

**INFLUENCE OF DIMENSIONS OF ADVERSE WORKPLACE CONDITIONS ON MEDICAL WORKER RETENTION:  
EVIDENCE FROM GOVERNMENT HOSPITALS IN KANO METROPOLIS, NIGERIA.**

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**Abstract**

This article will analyze the impact of substandard working conditions on worker retention among healthcare professionals at government hospitals in Kano Metropolis, Nigeria. The issue of elevated turnover and attrition of medical personnel persists. Nonetheless, several initiatives aim to enhance the healthcare staff, which is linked to inadequate working conditions, meager compensation, limited career progression, and substandard facilities. The population of 1327 medical personnel in ten government hospitals was surveyed using a descriptive cross-sectional method. A proportional stratified sampling method was implemented to distribute 393 structured questionnaires in accordance with confirmed instruments. Of these, 315 were effectively surveyed and examined. The data was analyzed using descriptive statistics, independent sample t-tests, correlation analysis, and Structural Equation Modeling (SEM) to investigate the relationships between workplace condition dimensions and retention outcomes. The results indicate that worker retention is significantly influenced by the lengthy working hours, inadequate infrastructure, and limited opportunities for career development. However, physical working conditions do not have a large impact on worker retention in this scenario. The empirical findings of this research provide an understanding of the organizational factors that influence the retention of healthcare personnel in government hospitals in Kano Metropolis. It offers effective recommendations, such as performance-based incentives, mentorship programs, burden sharing plans, and continuous learning plans, to facilitate retention plans. The lessons can be used to guide policymakers and hospital administrators in the development of evidence-based interventions that will stabilize and empower the public healthcare workforce.

**Keywords:** *Adverse workplace conditions, medical worker retention, government hospitals, Kano Metropolis, healthcare workforce.*

**1. Introduction**

**1.1 Background and Context of the Study:** In the global healthcare labor market, the brain outflow is a term that refers to the common issues of poor retention, irregular distribution, and high migration of skilled professionals (Roncarolo, Boivin, Denis, Hébert, and Lehoux, 2017; Toyin-Thomas et al., 2023). Healthcare professionals are also crucial in guaranteeing universal health coverage; consequently, there should be an adequate number of qualified professionals (Szabo et al., 2020). According to Gurmessa, Ferreira, and Wissink (2017) and Osigbesan (2021), the push factors are multidimensional and include adverse working conditions, low wages, and poor career advancement, while the draw factors include high wages, enhanced infrastructure, and career opportunities in other countries. Healthcare personnel in Sub-Saharan Africa are being laid off in favor of high-income countries, which has resulted in a decrease in service provision, an increase in inequities, and a destabilization of institutional capacity (Gurmessa et al., 2017; Tankwanchi, 2018; Witter et al., 2016). In Nigeria, migration is particularly encouraged among early-career physicians and nurses due to inadequate infrastructure, inadequate motivation, inadequate leadership, and a lack of career advancement (Okafor and Chimereze, 2020; Akinwale and George, 2023; Kenneth, 2023). In the national context, the emigration of healthcare workers to other countries, including the United States, the United Kingdom, Canada, and Australia, results in a lack of access to essential services and a lack of staff responsibilities (Osigbesan, 2021; Dirisu et al., 2019; Lukpata, 2020). At the state level, the delivery of services is being impacted by shortages, inadequate incentives, and work overburden, which are reflected in these trends. It is imperative to implement evidence-based HR practices in the areas of professional development, recruitment, retention, and improved workplace conditions in order to address these issues (Akinwale, Kuye, and George, 2024; Kenneth, 2023). In order to enhance retention and establish resilient health systems, it is essential to understand the causes and consequences of healthcare worker migration (Toyin-Thomas et al., 2023; Goštautaitė, Mayrhofer, Bučiūnienė, and Jankauskienė, 2024).

**1.2 Problem Statement:** Even though they are of paramount importance, Sub-Saharan Africa and Nigeria have persistent shortages of qualified healthcare personnel (Roncarolo et al., 2017; Szabo et al., 2020). The loss of institutional capacity, compromised national health objectives, and poor patient outcomes are the consequences of the migration of professional staff in Kano State (Akinwale and George, 2023; Kenneth, 2023). Insufficient training, poor infrastructure, low wages, poor working conditions, and low career growth are the primary factors contributing to this migration (Opeke et al., 2019; Dirisu et al., 2019; Akinwale et al., 2024). Ineffective HR policies and the absence of appropriate policies exacerbate high attrition and poor retention (Lukpata, 2020; Kenneth, 2023). In this study, the author will examine the impact of HR interventions on the retention of medical workers in Kano State in order to provide policymakers and health administrators with evidence-based recommendations (Goštautaitė et al., 2024; Chukwu & Essue, 2024).

