

## Factors Influencing Work Output or Performance among Nurses and Midwives in a Teaching Hospital in Ghana.

### Abstract

**Introduction:** Motivation is essential for optimizing organizational performance, influencing job satisfaction, and employee productivity, particularly in public health. In Sub-Saharan Africa, low motivation among healthcare workers exacerbates workforce shortages, affecting healthcare delivery. Nurses and midwives, central to patient care, face challenges linked to inadequate job satisfaction and motivation. To assess the factors influencing nurse performance amid the challenges the Tamale Teaching Hospital face.

**Methods:** The study used descriptive cross-sectional and quantitative methods, using 334 cross-sections of nurses and midwives in Tamale Teaching Hospital. The study used convenient sampling, and a questionnaire was used to collect responses from the respondents. Data was analyzed using SPSS version 25.

**Results:** The majority of respondents were aged 20–29 (42.3%) and predominantly female (61.8%). Most respondents (85.9%) aimed to continue in nursing or midwifery, with 73.2% not considering a career change. Job satisfaction was reported by 65%, and career expectations were mixed, with 44.2% positive and 55.8% fair or poor. Few (14.1%) faced unexpected challenges. The findings highlight job security (78.1%) and good relationships with colleagues (81.9%) as key motivators for nurses and midwives, along with salary increases (80.9%) and management acknowledgment (70.4%). Promotional opportunities and performance appraisals had limited impact, while career advancement (59.5%) and safety measures (54.6%) were moderate motivators. Mixed responses to staff suggestions (61.5%) and colleague support (36.3%) suggest areas for improvement. Most nurses and midwives (54.1%) lack adequate logistics, 64.5% lack equipment, and 99.1% receive no overtime compensation. While 90.5%

attend refresher programs, 60.9% are excluded from decision-making, and only 25.9% feel adequately motivated.

**Conclusion:** Healthcare administrators should enhance logistics, equipment, and consumables while ensuring equitable overtime compensation and robust motivational frameworks. Inclusive decision-making and expanded professional development are essential. Future research should explore qualitative insights and conduct comparative studies to address systemic challenges and guide policy reforms.

**Keywords:** Motivation, organizational performance, job satisfaction, job satisfaction, staff performance, healthcare delivery

## **Introduction**

In the pursuit of organizational excellence, motivation becomes paramount, serving as a catalyst for individuals to exhibit unwavering commitment, heightened focus, and steadfast tenacity in pursuing organizational goals[1, 2]. Motivation, a nuanced mechanism often rooted in unmet needs, is a pervasive force influencing decision-making and behavior, simultaneously functioning as both a personal trait and a social incentive that guides individuals through their professional endeavors[3]. The intricacies of motivation encompass a spectrum of factors, including accountability, independence, opportunities for personal and professional growth, and the inherently challenging nature of tasks undertaken [4, 5].

In contexts characterized by low or middle incomes, the optimization of productivity takes into account the pivotal role of job satisfaction, recognized as a significant determinant of employee productivity and a focal point of considerable attention [6–8]. The symbiotic relationship between organizational and

employee health and well-being underscores the critical importance of job satisfaction, rendering it a subject of paramount significance, particularly in the realm of public health[9]. The contemporary landscape of workforce dynamics underscores that an individual's willingness to contribute and remain with an organization is increasingly contingent upon the effectiveness of motivational strategies[9]. Ideally, performance is optimized when incentive packages align seamlessly with individual needs and capabilities. This delicate equilibrium extends beyond economic considerations to encompass the quality of facilities and the overall work environment[10].

The study conducted by Oleribe et al.[11] underscores the critical issue of a severe human resource shortage in the health sector, particularly affecting the delivery of effective and high-quality healthcare services across the African continent. As indicated by country-specific case studies, Sub-Saharan Africa grapples with the lowest health worker-to-population ratio globally, which is exacerbated by internal and external migration [12, 13]. Central to this migration is the problem of low motivation at work, acting as a significant driver for health professionals seeking opportunities abroad or moving from rural to urban areas within the same country [14–16].

While much research focuses on variables impacting performance in health organizations, emphasizing worker and workplace variables, Adanu[5] highlights the pivotal role of nurses in patient care. Given that nurses spend more time with patients than any other healthcare worker, their performance directly influences patient outcomes and safety. Jalagat[17] reinforces this connection by asserting that increased job satisfaction among healthcare professionals, including nurses, correlates with higher performance and output.

