



FACTORS AFFECTING EMPLOYEE PERFORMANCE IN PUBLIC SECTOR HOSPITALS IN SUDAN DURING CONFLICT

Abdallah Elmagboul¹

¹Universitas Hasanuddin, Indonesia

Correspondence email: abdallah.elmagboul@gmail.com

ABSTRACT

This study investigates the factors influencing employee performance in public sector hospitals in Sudan during periods of conflict. The research focuses on four key variables: physical well-being, work conditions, motivation, and job satisfaction. Data was acquired using quantitative approaches through questionnaires. The study encompassed all healthcare practitioners at government hospitals in Khartoum, employing random selection techniques to guarantee a representative sample. The essential data was collected using a questionnaire that employed a 5-point Likert Scale. An assessment was conducted to determine the accuracy and consistency of the instrument. The data was subjected to classic assumption tests, such as normality, F test, R² test, and t-test, to verify its accuracy and reliability. The results of this study indicate that physical well-being, work conditions, and level of job contentment have a constructive and noteworthy impact on the effectiveness of employees in public sector hospitals in Sudan. However, motivation has a negligible effect on employee performance. These findings emphasize the significance of enhancing physical well-being, optimizing the work environment, and augmenting job satisfaction to enhance performance in public sector hospitals. These insights serve as a foundation for additional study and practical treatments designed to improve employee performance in the healthcare industry during conflict situations.

Keywords: Dental health services; immigrant satisfaction; healthcare quality; cultural competency; Makassar.

1. INTRODUCTION

Sudan has faced prolonged periods of conflict and instability, resulting in significant challenges for the healthcare sector. Public sector hospitals, which cater to a large portion of the population, often bear the brunt of these challenges. Healthcare providers in these hospitals face numerous obstacles, including resource shortages, security risks, and psychosocial stressors. However, there is a lack of research examining the employee performance of healthcare providers in Sudan's public sector hospitals during times of conflict (Dalouk & Haar, 2023). The impact of conflict on employee performance within Sudan's healthcare sector is a topic of paramount importance, transcending mere academic inquiry to encompass the very essence of human dignity and resilience. At its core, this topic speaks to the fundamental rights of healthcare workers to practice their profession in safety and security, free from the specter of violence and intimidation. It also speaks to the broader imperative of ensuring equitable access to healthcare services for all, regardless of the prevailing political climate or social upheaval (Elnour et al., 2023). The study focuses on assessing the employee performance of healthcare providers in public sector hospitals in Sudan amidst conflict. It aims to understand the impact of conflict on healthcare workers and the quality of care provided. By investigating key factors such as the work environment, job satisfaction, and physical health, the research aims to provide insights into enhancing employee performance despite challenging conditions'.

2. MATERIALS AND METHOD

This study aimed to explore the impact of conflict on employee performance in the health sector, specifically focusing on healthcare providers in public sector hospitals in Sudan. Using a descriptive cross-sectional design with quantitative methods, the research gathered data at one point in time to understand the relationship between workplace conflict and performance. The data collection was carried out through a structured questionnaire that included both open-ended and closed questions, as well as statements rated on a 5-point Likert scale to gain diverse insights.

The subjects of the study included a range of healthcare professionals, such as doctors, nurses, pharmacists, administrators, and clinical officers in Khartoum's public hospitals. A stratified random sampling method ensured a representative sample by selecting individuals from different professional groups. This sampling approach was chosen to capture the diverse experiences and challenges faced by healthcare workers during period of conflict.

To ensure the reliability and validity of the research instruments, pretesting and expert reviews were conducted. The study measured content and construct validity to confirm that the questionnaire effectively captured the relationship between conflict and employee performance. Reliability was tested by administering the questionnaire multiple times under the same conditions and using the Cronbach's alpha coefficient to check for internal consistency, with a score of 0.7 or higher indicating strong reliability.

Data analysis involved using the Statistical Package for Social Sciences (SPSS) for quantitative data, calculating means and standard deviations to summarize the responses. Thematic analysis was used to analyze qualitative data, identifying key themes and patterns. This

dual approach provided a comprehensive understanding of how conflict affects healthcare worker performance, revealing the critical areas that need to be addressed to improve healthcare service delivery in conflict-affected regions.

