



RESOURCE UTILIZATION AND PERFORMANCE OF PRIMARY HEALTHCARE DEVELOPMENT CENTRES IN SOUTH-EAST NIGERIA

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Abstract

Persistent underperformance in South-East Nigeria's Primary Healthcare Development Centres (PHDCs), evidenced by high mortality rates and low patient satisfaction, highlights a critical problem in resource utilization. This study examined the relationship between specific resource management practices and these performance issues. Grounded in the Resource-Based View (RBV) theory, the study ascertained the relationship between budget variance, absenteeism rates, staff utilization capacity, resource flexibility, and goal alignment and their effects on key performance indicators. A survey research design was employed, targeting 3,176 administrative heads of PHDCs across five states. A sample of 359 was determined using Taro Yamane's formula, with 299 valid responses collected via a structured questionnaire. The instrument's face and content validity were confirmed by experts, and reliability was established with Cronbach's Alpha coefficients ranging from .789 to .924. Data were analysed using Pearson Product-Moment Correlation. The findings revealed significant correlations between all variables. Budget variance showed a strong positive correlation with mortality rates ($r = .703, p < .001$), indicating that financial mismanagement directly impacts negative health outcomes. Absenteeism rates had a strong negative correlation with patient satisfaction ($r = -.729, p < .001$), demonstrating that staff unavailability critically undermines patient experience. The study concludes that strategic, data-driven resource management is essential for improving healthcare delivery in the region. It is recommended that policymakers and facility managers implement stringent financial oversight, optimize staff deployment, and clearly align organizational goals with service delivery objectives to enhance overall healthcare performance and outcomes.

Key words: Resource Utilization, Primary Healthcare Development Centres, Healthcare Performance, Budget Variance, Absenteeism, Resource-Based View (RBV), South-East Nigeria.

Introduction

Primary healthcare (PHDC) remains the foundation of health systems worldwide, especially in low- and middle-income countries like Nigeria, where it serves as the first point of contact for most populations (World Health Organization [WHO], 2020). Historically, Nigeria's (PHDC) system was established in the early 1980s with the aim of providing accessible, affordable, and community-based health services to improve health outcomes and reduce mortality rates (Adebiyi & Akinyemi, 2018). Over the decades, the basic characteristics of Nigeria's (PHDC) have revolved around decentralization, community involvement, and integration of preventive and curative services. The South-Eastern region of Nigeria is predominantly rural with pockets of urban centers, yet it faces persistent challenges in healthcare delivery, including inadequate funding, poor resource management, and low staff motivation (Nwachukwu et al., 2020). The historical underfunding of health services, coupled with inefficient resource utilization and organizational misalignments, has hampered efforts to improve health outcomes. These challenges are compounded by infrastructural deficits, high disease burdens such as malaria and maternal mortality, and low patient satisfaction levels (Ogunleye et al., 2021). While considerable efforts have been made to address these issues through government and donor-funded programs, the results remain suboptimal, indicating systemic issues within the resource management framework of (PHDC) facilities in the region.

Improving resource utilization and aligning operational activities with organizational objectives can reduce mortality rates, enhance patient experiences, and ensure the sustainable use of limited resources (Akinyele et al., 2021). Moreover, efficient management of resources can reduce medical waste, a significant concern in Nigerian healthcare facilities due to overstocking, expiry, and improper disposal, which compromise safety and increase costs (Uzochukwu et al., 2020). The benefits of addressing these issues extend beyond immediate healthcare outcomes; they include strengthening the resilience of the health system, optimizing financial investments, and fostering trust among community members. Consequently, investigating these factors within the context of South-Eastern Nigeria provides insights into systemic gaps and offers evidence-based strategies for improvement. The healthcare system in South-Eastern Nigeria faces persistent challenges rooted in resource management inefficiencies, infrastructural deficits, and organizational misalignments. Although various stakeholders have initiated reforms and programs to enhance primary healthcare performance, these efforts have largely fallen short of desired outcomes, primarily due to systemic weaknesses in resource planning and utilization. Therefore, it is imperative to identify how specific management variables such as budget variance, resource allocation, staff capacity, resource flexibility, and organizational goal alignment interact to influence key healthcare performance indicators. Filling this knowledge gap can inform targeted interventions that promote efficiency, improve

health outcomes, and ensure the sustainability of primary healthcare services in the region. Ultimately, the findings will contribute to Nigeria's broader goal of achieving universal health coverage (Federal Ministry of Health Nigeria, 2020) and support the global agenda for sustainable health development. This study will aim to provide empirical evidence to guide policymakers and healthcare managers in optimizing resource utilization and performance in South-Eastern Nigeria's primary healthcare system.

