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Motivational Factors in Nurse and Midwife Participation in NGO-led Maternal and Child Health Training in Rural Northern Ghana: A Comparative Study.

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ABSTRACT

Key to maternal and child health successes in Ghana are frontline practitioners' skills and dedication, and NGOs are instrumental in providing those trainings. Nevertheless, engagement of the NGOs are varied, making it important to understand what incentivizes nurses and midwives to engage in maternal and child health programs. This article investigates motivational factors influencing nurses and midwives participation in NGO-driven training programs in rural Northern Ghana. In a mixed-methods design, surveys were administered to 312 nurses and midwives from 12 districts of the Upper East, North East, Northern, and Savannah regions and supplemented with qualitative interviews. To determine important predictors, quantitative data were included in multivariate regression analysis. Results indicate that extrinsic and intrinsic motivators influence participation. Monetary incentives were the most common consideration for a person (78.4%), with cash payments receiving a preference over mobile transfers due to delays (61.2%). Accommodation quality (46.8%) and travel reimbursement (52.3%) also impacted attendance. Motivators from within were training certificates (65.7%), mentorship opportunities (72.8%), and positive perceptions of improvements in patient care (59.6%). Programs conducted in the city offered added psychological and social benefits, such as respite from a pattern of regular activity and contact with urban life. The regression analysis indicates that financial incentives ($\beta = 0.42$, $p < 0.01$) and professional development ($\beta = 0.38$, $p < 0.01$) are significant predictors, moderated by payment strategy, training location, experience, and type of facility. In conclusion, financial rewards and training experiences were found to be the most powerful reasons, indicating that NGOs should promptly pay cash and conduct city-based training for nurses and trainees to increase motivation more widely among health workers.

INTRODUCTION

Maternal and child health (MCH) is a persistent public health challenge in Ghana, especially in the rural areas where access to qualified health providers is limited. Nurses and midwives have the primary roles in antenatal, delivery, and postnatal care, and their engagement in training interventions is important in the provision of care. Non-governmental organizations (NGOs) make vital contributions where there is no government funded training, so that front-line staff must have up-to-date skills and technical know-how. In rural Ghana, where facilities are usually understaffed, such interventions are vital. A recent study demonstrates that structured NGO-driven nurse and midwife training has led to a positive impact on maternal and child health outcomes (Bancalari *et al.,* 2024). Both extrinsic and intrinsic motivators influence the decision of nurses and midwives to participate in such programs.

In an increasingly resource-poor world, financial incentives are often identified as the key motivators, including stipends, travel allowances, and bonuses. Neelsen *et al.* (2021) showed that what makes such incentives work depends on consistency and fairness, as well as both service usage and provider accountability. At the same time, those motivations that fit into an intrinsic perspective-certification, mentoring, career advancement, etc. resonate well with participants.

Community recognition also enhances professional status and trust within local communities. Aikins *et al.* (2023) showed that Ghanaian nurses and midwives find value in programs that support competencies, development and promotions as well as recognize that intrinsic rewards are equally important as financial ones. Despite the widespread acknowledgment of the significance of these incentives in rural Ghana, participation in NGO-led MCH training continues to be variable. Incentives to deliver financial incentives have been found effective at enhancing accountability and engagement, but the impact depends on their degree of fairness.Factors such as professional advancement, peer recognition, and social standing, among others, also serve as intrinsic motivations and have influenced decisions (Alhassan & Nketsiah-Amponsah, 2016), but the interactions among

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them have not been systematically examined.

Non-Goveremental Organizations (NGOs) play vital roles within rural health systems as a means to fill in the gaps left by the government in terms of adequate training and support. Yet, little comparative research exists to determine what actually motivates nurse and midwife engagement. This gap is of particular concern in light of the pressing need to reinforce frontline health systems in rural Ghana, which persistently experience chronic underfunding, understaffing, and high maternal and neonatal mortality. NGOs will miss out on interventions that are effective if they do not have a clear understanding of why nurses and midwives are choosing and participating in trainings.