**1.3 Objectives of the Study**

1. To compare gender differences in the perception of adverse workplace conditions and their impact on medical worker retention in government hospitals in Kano Metropolis.
2. To determine the relationship between dimensions of adverse workplace conditions and medical worker retention in government hospitals in Kano Metropolis.
3. To examine the predictive effect of dimensions of adverse workplace conditions on medical worker retention in government hospitals in Kano Metropolis.

**1.4 Research Questions**

1. To what extent do male and female medical workers differ in their perception of adverse workplace conditions and medical worker retention in Kano Metropolis?
2. What is the relationship between dimensions of adverse workplace conditions and medical worker retention in government hospitals in Kano Metropolis?
3. How do dimensions of adverse workplace conditions predict medical worker retention in government hospitals in Kano Metropolis?

**1.5 Null Hypotheses ( $H_0$ )**

The following null hypotheses are formulated and tested in this study:

**H<sub>01</sub>:** There is no significant gender difference in the perception of adverse workplace conditions and medical worker retention in Kano Metropolis.

**H<sub>02</sub>:** There is no significant relationship between dimensions of adverse workplace conditions and medical worker retention in government hospitals in Kano Metropolis.

**H<sub>03</sub>:** Dimensions of adverse workplace conditions do not significantly predict medical worker retention in government hospitals in Kano Metropolis.

**1.6 Significance of the Study**

The research is relevant since it discusses the unrelenting issue of medical worker retention in Nigeria, especially Kano Metropolis, under unfavorable working conditions. The brain drain of healthcare workers globally compromises universal healthcare coverage, and the migration of skilled workers is a negative environmental impact on the health system of the countries of origin (Toyin-Thomas et al., 2023; Osigbesan, 2021). The workforce shortages in Sub-Saharan Africa are motivated by both push factors, such as poor working conditions, inadequate remuneration, low career opportunities, and ineffective infrastructure, and pull factors, which are better professional incentives of the high-income countries (Gurmessa et al., 2017; Adekola, 2017; Li and Sun, 2019). In Nigeria, medical brain drain causes workforce shortage, excessive

workload on the remaining employees, lack of motivation and low quality of care (Okafor and Chimereze, 2020; Akinwale and George, 2023; Kenneth, 2023). This paper offers localized information on the impact of poor conditions of work on retention of medical workers by concentrating on Kano Metropolis. The research on gender disparities, relationships, and predictive variables can provide meaningful policy implications that policymakers, hospital executives, and human resource managers can use to implement specific interventions that can facilitate retention and motivation as well as overall healthcare services (Dirisu et al., 2019; Opeke et al., 2019). Furthermore, the research paper is relevant to the academic debate on human resources in health in resource-constrained contexts to support the global agenda of attaining Sustainable Development Goals concerning the sustainability of health workforce (Witter et al., 2016; Szabo et al., 2020).

### *1.7 Scope of the Study*

The research is geographically and conceptually limited to the area of Kano Metropolis government hospitals, Nigeria, where unfavorable workplace organization is the issue of low pay, poor infrastructure, workload, management support, and professional growth, and influences the retention of medical workers. It includes both male and female medical workers, some of whom are the most vulnerable to the migration pressures (Dr. Naveen Prasadula., 2025; Osigbesan, 2021; Yakubu et al., 2023). The study is based on literature and data in 2016 and 2024 to develop the contemporary workforce issues. In theory, it looks at how the conditions at the workplace relate to retention, with gender differences being used as a moderating factor. To keep the focus, private healthcare facilities, the non-medical staff, and community health workers are not included in government hospitals. The focused study will contribute evidence-based observations to the hospital management, HR plans, and policy interventions that can enhance retention and increase healthcare delivery in the Kano and other settings (Dirisu et al., 2019; Akinwale et al., 2024; Chukwu and Essue, 2024).

## **2. Literature Review and Theoretical Framework**

### *2.1 Conceptual Review*

Medical worker retention is an urgent issue across the world, and especially in low- and middle-income nations, where the unfavorable conditions in the workplace have a considerable effect on healthcare delivery (Toyin-Thomas et al., 2023). Migration of health professionals has been linked to both pull and push factors around the world. The poor remuneration, unsafe or inappropriate working conditions, career development, and access to modern technology and training are considered push factors (Osigbesan, 2021; Safari et al., 2022). On the other hand, pull factors are those incentives that high-income nations present including higher wages, promotion, and improved infrastructure (Gurmessa et al., 2017; Li and Sun, 2019). The problem is especially acute in Sub-Saharan Africa, where the lack of qualified medical personnel has adversely impacted the realization of universal healthcare coverage and had an adverse effect on patient care (Roncarolo et al., 2017; Akinwale and George, 2023).

#### *2.1.1 Adverse Workplace Conditions in Public Healthcare*

Poor working environments are complex and have a great impact on retention of medical workers. The issues that are frequently encountered in the Nigerian setting and affect the public hospitals include a lack of proper compensation, infrastructure, insufficient access to professional development, and excessive workloads (Dirisu et al., 2019; Opeke et al., 2019). All these lead to the dissatisfaction and the development of migration intentions among healthcare professionals. Kano State and other parts of Nigeria show that the main reasons why medical workers quit their work in the public health institutions include the low payment, inadequate facilities, and lack of career growth (Kenneth, 2023; Akinwale et al., 2024). These conditions and solving them are hence key in maintaining a viable health work force and enhancing healthcare service delivery.