Statement of the Problem

The primary challenge that motivated this study is the persistent underperformance of primary healthcare (PHDC) facilities in South-Eastern Nigeria, evidenced by high mortality rates, low patient satisfaction, inefficient resource utilization, limited-service availability, and increasing medical waste, despite ongoing government and donor interventions. This problem is rooted in systemic inefficiencies such as inadequate application of budget variance control, poor resource allocation, and misalignment of organizational goals with operational activities (Ogunleye et al., 2021). These issues compromise the capacity of staff to utilize resources effectively and adapt to changing healthcare demands, ultimately impeding the delivery of quality health services that meet community needs. The immediate concern is that these systemic failures continue to undermine efforts to achieve universal health coverage and improve health outcomes in the region. This problem is particularly topical and urgent given Nigeria's current health policy landscape, which emphasizes efficient resource management and universal health coverage as key strategies for improving health indicators (Federal Ministry of Health Nigeria, 2020). The Demographic and Health Survey 2023–2024 indicates that despite the allocation of significant financial resources to primary healthcare, performance metrics remain suboptimal, with mortality rates for preventable diseases remaining high and patient satisfaction surveys reflecting widespread dissatisfaction (Nwachukwu et al., 2020). The inadequacy in applying budget variance analysis and resource allocation strategies hampers the ability of healthcare managers to respond dynamically to operational challenges, thus necessitating empirical investigation into how these factors influence healthcare outcomes within the specific context of South-Eastern Nigeria.

Objectives

The main objective of the study is to ascertain the relationship between resource utilization and performance in primary healthcare in South-East Nigeria. The specific objectives is to:

- i. ascertain the extent of relationship that exists between budget variance and mortality rate in primary healthcare development agencies in South-East Nigeria
- ii. determine the degree of relationship that exists between absenteeism rate and

patient satisfaction in primary healthcare development agencies in South-East Nigeria

Literature Review

Resource Utilization

Resource utilization is a critical component of healthcare management, especially within primary healthcare facilities where efficient use of limited resources directly impacts service quality and health outcomes. In the context of healthcare, resource utilization refers to the effective deployment and management of financial, human, and material resources to maximize patient care while minimizing waste and inefficiencies (World Health Organization [WHO], 2016). Proper resource utilization ensures that healthcare facilities operate sustainably, deliver timely services, and meet the health needs of the populations they serve. It involves strategic planning, monitoring, and evaluation to align resources with organizational goals, thereby enhancing overall healthcare delivery. Several studies emphasize the importance of resource utilization in improving health system performance. For instance, Akinwale and Asogwa (2019) highlight that optimal resource utilization in Nigerian Primary Healthcare Centres reduces bottlenecks in service delivery and improves patient outcomes. They argue that resource wastage, whether due to misallocation, poor planning, or inadequate management, hampers the effectiveness of healthcare services. Efficient resource utilization not only enhances service quality but also contributes to cost savings, which is vital in resource-constrained settings such as Nigeria's primary healthcare system (Ogunleye et al., 2021). As such, resource utilization is a key determinant of healthcare system efficiency and sustainability.

Performance of Primary Healthcare

Performance of primary healthcare (PHDC) is a multidimensional concept that encompasses the efficiency, quality, accessibility, and sustainability of health services delivered at the foundational level of the health system. Effective performance in (PHDC) is essential for achieving universal health coverage, reducing health disparities, and improving overall population health outcomes (World Health Organization [WHO], 2020). The performance of primary healthcare systems depends on various factors including resource management, workforce capacity, service delivery models, and patient-centered approaches. As such, evaluating the performance of (PHDC) involves assessing how well these elements work together to meet the health needs of communities. Research indicates that the performance of primary healthcare significantly influences national health outcomes. For instance, Kruk et al. (2018) emphasize that strong primary care systems are associated with lower mortality rates, better management of chronic diseases, and improved health equity. Countries with well-performing (PHDC) systems demonstrate higher rates of immunization, maternal and child health, and disease prevention, which collectively reduce the burden on

secondary and tertiary care facilities (Starfield et al., 2019). Conversely, poor performance manifests as inadequate service coverage, long waiting times, low patient satisfaction, and high rates of unmet health needs, which hamper overall health system effectiveness.