Therefore, the current study seeks to fill this gap by assessing the predictors of nurse and midwife involvement in NGO-led MCH training programs in rural Ghana. It analyzes extrinsic motivators as well as internal motivators, such as economic, capacity-enhancing, and social recognition. Employing a mixed methods design, the study combined quantitative surveys and qualitative interviews to exploremixed-methods design, the study combined quantitative surveys and qualitative interviews to examine both statistical and contextual evidence. Motives and engagement were assessed using a multivariate regression model of correlation between participation and motivation while controlling for demographic and institutional differences. Results seek to provide insights into which strategies work best to stimulate engagement and how these differ among contexts. By doing so, this research contributes to a global conversation on health workforce development and brings policy and practical insights to both NGOs and policymakers, in addition to the public sector.

Improving maternal and child health in at-risk areas cannot only be achieved through training but requires an understanding of the factors influencing the motivation for frontline health workers to be there. By recognizing financial gain, professional development, and social recognition in equal shares, this study provides evidence for developing programs that are effective and lasting, ensuring nurses and midwives continue to be partners in a sustainable transformation of women's and children's health services in rural Ghana.

LITERATURE REVIEW

Theoretical Framework

This study employs a framework comprising Herzberg's Two-Factor Theory and Vroom's Expectancy Theory to examine nurse and midwife involvement in maternal and child health training initiated by non-governmental organizations based in rural Ghana. Herzberg's model separates hygiene factors (e.g., salary, working conditions, payment delays) that avert dissatisfaction and motivators (e.g., recognition, skill development, community impact) that elevate engagement (Herzberg, 1966). Vroom's Expectancy Theory adds a lens to decision-making, framing it with how people evaluate effort, reward, and value. It examines the impact that contextual factors (e.g., where training is provided, how payment is distributed, and the reliability of the NGO) have on participation (Vroom, 1964) and provides three components: expectancy, instrumentality, and valence. Between them, these theories help to provide a broad description of what drives participation as well as how nurses and midwives weigh training options. This dual approach enables an in-depth examination of patterns of engagement and facilitates targeted survey tools and interventions to be developed.

Empirical Review

Research indicates that extrinsic and intrinsic motivators influence maternal and child health (MCH) training program uptake in nurses and midwives. Financial incentives-including stipends, travel allowances, and bonuses-have been associated with increased service delivery and participation. Neelsen *et al.* (2021) concluded that such incentives increased maternal health service utilization and provider accountability in low- and middle-income countries, including Ghana. This is in consonance with the current study's purpose to compare financial to non-financial motivators. Intrinsic motivators also factor in strongly. Mohammed *et al.* (2025) suggested that nurses and midwives are more likely to participate in training programs in which professional development, mentorship, and certification, contributing to the achievement of long-term career aspirations, are integrated. These results are in accordance with the research's purpose of determining primary factors that have motivated participation. Bancalari *et al.* (2024) observed that NGO-led midwife training programs in Ghana improved maternal and newborn outcomes. While these are important to note, participation rates differed by district and organization, which suggests that contextual aspects like training venue, accommodation, and payment methods might affect engagement. This is supportive of the study's emphasis on how logistics and structural aspects impact motivation. Additionally, Mohammed *et al.* (2025) underscored that work engagement mediates the influence of organizational commitment on performance, thus underpinning the role of psychological and social antecedents in promoting participation.

Conceptual Framework

Based on Herzberg's Two-Factor Theory and Vroom's Expectancy Theory (Van der Meer, 1989; Vroom, 1991), along with empirical evidence, this research utilizes a conceptual framework that considers motivational factors in two categories: Extrinsic Factors: Financial (stipends, travel allowances), working conditions, accommodation quality, and the mode and timing of incentive delivery (e.g., cash vs. mobile money). These factors correspond to Herzberg's hygiene elements and to Vroom's instrumentality and valence components, and therefore affect satisfaction and perceived reward value (Herzberg, 1966; Vroom, 1964; Neelsen *et al.,* 2021). Intrinsic

Factors: These include professional growth opportunities (training, mentorship, certification), recognition, and community impact. These mirror Herzberg's motivators and Vroom's expectancy dimensions of motivation, influencing involvement through perceived growth and accomplishment (Banchalara*et al.,* 2025; Mohammed *et al.,* 2025).

