Midwives' Experiences of Rural Maternal - Newborn Care in Ghana: A Phenomenological Inquiry

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Abstract

Midwives' experiences of frontline healthcare delivery in rural maternal and newborn care have been minimally explored over the past two decades in low and middle-income countries but particularly in resource-limited settings, the situation is concerning. Understanding the dynamic influences that impact health care delivery in rural and remote settings is important for averting deaths, improving health outcomes and rural health care practice.

Purpose: This study aimed to understand, unveil the meanings and articulate the experiences of midwives who practice in rural settings in rural Ghana.

Sample: Thirteen (13) midwives who voluntarily participated in the study were purposively and conveniently sampled.

Methods: Interpretive phenomenology that integrated African philosophy was used to explore and unveil the meanings embedded in the experiences of midwives practicing in South rural Ghana.

Findings: The findings establish that midwives make sustained serial efforts to save maternal and newborn lives however, midwives' ethnic background, age, gender and family situation influence their retention in rural health care settings where they work alone under stressful conditions as skilled care birth attendants. Community recognition and supportive community participation

positively impact midwives' practice in spite of unattractive living and working conditions. Future research needs to investigate the dynamic influences of chiefs, queen mothers and community leaders on emergency obstetric and newborn health care service delivery.

Conclusion: The rural environment poses significant risks and barriers to safe and ethical health care delivery for women and newborns in Ghana. The intricate dynamics of midwives' age and family life, limited support in skilled care delivery and community participation influences midwives' intention to stay in rural practice.

Keywords: Rural, Midwives, Pregnant Women, Labour, Newborns, Ghana

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The increasing trend in global neonatal mortality rates over the past decade projects a crisis situation in resource-constrained countries where such deaths predominantly occur. Deaths in children under the age of five declined worldwide from approximately 12.7 million in 1990 to about 5.9 million in 2015 (United Nations Inter-Agency Group for Child Mortality Estimation [UN-IGME], n.d.). Recent evidence establishes that of these under-5-year-old-deaths, neonatal deaths now account for about 46% (UN-IGME, n.d.) compared to 41% in 2008 (Black, et al., 2010). It is concerning that two of the five World Health Organisation (WHO) regions bear the greatest burden of neonatal deaths; Southern Asia (39%) and sub-Saharan Africa (38%) and rural communities recording most deaths in both regions (UN-IGME, n.d.). Previous data establish that approximately 90% of these global neonatal deaths were concentrated in Southern Asia and sub-Saharan Africa (UN-IGME, n.d.). This concentration portrays a skew in mortality trends towards economically-constrained settings where country capacity to implement proven interventions are consistently limited (Fehling et al., 2013; Partnership for Maternal, Newborn & Child Health, 2016; Wiseman et

al., 2016, WHO, 2020). The factors which have been extensively documented as limitations to maternal and newborn health care include inadequacies in number of required skilled birth attendants (Lassi & Bhutta, 2015; Liu et al., 2015), low skill development and unavailability of essential medical resources (Lori et al., 2012; Nkwonta, & Oyetunde, 2017), poor health referral systems (Adanu, 2010; Enweronu-Laryea, et al., 2008), and lack of involvement with local communities (UN-IGME, n.d.).