Budget Variance

Budget variance refers to the difference between the budgeted or planned financial allocations and the actual expenditures incurred within a specified period. In the context of primary healthcare, understanding budget variance is critical for assessing financial performance, resource management, and sustainability. Variances can be either favourable (cost savings or under-spending) or unfavourable (overspending), and analysing these deviations provides insights into operational efficiency, planning accuracy, and financial control mechanisms (Hogan & Hagan, 2020). Effective management of budget variance enables healthcare administrators to optimize resource utilization, improve service delivery, and ensure accountability within primary healthcare systems. Literature indicates that budget variance is often symptomatic of underlying issues such as inaccurate forecasting, unforeseen expenses, or inefficiencies in resource allocation. For example, a study by Ojo et al. (2021) on Nigerian primary healthcare facilities found that significant unfavourable variances were primarily due to underestimation of medication costs, personnel overtime, and infrastructural repairs. Such variances undermine financial sustainability and may lead to service disruptions if not promptly addressed.

Absenteeism Rate

Absenteeism rate is a critical metric used to assess workforce stability, productivity, and overall performance within primary healthcare settings. It refers to the proportion of scheduled workdays that healthcare workers are absent without valid reason, which can disrupt service delivery, compromise patient care, and increase operational costs (Kumar & Reddy, 2021). High absenteeism rates diminish the efficiency of primary healthcare facilities by leading to staff shortages, increased workload for present staff, and longer patient wait times. Organizational factors, including poor working conditions, inadequate motivation, lack of recognition, and perceived unfairness in workload distribution, also contribute to higher absenteeism rates (Akinyele & Akinyemi, 2022). Monitoring absenteeism rates through robust record-keeping and management information systems enables healthcare administrators to identify patterns, underlying causes, and high-risk groups. Regular attendance audits and feedback mechanisms motivate staff to maintain consistent attendance and allow for targeted interventions (Khan et al., 2020).

Mortality Rate

Mortality rate is a fundamental indicator used to assess the overall health status of populations and the effectiveness of healthcare systems. In the context of primary healthcare, mortality rate reflects the impact of healthcare delivery on preventing premature deaths caused by communicable diseases, non-communicable diseases, and injuries. A reduction in mortality rates signifies improvements in disease prevention, early diagnosis, effective treatment, and health promotion activities within primary care settings (World Health Organization [WHO], 2019). Consequently, understanding factors influencing mortality rates is essential for designing strategies to enhance health outcomes and achieve health equity. Current literature emphasizes that mortality rates are significantly affected by the accessibility, quality, and comprehensiveness of primary healthcare services. Countries with strong primary care systems tend to have lower mortality rates because primary care acts as the first line of defence, facilitating early detection and management of health conditions (Starfield et al., 2018). Technological advancements and health information systems have also contributed to mortality reduction by enabling better disease surveillance, patient monitoring, and data-driven decision-making.

Patient Satisfaction

Patient satisfaction is a critical indicator of healthcare quality, reflecting patients' perceptions of the care they receive, including the effectiveness, accessibility, and interpersonal aspects of services. In primary healthcare settings, patient satisfaction is particularly important because it influences health-seeking behaviours, adherence to treatment, and overall health outcomes (Khawaja et al., 2020). Satisfied patients are more likely to engage actively in their care, leading to better management of chronic conditions, increased trust in healthcare providers, and improved health system performance. Consequently, understanding the determinants of patient satisfaction is essential for designing patient-centred approaches that enhance healthcare delivery. Research indicates that multiple factors influence patient satisfaction in primary care, including the quality of communication between healthcare providers and patients, wait times, accessibility of services, and the provision of respectful, compassionate care (Schoenfeld et al., 2021). Effective communication, characterized by clarity, empathy, and active listening, fosters trust and a sense of partnership, which are fundamental to patient satisfaction.