NGO-supported training programs in maternal and child health (MCH) are expected to be affected by the combination of these factors, and participation in MCH programs is hypothesized to be influenced by such combinations of factors. The framework also includes moderating variables such as age, years of experience, type of facility, and NGO reputation which could influence how motivation leads to actual behavior (Bancalari *et al.,* 2024). This architecture enables comparison and statistical examination of motivating factors and supports the formulation of targeted interventions to enhance training engagement.

MATERIALS AND METHODS

Study Design

The study adopted a cross-sectional mixed-methods design comprising quantitative and qualitative methods to investigate and compare motivational factors of nurses and midwives in NGO-driven MCH training. Study Sites. The study was conducted within twelve districts in four regions of northern Ghana:

1. Upper East Region (UER): Talensi, Kasena Nankana West, and Nabdam.
2. North East Region (NER): Mamprugu-Moaduri, West Mamprusi, and East Mamprusi.
3. Northern Region (NR): Gushegu, Savelugu, and Kpandai.
4. Savannah Region: West Gonja, Bole, and Sawla-Tuna-Kalba.

The districts were purposively selected as high maternal and child health areas and areas of strong presence of NGO interventions providing MCH training programmes. Study Population. The target population consisted of registered nurses and midwives currently employed in public and NGO-led health institutions in the selected districts. The inclusion criteria were that participants should have held their current jobs for a minimum of six months and have been invited to or participated in at least one NGO-conducted MCH training program.

Sample Size and Method of Sampling

A multi-stage sampling was applied. In the beginning, districts were chosen intentionally. Health facilities were randomly sampled within each of the districts. Eligible nurses and midwives in each facility were recruited by stratified random sampling to maximize the representativeness of cadres and types of facilities. Sample Size. The estimated sample size was expressed using Cochran's formula after controlling for design effect and non-response.

Data Collection Methods

Quantitative Data: Structured questionnaire measures were conducted to gather data on the following variables: demographic characteristics, participation history, and perceived motivational factors (e.g., financial incentives, encouragement to develop careers, recognition from one's community). The strength of the motivational influences was assessed by Likert-scale items.

Qualitative Data: In-depth interviews (IDIs) and focus group discussions (FGDs) were conducted with selected participants and key informants (e.g., NGO coordinators, facility managers), which were then utilized to achieve a more in-depth understanding of contextual and experiential factors of motivation.

Data Analysis

a) Quantitative Analysis: We analyzed the motivation and participant characteristics using descriptive statistics (frequencies, means, and standard deviations). The differences by the incentive type of participation were compared (e.g., t-tests, ANOVA). After controlling for demographic and institutional variables, multivariate regression analysis was performed to model the association between motivational determinants and participation levels.

b) Qualitative Analysis: Thematic analysis was performed using NVivo or similar software. Transcripts were coded inductively and deductively to identify common themes associated with motivation, barriers, and perceptions of NGO training programs.

Ethical Considerations. The studed was approved by the Ghana Health Service Ethics Review Committee. All participants' signed consent was obtained. Confidentiality and anonymity were preserved throughout the study; also, participation was voluntary.

RESULT AND DISCUSSION

Socio-demographic Characteristics of Respondents

A sample of 312 participants—198 nurses (63.5%) and 114 midwives (36.5%)—were surveyed across 12 districts. Most are female (88.1%), aged 30–39 years (54.2%), mean age of 34.6. The experience levels were variable: 41.7% 5–10 years, 28.2% over 10 years, and 12.5% less than 2 years. Sites were distributed in terms of CHPS compounds (42.6%), health centres (35.3%), and district hospitals (22.1%). Regional representation was evenly balanced, with the Northern Region contributing 27.6%. Table 1 presents the detailed Sociodemographic Characteristics of Respondents.