##### *2.1.1.1 Remuneration*

Pay is also one of the major factors that define healthcare worker retention. It has also been revealed that low wages, irregular pay scales, and payment delays are the main causes of low morale, lack of job satisfaction, and further turnover of the workforce (Okafor and Chimereze, 2020; Akinwale and George, 2023). Low wages compared to the international rates have also contributed to medical migration in Nigeria, and the shortage of skilled staff has become a major issue, especially in rural and underserved regions (Osigbesan, 2021; Monye et al., 2021). Healthcare workers should thus be well remunerated so as to maintain workers as well as to motivate them and deliver the services better.

##### *2.1.1.2 Working Environment*

Physical infrastructure, managerial support, workload and organizational culture are all included in the working environment. Poor quality of work life in hospitals is entailed by poor management, overpopulated departments, inadequate equipment, and lack of stress management skills (Dirisu et al., 2019; Kenneth, 2023). The research has noted that an accommodating working environment does not only increase productivity but also minimizes attrition by creating professional satisfaction and engagement (Szabo et al., 2020; Phuyal, 2024). The issue of poor working conditions is still a burning one in Kano State, which leads to more staff turnover and migratory intentions among medical personnel (Akinwale et al., 2024).

##### *2.1.1.3 Access to Technology and Training*

Availability of contemporary technology, education and lifelong learning play a pivotal role in improving the quality of healthcare services and retaining quality medical personnel. The lack of training and the use of outdated equipment decrease job satisfaction and decrease the competence of healthcare providers, which causes a tendency to migrate to other countries with improved tools and learning platforms (Lukpata, 2020; Yeates and Pillinger, 2019). As an example, in Nigeria, it has been demonstrated that secondary healthcare facilities usually lack access to training programs, and tertiary institutions receive the support of development partners in a sporadic manner (Lukpata, 2020; Dirisu et al., 2019). In comparison, increased motivation, retention, and overall delivery quality of healthcare have been demonstrated to be promoted by the improved access to training and technology (Goštautaitė et al., 2024; Safari et al., 2022).

### *2.1.2 Medical Worker Retention*

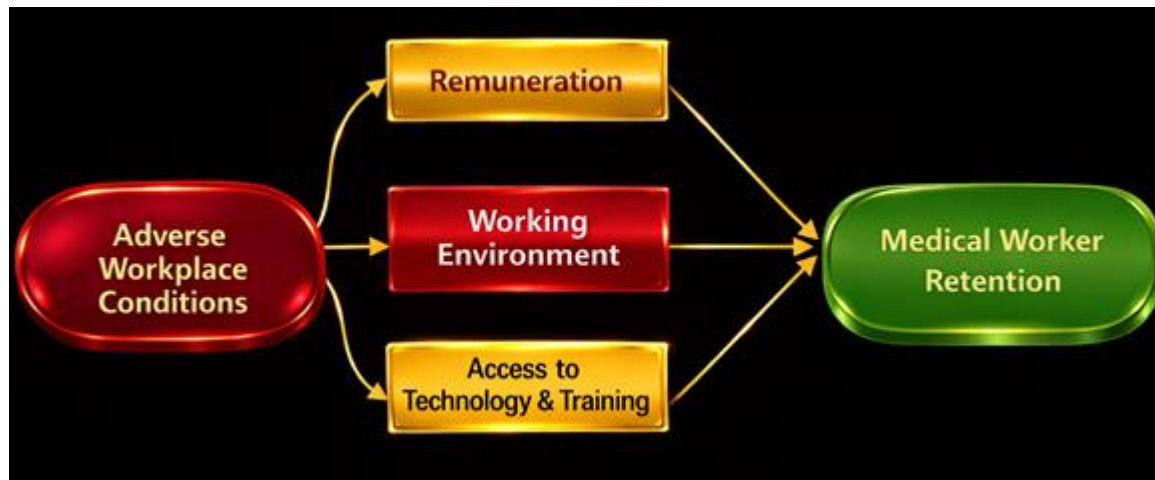
Medical worker retention is the capacity of a healthcare system to have a stable and competent work pool in its long-term position. In developing countries, retention is a vital factor of healthcare quality, continuity, and organizational effectiveness (Opeke et al., 2019; Osigbesan, 2021). It has been shown that the poor working conditions in Nigeria, including low pay, low career development, insufficient facilities, and high stress working environments, are the main causes of low retention rates among medical workers (Kenneth, 2023; Akinwale and George, 2023). International migration adds to the problem of retention as the most qualified specialists go to the countries where the conditions of work and the salaries are higher (Yakubu et al., 2023; Monye et al., 2021). Research indicates that workplace conditions can be significantly improved, professional development can be offered, and motivational factors can be enhanced to help increase the retention rates among healthcare workers (Dirisu et al., 2019; Opeke et al., 2019; Safari et al., 2022).