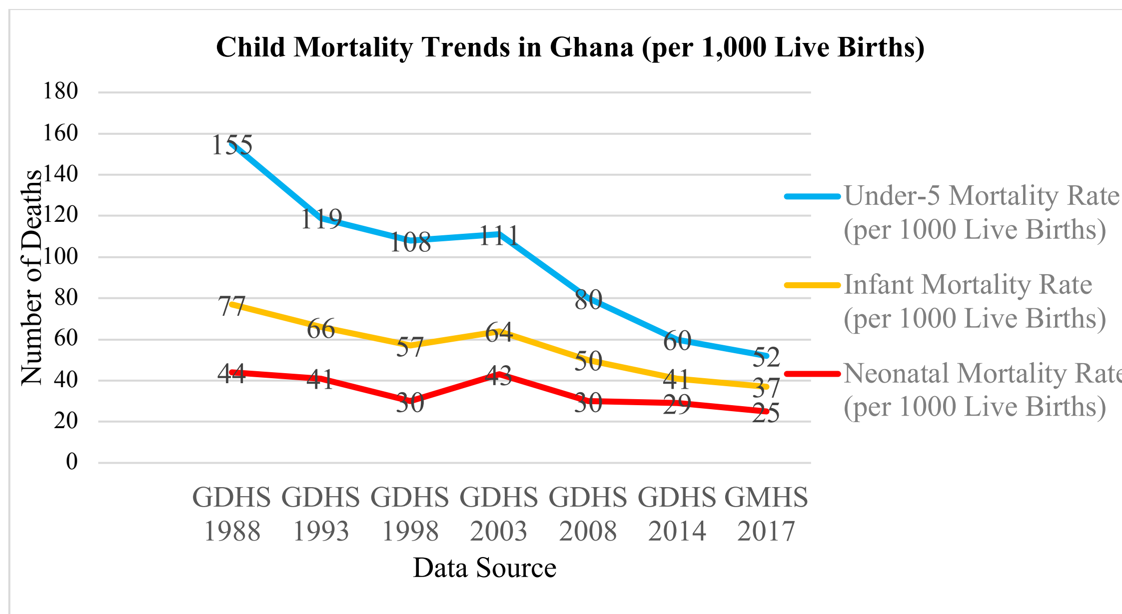
The inter-related nature of these factors engenders a complex continuum of experiences related to moral distress, job burn out (Austin et al., 2013), low staff retention and staff attrition (Erim et al., 2018; Lori, et al., 2012) of health care workers typically midwives in low and middle-income countries (LMICs) who work as front-line health care workers in maternal and newborn care. These factors increase the risk of neonatal death, mostly in the first 24 hours of the newborn's life (Avoka et al., 2018; Baqui et al., 2016; Welaga et al., 2013); the time of critical vulnerability. To achieve Sustainable Development Goal (SDG) 3.2.i.e., reduce neonatal mortality to at least 12 per 1000 live births (United Nations, 2015), concerted efforts that are guided by locally-generated research evidence and supportive policies are recommended (Liu et al., 2015; Wiseman et al., 2016). The predominant causes of global neonatal mortality, known to be preventable, are established in a global systematic analysis where more than 80% of the neonatal deaths were attributed to three main preventable and treatable conditions, that is; preterm birth complications (15.4%); intrapartum-related complications, including birth asphyxia (10.5%); and neonatal sepsis (6 .7%) (Liu et al., 2015). Understanding the factors which account for the prevailing pattern of deaths within the first 24 hours of newborn lives (Baqui et al., 2016) and first week of neonatal life (Bhutta et al., 2013; Engmann, Khan, et al., 2016; Lawn et al., 2011) is important for informing existing programs and implementing specific measures to address related issues. In this phenomenological research,

midwives' work as frontline line health care providers in maternal and newborn health care in Ghana was explored in relation to these preventable deaths. It is important to understand that midwives' optimal engagement with pregnant women within an enabling environment during the antenatal period and labor and delivery is advantageous to the prevention of newborn mortality.

In Ghana, a sub-Saharan African country where this study was conducted, neonatal deaths account for approximately 60% of infant mortality (Ghana Statistical Service (GSS), 2011). While the neonatal mortality rate in Ghana was as high as 29 deaths per 1,000 live births, the deaths were mainly concentrated in rural areas (GSS, 2015). Although there has been a reduction to 25 per 1000 live births (GSS, 2018), the decline in neonatal deaths have been relatively slow (Figure 1).

Figure 1

Child Mortality Trends in Ghana



Combined Data (Ghana Statistical Services [GSS], 1989, 1994, 1999, 2004, 2009, 2018) on Ghana Demographic Health Surveys [GDHS], 1988; 1994, 1998, 2003, 2008, and Ghana Maternal Health Survey [GMHS], 2017

The main causes of neonatal mortality in Ghana are preterm birth complications, intrapartum related complications (including birth asphyxia), and sepsis (Engmann, Walega, et al., 2012; Welaga et al.,

2013) which are consistent with those of other LMICs (Baqui et al., 2016; UN-IGME, n.d.; WHO, 2015).