Motivation, being inherently subjective, varies among individuals[18]. Diverse motivational factors influence work performance, encompassing financial incentives, recognition, and opportunities for career advancement, among others. While some studies predominantly point to money as the primary motivator [19], others argue that intrinsic factors such as achievement recognition, responsibility, and respect play a more significant role [20]. The dichotomy between intrinsic "motivators" and extrinsic "hygiene"

factors leading to job dissatisfaction includes elements like pay, physical workplace conditions, job security, company policies, supervision, and interpersonal relationships[21].

Despite the wealth of literature on these issues, there remains a notable gap in understanding the factors influencing the performance of hospital staff, particularly nurses. The scarcity of research on nurse satisfaction in the workplace is particularly evident in Ghana. Anecdotal evidence suggests that the Tamale Teaching Hospital nurses and midwives may not deliver their best to meet patient needs. The hospital's 2022 annual reports indicate a concerning trend, with approximately 10.0% of the staff leaving for opportunities abroad. Despite calls for improved conditions of service, health workers, especially nurses, seem to lack the motivation to carry out their duties effectively. This situation can potentially adversely affect these nurses' health output. To address this knowledge gap, this study aims to assess the factors influencing nurse performance amid the challenges the Tamale Teaching Hospital faces. Through a comprehensive examination of motivational factors and job satisfaction, the study seeks to provide insights that can inform strategies to enhance nurse performance and, consequently, improve healthcare outcomes in the hospital.

### **Methods**

#### **Study design**

The study used a descriptive cross-sectional research design, focusing on quantitative methods. This design was chosen due to its efficiency in collecting data from one spot, speed, and cost-effectiveness. However, cross-sectional studies have limitations, such as the inability to assess incidence, study rare diseases, or establish causal relationships.

#### **Study setting**

The study was conducted at the Tamale Teaching Hospital, a prominent healthcare facility in Northern Ghana. Located along the Tamale-Salaga Road on the Eastern Part of the Metropolis, with a digital address of NT-0101-5331, the hospital encompasses a vast landmass of 490,000m<sup>2</sup>. Initially commissioned in 1974 to function as a regional hospital, it evolved into a Teaching Hospital in 2009. This upgrade positioned it as a tertiary healthcare center, a referral hub, and a teaching facility for medical and

nursing. It allied students from the University for Development Studies and Tamale Nursing and Midwifery Training College.

### **Study population**

The study used nurses and midwives working in the Tamale Teaching Hospital.

### **Inclusion and exclusion criteria**

The inclusion criteria for this study comprised all male and female nurses and midwives working in the Tamale Teaching Hospital. However, the study specifically focused on nurses and midwives from the emergency, intensive care unit (ICU), pediatric, and labor wards. These units were selected due to the high workload associated with their operations. Nurses and midwives working in other departments outside these selected units and those who declined participation were excluded from the study.

### **Sample size**

The sample size for this study was determined using Yamane's formula, which is commonly employed to calculate sample sizes for finite populations. Based on the formula, the sample size was estimated to be 220 with 10 percent non-response inclusive. This number was deemed appropriate to ensure the target population's representativeness and allow for reliable and valid statistical analysis.

### **Sampling techniques**

The sampling technique employed in this study was convenience sampling. This non-probability sampling method was chosen to facilitate the selection of participants who were readily accessible and willing to participate in the study. Nurses and midwives from the emergency ward, intensive care unit (ICU), pediatric unit, and labor ward of the Tamale Teaching Hospital were conveniently sampled due to their availability and the high workload in these units. This approach allowed the researchers to efficiently gather data within the constraints of time and resources while focusing on the target population.

### **Data collection tools and procedures**

In this study, an online-based survey was utilized for data collection, employing a structured questionnaire. The questionnaire was meticulously designed and refined through an extensive review of relevant literature, drawing upon elements from validated instruments used in similar studies[6, 22, 23]. While some items were adapted from specific studies, they were tailored to suit the study's objectives and the unique characteristics of the target respondents. The questionnaire comprised both open-ended and closed-ended questions, enabling a thorough examination of factors influencing nurses' performance in the study context.

Participants were selectively recruited via direct invitation through an online link, ensuring accessibility and convenience. To begin, ward managers were informed about the study and briefed on the participation process. Only individuals who provided oral and written consent were included in the survey.

