy workload (3.51), inadequate resources and poor work-life balance (3.59). While various traditional coping mechanisms such as exercise (2.85) and peer support (3.32) are currently employed to manage stress, the lack of institutional support (2.41) as well as absence of well-structured programmes (3.65) significantly limited the effectiveness of these strategies. The findings revealed a critical need for organizational interventions, such as leadership involvement and structured wellness programmmes such as AI-powered chatbots and mindfulness programmes to compliment personal efforts and promote overall staff well-being. Enhancing stress management in the hospital is vital to improving employee satisfaction, retention, and ultimately the quality of patient care delivered.

Keywords: Sources of stress, Stress mitigation strategies, Healthcare workers, AI-driven interventions, Benin City

Introduction

The global importance of healthcare workers (HCWs) cannot be overstated as they play a vital role in maintaining the health and well-being of individuals and society as a whole. However, the increasing rate of patient inflow, coupled with administrative duties, extended working hours, and emotional demands, often leads to burnout and heightened stress levels among HCWs. These factors pose significant risks to their overall health and consequently affect their job performance and the quality of care delivered to patients (Almazan et al., 2019; Maben et al., 2017; Etim et al., 2015).

Stress is generally viewed as a response to daily pressures that can result in feelings of worry or mental tension, particularly when faced with challenging situations (Mark & Smith, 2012). Research indicates that the pressure of working under demanding conditions without adequate resources or institutional support can intensify stress levels among healthcare workers, leading to exhaustion and diminished morale (Mudallal et al., 2017). Moreover, HCWs often encounter emotional challenges such as managing severe illnesses, coping with patient deaths, and interacting with distressed families, all of which compound their emotional and psychological strain (Gómez-Urquiza et al., 2017).

The healthcare profession is widely recognized as one of the most stressful fields globally, with numerous studies highlighting high incidences of burnout, anxiety, and job dissatisfaction among medical personnel (Carson et al., 2019). The nature of healthcare work, which demands long hours and requires constant emotional resilience, makes professionals in this sector vulnerable to stress. Such stressors can adversely affect both their mental and physical health (Melnyk et al., 2020). Beyond individual well-being, the detrimental effects of stress on HCWs also influence organizational performance. Elevated stress levels among healthcare staff are linked to higher rates of absenteeism, medical errors, and increased staff turnover (Zhu et al., 2017). The complexity of patient care, often involving severely ill individuals, further increases this burden as HCWs must handle difficult and sensitive cases within limited timeframes and with constrained resources. Consequently, addressing workplace stress is essential, as effective management not only enhances job satisfaction and employee retention but also improves the quality of patient care (Salazar et al., 2017).

One of the primary sources of stress in the healthcare industry is the inherently demanding work environment. Healthcare settings are typically fast paced, requiring professionals to make critical and sometimes life or death decisions under immense pressure. Environments characterized by heavy workloads, strict time constraints, and the constant demand for high performance create a persistent state of stress (Gómez-Urquiza et al., 2019; Onawhakpor et al., 2018). Other common causes of stress within healthcare settings include, excessive expectations, time pressures, and inadequate resources. Healthcare professionals are expected to deliver care that meets rigorous standards, yet they frequently face challenges such as understaffing and insufficient institutional support, both of

which contribute to occupational stress (Eleje et al., 2025; Olivier et al., 2020). Additionally, unpredictable workloads and restricted autonomy in decision making heighten this pressure. The need to juggle clinical responsibilities with administrative tasks such as documentation, compliance, and reporting further amplifies stress levels among healthcare workers (Koh et al., 2021).

Stress management involves the use of various techniques, strategies, and practices designed to help individuals control their stress levels and enhance their overall well-being. Effective stress management enables individuals to maintain physical, emotional, and mental health by addressing both the causes of stress and the ways in which they respond to them (Kabat-Zinn, 2018). It is based on the understanding that stress may originate from multiple sources, including external factors such as job-related pressures or personal difficulties, as well as internal influences like self-imposed expectations and emotional reactions. Stress is viewed as a transactional process that involves how individuals perceive stressors and their capacity to cope with them. Therefore, stress management aims to modify these perceptions, strengthen coping strategies, or reduce the stressors themselves.

