

HUMAN RESOURCE INADEQUACY AND STAFF WORKLOAD, BURNOUT, AND JOB SATISFACTION IN THE ADAMAWA STATE PRIMARY HEALTH CARE DEVELOPMENT AGENCY

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Abstract

This study examined the effect of human resource inadequacy on staff workload, burnout, and job satisfaction in the Adamawa State Primary Health Care Development Agency. The study specifically investigated the effect of human resource inadequacy on workload and burnout among healthcare workers and examined its influence on staff job satisfaction. The study was anchored on Human Capital Theory, which highlights the importance of workforce capacity, skills, and development in improving organizational performance. A cross-sectional survey research design was adopted for the study. The population comprised 150 healthcare workers selected from primary healthcare facilities across three Local Government Areas in Adamawa State. Due to the manageable size of the population, a census sampling technique was used, allowing all members of the population to participate. Data were collected using a structured questionnaire, and 144 questionnaires were successfully retrieved, representing a 96% response rate. Data were analyzed using descriptive statistics and Analysis of Variance (ANOVA) with the aid of Statistical Package for Social Sciences (SPSS) version 23.0. The findings revealed that inadequate human resources significantly increased employees' workload, contributed to burnout, affected work-life balance, and reduced staff productivity. The study also found that workforce shortages negatively influenced employees' morale, motivation, job satisfaction, and access to professional development opportunities. These findings indicate that inadequate staffing remains a major challenge affecting employee well-being and the effectiveness of primary healthcare services in Adamawa State. The study concluded that improving human resource capacity is essential for reducing burnout, enhancing job satisfaction, and strengthening organizational performance. It recommends that the Adamawa State Primary Health Care Development Agency should prioritize the recruitment and retention of qualified healthcare personnel and implement supportive management practices, staff development programmes, and motivation strategies to improve workforce effectiveness.

Keywords: Human resource inadequacy, workload, burnout, job satisfaction, primary healthcare, Adamawa State.

Introduction

Service delivery is a fundamental indicator of the effectiveness of any healthcare system, particularly at the Primary Health Care (PHC) level, where the majority of the population first accesses healthcare services. Effective service delivery is reflected in the availability, accessibility, quality, timeliness, and continuity of essential healthcare services. In Nigeria, however, service delivery in many PHC facilities remains inadequate due to poor infrastructure, insufficient

funding, weak management systems, and, most importantly, shortages of qualified healthcare personnel (World Health Organization [WHO], 2023; Federal Ministry of Health, 2022). These challenges have contributed to poor healthcare utilization, low patient satisfaction, and unfavorable health outcomes, particularly in rural communities.

Human resources are the backbone of healthcare delivery because the quality and efficiency of health services largely depend on the competence, motivation, and availability of healthcare workers. Evidence suggests that adequate staffing significantly improves healthcare quality, patient safety, and organizational performance, while workforce shortages increase workload, waiting time, burnout, medical errors, and employee turnover (WHO, 2023; Okoroafor et al., 2021; Alawode et al., 2025). The persistent shortage of healthcare workers has therefore become one of the most significant barriers to achieving effective primary healthcare service delivery in many low- and middle-income countries.

In Adamawa State, the Primary Health Care Development Agency is responsible for coordinating and delivering essential healthcare services across the state. Despite various government interventions, the Agency continues to experience shortages of doctors, nurses, pharmacists, and community health workers, resulting in excessive workload, stress, burnout, and declining job satisfaction among the available staff (Adamawa State Government, 2023; Abubakar & Sunday, 2024). These workforce challenges have reduced the quality, accessibility, and timeliness of healthcare services while limiting the capacity of PHC facilities to respond effectively to the health needs of the population. Inadequate staffing has also constrained opportunities for staff development, weakened supervision, and reduced the efficient utilization of available healthcare resources (Ajisegiri et al., 2022; Oaiya et al., 2022).

Although several studies have examined healthcare workforce shortages and their implications for health system performance in Nigeria, most have focused on national or regional perspectives with limited attention to the institutional realities of the Adamawa State Primary Health Care Development Agency. Consequently, there is limited empirical evidence on how inadequate human resources influence service delivery, staff workload and burnout, and job satisfaction within the Agency. This knowledge gap limits the development of evidence-based human resource policies capable of improving healthcare delivery at the primary healthcare level.