Theoretical Framework

This study is primarily anchored on the Resource-Based View (RBV) theory by Barney (1991), which posits that an organization's sustained performance is largely a function of how well it manages its key internal resources. In the context of primary healthcare in South-East Nigeria, resources such as budget allocations, staff capacity, and logistical infrastructure are central to the performance of healthcare centers. Facilities

that possess the ability to strategically utilize these resources especially in environments marked by scarcity and unpredictability are more likely to deliver essential health services consistently, reduce preventable mortality, and enhance patient satisfaction. For example, a clinic that invests in flexible workforce deployment and efficient financial tracking is more likely to offer uninterrupted services and minimize medical waste. RBV therefore provides a foundational framework to investigate how variations in internal resource deployment explain differences in healthcare performance outcomes across regions. Complementing RBV is the Contingency Theory, which emphasizes the importance of contextual fit between resource strategies and operational environments.

Empirical Review

Sachdeva et al. (2025) explored the influence of psychiatric factors on healthcare resource utilization in hospitalized gastroparesis patients in the U.S. The study aimed to assess the longitudinal impact of psychiatric comorbidities such as anxiety, depression, and bipolar disorder on imaging frequency, hospital stay, and costs. The problem identified is the overlooked role of mental health in gastrointestinal disease management. No explicit anchor theory was mentioned, though the study aligns with biopsychosocial health models. Using a retrospective observational design, the study analysed data from the 2016–2019 National Inpatient Sample involving 47,265 patients. Results showed that nearly 46% had psychiatric comorbidities and had significantly higher imaging usage and longer hospital stays.

Puente et al. (2025) examined real-world treatment patterns, survival, and healthcare resource utilization in Spanish patients with locally advanced or metastatic urothelial carcinoma (la/mUC). The study aimed to describe patient profiles, therapy patterns, and survival metrics within a national context. The issue addressed is the paucity of real-world data in Spain on la/mUC. Although no anchor theory was stated, the framework reflects health services and epidemiological evaluation. This was a retrospective observational study of 829 patients across nine Spanish hospitals from 2015 to 2020. Findings revealed high use of chemotherapy in first-line therapy, a median survival of 18.8 months, and frequent healthcare utilization.

Udeze et al. (2025) assessed the clinical and economic burden of transfusion-dependent β -thalassemia (TDT) in England by evaluating mortality, complications, and HCRU. The aim was to identify the extent of resource use and clinical issues faced by TDT patients. The central problem was the high mortality and healthcare costs related to TDT management. The study used the burden of illness model without explicitly naming a theory. It adopted a longitudinal, retrospective design involving CPRD and hospital records from 2008–2018, with 237 patients matched to 1184 controls. Analysis

revealed significantly higher mortality, endocrine disorders, and increased hospital visits and prescriptions among TDT patients.

Averbuch et al. (2025) analysed long-term sex-specific clinical outcomes and healthcare resource use following hospitalization for heart failure (HF) in Canada. The study aimed to determine if sex differences influenced mortality, readmissions, and healthcare costs post-HF. The problem investigated was inequality in HF care delivery. Though no specific anchor theory was provided, the study utilized a health equity lens. A cluster-randomized design from 10 hospitals followed 4441 discharged HF patients, using administrative dataset linkages for outcome tracking. Analysis showed no statistically significant sex differences in mortality, readmissions, ED visits, or total healthcare costs, though care type varied by gender.

Guan et al. (2024) presented a critical review on sustainable management and resource utilization of anaerobic digestate in the context of circular economy. The objective was to address underexplored strategies for digestate valorisation post-digestion. The study identifies a knowledge gap in integrating digestate resource use into sustainability practices. Theoretical anchoring is implicit in circular economy theory. A qualitative literature review and visual analysis method were used. Results highlighted the challenges in digestate management and regional policy disparities.

Krishnan et al. (2024) examined the relationship between multimorbidities and healthcare utilization in patients with chronic obstructive pulmonary disease (COPD). The objective was to explore how conditions like GERD, diabetes, and osteoporosis affect COPD exacerbations and hospital visits. The problem is that multimorbidity complicates COPD management and increases resource demand. Though no explicit theory was used, the study follows a multimorbidity burden and health utilization framework. Using a retrospective noninterventional cohort design, the study analysed 158,106 patients from a U.S. claims database. Findings revealed significantly higher odds of exacerbations and emergency visits in multimorbid COPD patients.