Study protocols were clearly explained to participants, who were encouraged to ask questions. All inquiries were addressed in straightforward language to ensure participants fully understood the purpose

and requirements of the study. The survey link was shared with selected participants, who were notified of their ability to complete the questionnaire independently, given their proficiency in reading and writing. Participants were assured of strict confidentiality, with completed questionnaires submitted digitally through a secure platform.

While the questionnaire typically required 15–25 minutes, participants were given up to 24 hours to accommodate their professional responsibilities and ensure thoughtful responses. They were encouraged to skip any questions they felt uncomfortable answering, and their autonomy was respected throughout the process.

### **Data management, analysis, and presentation**

Data for this study was collected through an online survey, eliminating the need for manual data entry. The responses were directly recorded into a secure digital database. Data integrity and accuracy were maintained by monitoring the collection process, ensuring complete and consistent responses. The dataset was stored securely in a password-protected Google Drive to safeguard participants' confidentiality.

Data cleaning was conducted in Microsoft Excel to address any inconsistencies or errors in the responses. After cleaning, the dataset was exported to SPSS version 25.0 for analysis. Descriptive statistics were used to summarize and describe the data, including frequencies, percentages, mean, and standard deviation. Graphs and tables were employed to visualize the findings.

### **Ethical clearance**

The study adhered to ethical guidelines outlined in the Declaration of Helsinki, emphasizing informed consent, confidentiality, inclusivity, and risk minimization. Participants provided verbal informed consent, and their personal information was securely protected to maintain confidentiality. The recruitment process was equitable, ensuring fairness and non-discrimination. Cultural sensitivity was prioritized during interactions, and data collectors were trained in ethical research practices. The study also minimized risks and ensured that participants' rights, dignity, and safety were respected.

## **Results**

### **Socio demographics characteristics of the respondents**

The respondents were predominantly aged 20–29 (42.3%) and predominantly female (61.8%). Staff Nurse/Midwife was the most common rank (35.5%), followed by Nursing/Midwifery Officer (24.5%). The majority were nurses (66.8%), while midwives constituted 33.2%. In terms of marital status, respondents were nearly evenly split between those who were married (50.5%) and those who had never married (49.5%) (figure 1).

**Table 1: Socio-demographic characteristics of the respondent (n=220)**

Variable	Category	Frequency	Percentage
Age	20-29 years	93	42.3
	30-39 years	52	23.6

	40-49 years	42	19.1
	50-59 years	33	15.0
Sex	Male	84	38.2
	Female	136	61.8
Rank	Principal Nursing/midwifery Officer	7	3.2
	Senior Nursing/midwifery Officer	17	7.7
	Nursing/Midwifery Officer	54	24.5
	Senior Staff Nurse/midwife	24	10.9
	Staff Nurse/midwife	78	35.5
	Senior Enrolled Nurse	9	4.1
	Enrolled Nurse	27	12.3
	Others	4	1.8
Staff category	Nurse	147	66.8
	Midwife	73	33.2
Marital status	Never married	109	49.5
	Married	111	50.5

### **Expectations, Experiences, and Job Satisfaction Among Nurses and Midwives**

The majority of respondents (85.9%) expressed a desire to pursue a career in nursing or midwifery, while 14.1% did not. Most participants (85.9%) reported no unexpected experiences in the profession, whereas 14.1% encountered unexpected challenges. Regarding a change in profession, 26.8% were considering switching careers, while 73.2% were not. Career expectations were rated as excellent by 20.5% and very good by 15.5%, with 8.2% indicating good expectations. However, 38.2% rated their expectations fair, 8.2% poor, and 9.5% very poor. Finally, 65% of respondents reported being satisfied with their job, while 35% indicated dissatisfaction (Table 2)

**Table 2: Expectations, Experiences, and Job Satisfaction Among Nurses and Midwives (n=220)**

Variable	Category	Frequency	Percent
<b>Desire to pursue a nursing/midwifery career</b>			
	Yes	189	85.9
	No	31	14.1
<b>Unexpected experiences in the profession</b>			

Yes	31	14.1
No	189	85.9
<b>Considering a change in profession</b>		
Yes	59	26.8
No	161	73.2
<b>Current evaluation of career expectations</b>		
Excellent	45	20.5
Very good	34	15.5
Good	18	8.2
Fair	84	38.2
Poor	18	8.2
Very poor	21	9.5
<b>Job satisfaction</b>		
Satisfied	143	65
Not satisfied	77	35