### *2.4 Research Gap and Hypothesized Model*

1. The investigation of the gender disparities in the attitude towards the unfavorable working conditions and the influence of these factors on retention.
2. Exploring the correlation between aspects of negative working environments and staff retention in the Kano Metropolis among medical workers.

3. The subject under testing is the predictive impact of negative work environments on retention which should be tested and give empirical evidence to guide policy and human resource interventions.

The conceptual framework of this study will combine the fundamental dimensions of adverse workplace conditions remuneration, working environment and access to technology/training as predictor of medical worker retention. The model is based on the Two-Factor Theory, Social Exchange Theory, and Job Embeddedness Theory by Herzberg, which, in turn, elucidate motivation, reciprocal behavior at work, and attachment to the organization.



Source(s): Figure by authors

**Figure 1.** Conceptual Model of Dimensions of Adverse Workplace Conditions and Medical Worker Retention

The conceptual model demonstrates the interrelation of the three main dimensions of unfavorable work environment Remuneration, Working Environment, and Access to Technology and Training to determine the retention of medical workers. Pay will influence the satisfaction of workers and their perceived value, which will directly influence their willingness to stay in the healthcare system. Working Environment refers to physical conditions, work load, and relationship amongst people that define daily experiences and job satisfaction. Technological Accessibility and Training identifies the prospects of professional development and skill improvement, which trigger the sense of interest and long-term commitment to the organization.

**3. Methodology**

*3.1 Research Design*

The design used in this study was descriptive cross-sectional survey design in order to establish the relationship between the dimensions of adverse workplace conditions and retention of medical workers in government hospitals in Kano Metropolis. The cross-sectional design is suitable since it enables gathering the data at a single time which will make it possible to evaluate the current workplace conditions and retention trends of medical workers (Creswell & Creswell, 2018). The design is prevalent in the area of research in healthcare workforce to determine factors affecting employee behavior and organizational performance (Dirisu et al., 2019; Opeke et al., 2019).

*3.2 Study Area and Population*

The research was carried out in Kano Metropolis, Kano State, Nigeria, which covers the major government hospitals where medical workers work. The sample was all medical workers, comprising of doctors, nurses, midwives and allied health professionals, in nine sampled government hospitals. Kano State is the state selected because of its great contribution to the workforce in the healthcare sector and high mobility of medical staff, which is the manifestation of the larger issues that the healthcare system in Nigeria still faces in terms of retention (Kenneth, 2023; Akinwale & George, 2023).

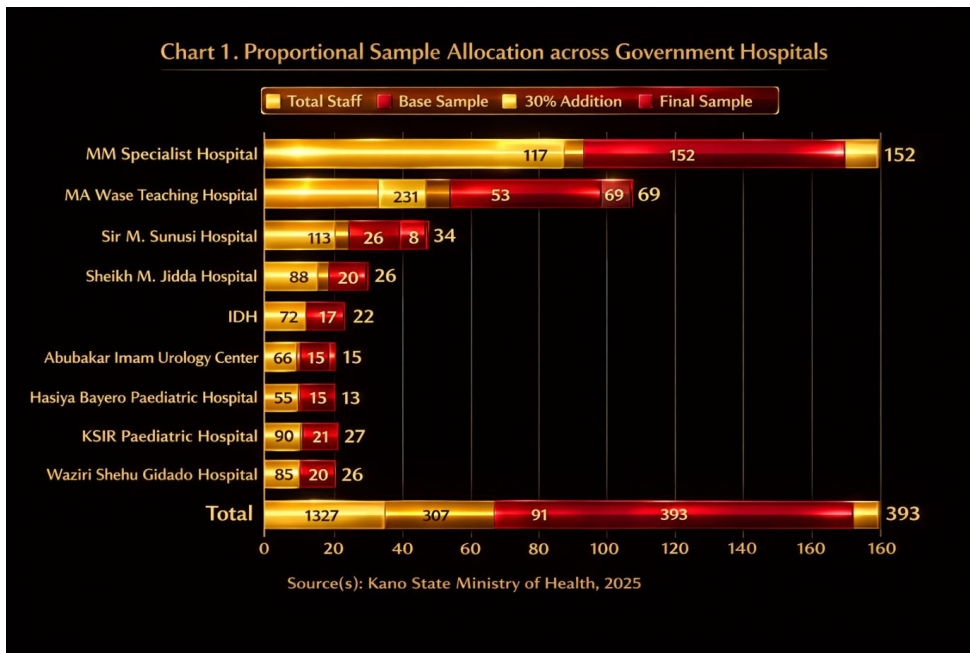
*3.3 Sample Size Determination and Sampling Technique*

A proportional stratified random sampling method was used such that all the hospitals were represented. The number of medical workers in the chosen hospitals was 1,327. On the basis of standard sample size formulae on finite populations, the base sample size was 307 respondents. Another 30 percent of the respondents were included to include the possibility of non-response and the target sample size was 393. The 30-point gain is explained by the generalities of survey research, especially in the medical environment where someone might skip the questionnaires or provide incomplete ones because of working schedules or absence or simply because of the lack of interest (Israel, 2016; Creswell and Creswell, 2018). Nevertheless, 315 retrieved and valid questionnaires were obtained in reality, which is an acceptable response rate to consider meaningful statistical analysis, and has enough data to reach reliable conclusions (Fink, 2017).