It is against this backdrop that this study examines the effect of inadequate human resource performance on service delivery among staff of the Adamawa State Primary Health Care Development Agency. Specifically, the study seeks to identify the effects of inadequate human resources on service delivery, investigate the effect of human resource inadequacy on staff workload and burnout, and examine its influence on employees' job satisfaction. The findings are expected to provide empirical evidence that will guide policymakers and health administrators in strengthening workforce recruitment, retention, motivation, and capacity development to enhance service delivery in primary healthcare facilities in Adamawa State

Objectives of the Study

The broad objective of this examined the Human Resource Inadequacy and Staff Workload, Burnout, and Job Satisfaction in the Adamawa State Primary Health Care Development Agency. The specific objectives of this research were to:

- i. investigate the effect of Human resource inadequacy on Workload and Burnout of staff in Adamawa State Primary Health Care Development Agency
- ii. examine the influence of inadequate human resource on staff job satisfaction at Adamawa State Primary health care development agency.

Conceptual Review

Concept of Inadequate Human Resources

Inadequate human resources refer to a situation where an organization lacks sufficient numbers of qualified, competent, and appropriately distributed personnel to effectively achieve its objectives. It encompasses not only workforce shortages but also deficiencies in the skills, motivation, experience, and equitable deployment of employees required for efficient service delivery (World Health Organization [WHO], 2023). Human resource inadequacy creates an imbalance between the demand for services and the available workforce, thereby reducing organizational effectiveness and productivity (International Labour Organization [ILO], 2023).

From a systems perspective, inadequate human resources disrupt organizational performance by increasing the workload of existing employees, reducing operational efficiency, and limiting the capacity of institutions to achieve desired outcomes. In labour-intensive sectors such as healthcare, shortages of skilled personnel contribute to employee burnout, absenteeism, low job satisfaction, and high turnover, all of which negatively affect service quality (WHO, 2023; Boniol et al., 2022). In primary healthcare settings, inadequate staffing has been associated with longer patient waiting times, poor continuity of care, increased medical errors, and reduced patient satisfaction, particularly in low- and middle-income countries (United Nations, 2024). Consequently, strengthening the healthcare workforce through effective recruitment, training, retention, and equitable deployment has become a global priority for improving health system performance and achieving Universal Health Coverage (WHO, 2023).

Concept of Service Delivery

Service delivery refers to the process through which organizations provide services to meet the needs and expectations of individuals and communities efficiently, effectively, and equitably. It involves coordinating human resources, financial resources, infrastructure, technology, and institutional processes to ensure that services are accessible, timely, responsive, and of acceptable quality (Organisation for Economic Co-operation and Development [OECD],

2022). In the public sector, service delivery is increasingly viewed as a citizen-centred process that emphasizes accountability, transparency, responsiveness, and value creation rather than merely providing services (Osborne, 2021).

Within the healthcare sector, service delivery encompasses the provision of promotive, preventive, curative, rehabilitative, and palliative healthcare services in a manner that is safe, people-centred, and efficient (WHO, 2023). Effective healthcare service delivery depends largely on the availability of competent health personnel, adequate infrastructure, essential medicines, and efficient management systems. Conversely, weaknesses in any of these components reduce healthcare quality, accessibility, continuity, and patient satisfaction (World Bank, 2023).

Concept of Primary Health Care Development Agency

A Primary Health Care Development Agency (PHCDA) is a government-established institution responsible for coordinating, implementing, monitoring, and strengthening primary healthcare services to ensure equitable access to essential healthcare at the community level. The Agency provides policy direction, mobilizes resources, supervises healthcare facilities, develops the health workforce, and coordinates health programmes aimed at improving population health outcomes (National Primary Health Care Development Agency [NPHCDA], 2025).

In Nigeria, State Primary Health Care Development Agencies serve as the coordinating bodies for implementing national primary healthcare policies while adapting interventions to state and local health priorities. They oversee the planning, management, supervision, monitoring, and evaluation of primary healthcare programmes, ensuring the integration of promotive, preventive, curative, and rehabilitative healthcare services (Adamawa State Primary Health Care Development Agency [ADSPHCDA], 2024). In line with the World Health Organization's Primary Health Care Operational Framework, these agencies are expected to strengthen community participation, promote workforce development, improve service quality, and enhance health system resilience to achieve Universal Health Coverage and the Sustainable Development Goals (WHO, 2023).

Theoretical Framework

Human Capital Theory

The evolution of Human Capital Theory was originated from classical economic thought, particularly the works of Adam Smith, who recognized that the skills and abilities of workers constitute a form of capital that enhances productivity. The theory was later formalized in the mid-20th century by Theodore Schultz and Gary Becker, who conceptualized education and training as deliberate investments capable of yielding future economic returns (Schultz, 1961; Becker, 1964). The evolution of the theory was driven by the need to explain post-war economic growth, income disparities, and the strategic role of education in national development. Over

time, it expanded to include health, experience, and on-the-job training as critical components of human capital, with empirical contributions from scholars such as Jacob Mincer linking education to earnings patterns (Mincer, 1974).