### Motivational Factors Influencing Work Output Among Nurses and Midwives

The findings reveal that job security (78.1%) and good relationships with colleagues (81.9%) are the most significant motivators for nurses and midwives. Management acknowledgment (70.4%) and reasonable salary increases (80.9%) also strongly contribute to motivation. Conversely, promotional opportunities and performance appraisal activities were less influential, with many respondents expressing neutrality (35.5% and 45.0%, respectively). While safety measures (54.6%) and opportunities for career advancement (59.5%) were moderately motivating, attention to suggestions (61.5%) and support from colleagues (36.3%) had mixed responses, highlighting areas for improvement in staff motivation (Table 3).

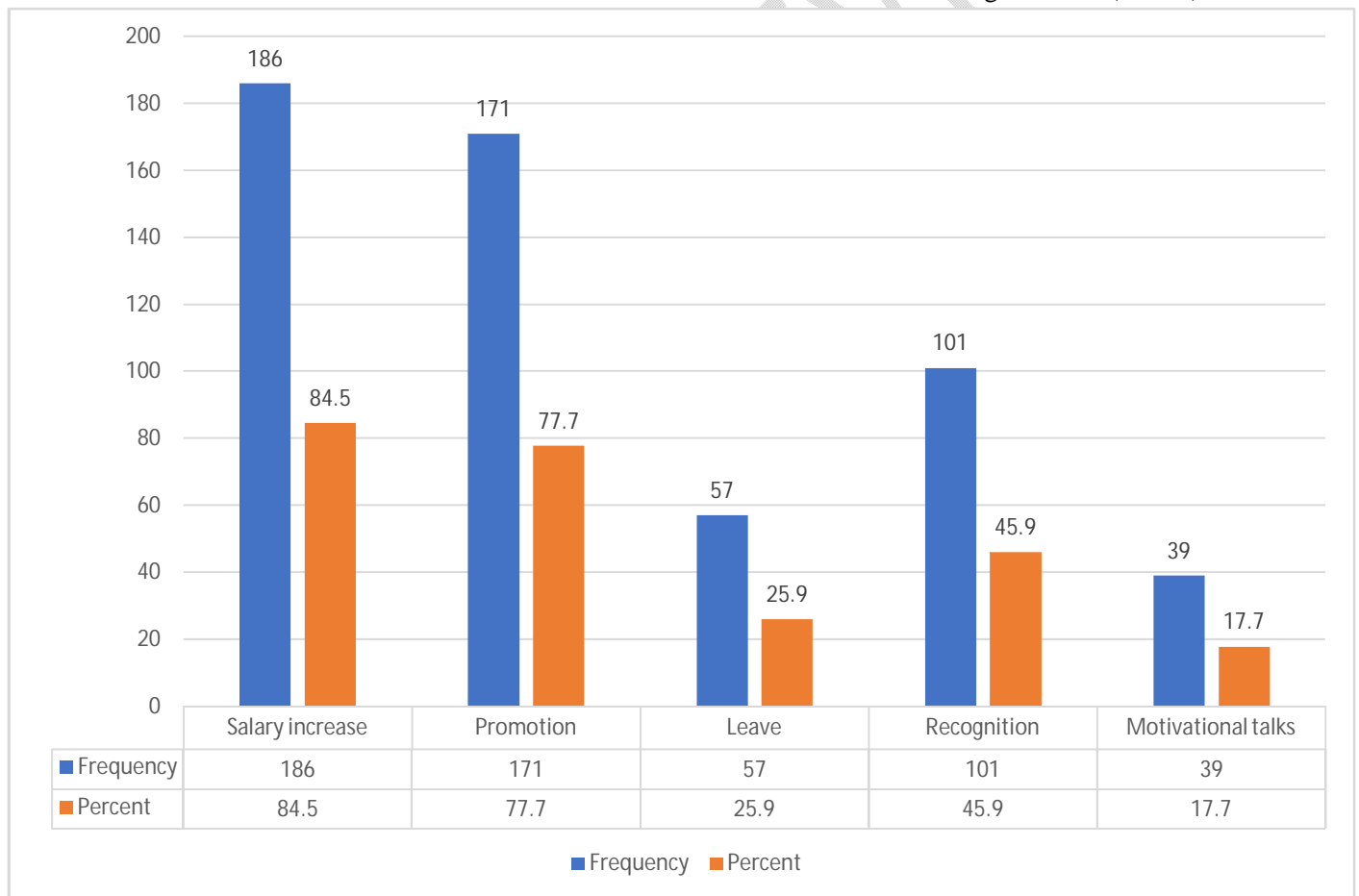
**Table 3: Motivational Factors Influencing Work Output Among Nurses and Midwives (n=220)**