In Ghana, geographical variations influence the prevalence of neonatal deaths in a manner that calls for in-depth exploration into the determining factors (Avoka et al., 2018, Baqui et al., 2016). Lack of civil registration data, poor geographical and financial access to quality health care service (Moyer et al., 2012), limited skilled birth attendance (GSS, 2015; Issah, et al., 2011) and weak referral systems (Adanu, 2010; Enweronu-Laryea et al., 2008) characterise the contextual reality of working in communities, typically rural settings. The Ghana National Health Insurance Scheme (NHIS) became operational in 2005 as a pro-poor measure to replace the previous 'Cash and Carry' health care system (Agyepong & Adjei, 2008; National Health Insurance Authority [NHIA], 2013). Under the NHIS scheme, maternal and newborn health care services are free for registered members but mothers need to purchase or pay out of pocket for their own health care supplies when required items are not available.

Narratives behind the numerical evidence on neonatal deaths are sparse within the extant of literature (Heringhaus, et al., 2013) but is critical to developing context-specific data to establish support systems for pregnant women, newborns, and midwives in rural practice. Each numerical data point on neonatal deaths encapsulates a story that illuminates the issues surrounding cause of morbidity and mortality- related events when audits are done (Kerber et al, 2015; Mills, 2011). In this phenomenological study, the focus of midwives' experiences in rural settings is rooted in the fact that, their work as frontline health care providers in maternal and newborn care in Ghana have minimally been explored. An interpretive phenomenological approach was used to unveil midwives' experiences with rural practice to guide current interventions and shape future programmes. The new

knowledge generated in this study fills a critical knowledge gap in rural health care delivery in Southern Ghana.

Methodology

Interpretive phenomenology (IP) that integrates Heideggerian (Heidegger, 1927/1962) and African philosophy were used to explore, unveil the meanings and articulate the experiences of midwives in rural clinical and community practice. Interpretive phenomenology extends beyond description to unveil the meanings through understandings gained in the art and act of interpretations of human experiences (Dreyfus, 1995; Gadow, 2000; Heidegger, 1927/1962). Phenomenological concepts on the person, being, existence, culture, causality and communality were explored within an African context. Midwives described their African ontology about newborn lifesaving in a communal and typically, spiritualistic nature that is grounded in the belief that both the spiritual and non-spiritual worlds are real (Gyekye, 1995; Wiredu, 1996; Wiredu & Gyekye, 1992). The integration of IP tenets with African philosophy engendered a woven tapestry of unique inter-subjective experiences that are unique to the African population (Gyekye, 1995; Tutu, 2000; Wiredu, 1996) specifically midwives engaged in rural practice. Through critical reflection on the shared world of the participants and immersion in the spiraling interpretation of the research data, researchers were drawn into a broader pattern of the participants' lifeworlds (Conroy, 2003).

Ethical and Institutional Approvals

This exploratory study received approval from five review bodies; i.e., the ethical review boards of the University of Alberta, Canada - Approval ID: Pro00044075; Noguchi Memorial Institute for Medical Research (NMIMR) Ghana - Approval ID: NMIMR IRB CPN 108/13-14; and the Dodowa Health Research Centre- Ghana (DHRC) -Approval ID: DHRC/IRB/14/11. Institutional approval was obtained from the management of the Shai-Osudoku District Health administration;

and Greater Accra Regional Health Directorate – Ghana. Research participants gave written informed consent and were made aware of their rights to privacy, confidentiality and the option to withdraw from the study at any time without penalty.

Context

The study was conducted in Ghana, a West African country located in sub-Saharan Africa. Nursing and midwifery personnel constitute the majority of health professionals involved in the care of maternal and newborn health in Ghana (GSS, 2014). The total population of Ghana was approximately 26.8 million in 2014 (World Bank, n.d.) of which 47% reside in rural areas (WHO, 2015). According to the WHO Statistical report, the nurses/midwives' density ratio per 10,000 population in Ghana is 9.3 (WHO, 2015). Approximately 51.8% (30,502) of this District's population are females living in 167 communities, which are served by only 22 midwives in the Shai-Osudoku District Assembly (District Planning Coordinating Unit [DPCU], 2015). This means that the density ratio of midwives to female population in the District is approximately 7.2 midwives per 10,000 females. During 2016, 1,698 births were registered consisting of 885 males and 813 females in Shai- Osudoku (DCPU, 2017).