A number of approaches have been suggested to reduce stress among healthcare workers, including organizational measures, support systems, and individual stress management techniques. Organizational measures such as minimizing administrative tasks, promoting teamwork, and maintaining adequate staffing levels can help reduce work-related stress. Additionally, providing access to counseling services and mental health resources creates a supportive environment where healthcare workers can manage emotional strain effectively (Gong et al., 2017). On a personal level, stress management techniques such as mindfulness, physical exercise, and relaxation practices have been found to be beneficial. These approaches enable healthcare workers to handle stress more effectively and prevent burnout (Pijpker et al., 2017). Experts around the world have identified several key components of stress management, including self-awareness (Eleje et al., 2025; Salazar et al., 2017), mindfulness (Kabat-Zinn, 2018), time management (Eleje et al., 2025; Anigbogu & Ilo, 2022; Zhu et al., 2017), organizational support (Mudallal et al., 2017; Nwozichi&Ojewole, 2015), social support networks (Ogba, 2020; Gong et al., 2017), physical activity (Salazar et al., 2017), diet and sleep hygiene (Oridota et al., 2020; Gómez-Urquiza et al., 2017), and cognitive restructuring (Pijpker et al., 2017). Beyond organizational efforts, healthcare workers often depend on personal coping strategies to handle stress. Mindfulness and relaxation methods such as deep breathing, meditation, and yoga have been shown to lower stress levels among healthcare professionals (Alvarez et al., 2021). Research indicates that practicing mindfulness enhances emotional regulation, improves concentration, and reduces anxiety and burnout (Brosseau et al., 2020). Furthermore, regular physical exercise remains one of the most effective methods of managing stress. Engaging in activities such as walking, swimming, or playing team sports helps improve mental health by alleviating

symptoms of anxiety and depression (Rodriguez et al., 2021). Healthcare workers who incorporate these activities into their routines often report feeling calmer, more focused, and better equipped to cope with the pressures of their work environment.

Social support plays a crucial role in managing stress among healthcare workers. A supportive work environment can help buffer the negative effects of stress by promoting positive interpersonal relationships among staff members (Ogba, 2020: Olivier et al., 2020). Having colleagues to rely on for emotional support or professional guidance can ease the sense of isolation that often accompanies high-stress healthcare settings. Peer support programs, which pair workers with colleagues for mutual emotional assistance, have been found to reduce burnout and enhance a sense of community within the workplace (Carson et al., 2019). Beyond workplace relationships, strong family and social networks outside of work also provide essential emotional resources that help healthcare professionals cope with occupational stress (Melnyk et al., 2020).

Formal training and development programs in stress management are equally beneficial for healthcare workers. These programs often teach practical skills such as time management, problem solving, and conflict resolution, enabling workers to handle stressors more effectively. For instance, cognitive behavioral strategies have been successfully applied to help healthcare professionals identify and reframe negative thought patterns that contribute to stress (Gómez-Urquiza et al., 2020). By mastering these techniques, healthcare workers can modify their responses to stressful situations, thereby reducing the overall impact of stress. Studies indicate that such training can enhance job satisfaction and lower the risk of burnout (Adriaenssens et al., 2019).

Maintaining a balance between work and personal life is another vital component of stress management in healthcare settings. Institutions that provide flexible work schedules or encourage time off help prevent stress overload among employees. Options such as flexible shifts, job rotation, and part-time work can ease the strain of long hours and reduce the physical and mental fatigue common in healthcare roles (Bae, 2017). Research shows that when healthcare workers have greater control over their schedules and can take regular breaks, their stress levels decline, and job satisfaction improves (Hochschild et al., 2021). Furthermore, healthcare organizations that foster a culture of prioritizing personal well-being and encourage employees to take time off contribute significantly to stress reduction and burnout prevention.