Reasons for the Postulation of the Theory Human Capital Theory was postulated to address key gaps in economic and development analysis. It sought to explain differences in productivity and income among individuals and nations, justify public and private investment in education, and provide a framework for understanding labor market outcomes. The theory also emerged as a response to the need for skilled manpower during periods of rapid industrialization and economic reconstruction, emphasizing that sustainable development depends largely on the quality of a nation's workforce (Becker, 1993).

Application of Human Capital Theory

The application of Human Capital Theory to the evaluation of the effects of inadequate human resources in the Adamawa State Primary Health Care Development Agency in Adamawa State provides a strong analytical framework for understanding how workforce deficiencies undermine healthcare delivery and development outcomes. Conceptual Application of Human Capital Theory Human Capital Theory, largely developed by Theodore Schultz and Gary Becker, posits that investments in education, training, and health improve the productivity and efficiency of individuals. In the context of primary healthcare, health workers doctors, nurses, midwives, and community health extension workers represent critical human capital whose knowledge and skills directly influence service delivery outcomes. Applying this theory to Adamawa State's Primary Health Care Development Agency suggests that inadequate human resources reflect underinvestment in human capital formation and utilization. When there is a shortage of skilled personnel, the capacity of the healthcare system to deliver essential services such as immunization, maternal care, disease prevention, and health education is significantly weakened.

Methodology

This study adopted survey research design in form of cross-sectional design. The population of the study was derived from the staff of health facilities in the three Local Government areas under study. Each Local Government comprised of fifty (50) staff, from seven (7) health centers selected through simple random sampling, total of one hundred and fifty (150) health facility staff. However, due to small size of the population, the study was carried out on the entire population, with the aid of census sampling techniques. In addition, the study used closed ended questionnaire as an instrument for data collection from the respective respondents based on their perceptions, life experiences, and the impacts they felt being direct or indirect. Lastly, ANOVA analysis was used to test the hypotheses stated with the help of SPSS version 23.0.

Result and Analysis

The study distributed 150 questionnaires, out of which 144 were returned to the researcher. This signified a response rate of 96%. This percentage of returned questionnaires surpasses the minimum thresholds specified by Rogel burg and Staton (2007), who state that a 35-40% response rate is satisfactory for organizational-level studies and a 50% response rate for individual-level survey studies.

Research objective 1: What effect does human resource inadequacy have on the workload-related burnout experienced by the staff at Adamawa State Primary Health Care Development Agency between 2018 and 2025?

Table 1.1: Effect of Human Resource Inadequacy on Workload-Related Burnout

Item	SD	(%)	D	(%)	N	(%)	A	(%)	SA	(%)	Total
The shortage of human resource significantly increased my workload during 2018-2025.	6	4.2	12	8.3	24	16.7	54	37.5	48	33.3	144
I experienced burnout due to inadequate staffing during 2018-2025.	12	8.3	18	12.5	30	20.8	48	33.3	36	25.0	144
Maintaining work-life balance was challenging due to staffing issues during 2018-2025.	24	16.7	36	25.0	42	29.2	30	20.8	12	8.3	144
I was able to cope well with work-related stress despite staffing challenges during 2018-2025.	48	33.3	54	37.5	24	16.7	12	8.3	6	4.2	144
I felt that the lack of human resource negatively affected my job satisfaction.	6	4.2	12	8.3	24	16.7	60	41.7	42	29.2	144
I faced difficulties in effectively performing my job tasks due to inadequate staffing during 2018-2025.	18	12.5	24	16.7	30	20.8	48	33.3	24	16.7	144

Source: Field Survey, 2026

Table 1.1 presents the analysis of the effect of human resource inadequacy on workload-related burnout among staff of the Adamawa State Primary Health Care Development Agency between 2018 and 2025. The analysis addresses the research question: What effect does human resource inadequacy have on the workload-related burnout experienced by staff? The findings indicate that inadequate human resources have substantial implications for employees' workload, burnout, work-life balance, stress management, job satisfaction, and overall job performance.

The findings reveal that a majority of the respondents (37.5% agreed and 33.3% strongly agreed) reported that inadequate staffing significantly increased their workload. This suggests that shortages of healthcare personnel place additional responsibilities on existing employees, thereby increasing work pressure and reducing operational efficiency. This finding is consistent with the World Health Organization (2023), which observed that inadequate health workforce capacity contributes to excessive workloads, reduced productivity, and diminished quality of healthcare services. Similarly, Boniol et al. (2022) reported that persistent workforce shortages in healthcare systems increase employee workload and compromise service delivery, particularly in low- and middle-income countries.