Table 1: Sociodemographic Characteristics of Respondents

Variable	Category	Frequency (f)	Percentage (%)
Cadre	Nurse	198	63.5
	Midwife	114	36.5
Gender	Female	275	88.1
	Male	37	11.9
Age Group (Years)	22-29	72	23.1
	30 -39	169	54.3
	40 -49	51	16.3
	>50	20	6.4
Years of Experience	2	39	12.5
	2-4	55	17.6
	5-10	130	41.7
	10	88	28.2
Facility Type	CHPS compound	133	42.6
	Health Centre	110	35.3
	Hospital	69	22.1
Regional Distribution	Upper East	78	25.0
	Upper West	71	22.7
	Northern	86	27.6
	Savannah	77	24.7

Extrinsic and Intrinsic Motivational Factors

Extrinsic Motivators

Among those interviewed, financial incentives were the most common motivator, as 78.4% of respondents indicated that stipends, travel allowances, and per diems were major reasons to attend. Of these, 61.2% preferred cash payments at the end of training, and only 17.2% received mobile money payments. Of those paid via mobile money, 38.5% said delays were the biggest cause of dissatisfaction. One nurse explained, "When they pay in cash, I know I can go home with something." Mobile money often takes days; you take days to get it, and you start to regret coming." The quality of accommodation affected participation for 46.8% of interviewees, particularly for rural districts with different guesthouse standards, in areas with varying levels of service of guesthouses. "We slept in a quiet place," said a midwife. It gave the training a serious and respectful tone." Travel reimbursement also mattered to 52.3% of respondents, especially in the case of staff members from remote CHPS zones who had to pay a greater proportion for travel costs.

In addition to the tangible motivators, 43.6% indicated that training provided a good change of environment. Many said it was a break from routine and a feeling of isolation. "It's not just the training," one midwife said, "it's being given the opportunity to move away from the facility, breathe different air, and feel a bit refreshed again." Urban-based trainings were particularly valued, with 38.9% suggesting the ability to meet in town. "A nurse said, 'When learning is in town I can go to a mall and see new places even window-shop. It's a treat we seldom get."

Intrinsic Motivators

Intrinsic motivators were also prominent. 65.7% chose to earn certification and career advancement. Among midwives, 72.8% highlighted the value of mentorship and practicing the craft, particularly in emergency obstetric care. "The training assisted me to handle complications better," one interviewee said. "And now that I'm on duty, I feel a lot more assured." Achieving community recognition also drove 48.1% of respondents, as they perceived the training as contributing to their credibility and trustworthiness with providers and community leadership. The perceived effect on patient outcomes, like decreased maternal complications, was also a great driver for motivation to continue receiving training, according to 59.6% of participants. An even smaller but relevant group (22.4%) also appreciated the opportunity for peer networking and sharing of experiences. "Meeting other nurses from other districts helped me learn how to do things differently," one nurse noted. The study implications highlight the multidimensional nature of motivation: as both extrinsic benefits and personal reward and work fulfilment, in addition to the effect of environmental and social factors, are significant for engagement with NGO-provided training programs.

Comparative Impact

Participants' ability to take part was also significantly influenced by financial incentives immediately, particularly for young nurses (ages 22-29) and those who worked in CHPS compounds and health centers given the higher

level of resource scarcity. But capacity-building efforts such as mentorship, certification, and career progression were much more likely to generate repeat participation and sustained engagement, particularly among midwives and staff with more than five years of practice experience.