Effective leadership also plays a fundamental role in supporting stress management practices within healthcare organizations. Leaders who recognize signs of stress among staff and promote open communication can help alleviate workplace tension. When leaders model healthy behaviours such as taking breaks, practicing mindfulness, and emphasizing mental health, they encourage their teams to adopt similar habits (Fletcher et al., 2018). Additionally, leadership that prioritizes employee well-being by offering emotional and practical support contributes substantially to lowering workplace stress (Liu et al., 2020).

Lastly, the physical work environment has a significant impact on healthcare workers' stress levels. Creating spaces that are safe, comfortable, and mentally restorative can help mitigate stress. Features such as well-designed quiet areas for rest or reflection, ergonomic workstations, and access to relaxation rooms provide opportunities for staff to decompress and rejuvenate (Bae, 2017). Moreover, minimizing workplace hazards such as exposure to infectious diseases and ensuring the availability of adequate protective equipment help reduce stress linked to safety concerns (Gómez-Urquiza et al., 2020). Healthcare institutions that prioritize both physical and psychological safety foster an environment where staff are more likely to engage in effective stress management practices.

In addition to formal support networks, peer support and mentoring programmes have proven to be effective tools for managing stress. These initiatives pair less experienced healthcare workers with more seasoned professionals who can offer both guidance and emotional support (Carson et al., 2019). Through peer support, workers can share their experiences and coping strategies, helping to reduce feelings of isolation and burnout. Research indicates that mentoring relationships not only enhance job satisfaction but also provide encouragement during stressful periods, which directly influences stress levels (Koh et al., 2021). Such informal programs foster a supportive work culture in which healthcare professionals feel empowered to address stress more effectively.

Despite the well-documented benefits of stress management practices, several challenges can limit their effectiveness. One major obstacle is the persistent stigma surrounding mental health in healthcare environments. Many healthcare workers hesitate to seek help for fear of being stigmatized or perceived as less competent (Bae, 2017). Additionally, certain interventions such as mindfulness programs or employee assistance programs may not be universally embraced, as individuals differ in their preferences and openness toward these approaches. The success of stress management strategies can also be undermined by organizational issues including understaffing, excessive workloads, and insufficient administrative support (Carson et al., 2019). For these practices to achieve lasting success, healthcare institutions must address such structural challenges alongside the implementation of stress management initiatives

Healthcare workers play an indispensable role in safeguarding public health by delivering critical services that sustain community well-being. However, the demands of healthcare work expose them to high levels of stress, which can adversely affect their physical and mental health, job satisfaction, and overall performance. Despite growing awareness of these challenges, stress management strategies for healthcare workers in Edo State's Central Hospital remain limited. This gap highlights the urgent need for research into both the sources of stress and the effectiveness of existing management practices. Identifying these factors will help lay the groundwork for targeted interventions designed to enhance healthcare workers' well-being, job satisfaction, and the quality of care they provide to patients.

Methodology

Descriptive survey research design was adopted for this study. The population of the study consists of 363 healthcare workers employed at Central Hospital in Edo State. This includes doctors, nurses, pharmacists, laboratory technicians, and other healthcare staff who directly or indirectly provide patient care. The focus was on employees working in both clinical and non-clinical roles who are actively engaged in hospital operations. A sample of 182 healthcare workers was selected for this study, this was done by selecting fifty (50) percent of the entire population (Doctors (38), Nurses (54), Pharmacist (18) Laboratory technicians (24) Others (48). The sample represents a cross-section of the healthcare workforce, ensuring that diverse perspectives are included in the study. The selected sample size allowed for generalization of the findings to the entire population of healthcare workers at Central Hospital.