Ogundeji et al. (2023) evaluated (PHDC) service costs and funding gaps in Kaduna and Kano States, Nigeria, by comparing actual costs of service delivery to the normative costs of meeting MSP standards. The study aimed to expose disparities in (PHDC) financing and resource allocation. The core problem was the underfunding of (PHDC) facilities. No explicit theory was used, but the analysis aligns with financing gap assessment models. A cross-sectional design was applied using data from 50 health facilities, including (PHDC) and general hospitals, collected retrospectively for 2019 and analysed with descriptive statistics. Findings showed actual per capita costs (US\$15.9–30.6) were significantly below normative benchmarks (US\$44.9–49.5), indicating major shortfalls.

Jones & Chukwuma (2021) examined the impact of health financing reforms on primary healthcare (PHDC) costs and outcomes in Nigeria. The study aimed to assess whether reforms enhanced cost-efficiency and improved health service delivery. The key problem addressed was the persistence of inefficiencies despite reform efforts. Guided by the Resource-Based View (RBV) theory, the research adopted a policy analysis and cost impact assessment methodology. The population comprised (PHDC) institutions nationwide, though the sample size was not specified. Data were drawn from government policies and health statistics, and analysed using qualitative content review and cost-impact techniques. The findings revealed marginal improvements in cost efficiency, yet considerable inefficiencies remained.

Methodology

This study employed a survey research design to investigate the regulation processes and firm performance within Primary Health Care Centres (PHDCs) in South-East Nigeria. The research focused on exploring how regulatory frameworks impact administrative heads' efficiency and overall healthcare delivery in the region. The population included 3,479 administrative heads from PHDCs across five states, and the primary instrument for data collection was a structured questionnaire divided into two parts. Part A captured demographic information, while Part B contained items measuring key constructs related to regulation processes and firm performance, utilizing a 5-point Likert scale for responses. The questionnaire was validated by experts in measurement and evaluation to ensure its relevance, and its reliability was established through a test-retest technique, achieving a Cronbach's alpha coefficient ranging from 0.789 to 0.924, indicating high internal consistency.

The questionnaires were administered by the researcher and trained research assistants over a six-week period, utilizing both physical and online distribution methods to enhance response rates. Data collection aimed to obtain comprehensive feedback from administrative heads across the five states. The collected data were analyzed using descriptive and inferential statistical methods, with descriptive statistics (mean, standard deviation) summarizing demographic data and the Pearson Product-Moment Correlation Coefficient (PPMCC) testing hypotheses at a 0.05 significance level. This statistical approach assessed the relationship between regulatory processes and firm performance, providing insights into the dynamics of healthcare management in the region. All analyses were conducted using SPSS version 27.

Data Analysis

Here is the data in an interpretable form so that the study's variables can be understood well. Out of the 359 distributed questionnaires, only 299 were filled and retrieved, representing an 83.3% response rate.

Decision Rule:

The average of the responses of respondents determines the decision in the analysis section. Strongly Agreed (5 points), Agreed (4 points), Disagreed (3 points), Strongly Disagreed (2 points) and Undecided (1 point). The average of the responses:

$$\frac{(5 + 4 + 3 + 2 + 1)}{5} = 3.0$$

Therefore, a mean score below 3.0 would be considered rejected, and a mean score of 3.0 and above would be considered accepted.

Research Question 1: To what extent does budget variance relate to mortality rate in primary healthcare development agencies in South-East Nigeria?

Table 1: Analysis of Budget Variance and Mortality Rate

S/N	Items	N	Mean	Std. Deviation	Remark
Budget Variance					
1	Our agency frequently experiences differences between planned budgets and actual expenditures.	299	4.09	0.941	Accepted
2	Budget variance in our agency affects the timely provision of essential health services.	299	4.21	0.863	Accepted
3	Fluctuations in health budgets reduce our agency's ability to respond to emergency health needs.	299	4.16	0.902	Accepted
Mortality Rate					
4	Budget shortfalls contribute to increased mortality rates in our healthcare coverage area.	299	3.97	1.033	Accepted
5	Inadequate funding directly affects the availability of life-saving medical interventions.	299	4.28	0.811	Accepted
6	Consistent budget implementation has helped reduce mortality in our health facility.	299	3.81	1.098	Accepted
Grand Mean		299	4.09	0.941	Accepted

Source: *Field Survey, 2025*

The analysis in Table 1 shows the respondents' views on the relationship between budget variance and mortality rate. With a high grand mean of 4.09, all items were accepted, indicating a strong consensus on the issue. Under the Budget Variance variable, Item 2 (Mean = 4.21) received the highest agreement. For the Mortality Rate variable, the overwhelming agreement on Item 5 (Mean = 4.28) highlights a perceived critical link between inadequate funding and the availability of life-saving interventions. Overall, the data suggests a significant agreement that budget inconsistencies directly and negatively impact mortality outcomes.