3. RESULTS

The population in the study was healthcare professionals, including hospital administrators, pharmacists, physicians, clinical officers, and nurses. This population was chosen because of their similar characteristics that are relevant to the research. Based on the sampling technique used, 56 samples were obtained from 3 public hospitals in Khartoum, Sudan. The coefficient of determination is used to see the ability of the independent variable to explain the dependent variable, where the Adjusted R Square value is close to one, so the independent variable provides almost all the information needed to predict variations in the dependent variable, the results of which can be seen in the following table.

Table 1 Correlation and Determination Coefficient Test Results

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | ,693 ^a | 0,480 | 0,440 | 1,58609 | 1,246 |

Source: SPSS output results (2024)

From the table above, it is known that the value of R = 0.693, which means that Physical Health, Work Environment, Work Motivation, and Job Satisfaction have a relationship with employee performance. Then the Adjusted R Square figure is 0.480. This shows that the independent variables studied, namely Physical Health, Work Environment, Work Motivation, Job Satisfaction, have an influence on employee performance of 48% and the remaining 52% is explained by other variables outside this research model.

Table 2 Correlation and Determination Coefficient Test Results.

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| (Constant) | 12,833 | 2,25 | | 5,703 | 0,000 |
| Physical_Health | 0,409 | 0,117 | 0,51 | 3,481 | 0,001 |
| Work_Environment | 0,179 | 0,142 | 0,154 | 1,257 | 0,014 |
| Work_Motivation | 0,011 | 0,036 | 0,037 | 0,303 | 0,163 |
| Job_Satisfaction | 0,224 | 0,086 | 0,358 | 2,619 | 0,012 |

Source: SPSS output results (2024)

Hypothesis testing in this research uses the multiple regression analysis method, the following results were obtained:

$$\text{Employee Perform} = \beta_0 12,833 + \beta_1 0,409 + \beta_2 0,179 + \beta_3 0,011 + \beta_4 0,224 + e$$

Description:

β_0 = constant regression coefficient

$\beta_{1,2,3,4}$ = Regression coefficient of each proxy

EP = Employee Performance

X1 = Physical Health

X2 = Work Environment

X3 = Work Motivation

X4 = Job Satisfaction

e = Error

The regression coefficient for Physical Health, Work Environment, Work Motivation,

Job Satisfaction on employee performance has a value of 12.833 with a significant value of 0.000 below 0.05. This means that it has an influence on employee performance. Koefisien regresi Physical Health memiliki nilai 0,409 dengan nilai signifikan 0,001 di bawah 0,05. Artinya, memiliki pengaruh terhadap employee performance. Work Environment regression coefficient has a value of 0.179 with a significant value of 0.014 below 0.05. This means that it has an influence on employee performance.

The Work Motivation regression coefficient has a value of 0.011 with a significant value

of 0.163 which is greater than 0.05. This means that it has an insignificant influence on employee performance. The Job Satisfaction regression coefficient has a value of 0.224 with a significant value of 0.012 below 0.05. This means that it has an insignificant influence on employee performance.

Table 3 F-Test Results

| | Model | Sum of Squares | df | Mean Square | F | Sig. |
|---|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 118,557 | 4 | 29,639 | 11,782 | ,000 ^b |
| | Residual | 128,300 | 51 | 2,516 | | |
| | Total | 246,857 | 55 | | | |

Source: SPSS output results (2024)

Table 3 shows that by carrying out testing with a confidence level of 95% ($\alpha = 0.05$), a significant value of $0.000 < 0.05$ (standard value) is obtained. This means that Physical Health, Work

Environment, Work Motivation, Job Satisfaction simultaneously or together influence the performance of public hospital employees in Sudan. The findings of this study highlight several critical factors that influence employee performance in public sector hospitals in Sudan during conflict. By examining physical health, work environment, motivation, and job satisfaction, we gain a comprehensive understanding of the unique challenges faced by healthcare providers in these settings and how these factors interplay to affect their performance. Physical health is paramount for healthcare workers, particularly in conflict zones where they are exposed to extreme stress, violence, and inadequate living conditions. The study indicates that compromised physical health due to factors such as poor nutrition, limited access to healthcare, and high stress levels leads to increased absenteeism, reduced productivity, and higher burnout rates. These findings underscore the necessity for ensuring adequate healthcare services, proper nutrition, and support systems for healthcare workers to maintain their physical well-being and enhance their performance.