The research instrument for this study was a self-structured questionnaire, designed with four main sections: Section Alooked at socio-demographic information, such as age, gender, job role, and years of experience. Section B gathered information on the sources of stress experienced by healthcare workers, Section C focused on information regarding stress management practices, and section D looked at their perceptions of the effectiveness of these practices in mitigating stress. The responses were analyzed using mean scores. A criterion mean of 2.50 was used as the benchmark for decision making. Any item with a mean score of 2.50 or above was regarded as agreed, while any mean score below 2.50 was regarded as disagreed. Data collected for this study was analyzed using descriptive statistics of frequency counts, percentages, mean and standard deviation\ with a criterion mean of 2.50.

Results

Research Question 1: What are the sources of stress among healthcare workers at Central Hospital Edo State?

Table 1: Sources of stress among healthcare workers

S/N	Item	N	Mean	Std. Dev.	Remarks
1	Heavy workload is a major source of stress in my job.	182	3.51	0.62	Agree
2	Long working hours contribute significantly to my stress levels.	182	3.47	0.71	Agree
3	Lack of administrative support increases my stress.	182	3.30	0.73	Agree
4	Emotional demands from patient care cause stress.	182	3.55	0.64	Agree
5	Interpersonal conflicts add to my stress.	182	3.21	0.77	Agree

6	Work environment and safety concerns cause stress.	182	3.45	0.69	Agree
7	Balancing work and personal life is challenging and causes stress.	182	3.59	0.61	Agree

Table 2 above presents responses of healthcare workers on the sources of stress. Item 1 has a mean score of 3.51 and a standard deviation of 0.62, indicating agreement that heavy workload is a major stressor. Item 2 has a mean of 3.47 with a standard deviation of 0.71, showing that respondents experience significant stress due to long working hours. Item 3 has a mean of 3.30 and standard deviation of 0.73, suggesting that lack of administrative support increases stress.

Furthermore, item 4 has a mean score of 3.55 and a standard deviation of 0.64, indicating that emotional demands from patient care such as dealing with critical illnesses or deaths are stress-inducing. Item 5 has a mean value of 3.21 and a standard deviation of 0.77, meaning that interpersonal conflicts also contribute to stress. Item 6 recorded a mean of 3.45 and standard deviation of 0.69, reflecting that the work environment and safety issues are also stress sources. Lastly, item 7 has the highest mean of 3.59 with a standard deviation of 0.61, suggesting that balancing work and personal life is one of the most significant stressors. From the table, it can be concluded that healthcare workers at Central Hospital experience stress from multiple sources, particularly from balancing work-life responsibilities, emotional demands, and workload pressures.

Research question 2: What stress management practices are currently employed by healthcare workers at Central Hospital Edo State?

Table 3: Stress management practices among healthcare workers

S/N	Item	N	Mean	Std. Dev.	Remarks
1	I regularly engage in physical exercise to manage stress.	182	2.85	0.91	Agree
2	I practice meditation or mindfulness to cope with stress.	182	2.63	0.95	Agree
3	Talking to colleagues or peers helps me manage stress.	182	3.32	0.71	Agree
4	Counseling or psychological support is effective for me.	182	2.77	0.84	Agree
5	Time management techniques help reduce my	182	3.14	0.76	Agree

	stress.				
6	Taking regular breaks during work helps me alleviate stress.	182	3.21	0.68	Agree
7	Engaging in hobbies reduces my stress.	182	3.08	0.79	Agree
8	The hospital provides sufficient resources for managing stress.	182	2.26	0.87	Disagree

Table 3 above presents the stress management practices used by healthcare workers. Item 1 shows a mean value of 2.85 and a standard deviation of 0.91, indicating that many respondents engage in physical exercise as a way to manage stress. Item 2 has a mean score of 2.63 and standard deviation of 0.95, suggesting that meditation or mindfulness is also practiced to some extent. Item 3, with a mean of 3.32 and standard deviation of 0.71, indicates that talking to peers or colleagues is a popular and effective way to cope with stress. Item 4 has a mean of 2.77 and a standard deviation of 0.84, showing moderate use of counseling services. Item 5 has a mean value of 3.14 and a standard deviation of 0.76, signifying that time management techniques are commonly employed. Item 6, with a mean of 3.21 and standard deviation of 0.68, shows that respondents frequently take breaks during work to reduce stress. Item 7 has a mean score of 3.08 and a standard deviation of 0.79, revealing that engaging in hobbies or leisure activities is also a favored method. However, item 8 has the lowest mean of 2.26 with a standard deviation of 0.87, suggesting that healthcare workers disagree that the hospital provides adequate resources for managing stress. From the table, it can be concluded that healthcare workers mostly rely on personal coping mechanisms to handle stress, with limited support from institutional structures.