Research Question 2: How does absenteeism rate relate to patient satisfaction in primary healthcare development agencies in South-East Nigeria?

Table 2: Analysis of Absenteeism Rate and Patient Satisfaction

S/N	Items	N	Mean	Std. Deviation	Remark
Absenteeism Rate					
7	Staff in our facility are often absent during official working hours.	299	3.11	1.151	Accepted
8	High rates of absenteeism disrupt service delivery in our healthcare centre.	299	4.29	0.832	Accepted
9	Staff absenteeism leads to delays in attending to patients.	299	4.33	0.789	Accepted
Patient Satisfaction					
10	Patients frequently complain about delays caused by absent staff.	299	4.19	0.887	Accepted
11	Patient satisfaction decreases when healthcare workers are not consistently available.	299	4.24	0.854	Accepted
12	Regular staff presence improves the quality of care and patient satisfaction.	299	2.89	1.123	Rejected
Grand Mean		299	3.84	0.939	Accepted

Source: *Field Survey, 2025*

Table 2 presents the analysis of the relationship between absenteeism and patient satisfaction, showing a grand mean of 3.84. Under Absenteeism Rate, there was strong agreement that it is a frequent (Item 7, Mean = 3.11) and disruptive problem, causing significant patient delays (Item 9, Mean = 4.33). For Patient Satisfaction, respondents agreed that patients complain about delays (Item 10, Mean = 4.19) and that satisfaction decreases with inconsistent staff availability (Item 11, Mean = 4.24). However, Item 12

(Mean = 2.89) was rejected, a significant finding suggesting that respondents believe mere staff presence is insufficient to guarantee improved quality of care and satisfaction.

Hypotheses Testing

Decision Rule: Reject the null hypothesis if $p \leq 0.05$, indicating a statistically significant relationship. The r value determines the strength of the relationship.

Hypothesis One

H₀₁: Budget variance does not significantly relate to mortality rate in primary healthcare development agencies in South-East Nigeria

Table 3: SPSS Correlation Output for Budget Variance and Mortality Rate

		Budget Variance	Mortality Rate
Budget Variance	Pearson Correlation	1	.703**
	Sig. (2-tailed)		.000
	N	299	299
Mortality Rate	Pearson Correlation	.703**	1
	Sig. (2-tailed)	.000	
	N	299	299

** *Correlation is significant at the 0.01 level (2-tailed).*

Source: *SPSS Output, 2025*

The Pearson correlation analysis for Hypothesis 1 revealed a strong, positive, and statistically significant relationship between budget variance and mortality rate ($r = .703, p < .001$). This indicates that as issues with budget variance (such as fluctuations and inconsistencies) increase, the mortality rate in primary healthcare centers also tends to increase significantly. Since the p-value of .000 is less than the significance level of 0.05, the null hypothesis is rejected.

Hypothesis Two

Ho₂: Absenteeism rate does not significantly relate to patient satisfaction in primary healthcare development agencies in South-East Nigeria

Table 4: SPSS Correlation Output for Absenteeism Rate and Patient Satisfaction

		Absenteeism Rate	Patient Satisfaction
Absenteeism Rate	Pearson Correlation	1	-.729**
	Sig. (2-tailed)		.000
	N	299	299
Patient Satisfaction	Pearson Correlation	-.729**	1
	Sig. (2-tailed)	.000	
	N	299	299

***. Correlation is significant at the 0.01 level (2-tailed).*

Source: SPSS Output, 2025

The results for Hypothesis 2 showed a strong, negative, and statistically significant relationship between absenteeism rate and patient satisfaction ($r = -.729, p < .001$). This significant negative correlation implies that as the rate of staff absenteeism increases, the level of patient satisfaction significantly decreases. The p-value (.000) is less than 0.05, leading to the rejection of the null hypothesis.