Rural communities in Ghana are sparsely populated, people farm for both economic and domestic purposes and primarily depend on natural resources such as lakes and rivers for subsistence living. The study was conducted in the Shai-Osudoku District in the rural southeastern part of Ghana in the Greater Accra Region. This rural district has the largest surface area with a total population of about 58,885 (DPCU, 2015). The primary means of affordable transportation is the trotro (a 12- 20-seater minibus that has a back-storage compartment for carrying goods such as farm produce, food, plastic containers, and clothing). Additionally, the okada (local motorcycle with a rider and 2-3 pillion riders) is a faster but relatively expensive means of transportation, which is often used when

patients need to be referred and transported. Traveling on a trotro and okada via the bumpy roads with pot holes, present transportation challenges, which worsen with the onset of tropical rain season. The roads become inaccessible and subsequently complicates transfers in case of referrals during neonatal and obstetric emergencies.

Population and Sampling

Thirteen midwives (N=13) were purposively and conveniently sampled from eight (8) rural birth settings in the Shai-Osudoku District to voluntarily participate in the research. The inclusion criteria were midwives who had practiced in the Shai-Osudoku District continuously for at least three (3) months and were willing to participate in the study. Midwives who lived the experience were engaged to develop rich narratives on the phenomenon (Munhall, 2012; Polit & Beck, 2012) of rural maternal and intra-partum care.

Data Generation

Data were collected using audio-recorded research conversations with the midwives, field notes, and reflective journaling. The research conversations lasted between 35 minutes to 120 minutes. All the midwives were engaged in research conversations at least once; represented as Round (R) # 1; and six were interviewed a second time (R# 2) to probe and elucidate meaning and understanding of the shared rural experiences in developing rich narratives. Three midwives were engaged in a third conversation (R# 3), to increase in-depth understanding of their rural experiences. Emerging themes from the verbal transcripts were synthesized with data from the field notes, reflective journal and commentaries from two independent readers to produce detailed co-constructed understandings of the midwives' rural birth experiences.

Data Synthesis

Guided by Conroy's interpretive framework (2003), data gathering was concurrent with synthesis. In Conroy's analytic framework, the Hermeneutic Principles of Research (HPR) and the Hermeneutic Development of Commentary (HDC) were integrated into the six 'Research Aspects' in the hermeneutic spiral (Conroy, 2003) to produce a synthesis of the evidence on midwives' rural birth experiences. Conroy's six Research Aspects are: (i) attending to footprints and engaging in concurrent preliminary interpretation; (ii) in-depth interpretation; (iii) independent reader introduction to the narratives; (iv) paradigm shift identification; (v) exemplary development; and (vi) principle development (2003). Six (6) major themes emerged from the narratives of which three (3) are presented in this study. In Research Aspect One, the audio-tapes were transcribed and verbal transcripts read and re-read several times to identify threads in the textual data in and across interactive sessions in an iterative manner in an attempt to unwrap 'background' meaning of the midwives' experiences. In IP, our Background is the 'place' where our mind, coping skills, practices and discriminations into which we are socialized, are situated with an understanding that our practices are influenced by our beliefs and knowledge (Dreyfus, 1995).

The data from the voice and written text, field notes, reflective journal, were synthesized to produce narratives of midwives' experiences. In Research Aspect Two, the researchers' preliminary interpretations of the narratives were given back to the respective midwives for comments on representations of their experiences as expressed. Our intuitions and insights on the midwives' commented narratives were documented in the reflective journal and tentative concepts and categories compiled. In Research Aspect Three, the two Second readers' comments regarding the midwives' and researchers' preliminary interpretations were compiled. Similarities or differences within the stories and interpretation within and across sessions were synthesised and narratives written. The participants verified the synthesized data before it was finalized to establish confidence

in the data and its respective interpretations. Active dialogue about the interpretive processes engendered opportunities for co-creating new knowledge A paradigm shift (Research Aspect Four) was engendered as the researchers faced the reality of changing ways of 'seeing' and coping with the midwives' world, and making optimal alterations to interact in the future. These shifts were based on the data and its deeper understanding of rural midwives' as brave, focused, resilient and dedicated skilled care providers who remained committed to saving maternal and newborn lives in resource-constrained communities. In Research Aspect Five, cases that demonstrated consistencies in knowledge, skills, concerns and meanings, knowledge common to midwives' experiences in rural practice were established as exemplars to produce a rich description of rural midwifery practice.