**Table 1.** Proportional Sample Allocation across Government Hospitals

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Source(s): Kano State Ministry of Health, 2025



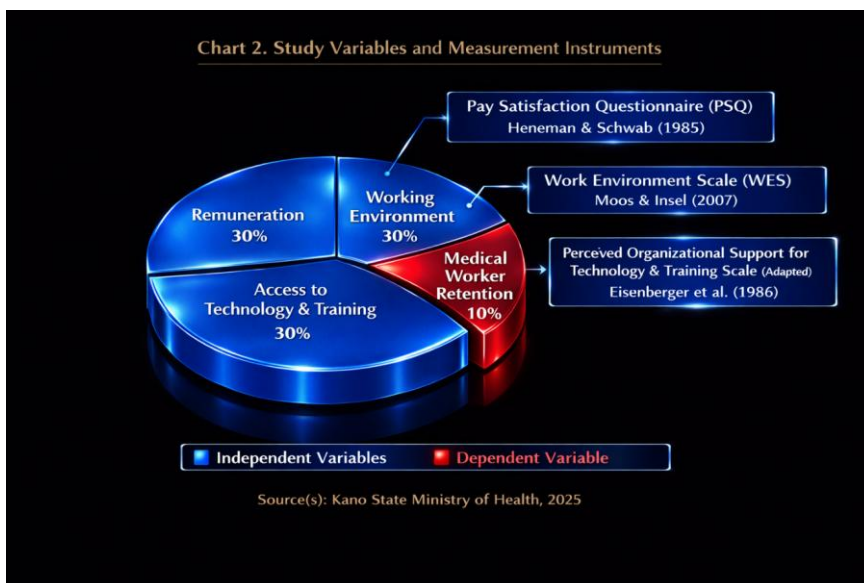
**3.4 Instrument Development and Measurement of Variables**

The following section discusses Remuneration, Working Environment, Access to Technology and Training, Medical Worker Retention.

**Table 2. Study Variables and Measurement Instruments**

| Variable Type | Construct                         | Measurement Instrument   | Original Authors / Developers   | Year |
|---------------|-----------------------------------|--|---------------------------------|------|
| Independent   | Remuneration                      | Pay Satisfaction Questionnaire (PSQ)                                       | Heneman, H. G., & Schwab, D. P. | 1985 |
| Independent   | Working Environment               | Work Environment Scale (WES)   | Moos, R. H., & Insel, P. M.     | 2007 |
| Independent   | Access to Technology and Training | Perceived Organizational Support for Technology & Training Scale (adapted) | Eisenberger et al.              | 1986 |
| Dependent     | Medical Worker Retention          | Turnover Intention Scale (TIS-6)   | Bothma, F., & Roodt, G.         | 2013 |

Source(s): Kano State Ministry of Health, 2025



**Interpretation :** All the instruments were Likert-based and tailored to government hospitals in Kano Metropolis, Nigeria, with the expert review and pilot testing to make instruments clear, culturally relevant, and valid (Dirisu et al., 2019; Opeke et al., 2019; Akinwale and George, 2023).

**3.5 Construct Validity and Reliability Assessment**

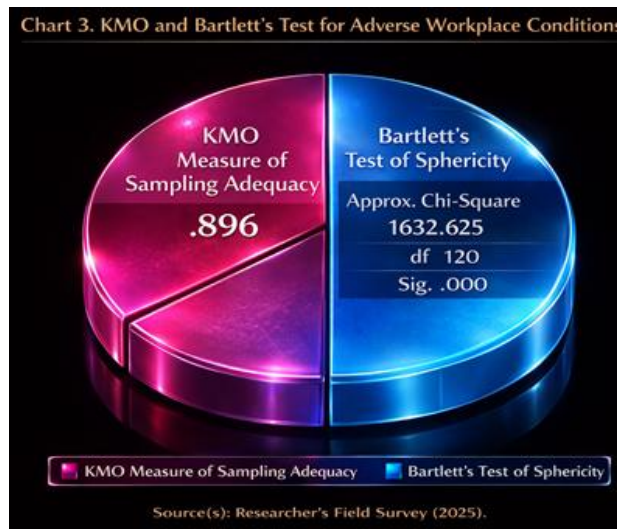
**3.5.1 Exploratory Factor Analysis and Parallel Analysis**

KMO value (0.896) shows that the sample is adequate, and the suitability of the correlation matrix to the factor analysis is confirmed by the Bartlett Test of Sphericity ( $\chi^2 = 1632.625$ ,  $df = 120$ ,  $p < .001$ ) which proves the validity of the Adverse Workplace Conditions construct (Kaiser, 1974; Hair et al., 2010; Field, 2018).