Factors of Motivation	Strongly				
	Agree	Agree	Neutral	Disagree	Strongly Disagree
Job Security	118 (53.6%)	54 (24.5%)	10 (4.5%)	18 (8.2%)	20 (9.1%)
Good relationship with other staff members	122 (55.5%)	58 (26.4%)	29 (13.2%)	6 (2.7%)	5 (2.2%)
Effective promotional opportunities	51 (23.2%)	37 (16.8%)	78 (35.5%)	34 (15.5%)	20 (9.1%)
Good safety measures existing in the facility	47 (21.4%)	73 (33.2%)	48 (21.8%)	34 (15.5%)	18 (8.2%)
Management recognizes and acknowledges your work	54 (24.5%)	101 (45.9%)	22 (10.0%)	26 (11.8%)	17 (7.7%)
Support from other staff members is helpful	19 (8.6%)	61 (27.7%)	87 (39.5%)	29 (13.2%)	24 (10.9%)
Reasonable periodical increase in	98 (44.5%)	80 (36.4%)	1 (0.5%)	19 (8.6%)	22 (10.0%)

salary					
Performance appraisal activities are helpful	33 (15.0%)	27 (12.3%)	99 (45.0%)	37 (16.8%)	24 (10.9%)
Attention is given to your suggestion	58 (26.5%)	77 (35.0%)	3 (1.4%)	54 (24.5%)	28 (12.7%)
Opportunities to advance to senior positions	37 (16.8%)	94 (42.7%)	51 (23.2%)	21 (9.5%)	17 (7.7%)

### Motivational Factors for Nurses and Midwives

Figure 1 shows that salary increases (84.5%) and promotions (77.7%) are the most motivating factors for nurses and midwives. Recognition (45.9%) and leave for further study (25.9%) also play a role, while motivational talks are the least motivating (17.7%).



**Figure 1: Motivational Factors for Nurses and Midwives**

### **Institutional factors that affect nurses' and midwives' work output**

Table 4 shows that 54.1% of nurses and midwives lack adequate logistics and consumables, and 64.5% lack sufficient equipment for nursing care. Almost all respondents (99.1%) are not compensated for overtime work. Regarding decision-making, 60.9% are not involved in hospital operations and patient care decisions. However, 90.5% have the opportunity to attend refresher programs. Only 25.9% feel adequately motivated by the facility, while 74.1% do not.

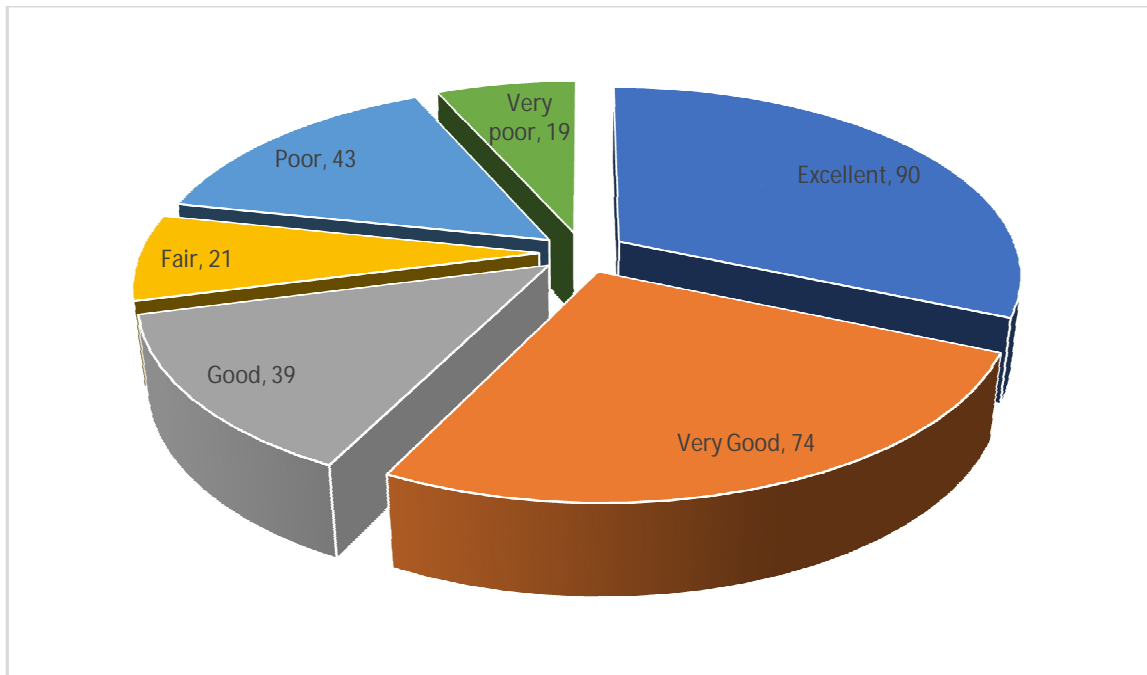
*Table 4: Institutional factors that affect nurses' and midwives' work output (n=220)*