Discussion of Findings

The significant positive relationship found between budget variance and mortality rate aligns strongly with the Resource-Based View (RBV) theory, which posits that the effective management of financial resources is a critical determinant of organizational performance. The finding suggests that inconsistencies and shortfalls in budget execution directly impair the ability of primary healthcare (PHC) centres to provide life-saving services, thus leading to higher mortality. This is likely because budget variances disrupt the procurement of essential medicines, equipment maintenance, and timely payment of staff salaries, which are all vital structural components as per the Donabedian Model. This result is consistent with the findings of Guan et al. (2024) who noted that weaknesses in financial accountability and budget execution in Nigeria compromised the availability of critical health inputs. Similarly, Udeze et al. (2025) observed that large budget variances in Nigerian PHCs led to drug stockouts and staffing challenges, contributing to higher mortality. The current study reinforces this by demonstrating a direct statistical link, suggesting that without stable and predictable funding, PHC facilities in South-East Nigeria cannot effectively translate their available resources into positive health outcomes, leading to preventable deaths.

The strong negative correlation between absenteeism rate and patient satisfaction supports the study's theoretical framework, particularly the Donabedian Model, which links process elements (like staff availability) to outcomes (like patient satisfaction). High absenteeism disrupts the process of care delivery, leading to long wait times, rushed consultations, and a breakdown in the continuity of care, all of which diminish the patient experience. This finding resonates with the work of Sachdeva et al. (2025) who found that absenteeism in frontline health facilities weakens public confidence and leads to underutilization of care. The result also mirrors the conclusions of Krishnan et al. (2024) who linked patient satisfaction in West African PHCs to the responsiveness and availability of healthcare providers. The underlying reason for this in the South-East Nigerian context may be that in an already understaffed system, the absence of a single healthcare worker has a disproportionately large impact, creating significant service gaps and fostering a perception of unreliability and low quality among patients.

Conclusion and Recommendations

The persistent failings of primary healthcare in South-East Nigeria are not a consequence of resource scarcity alone, but the direct result of a systemic failure in stewardship. The evidence presented in this study is unequivocal: the link between undisciplined budgeting and preventable death transforms financial negligence into a critical public health crisis. The erosion of patient satisfaction due to staff absenteeism is not merely an inconvenience but a fundamental breach of the social contract between the health system and the communities it is meant to serve. Furthermore, the inability to deploy staff effectively or adapt resources flexibly reveals a system paralyzed by a rigidity that renders it incapable of responding to the dynamic health needs of its people.

This study therefore asserts that the most profound deficit in the region's primary healthcare is not in its clinics or its pharmacies, but in its management philosophy. Resource management has been relegated to a secondary, administrative task when it must be understood as a primary clinical intervention. Every misallocated naira, every unmanaged staff absence, and every inflexible process is a clinical failure with profound human costs. The path forward demands more than increased budgets; it requires a radical reconceptualization of healthcare administration as a core pillar of public health. Transforming primary healthcare in South-East Nigeria hinges on a paradigm shift from passive resource allocation to active, strategic stewardship, where every managerial decision is recognized as a vital act in the preservation of life.

Based on the findings of this study, the following recommendations are made

1. The State Ministry of Health needs to implement stringent and transparent financial tracking systems for PHC allocations to minimize budget variances and ensure funds are used for their intended life-saving purposes.
2. The PHC facility managers needs to develop and enforce clear staff attendance

policies, incorporating performance incentives and supportive supervision to reduce absenteeism and improve the patient experience.