**Table 3. KMO and Bartlett's Test for Adverse Workplace Conditions**

|  |                    |          |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .896     |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square | 1632.625 |
|  | df                 | 120      |
|  | Sig.               | .000     |

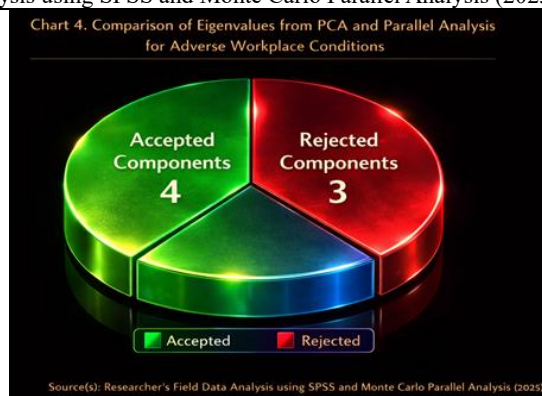
Source(s): Researcher's Field Survey (2025).



**Table 4.** Comparison of Eigenvalues from PCA and Parallel Analysis for Adverse Workplace Conditions

| Component numbers | Actual eigenvalues | Criterion values from parallel analysis | Decision |
|-------------------|--------------------|---|----------|
| 1                 | 11.63              | 1.4013                                  | Accepted |
| 2                 | 3.473              | 1.3201                                  | Accepted |
| 3                 | 2.519              | 1.2526                                  | Accepted |
| 4                 | 2.223              | 1.1958                                  | Accepted |
| 5                 | 1.541              | 1.1436                                  | Rejected |
| 6                 | 1.408              | 1.0935                                  | Rejected |
| 7                 | 1.303              | 1.0509                                  | Rejected |

Source(s): Researcher's Field Data Analysis using SPSS and Monte Carlo Parallel Analysis (2025).



**Interpretation :** Parallel analysis revealed that the first four factors exhibit actual eigenvalues that are more than the random generated criterion which validates the retention of the first four factors but the next factors represent random variance. It confirms the multidimensionality of the construct of Adverse Workplace Conditions (Horn, 1965; Watkins, 2018).

**Source(s):** Researcher's computation using SPSS (Version 25), Parallel Analysis via Monte Carlo Simulation (2025).

**Figure 2.** Parallel Analysis of Monte Carlo Simulation for Adverse Workplace Conditions

The scree plot depicts that the eigenvalues of the first four factors (orange line) are higher than that of the random eigenvalues (blue line) and therefore should be retained. The largest variance is played by Factor 1, which indicates that it plays the key role in the study of the Adverse Workplace Conditions (Horn, 1965; Watkins, 2018).

**Table 5.** Factor Analysis for Adverse Workplace Conditions

| ID   | Variable   | Components |      |      |   |
|------|--|------------|------|------|---|
|      |  | 1          | 2    | 3    | 4 |
|      | <b>Poor Working Condition (PWC)</b>  |            | .718 |      |   |
| WC1  | My working environment exposes me to health and safety risks.                    |            | .744 |      |   |
| WC2  | The workload in this hospital is excessive and stressful                         |            | .697 |      |   |
| WC3  | There are insufficient medical supplies and resources for me to work effectively |            | .710 |      |   |
| WC4  | The hospital does not provide adequate welfare facilities for staff.             |            |      |      |   |
|      | <b>Low Wages (LW)</b>  |            |      | .687 |   |
| WC5  | My salary is insufficient to meet my personal and family needs                   |            |      | .712 |   |
| WC6  | Compared to the workload, my salary is unfairly low                              |            |      | .666 |   |
| WC7  | I am dissatisfied with the financial rewards provided in this hospital           |            |      | .718 |   |
| WC8  | Low wages have made me consider leaving my job                                   |            |      |      |   |
|      | <b>Limited Career Growth Opportunities (LCGO)</b>                                |            |      |      |   |
| WC9  | This hospital provides limited opportunities for career advancement              | .755       |      |      |   |
| WC10 | There is no clear pathway for professional growth in my job                      | .805       |      |      |   |

|                                       |   |      |  |  |      |
|---------------------------------------|---|------|--|--|------|
| WC11                                  | I rarely receive training or development opportunities in this hospital   | .700 |  |  |      |
| WC12                                  | Lack of promotion opportunities affects my motivation to stay             | .748 |  |  |      |
| <b>Inadequate Infrastructure (II)</b> |   |      |  |  |      |
| WC13                                  | The hospital facilities are poorly maintained                             |      |  |  | .710 |
| WC14                                  | There is a lack of modern medical equipment in this hospital              |      |  |  | .744 |
| WC15                                  | The physical environment of the hospital is not conducive to quality care |      |  |  | .683 |
| WC16                                  | Poor infrastructure negatively affects my ability to perform my job well  |      |  |  | .648 |