<b>Variable</b>	<b>Category</b>	<b>Frequency</b>	<b>Percentage</b>
Have adequate logistics and consumables to work with	Yes	101	45.9
	No	119	54.1
Have adequate equipment to provide nursing care.	Yes	78	35.5
	No	142	64.5
Get paid for overtime in your facility.	Yes	2	0.9
	No	218	99.1
Involved in decision-making concerning your hospital and patient care	Yes	86	39.1
	No	134	60.9
Allowed to attend refresher programs or top-up programs to enhance nursing care	Yes	199	90.5
	No	21	9.5
The facility adequately motivates you to work as a nurse or midwife.	Yes	57	25.9
	No	163	74.1

### **Assessment of Nurses' and Midwives' Relationship with Hospital Management**

Figure 2 reveals that most nurses and midwives view their relationship with hospital management positively, with 40.9% rating it as excellent and 33.6% as very good. However, 17.7% consider it

reasonable, and 9.5% rate it as fair. A smaller portion of respondents, 19.5%, perceive the relationship as poor, while 8.6% feel it is very poor.



**Figure 2: Assessment of Nurses' and Midwives' Relationship with Hospital Management**

## Discussion

This study examined factors influencing nurses' and midwives' work output or performance in the Tamale Metropolis, revealing a predominantly female workforce (61.8%) with tertiary education and a concentration of staff aged 20–29 years (42.3%). Most participants (85.9%) had aspired to become nurses, though 14.1% reported unexpected experiences, and 26.8% considered changing jobs. Job satisfaction was moderate, with 65.0% satisfied and 38.2% rating their nursing experience as "Fair." Key motivators included salary increases (84.5%), promotions (77.7%), and incentives (90.0%). Institutional challenges emerged, with 54.1% citing inadequate logistics, 99.1% not receiving overtime pay, and 74.1% feeling inadequately motivated. Despite this, 90.5% attended refresher programs, and 40.9% rated their relationship with management as excellent, highlighting strengths and improvement areas in fostering a supportive work environment.

The revelation that a majority of respondents had, at some point, aspired to become a nurse or midwife holds relevance in assessing the factors that influence the output of nurses. It suggests an initial motivation or interest in pursuing a nursing career among a significant portion of the surveyed individuals[24]. This early desire could potentially translate into intrinsic motivation, passion, and commitment to the nursing profession, all of which are factors known to impact work output positively. On the other hand, the minority who did not harbor such aspirations may have diverse motivations or influences shaping their career choice. Understanding these initial aspirations provides a starting point for exploring the intrinsic and extrinsic factors contributing to or deterring nurses' performance[25]. It opens

avenues for investigating how personal motivations, career expectations, and early aspirations intersect with the broader factors influencing work output among nurses in the surveyed population.