Research Question 3: How effective are these stress management practices in mitigating stress among healthcare workers at Central Hospital Benin City?

Table 4: Effectiveness of stress management among healthcare worker

S/N	Item	N	Mean	Std.Dev	Remarks
1	My stress management practices mitigate stress from long hours.	182	3.12	0.77	Agree
2	My emotional well-being improves with my current practices.	182	3.25	0.74	Agree
3	I believe my ability to handle stress would improve with more programs.	182	3.65	0.59	Agree
4	Hospital leadership supports stress reduction initiatives.	182	2.41	0.92	Disagree
5	Wellness and fitness programs would help reduce my stress.	182	3.60	0.68	Agree

Table 4 presents the responses on the effectiveness of stress management practices. Item 1 has a mean value of 3.12 with a standard deviation of 0.77, indicating that respondents agree their current strategies reduce stress from long working hours. Item 2 recorded a mean of 3.25 and standard deviation of 0.74, showing that their emotional well-being improves with these practices. Item 3, with the highest mean score of 3.65 and a standard deviation of 0.59, suggests that most respondents believe that additional hospital-based programs would significantly improve their ability to manage stress. However, item 4 has the lowest mean of 2.41 and a standard deviation of 0.92, meaning that respondents do not believe that hospital leadership provides enough support for stress reduction initiatives. Lastly, item 5 has a mean value of 3.60 and standard deviation of 0.68, indicating that wellness and fitness programs are perceived as beneficial for stress reduction. From the table above, it can be concluded that while individual stress management practices are effective to some extent, there is a strong need for improved organizational support and structured wellness initiatives at Central Hospital.

Discussion of Findings

The findings revealed that healthcare workers at Central Hospital, Benin City experience stress from multiple sources. The most significant among these were balancing work and personal life, emotional demands from patient care, and heavy workload. Other stressors were long working hours, lack of administrative support, and poor work environment conditions. These findings suggest that stress is deeply embedded in both the emotional and organizational aspects of hospital work. This is in line with previous studies which identified workload, emotional fatigue, and administrative gaps as common causes of stress among Nigerian healthcare workers. The consistently high mean scores across all items confirm that these stressors are widespread and impactful (Eleje et al., 2025, Anigbogu & Ilo, 2022; Casu &Guiqinto, 2018).However, healthcare workers employ a range of personal strategies to manage stress. These include talking to colleagues, practicing time management, taking breaks during work, and engaging in hobbies or physical activity as identified by several authors (Eleje et al., 2025; Anigbogu & Ilo, 2022; Ogba, 2020; Gong et al., 2017). However, despite these efforts, many respondents disagreed that the hospital provides sufficient institutional resources for stress management. This reflects a major gap between individual coping and organizational support. The findings align with the work of Okonkwo and Olannye (2025), who noted that most healthcare facilities in Nigeria lack formal wellness programmes or psychological support systems. The results therefore, highlight that while workers are doing their best to manage stress independently, the absence of structured hospital-based support reduces the overall effectiveness of these efforts.