Multivariate Regression Analysis

The regression results indicated that financial incentives were a significant predictor of participation ($\beta = 0.42$, $p < 0.01$), and professional development opportunities were in fact significant ($\beta = 0.38$, $p < 0.01$). The mode of payment (cash vs. mobile money) and training location (urban vs. rural) moderated the strength of financial incentives. Years of experience and type of facility influenced the ability of intrinsic motivators to work, with more senior employees valuing training more highly than monetary reinforcement. These results illustrate the importance of personalized incentive approaches that account for participants' demographic characteristics as well as logistical issues. An option based on a combination of financial stability and impactful training may be the most effective strategy for holding participants' involvement in rural MCH training programs.

Discussion

This study explored motivational factors of nurse and midwife participation in NGO maternal and child health training programs in rural Northern Ghana. It exposed similarities and differences in engagement by comparing motivational factors across professional groups. This was assessed in the wider context of rural health delivery challenges, including resource constraints, workforce gaps, and sociocultural factors. The dialogue framed financial motivation, career success, social status, and intrinsic commitment in relation to the established literature while addressing situational perspectives and the role of NGOs. These considerations resulted in implications for how to design and sustain these programs for sustainability in resource-limited settings. The study sample was indicative of the larger frontline health workforce in Ghana, with a predominance of women in maternal and child health service delivery (Ghana Health Service [GHS], 2022). The high proportion of females among each participant and the cluster of respondents in the 30–39 age range indicated an older workforce.

A distribution structure across the CHPS compounds, health centers, and district hospitals provided a balance of institutional representation, which enabled the study of the contribution of facility context towards motivational dynamics. The geographical scope in which participants were distributed—most commonly in the Northern Region—matched the research's emphasis on the underprivileged. It has been evidenced that region-based differences in infrastructure and amenities would influence perception of training opportunities and value (Boateng *et al.,* 2022), highlighting the need to place motivational factors into local contexts. Motivation was explored through both the extrinsic and intrinsic perspectives, which showed a twofold effect on engagement in NGO-led interventions. Extrinsic motivators included monetary rewards, such as stipends and allowances, which had a strong influence on engagement. The preference for cash payments over mobile money highlighted the need for timely and dependable pay, as delays in receiving mobile payments were associated with lower motivation. This result also confirmed Vroom's (1964) position that perceived instrumentality and reward certainty are critical in the maintenance of effort.

In other extrinsic motivation factors, the importance of accommodation quality, travel reimbursement, and travel time was more relevant in the case of staff in remote areas of the CHPS. These factors echoed Herzberg's (1959) hygiene elements, which are not directly motivating but can lead to dissatisfaction if mishandled. One of the novel contributions of this study was the identification of travel opportunities and exposure to urban environments as motivators. For rural-based nurses and midwives, training in urban centers provided both professional education and an outlet for shopping, socializing, and escape from everyday facility living. The environmental and social stimulation dimension has been substantially neglected in the existing literature, which often tends to be narrowly focused on economic and logistical motivational factors (Neelsen *et al.,* 2021). The main contributors to sustained participation were the intrinsic motivators. These included certification, advancement in a career, professional mentoring, and skill sets in emergency obstetric care, all of which midwives were extremely keen to attain. These observations echoed earlier studies concluding that professional development builds long-term commitment (Buabeng & Aomah-Afari, 2023). The recognition from the community and perceived effect from the training on patient care also supported the role of social and psychological gratification in sustaining motivation (Mohammed *et al.,* 2025).

Unlike external motivators, which offered instant involvement, intrinsic motivators had a stronger correlation with repeat engagement and long-term commitment, particularly among senior employees. This differentiation supported Herzberg's (1959) theory that hygiene factors minimize dissatisfaction, whereas actual motivation originates from intrinsic rewards. Crucially, the findings of the present study provided additional evidence that community recognition and patient outcomes are as potent in keeping interest as career advancement—an aspect that has been under-studied in previous research that tends to emphasize professional development per se. The multivariate regression analysis indicated that monetary rewards ($\beta = 0.42$, $p < 0.01$) and professional development ($\beta = 0.38$, $p < 0.01$) were significant predictors of participation. A subset of moderating variables, including payment mode and training location, affected the magnitude of the financial incentives, while years of experience and type of training facility affected the contribution of intrinsic motivators. These findings were consistent with