The varied perceptions of nurses regarding their current experiences can be closely linked to the factors that influence their work output. The levels of satisfaction or dissatisfaction expressed by nurses and midwives in this study indicate the complex interplay of factors shaping their professional environment. Those who perceive their experiences as meeting expectations at an "Excellent" or "Very good" level suggest a positive alignment between their work conditions, organizational support, and personal expectations. This alignment may include supportive management, adequate resources, and a conducive work environment, all of which positively influence nurses' and midwives' performance and output[26]. Conversely, for those who perceive their experiences as "Fair" or "Very poor," potential sources of dissatisfaction may be at play. These could encompass factors like inadequate staffing levels, lack of recognition, insufficient training, or challenging working conditions, all of which have been identified as contributors to diminished work satisfaction and potentially lower work output among nurses.

It is crucial for healthcare institutions to understand the nuanced relationship between nurses' or midwives' perceptions of their experiences and the underlying factors influencing their work output. It allows for targeted interventions and improvements in areas that may enhance nurses' job satisfaction, well-being, and, ultimately, their effectiveness in delivering quality patient care [25]. Therefore, exploring the root causes of varied perceptions becomes instrumental in crafting strategies to optimize the work environment for nurses, fostering a positive impact on their overall output[27].

The reported satisfaction levels among participants are closely tied to the factors influencing their work output. For the majority expressing contentment, it suggests a positive alignment between their work environment, organizational support, and personal expectations. Supportive management, sufficient resources, and a conducive work atmosphere likely contribute to their satisfaction, positively influencing their performance and output[28].

Conversely, for those indicating dissatisfaction, potential factors influencing their output may include high workload, inadequate resources, or poor working conditions. These issues can contribute to diminished job satisfaction and, subsequently, impact nurses' overall performance and output. Identifying and addressing these challenges is essential for healthcare institutions to optimize work conditions, enhance job satisfaction, and, in turn, improve the effectiveness of nurses in delivering quality patient care[26].

In essence, the satisfaction levels reported among nurses serve as indicators of the broader influences on their work output. Analyzing these factors in conjunction with satisfaction levels provides valuable insights for healthcare administrators to implement targeted interventions and create an environment that supports nurses, fostering positive outcomes for healthcare professionals and their patients [3, 29].

The survey results provide valuable insights into nurses' and midwives' perceptions across various facets of their work environment, each intricately linked to the factors influencing their output. Nurses and midwives expressing strong confidence in job security is a positive factor that contributes to a stable and focused workforce. This sense of security can enhance overall job satisfaction, alleviate stress, and positively impact the performance and output of nurses[5]. The majority indicate that positive dynamics within the nursing team are crucial for fostering a collaborative and supportive work environment. Strong

relationships among staff members contribute to effective communication and teamwork and can significantly influence the overall work output.

The varied responses regarding promotional opportunities underscore an area that can significantly impact nurses' career trajectories. Perceived opportunities for career advancement play a pivotal role in influencing motivation and job satisfaction, ultimately affecting work output[3]. Positive feedback regarding safety measures is crucial for ensuring nurses' well-being. A safe and secure work environment contributes to job satisfaction, reduces stress levels, and positively influences the overall output of nurses and midwives.

The recognition noted by a significant portion is a positive factor that can enhance job satisfaction and motivation. Acknowledgement from management contributes to a sense of value and appreciation, positively impacting nurses' work output. The mixed response regarding support from other staff members signals a potential area for improvement. A supportive work environment is essential for motivation and well-being, directly impacting nurses' overall output [30].

The emphasis on the importance of a reasonable increase in salary underscores the significance of financial considerations. The mixed responses on performance appraisal activities indicate a need for clarity and effectiveness in these processes, which can impact motivation and work output[29].

Positive acknowledgment of attention to suggestions aligns with a collaborative and open work culture. The nuanced perspective on career advancement opportunities suggests an area where clarity and support could enhance nurses' career satisfaction and, by extension, their work output[8].

The data reveals various motivational factors among the respondents, offering insights into the elements contributing to their professional satisfaction. A substantial majority identified salary increases as a key motivator in their roles, highlighting the pivotal role of financial incentives in driving professional contentment. Following closely, respondents find motivation in the prospect of promotion, emphasizing the crucial importance of career advancement as a motivational factor within the nursing profession[3].

Recognition emerged as a significant motivator, underscoring the value of acknowledging their contributions. This finding highlights the intrinsic need for appreciation and validation in fostering a positive work environment. Conversely, respondents identified leave as a motivator, pointing to the importance of achieving a healthy work-life balance for professional satisfaction. In contrast, motivational talks emerged as a less prominent factor, indicating that while not universally impactful, they may play a role for a specific segment of the nursing workforce in driving professional motivation.