Although personal coping strategies were agreed to quite effective for managing stress among majority of the respondents, they however emphasized the need for better institutional support as well as the adoption of formal wellness programmes which include AI-

driven interventions such as AI-Powered chatbots and personalized mindfulness programmes. This is supported by findings from Mudallal et al., 2017 and Nwozichi&Ojewole, 2015, which emphasized the importance of organizational involvement in managing staff stress. The overall results demonstrate that while personal strategies help, they are not enough without institutional backing. Structured programmes, administrative support, and leadership involvement are essential to improve the well-being of healthcare workers. These findings emphasized the urgent need for Central Hospital to invest in leadership-driven wellness initiatives, establish professional counseling services, and create an enabling work environment that supports both the physical and emotional needs of its staff.

Conclusion

Based on the findings, the study concluded that stress among healthcare workers at Central Hospital, Edo State is prevalent and arises from multiple workplace-related and emotional factors. Although healthcare workers use various coping mechanisms to manage stress, the lack of institutional support as well as structured wellness programmes significantly limits the effectiveness of these strategies. The findings reveal a critical need for organizational interventions, such as leadership involvement, structured wellness programmes, and access to mental health services, to complement personal efforts and promote overall staff well-being. Enhancing stress management in the hospital is vital to improving employee satisfaction, retention, and ultimately, the quality of patient care delivered.Based on the findings of this study, the following recommendations are made:

i. Hospital management should support the integration of structured wellness and stress reduction programmes especially AI-driven interventions.
ii. Hospital leadership should be more proactive and supportive by providing the necessary resources and creating an open environment where workers can voice concerns about work-related stress.
iii. Stress management training should be integrated into staff development programmes, equipping healthcare workers with practical tools such as mindfulness, time management, and coping strategies tailored to the hospital environment.
iv. Peer support systems should be encouraged within departments to foster collaboration and emotional support among healthcare workers, reducing feelings of isolation and burnout.

References

Adriaenssens, J., De Gucht, V., & Maes, S. (2019). Occupational stress and burnout among emergency nurses: A review of the literature. *Journal of Clinical Nursing, 28*(23-24), 4656-4669. https://doi.org/10.1111/jocn.15001

Almazan, J. U., Albougami, A. S., & Alamri, M. S. (2019). Exploring nurses' work-related stress in an acute care hospital in KSA. *Journal of Clinical Nursing*, 28(5-6), 1248-1257.

Alvarez, M., Lopez, S., & Pera, M. (2021). Mindfulness and stress management in healthcare workers. *Journal of Psychosomatic Research, 144*, 110412. https://doi.org/10.1016/j.jpsychores.2020.110412

Anigbogu, C. T. & Ilo, I. C. (2020). Ocupational stress and coping strategies among nurses working in a tertiary hospital in Anambra State. *Academic Journal of Nursing and Health Education* 11(1):1-9

Bae, S. H. (2017). Patient-to-nurse ratios and nurse burnout: A systematic review of the literature. *Journal of Nursing Scholarship, 49*(4), 401-408. https://doi.org/10.1111/jnu.12293

Broseau, N., Dufresne, M., & Bouchard, M. (2020). Reducing burnout through mindfulness and stress management. *International Journal of Stress Management, 27*(2), 142-151. https://doi.org/10.1037/str0000131

Carson, P., Toft, A., & Tynan, T. (2019). Understanding the sources of work-related stress in healthcare professionals: A literature review. *International Journal of Healthcare Management, 12*(4), 298-307. https://doi.org/10.1080/20479700.2018.1553536

Casu, G. &Giaqunto, F. (2018). Distress and demorization of hospital nurses as a function of sources of stress and job seniority. *Applied Nursing Research*, 43:61-63.

Eleje, G. U. et al., (2025). Stress management practice among medical health practitioners in Nigeria. *Acta Scientific Medical Sciences*, 9(5):134-144.

Etim, J. J., Bassey, P. E., Ndep, A. O., Iyam, M. A., &Nwikekii, C. N. (2015). Work-related stress among healthcare workers in Ugep, Yakurr Local Government Area, Cross River State, Nigeria: a study of causes, effects and coping strategies. *International Journal of Public Health, Pharmacy and Pharmacology*, 1(1): 23-34.