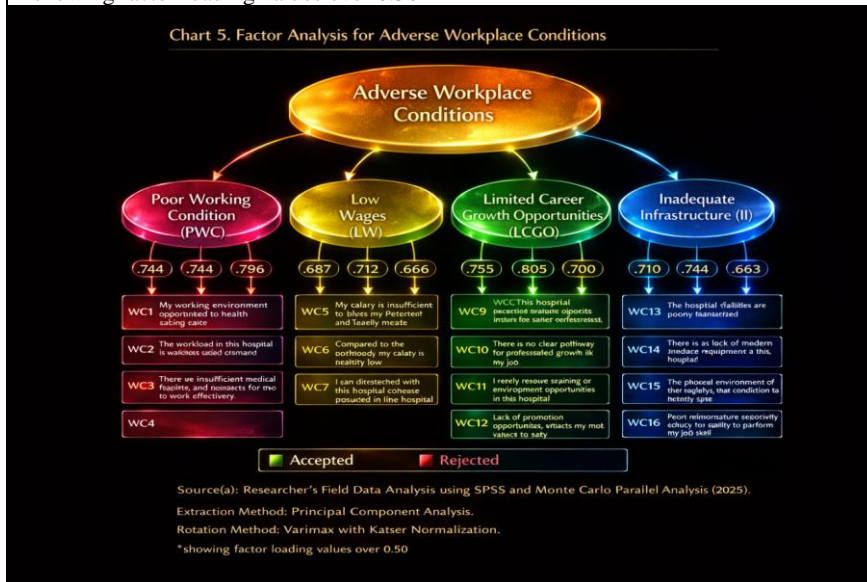
**Source(s):** Researcher's Field Data Analysis using SPSS and Monte Carlo Parallel Analysis (2025).

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 25 iterations.

\*showing factor loading values over 0.50



The factor analysis yielded four interesting dimensions of unfavourable working conditions which comprise Poor Working Condition (PWC), Low Wages (LW), Limited Career Growth Opportunities (LCGO), and Inadequate Infrastructure (II). The loadings of the variables on their respective component were large (greater than 0.50), which shows very good construct validity (Hair et al., 2010; Field, 2018). This shows the dimensions as a reliable way of capturing the essence of the negative aspects of workplaces that affect the retention of medical workers in Kano Metropolis government hospitals.

**Table 6.** Reliability of Factor Analysis for Dimensions of Adverse Workplace Conditions

| No | Factors (Dimensions)                             | Items | % of Variance explained | Cronbach's alpha |
|----|--|-------|-------------------------|------------------|
| 1  | Limited Career Growth Opportunities (WC9 – WC12) | 4     | 35.184%                 | .777             |
| 2  | Poor Working Conditions (WC1 – WC4)              | 4     | 10.506%                 | .837             |
| 3  | Low Wages (WC5 – WC8)                            | 4     | 7.621%                  | .789             |
| 4  | Inadequate Infrastructure                        | 4     | 6.724%                  | .834             |
|    | <b>Total</b>                                     |       | <b>60.034%</b>          |                  |



Table 6 shows the reliability values of the dimensions of Adverse Workplace Conditions obtained with the help of factor analysis. The four factors Limited Career Growth Opportunities, Poor Working Conditions, Low Wages, and Inadequate Infrastructure proved to be satisfactory internal consistent with the Cronbach alpha values between .777 and .837, which is more than the recommended point of .70 (Nunnally and Bernstein, 1994). The combination of these variables accounts to 60.034 percent of the total variance which means that the selected factors effectively represent the underlying pattern of the adverse working conditions in government hospitals in Kano Metropolis.

**Table 7.** KMO and Bartlett’s Test for Medical Worker Retention

|  |                    |         |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. |                    | .885    |
| Bartlett’s Test of Sphericity                    | Approx. Chi-Square | 679.635 |
|  | Df                 | 15      |
|  | Sig.               | .000    |

**Source:** Researcher’s Field Data Analysis using SPSS (2025); Kaiser (1974); Bartlett (1954).

The Kaiser Meyer Olkin (KMO) measure in Medical Worker Retention was .885 which is very good regarding sampling adequacy. The Test of Sphericity created by Bartlett was important ( $\chi^2 = 679.635, 15 \text{ df}, p < 0.001$ ), which proved that the data set is appropriate to undergo the factor analysis (Kaiser, 1974; Bartlett, 1954).