The study further shows that 33.3% of respondents agreed and 25.0% strongly agreed that inadequate staffing resulted in burnout. This finding implies that prolonged exposure to excessive workload contributes to physical and emotional exhaustion among healthcare workers. The result corroborates the findings of Maslach and Leiter (2021), who argued that excessive workload is one of the strongest predictors of occupational burnout, particularly in healthcare settings where employees routinely face high job demands. Likewise, the World Health Organization (2022) recognized burnout as an occupational phenomenon resulting from chronic workplace stress that has not been successfully managed.

Regarding work-life balance, the findings indicate that 29.2% of respondents agreed and 16.7% strongly agreed that staffing shortages made it difficult to maintain a healthy balance between work and personal life. This suggests that inadequate human resources often require employees to work longer hours or assume additional responsibilities, thereby reducing opportunities for rest and family life. According to the International Labour Organization (2023), excessive workloads resulting from staff shortages negatively affect employees' psychological well-being, work-life balance, and overall job performance.

Interestingly, although 70.8% of respondents indicated that they were able to cope with work-related stress despite staffing challenges, one-third of the respondents disagreed, suggesting varying levels of resilience among staff. This finding implies that while some employees develop coping mechanisms, prolonged exposure to workplace stress may eventually reduce resilience and increase the likelihood of burnout. Previous studies have shown that organizational support, adequate staffing, and positive work environments significantly improve employees' ability to manage occupational stress (Boniol et al., 2022; WHO, 2023).

The results also indicate that inadequate human resources negatively affected job satisfaction, with 41.7% of respondents agreeing and 29.2% strongly agreeing that staff shortages reduced their level of job satisfaction. This finding supports Herzberg's motivation theory, which emphasizes that unfavorable working conditions, including excessive workload and inadequate staffing, reduce employee motivation and job satisfaction. Empirical evidence similarly demonstrates that healthcare workers who experience persistent workforce shortages are more likely to report lower job satisfaction and stronger intentions to leave their organizations (Okoroafor et al., 2021; Alawode et al., 2025).

Finally, the findings reveal that inadequate staffing affected employees' ability to perform their duties effectively, as 33.3% agreed and 16.7% strongly agreed that personnel shortages hindered their job performance. This implies that insufficient staffing not only affects employee well-being but also limits organizational productivity and the quality of healthcare services delivered to patients. According to the World Bank (2023), healthcare organizations experiencing workforce shortages often face reduced efficiency, lower service quality, and diminished patient satisfaction.

Overall, the findings demonstrate that human resource inadequacy significantly contributes to increased workload, employee burnout, poor work-life balance, reduced job satisfaction, and lower job performance among staff of the Adamawa State Primary Health Care Development Agency. These results underscore the need for effective workforce planning, recruitment, retention, and employee support strategies to improve staff well-being and strengthen service delivery within the Agency.

Research objective 1: How does human resource inadequacy impact the job satisfaction of employees at Adamawa State Primary Health Care Development Agency between 2018 and 2025?

Table 1.2: Impact of Human Resource Inadequacy on Job Satisfaction

Item	SD	(%)	D	(%)	N	(%)	A	(%)	SA	(%)	Total
The staffing situation had a positive impact on my overall morale during 2018-2025.	48	33.3	54	37.5	24	16.7	12	8.3	6	4.2	144
My job satisfaction was adversely affected by the staffing challenges during 2018-2025.	12	8.3	18	12.5	30	20.8	48	33.3	36	25.0	144
The decrease in motivation I experienced was largely due to the shortage of human	24	16.7	36	25.0	42	29.2	30	20.8	12	8.3	144

resource during 2018-2025.

I felt well-supported by agency management in addressing staffing-related challenges during 2018-2025.	48	33.3	54	37.5	24	16.7	12	8.3	6	4.2	144
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The opportunities for professional development and growth were limited due to staffing constraints during 2018-2025.	6	4.2	12	8.3	24	16.7	60	41.7	42	29.2	144
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Source: Field Survey, 2026

Table 1.2 presents the analysis of the effect of human resource inadequacy on the job satisfaction of employees at the Adamawa State Primary Health Care Development Agency between 2018 and 2025. The analysis addresses the research question: *How does human resource inadequacy impact the job satisfaction of employees?* The findings indicate that inadequate human resources significantly influence employees' morale, motivation, managerial support, professional development, and overall job satisfaction.