Fletcher, M. A., Ferguson, E., & McKenna, L. (2018). The role of hierarchy in communication breakdowns in healthcare. *Journal of Nursing Management, 26*(3), 222-229. https://doi.org/10.1111/jonm.12559

Gómez-Urquiza, J. L., Vargas, C., & Garcia, I. (2020). Work stress and burnout in nursing: A systematic review of the literature. *International Journal of Nursing Studies, 97*, 12-22. https://doi.org/10.1016/j.ijnurstu.2019.05.013

Gong, Y., Han, T., Yin, X., Yang, G., Zhuang, R., Chen, Y., & Lu, Z. (2017). Prevalence of depressive symptoms and work-related stress in newly employed Chinese healthcare workers. *BMC Public Health*, 17(1), 1-7.

Koh, D., & Tan, H. L. (2021). Stress and burnout in healthcare workers: A review of interventionsand management strategies. *International Journal of Occupational and Environmental Health, 27*(4), 277-285. https://doi.org/10.1080/10773525.2021.1892357

Liu, J., Wang, Y., & Zhang, X. (2020). Occupational risks and psychological distress in

Lombardo, M., & Eyre, L. (2019). Compassion fatigue in healthcare providers: A literature review. *Journal of Clinical Nursing, 28*(23-24), 4419-4428. https://doi.org/10.1111/jocn.15031

Maben, J., Bridges, J., & O'Mahony, N. (2017). The costs of caring? Nursing staff shortages and their impact on health care workers. Health Services Research, 52(1), 53-71.

Mark, G., & Smith, A. P. (2012). Occupational stress, job characteristics, coping and the mental health of nurses. *British Journal of Health Psychology*, 17(3):505-521.

Melnyk, B. M., & Fineout-Overholt, E. (2020). Evidence-based practice in nursing & healthcare: A guide to best practice (4th ed.). *Wolters Kluwer.*

Mudallal, R. H., Othman, W. M., & Al Hassan, N. F. (2017). Nurses' burnout: The influence of leader empowering behaviors, work conditions, and demographic traits. *Journal of Nursing Management*, 25(7), 534-543.

Nwozichi, C. U., &Ojewole, F. O. (2015). Potential stressors in cancer care: perceptions of oncology nurses in selected teaching hospitals in South West, *Nigeria. African Journal of Medical and Health Sciences*, 14(2):130-134

Ogba, A. (2020). Ocupational stress and its management among health care workers in the University of Port Harcourt Teaching Hospital, Rivers State. *Health Science Journal*, 14(5):738.

Okonkwo, J. E. &Olannye, P. A. (2025). Role of stress management strategies in enhancing healthcare workers performance: evidence from Asaba, Delta State. *African Journal of Social and Behavioural Sciences* 15(1):253-275.

Olivier, S., Miller, S., & Stevens, D. (2020). The role of personal stressors in healthcare worker burnout: A systematic review. *Journal of Healthcare Management, 65*(5), 320-330. https://doi.org/10.1097/JHM-D-19-00089

Onawhakpor A., et al., (2018). Occupational stress prevalence, sources and coping mechanisms among medical doctors in a tertiary institution. *Nigerian Health Journal*, 18(1):34-44.

Oridota, E. S., et al., (2021). Stress pattern and its coping strategies among physicians in a teaching hospital in Nigeria, *University of Lagos Journal of Basic Medical Sciences* 2(1):27-31.

Pijpker, R., Gunther, B. S., & Tings, R. (2017). Mindfulness and psychological flexibility as mediators of change in cognitive behavior therapy for stress-related disorders. *Frontiers in Psychology*, 8, 9-15.

Salazar, J., Velde, B. P., Hancock, G. A., & Smith, C. M. (2017). Stress management practices among healthcare professionals. *International Journal of Stress Management*, 24(2), 125-135.

Zhu, H., Tummers, L. G., & Liao, J. (2017). How does employee resilience explain the effects of employee well-being on turnover? The mediating effects of stress and commitment. *Public Management Review*, 19(3), 361-377.