Overall, the data underscores the multifaceted nature of motivational factors within the nursing profession, encompassing financial incentives, career advancement, acknowledgment, and considerations for work-life balance. Understanding these diverse motivations is pivotal for healthcare institutions in tailoring strategies to enhance job satisfaction, retain talent, and ultimately improve their nursing staff's overall performance and well-being [3].

The implications of the study's results are multifaceted, impacting patient care, workforce stability, and institutional operations. The lack of logistics and consumables (54.1%) and inadequate equipment (64.5%) hinder nurses' ability to provide high-quality care, potentially increasing patient complications and prolonging hospital stays. These findings align with studies [31, 32], which reported that resource

constraints directly correlate with poor patient outcomes and increased healthcare costs. Furthermore, the lack of overtime compensation for 99.1% of respondents, coupled with 74.1% feeling inadequately motivated, contributes to job dissatisfaction and high turnover rates, consistent with the findings of Bae [33], which identified financial incentives as pivotal in retaining healthcare workers.

However, the high participation rate (90.5%) in refresher programs contrasts with other studies that reported limited access to continuing professional development opportunities in low-resource settings [34]. This discrepancy may stem from institutional prioritization of capacity-building initiatives, even amid resource limitations. The exclusion of 60.9% of nurses from decision-making processes aligns with findings by Tanner [35], emphasizing the negative impact of hierarchical decision-making on staff engagement and innovation.

Interestingly, whereas a study have highlighted that recognition and motivation strategies significantly improve workforce morale [36], only 25.9% of respondents in this study felt adequately motivated. This divergence suggests that existing motivational strategies may be inadequate or poorly implemented, requiring targeted interventions to enhance workplace satisfaction. Addressing these barriers is essential to fostering a supportive work environment, ensuring quality care delivery, and improving the overall efficiency of the healthcare system.

The study's methods had notable strengths, including selecting a specific hospital in Tamale, which allowed for an in-depth exploration of localized factors influencing nurses' work output. Convenient sampling facilitated quicker recruitment and ensured a manageable and timely data collection process. However, leveraging online surveys enabled broader reach and ease of participation, particularly for respondents with limited availability for in-person interactions. However, several weaknesses were identified. The focus on a single hospital and the use of convenient sampling limited the generalizability of the findings to other settings or regions. It introduced a risk of selection bias by potentially excluding specific demographics. Reliance on self-reported data through online questionnaires increased the likelihood of socially desirable responses, potentially compromising accuracy. Additionally, the absence of qualitative methods, such as interviews, limited the study's ability to explore nuanced and contextual factors affecting nurses' work output. Finally, the online survey format may have excluded participants with limited access to or familiarity with digital tools, potentially impacting inclusivity.

## **Conclusion**

This study sheds light on the multifaceted factors influencing the work output of nurses and midwives in the Tamale Metropolis. While a high initial motivation to join the profession and strong participation in refresher programs reflect a committed workforce, significant challenges such as inadequate resources, lack of overtime compensation, and limited involvement in decision-making hinder optimal performance. These findings underscore the urgent need for targeted interventions, including improved resource allocation, enhanced motivational strategies, and inclusive decision-making processes. Addressing these barriers will boost job satisfaction and workforce retention and improve the quality of patient care and overall healthcare system efficiency.

## **Recommendation**

To address the challenges identified in this study, healthcare administrators should prioritize the provision of adequate logistics, consumables, and equipment to enhance nurses' and midwives' capacity to deliver quality care. Institutions should implement equitable overtime compensation and develop robust motivational frameworks that recognize and reward staff contributions, promoting job satisfaction and retention. Decision-making processes must be more inclusive, empowering staff to contribute to hospital operations and patient care strategies. Additionally, while participation in refresher programs is commendable, continuous professional development initiatives should be expanded to ensure all staff can access training opportunities tailored to their needs. Future research should explore qualitative insights into nurses' and midwives' experiences to uncover deeper contextual factors influencing their work output. Comparative studies across different healthcare settings would also provide a broader understanding of systemic challenges and effective interventions, guiding policy reforms and resource allocation.

### **Consent for publication**

Not applicable

### **Data Availability**

Data used to support this study are available from the corresponding author upon request.

### **Disclaimer (Artificial intelligence)**

The authors currently declare that generative AI (ChatGPT) was used during manuscript editing(grammar).

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