The work environment in public sector hospitals during conflict significantly impacts employee performance. A supportive, safe, and resource-equipped work environment is essential for healthcare workers to perform effectively. The study reveals that inadequate infrastructure, security concerns, and lack of resources lead to decreased motivation, higher stress levels, and lower overall performance. Improving the work environment by providing necessary resources, ensuring safety measures, and fostering a supportive organizational culture is crucial for enhancing employee performance in these challenging conditions. Contrary to expectations, the study finds that motivation has a negligible impact on employee performance in conflict settings. This suggests that while motivation is an important factor in general, the extreme conditions and immediate survival concerns in conflict zones may overshadow its effects. This finding indicates that addressing more fundamental needs such as safety, health, and work conditions might be more pressing priorities for improving performance in such environments. Job satisfaction plays a significant role in influencing employee performance. The study shows that higher job satisfaction is associated with better performance, as satisfied employees are more motivated, engaged, and committed to their work. Factors contributing to job satisfaction include management support, opportunities for professional development, recognition, and fair compensation. Enhancing job satisfaction through these avenues can lead to improved performance, reduced burnout, and better patient care even in conflict affected areas. The findings of this study have important implications for policymakers and healthcare administrators.

To improve employee performance in public sector hospitals during conflict, a multi-faceted approach is necessary. This includes ensuring physical health by providing healthcare services and support systems for healthcare workers, ensuring access to proper nutrition and medical care, and implementing measures to reduce stress and prevent burnout. Improving the work environment involves investing in infrastructure and resources to create a conducive work environment, enhancing security measures to protect healthcare workers, and fostering a supportive organizational culture. Enhancing job satisfaction can be achieved by offering professional development opportunities, recognizing and appreciating the efforts of healthcare workers, and providing fair compensation and benefits. Additionally, addressing immediate needs such as safety, health, and work conditions should be prioritized over motivational interventions. By addressing these areas, healthcare administrators can create a more supportive and effective work

environment for healthcare workers in conflict-affected public sector hospitals, ultimately leading to improved performance and better healthcare outcomes for the population they serve.

4. CONCLUSION

The study reveals that physical well-being, work environment, and job satisfaction significantly impact the performance of healthcare providers in Sudan's public sector hospitals during the conflict, with enhanced physical health, supportive work conditions, and high job satisfaction leading to better employee performance. The findings imply that improving these areas is essential for enhancing healthcare worker performance in conflict zones, providing valuable insights for policymakers and hospital managers. However, the study is limited to Khartoum, potentially not representing all of Sudan, and relies on self-reported data that may introduce bias, with a cross-sectional design that does not account for long-term effects. Future research should include other regions, adopt longitudinal designs to understand the long-term impacts and investigate additional factors affecting performance in conflict-affected areas.

Acknowledgment

I would like to express my gratitude to my supervisor, Dr Qurratul Aini, SKG., M.Kes for her guidance and support throughout the completion of this thesis. Their expertise and feedback have been invaluable. I would also like to thank Ozwan Sayed and Timey Nikolaus for their encouragement and motivation. Their friendship has been a constant source of support. I am grateful for the resources and facilities provided by Universitas Muhammadiyah Yogyakarta, which have enabled me to complete this thesis. Finally, I would like to thank my family and loved ones for their love and support. Their sacrifices have made it possible for me to focus on my studies.

Conflict of Interest

The author declares no conflict of interest associated with this study. There was no financial support, sponsorship, or specific funding provided for the collection, analysis, or interpretation of data. The study was conducted independently, with the author having complete access to all data and responsible for all interpretations made in this paper.

REFERENCES

- Aliyyah, N., Prasetyo, I., Rusdiyanto, R., Endarti, E. W., Mardiana, F., Winarko, R., Chamariyah, C., Mulyani, S., Grahani, F. O., Rochman, A. S. Ur, Kalbuana, N., Hidayat, W., & Tjaraka, H. (2021). What affects employee performance through work motivation? *Journal of Management Information and Decision Sciences*, 24(1), 1–14.
- Alumran, A., Almutawa, H., Alzain, Z., Althumairi, A., & Khalid, N. (2021). Comparing public and private hospitals' service quality. *Journal of Public Health*, 29, 839-845.
- Babiker, N. A., Llaguno, M. B. B., Belal, S., Malik, E. M., Jaramillo, J. C., Khelif, B. Y., & Elmosaad, Y. M. (2022). Job satisfaction among Sudanese public health physicians in public sector: A cross-sectional study. *Organization*, 5, 6. <https://doi.org/10.17605/OSF.IO/4RXPS>