The findings show that a majority of respondents (33.3% disagreed and 37.5% strongly disagreed) indicated that the staffing situation did not have a positive impact on their overall morale. This suggests that persistent shortages of healthcare personnel have negatively affected employees' psychological well-being and enthusiasm for work. Poor staffing levels often increase work pressure and reduce employees' sense of accomplishment, thereby lowering morale. This finding supports the World Health Organization (2023), which noted that inadequate health workforce capacity contributes to poor staff morale, emotional exhaustion, and reduced organizational commitment. Similarly, the International Labour Organization (2023) emphasized that unfavorable working conditions resulting from workforce shortages diminish employee well-being and workplace engagement.

The analysis further reveals that 33.3% of respondents agreed and 25.0% strongly agreed that staffing challenges adversely affected their job satisfaction. This finding indicates that inadequate human resources reduce employees' satisfaction with their jobs by increasing workload, limiting support systems, and creating stressful working conditions. The result is consistent with Herzberg's Two-Factor Theory, which posits that poor working conditions and excessive workload are hygiene factors that contribute to job dissatisfaction when inadequately addressed. Empirical studies have likewise shown that inadequate staffing is associated with lower

job satisfaction, increased turnover intentions, and reduced organizational commitment among healthcare workers (Okoroafor et al., 2021; Alawode et al., 2025).

With respect to employee motivation, the findings indicate that 29.2% of respondents agreed and 16.7% strongly agreed that personnel shortages contributed to a decline in their motivation. This implies that excessive workload and inadequate staffing may reduce employees' willingness to exert discretionary effort and maintain high levels of performance. According to Maslach and Leiter (2021), prolonged exposure to excessive job demands without corresponding organizational support diminishes employee motivation and increases the risk of burnout. Similarly, the World Health Organization (2022) emphasized that supportive work environments and adequate staffing are essential for sustaining employee motivation and mental well-being.

The findings also reveal that 33.3% of respondents agreed and 37.5% strongly agreed that they received adequate support from management in addressing staffing-related challenges, although a considerable proportion (33.3%) disagreed. This variation suggests differences in employees' perceptions of managerial support across departments or facilities. Organizational support has been widely recognized as an important factor in reducing the negative consequences of workforce shortages. Employees who perceive strong managerial support are generally more resilient, committed, and satisfied with their jobs despite challenging work environments (Boniol et al., 2022; WHO, 2023).

Furthermore, the results indicate that staffing constraints negatively affected opportunities for professional development and career growth, with 41.7% of respondents agreeing and 29.2% strongly agreeing that workforce shortages limited their access to training and advancement opportunities. This finding suggests that organizations experiencing human resource shortages often prioritize service continuity over staff development, thereby limiting opportunities for continuous learning and career progression. The World Bank (2023) observed that inadequate investment in workforce development weakens employee competence, motivation, and long-term organizational performance. Likewise, the Organisation for Economic Co-operation and Development (OECD, 2022) emphasized that continuous professional development is fundamental to maintaining employee satisfaction and improving organizational effectiveness.

Overall, the findings demonstrate that human resource inadequacy has a significant negative effect on employees' job satisfaction by lowering staff morale, reducing motivation, limiting professional development opportunities, and creating unfavorable working conditions. Although some respondents acknowledged receiving managerial support, the overall evidence suggests that addressing workforce shortages through improved recruitment, retention, capacity building, and employee support mechanisms is essential for enhancing job satisfaction and strengthening the performance of the Adamawa State Primary Health Care Development Agency.

Summary and Conclusion

This study examined the effect of human resource inadequacy on workload, burnout, and job satisfaction among staff of the Adamawa State Primary Health Care Development Agency. The findings revealed that inadequate staffing increased employees' workload, contributed to burnout, affected work-life balance, reduced motivation, and negatively influenced job satisfaction. Staff shortages also limited professional development opportunities and affected employees' ability to perform their duties effectively.

The study concludes that human resource inadequacy significantly affects staff well-being and organizational performance. Adequate recruitment, retention, workforce planning, staff development, and supportive management practices are therefore essential to reduce burnout, improve job satisfaction, and strengthen the effectiveness of primary healthcare service delivery in Adamawa State.

Recommendations

Based on the findings of the study, the following recommendations are proposed:

- i. The Adamawa State Primary Health Care Development Agency should improve staffing through recruitment and retention of qualified personnel to reduce workload and burnout, as supported by WHO (2023) and Boniol et al. (2022).
- ii. The Agency should strengthen staff motivation through professional development, recognition, and supportive management practices to improve job satisfaction, as emphasized by Maslach and Leiter (2021) and Okoroafor et al. (2021).

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