**Table 8:** Comparison of Eigenvalues from PCA and Criterion Values from Parallel Analysis (Monte Carlo Simulation) for Employee Retention

| Component numbers | Actual eigenvalues | Criterion values from parallel analysis | Decision |
|-------------------|--------------------|---|----------|
| 1                 | 7.196              | 1.1733                                  | Accepted |
| 2                 | 1.317              | 1.1086                                  | Rejected |
| 3                 | 1.179              | 1.029                                   | Rejected |
| 4                 | 1.073              | 0.9667                                  | Rejected |

**Source:** Researcher’s Field Data Analysis using SPSS and Monte Carlo Parallel Analysis (2025).

The results of Parallel Analysis show that the first component was the only component with a real eigenvalue (7.196) above the critical value of the random dataset (1.1733). Components 2-4 were not more than their corresponding criteria values, indicating that Medical Worker Retention is unidimensional and has one factor that is adequate to assess the construct (Field, 2018).

## 5. Discussion of Findings

### 5.1 Adverse Workplace Conditions and Medical Worker Retention

The researcher found that unfavorable working conditions have detrimental impacts on retention amongst the medical workers in Kano Metropolis. Particularly, two factors were having the most important impact on intentions to leave, namely Long Working Hours (LW) and Interpersonal Injustice (II), whereas Poor Working Conditions (PWC) did not significantly affect intentions to leave. The small role is also played by limited career growth opportunities (LCGO). This shows that social and organization factors are more influential factors than physical work environment factors in determining retention decisions.

### 5.2 Discussion in Relation to Herzberg’s Two-Factor Theory

The theory by Herzberg separates hygiene factors (e.g., salary, working conditions) and motivators (e.g., career advancement, recognition). The results confirm the theory: LW and II are hygiene factors, the lack of which brings about dissatisfaction and possible turnover. LCGO is an incentive, with professional growth significantly lowering retention in case of its absence. PWC does not seem to be so decisive in this respect, implying that Kano-based hospitals are not simply retention decisions that are determined by the physical environment.

### 5.3 Discussion in Relation to Social Exchange Theory

The social exchange theory argues that the commitment of employees is a product of the perceived reciprocity between the worker and the organization. Such detrimental impacts of LW and II mean that employees feel that there is imbalance between effort and reward or that they are mistreated and so they will be less willing to stay. The insignificant role of PWC indicates that the perceived fairness and workload are not as influential in creating retention intentions as material working conditions would be.

### 5.4 Discussion in Relation to Job Embeddedness Theory

The Job Embeddedness Theory underlines the relationships, fit, and sacrifice. The results indicate that low career growth (LCGO) and interpersonal injustice (II) diminish organizational embeddedness, which raise turnover intentions. The relationship between physical environment (PWC) and the attachment of workers to hospitals is less predictive of the latter, which supports the hypothesis that the social and professional integration factors significantly predict retention as compared to the infrastructural conditions.

### 5.5 Comparison with Previous Empirical Studies

This study finding is also consistent with the findings of Goštautaitė et al. (2024), who concluded that the career development, as an HR intervention, lowers intentions of young professionals to expatriate. In the same manner, Akinwale et al. (2024) indicated that infrastructural deficits do not play such a significant role compared to workload and remuneration on physician migration. The results also align with Phuyal (2024) who conducted a study in Nepal and found that social and organizational predictor variables, including career development and equity, are more likely to be predictive of retention than the physical environment.

## 6. Conclusion and Policy Implications

### 6.1 Conclusion

The work determined how unfavorable workplace conditions affected the retention of medical workers in Kano Metropolis government hospitals in Nigeria. The results indicate that Long Working Hours (LW), Interpersonal Injustice (II) and Limited Career Growth Opportunities (LCGO) have significant and negative impacts on retention, but Poor Working Conditions (PWC) do not have any significant effects. Gender does not lead to great differences in perceptions of workplace conditions or retention. Altogether, the research proves the idea that the social and organizational factors are dramatically more influential in the decision-making of medical workers to stay in their job than the physical infrastructural conditions. These findings are correlated with the Two-Factor Theory, Social Exchange Theory, and Job Embeddedness Theory by Herzberg, which prove the theoretical hypothesis that hygiene needs deficit and absence of social-professional integration induced lower retention.

### Limitations of the Study

The research is confined to the governmental hospitals of Kano Metropolis which limits the extrapolation of results to the study of the private hospitals or other regions in Nigeria. Self-reported questionnaires were used to gather data, which also created the possibility of bias in responses.

Moreover, the cross-sectional research design does not allow making any causal judgments; longitudinal data can be used to give more solid results about the cause-effect relationships.

#### *Suggestions for Future Research*

Future studies should consider the expansion to the field of individual healthcare institutions and other parts of Nigeria to increase the generalizability. To identify the effect of psychosocial factors on retention, additional psychosocial factors, including organizational culture or Leadership style, are to be investigated. It is suggested to use longitudinal studies to monitor the retention patterns with time and test the efficacy of HR interventions. Lastly, a study ought to be done on the comparative effectiveness of monetary incentives against the non-monetary in terms of reducing turnover intent amongst the medical professionals.

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