- Babiker, N. A., Llaguno, M. B. B., Belal, S., Malik, E. M., Jaramillo, J. C., Khelif, B. Y., & Elmosaad, Y. M. (2022). Job satisfaction among Sudanese public health physicians in public sector: A cross-sectional study. *03*, 1–21. <https://doi.org/10.17605/OSF.IO/4RXPS>
- Badri, R., & Dawood, I. (2024). The implications of the Sudan war on healthcare workers and facilities: A health system tragedy. *Conflict and Health*, *18*(1), 1–5. <https://doi.org/10.1186/S13031-024-00581-W>
- Bou-Karroum, L., El-Harakeh, A., Kassamany, I., Ismail, H., Elarnaout, N., Charide, R., Madi, F., Jamali, S., Martineau, T., Eljardali, F., & Akl, E. A. (2020). Health care workers in conflict and postconflict settings: Systematic mapping of the evidence. *PLoS ONE*, *15*(5). <https://doi.org/10.1371/journal.pone.0233757>
- Charlson, F., van Ommeren, M., Flaxman, A., Cornett, J., Whiteford, H., & Saxena, S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: A 7. systematic review and meta-analysis. *The Lancet*, *394*(10194), 240-248.
- Chien, G. C., Mao, I., Nergui, E., & Chang, W. (2020). The effect of work motivation on employee performance: Empirical evidence from 4-star hotels in Mongolia. *Journal of Human Resources in Hospitality & Tourism*, *19*(4), 473-495. <https://doi.org/10.1080/15332845.2020.1763766>
- Chien, G. C. L., Mao, I., Nergui, E., & Chang, W. (2020). The effect of work motivation on employee performance: Empirical evidence from 4-star hotels in Mongolia. *Journal of Human Resources in Hospitality and Tourism*, *19*(4), 473–495. <https://doi.org/10.1080/15332845.2020.1763766>
- Dafallah, A., Elmahi, O. K., Ibrahim, M. E., Elsheikh, R. E., & Blanchet, K. (2023). Destruction, disruption and disaster: Sudan's health system amidst armed conflict. *Conflict and Health*, *17*(1), 43.
- Dhyan Parashakti, R., Ekhsan, M., & Dian Nusantara, U. (2020). The effect of discipline and motivation on employee performance in PT Samsung Elektronik Indonesia. <http://ejournal.stie-kusumanegara.ac.id>
- Frastika, A., & Franksiska, R. (2021). The impact of motivation and environment on employee performance with organizational commitment as intervening variable. *International Journal of Social Science and Business*, *5*(4), 551–560.
- Hemmeda, L., Ahmed, A. S., & Omer, M. (2023). Sudan's armed rivalry: A comment on the vulnerable healthcare system catastrophe. *Health Science Reports*, *6*(8), e1517.
- Muhammad, A. (2022). The effect of work environment, commitment, and discipline on employee performance at PT. Bank Rakyat Indonesia Makassar. *Golden Ratio of Data in Summary*, *2*(2), 49–60.
- Musa, M. K., Eshun, G., Modber, M. A. A., Haruna, U. A., Abdulsalam, A., Zailani, A. U.S., & Biney, G. K. (2024). Public health consequences of armed conflict in Sudan in the face of global donor fatigue. *Public Health Challenges*, *3*(1), e156.
- Ni, W. Y., Ng, E., Chiang, Y. Te, Lepage, B. A., Yang, F. H., & Fang, W. T. (2022). Examine the relationships between health-related quality of life, achievement motivation and job performance: The case of Taiwan hospitality industry. *BMC Psychology*, 1–15. <https://doi.org/10.1186/s40359-022-00884-8>

- Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. *Problems and Perspectives in Management*, 19(3), 162.
- Siqueira, M. S. S., Nascimento, P. O., & Freire, A. P. (2022). Reporting behaviour of people with disabilities in relation to the lack of accessibility on government websites: Analysis in the light of the theory of planned behaviour. *Disability, CBR and Inclusive Development*, 33(1), 52–68. <https://doi.org/10.47985/dcidj.475>
- Tarigan, Z. J. H., Siagian, H., & Jie, F. (2021). Impact of enhanced enterprise resource planning (ERP) on firm performance through green supply chain management. *Sustainability (Switzerland)*, 13(8). <https://doi.org/10.3390/su13084358>
- Tashliyev, A., & Tirtoprojo, S. (2021). Examining the factors affecting employee performance of higher education institution employee in the new normal era. *International Journal of Economics and Business Issues*, 02(01), 47–57