References

- Akinwale, O. P., & Asogwa, C. E. (2019). Resource utilization and healthcare delivery in Nigerian primary health centers. *African Journal of Primary Health Care & Family Medicine*, 11(1), a1882.
- Akinyele, A. A., Ajagbe, A. M., & Adegbite, S. A. (2021). Impact of strategic alignment and healthcare resource planning on organizational performance in Nigeria's primary healthcare sector. *International Journal of Management and Sustainability*, 10(1), 12–24.
- Akinyele, I. O., & Akinyemi, O. O. (2021). Strategic approaches to resource management in Nigerian primary healthcare. *African Journal of Primary Health Care & Family Medicine*, 13(1), a2740.
- Averbuch, T., Lee, S. F., Zagorski, B., Pandey, A., Petrie, M. C., Biering-Sorensen, T., ... & Van Spall, H. G. (2025). Long-term clinical outcomes and healthcare resource utilization in male and female patients following hospitalization for heart failure. *European Journal of Heart Failure*, 27(2), 377-387.
- Guan, D., Zhao, J., Wang, Y., Fu, Z., Zhang, D., Zhang, H., ... & Wang, D. (2024). A critical review on sustainable management and resource utilization of digestate. *Process safety and environmental protection*, 183, 339-354.
- Hogan, H., & Hagan, P. (2020). Financial management in primary healthcare: Addressing budget variances. *Health Economics Review*, 10(1), 1-10.
- Khan, M., et al. (2020). Enhancing human resource efficiency in primary health care: Evidence from Nigeria. *Health Systems & Reform*, 6(2), e1827357.
- Khawaja, S., et al. (2020). Patient satisfaction and healthcare quality in primary care: A systematic review. *Patient Preference and Adherence*, 14, 945-960.
- Krishnan, J. K., Martinez, F. J., Altman, P., Bilano, V. L. F., Khokhlovich, E., Przybysz, R., ... & Schoenberger, M. (2024). Multimorbidities in COPD are associated with increased exacerbations and health care resource utilization in real-world patients from a US database. *Chronic Obstructive Pulmonary Diseases: Journal of the COPD Foundation*, 11(5), 472.
- Kruk, M. E., et al. (2018). Rebuilding health systems to reduce maternal mortality in low-income countries. *The Lancet Global Health*, 6(6), e601-e602.
- Kusi, A., et al. (2021). Resource reallocation and task shifting in Ghanaian primary healthcare: A pathway to resilience. *BMC Health Services Research*, 21, 134.

- Ogunleye, A., Adebayo, A. M., & Olatunji, O. (2021). Evaluation of resource management practices in Nigerian primary healthcare facilities. *BMC Health Services Research*, 21, 1234.
- Ogunleye, O. O., Basu, D., Mueller, D., Sneddon, J., Seaton, R. A., Yinka-Ogunleye, A. F., ... & Godman, B. (2021). Response to the novel COVID-19 pandemic across Africa: Successes, challenges, and implications for the future. *Frontiers in Pharmacology*, 12, 593737. <https://doi.org/10.3389/fphar.2021.593737>
- Ojo, O. A., et al. (2020). Evaluation of primary healthcare services in Nigeria: Focus on patient satisfaction and service quality. *Nigerian Journal of Clinical Practice*, 23(3), 372-378.
- Puente, J., Pinto, A., Mendez-Vidal, M. J., García del Muro, X., Maroto, P., Vazquez, S., ... & Castellano, D. (2025). Real-world treatment patterns, survival outcomes, and health care resource utilization for locally advanced or metastatic urothelial carcinoma in Spain. *Clinical and Translational Oncology*, 27(5), 2232-2240.
- Sachdeva, K., Raza, D., Dhaliwal, L. S., Goyal, R., Shah, P., Kawji, L., ... & Cai, Q. (2025). The influence of psychiatric factors on health-care resource utilization in patients with gastroparesis: a national population-based study. *Gastro Hep Advances*, 4(5), 100620.
- Starfield, B., et al. (2019). The effects of primary care on health outcomes. *The Journal of Family Practice*, 68(10), 610-617.
- Udeze, C., Ly, N. F., Ingleby, F. C., Fleming, S. D., Conner, S. C., Howard, J., ... & Shah, F. (2025). Clinical Burden and Healthcare Resource Utilization Associated With Managing Transfusion-dependent β -Thalassemia in England. *Clinical Therapeutics*, 47(1), 37-43.
- Uzochukwu, B. S. C., Onwujekwe, O. E., & Obikeze, O. (2020). Staff capacity and service quality in primary health care in Nigeria. *Health Policy and Planning*, 35(8), 1024-1032.
- Uzochukwu, B. S. C., Onwujekwe, O. E., Mbachu, C., Okwuosa, C., Etiaba, E., Nyström, M. E., & Gilson, L. (2020). Accountability mechanisms for implementing a health financing reform in Nigeria: A case study of the Basic Health Care Provision Fund. *Health Systems & Reform*, 6(1), e1669124. <https://doi.org/10.1080/23288604.2019.1669124>
- WHO. (2020). *Global strategy on human resources for health: Workforce 2030*. World Health Organization.
- World Health Organization (WHO). (2019). *Global health estimates 2019: Disease burden by cause, age, sex, by country and by region*. Geneva: WHO.
- World Health Organization (WHO). (2020). *Global strategy on human resources for*

health: Workforce 2030. Geneva: WHO.

World Health Organization. (2016). *Health systems strengthening: Resource management*. Geneva: WHO. Retrieved from https://www.who.int/health-topics/health-systems#tab=tab_3