Vroom's (1964) Expectancy Theory, which highlighted the importance of contextual and cognitive appraisals in motivation. The results emphasized the opportunities and constraints of incentive methods, which differed under demographic, institutional, and geographical conditions. Younger nurses in resource-poor facilities, for instance, were more responsive to financial motivation, while advanced midwives focused on certification and mentoring opportunities. This comparative perspective is an important contribution to the literature, by showing that motivational interventions should be adjusted for different demographic and institutional conditions, instead of adopting a belief that all health worker groups would benefit from the same effect.

The study had some limitations, despite its important contributions. The reliance on self-reported information created the opportunity for recall and social desirability bias. Causality among motivational factors and participation outcomes was limited due to the cross-sectional design. The emphasis on rural district nurses and midwives may pose limited generalizability opportunities to urban environments or other health cadres. Future studies can look to longitudinal designs to measure changes in both motivation and participation over time, or to use mixed-method approaches to assess the impact or applicability, including observational or administrative data, to increase validity. Broadening the sample size to include urban locations and other health professionals, for example, community health officers or medical assistants, would better explore, in a broader context, the degree to which training engagement occurred at a systemic level.

Collectively, the results emphasized the multifactorial nature of health worker motivation in context-constrained settings that may be a reality. Contribution to NGO-led maternal and child health training programs was mediated by demographic and institutional backgrounds, wherein both external and informal factors interact in a dynamic, cyclic nature. Short-term motivations included stipends, allowances, and travel reimbursement to instill immediate commitment, but a consistent long-term commitment was maintained due to intrinsic motivators that included certification, mentorship, community recognition, and perceived patient outcomes. Developing effective training programs was thus necessary to balance short-term incentives with opportunities for professional growth, but also to recognize the socio-emotional and ecological aspects of motivation. Using these in practical aspects of policy and practice, NGOs and health authorities may enhance maternal and child health services in rural Ghana and could also add to the wider conversation on the motivation of health workers working in low-resource settings.

CONCLUSION

Maternal and child health (MCH) workshops by NGOs in rural Ghana are a key area of engagement for nurses and midwives, and this research illustrates how this engagement depends on an effective balance between external and internal motivators. Monetary incentives, especially cash payments, are crucial for initial participation, particularly with younger and less resourced staff members. On the other hand, intrinsic motivators such as certification, mentorship, and perceived benefits (improved patient outcomes) have been shown to correlate better with sustained engagement and longer-term commitment.

The results corroborate Herzberg's Two-Factor Theory, where hygiene factors such as payment security and suitable accommodation help fulfill individuals' satisfaction of engagement, and motivators like professional expansion and awards increase engagement levels. Vroom's Expectancy Theory also describes how contextual factors such as the place and method of payment in relation to training moderate the value of the rewards and impact decision-making regarding participation. The research also highlights the psychological and social advantages of environmental change. Urban-based training programs offer relaxation, socialization, and opportunities for exposure that are not normally obtained in rural settings, thus motivating participants beyond financial motives.

A number of suggestions are put forward based on these observations. NGOs and health departments should integrate timely and relevant cash payments with clear and systematic professional incentives such as certification, mentorship, and career progression pathways. Cash payments should be prioritized, and the mobile money system optimized for reliable services along with mutual trust and loyalty. To avoid dissatisfaction, training venues must ensure minimum comfort and hygiene standards, and urban training sites should be selected for their psychological and social benefits. The type of facility and the level of experience should also be part of the overall program – younger people are motivated by the financial aspects, while experienced midwives look for skill-building and recognition. A more longitudinal and multi-method approach will be needed in the future to document their motivation over time and involve diverse health worker cadres. These approaches will enhance the durability and efficiency of NGO-managed MCH training programs for improved maternal and child health in disadvantaged areas.

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