In the final Aspect (six), all the narratives were examined in relation to the literature to establish principles that guide safe rural midwifery practice. The entire data synthesis was an inherently iterative process which required constant reflection, an engagement with our Backgrounds (Heidegger, 1927/1962), an attitude of openness (Conroy, 2003), and self-immersion within the research data (Polit & Beck, 2012). This immersion impacted fore-understandings (Heidegger, 1927/1962) of midwives' life-worlds to produce an understanding of rural birthing experiences. These fore-understanding emphasize the importance of our lived time in our current circumstances in order to gain an explicit understanding of the significance of our backgrounds (Heidegger, 1927/1962). Conroy's integrated framework was used to engage researchers, study participants and independent readers in the hermeneutic spiral (2003) to produce an in-depth description and interpretation of midwives' experiences. The interpretive process is a mutually created data, which supports the synthesized evidence on co-constituted understandings of the meanings embedded in midwives' lived experiences.

Methodological Rigor

To establish trustworthiness and integrity within this research process (Sandelowski, 1986), Munhall's (2007; 2012) evaluation criteria which draw on Heideggerian philosophy was adopted. These criteria involve ―One P (meaning a phenomenological nod of agreement when listening to or reading the text) and Ten R's. Nodding is done in agreement that the researcher has grasped at least partially the meaning of participants' experiences. The Ten R's represent; readability, representativeness, resonancy, recognisability, revelations, raised consciousness, relevance, responsibility, reasonableness, and responsiveness. To ensure readability, jargons were avoided in all documentation related to participants. Quotes and metaphors expressed by participants were expressed in midwives' own words, thematic titles, and artistic representations to firmly ground the synthesis in the participants' life words to establish resonancy. The participants also verified the synthesized data before it was finalized to establish confidence in the data and its respective interpretations. To establish representativeness, multiple data sources (verbal transcripts from audio recorded conversations, field notes, reflexive journal, and independent reader comments) were used to represent several dimensions of participants' experiences within the research process. Drawing on our African backgrounds posited us to recognize and share in participants' experiences. Through self-immersion in the data, keeping a reflexive journal and entering the hermeneutic spiral with an open and questioning attitude (Conroy, 2003), enabled us to see things as they appeared to us, noting what was revealed in order to explore what was being concealed towards a deeper understanding of the midwives' experiences.

Study Findings

The major themes, which emerged from the synthesized data provided illuminating evidence on the complex contextual realities that impact midwives' rural practice in Ghana. The three major themes that emerged were: a) Relationality in Rural Midwifery Practice; b) Hemmed in between

Rural Maternal and Newborn Emergencies; and c) An Engagement with Equipment in Rural Birthing Spaces. These themes illuminate the loose but knitted context of the complexities that confront midwives in rural practice. An overarching theme was "lone practice"; however, elements of midwives' African cultural values and professional ethics permeated the shared experiences. For ethical reasons, pseudonyms were used for all the midwives involved in this study.

Relationality in Rural Midwifery Practice

In rural Ghana, midwives live, work, and interact with pregnant women within co-constructed relational spaces where communal values are respected to maintain harmonious inter-subjective experiences. Within the African setting, the natural inclination to assume and exhibit communal values is rooted in the social expectation that others must connect with one another in an extended self, relinquishing self and "beingness alone", and taking on "beingness with others" to create a flourishing community (Menkiti, 2006). This backbone of African ethics emphasizes a "we" thinking rather than an "I" thinking, and the reverse in this philosophical thought creates dismemberment (Armah, 2010). In this study, lone practice was a common phenomenon among the rural-based midwives. The midwives often practiced alone as skilled birth attendants with support from auxiliary nursing staff, that is Community Health Nurses [CHNs], Enrolled nurses [ENs], and Health Care Assistants [HCAs].

One midwife who is the only skilled birth attendant in the rural birth setting discussed her encounter with community members including the Chief (head of the community) and Elders (R # 1):

> Oh! I have! As for friends in town, hmm… I have p-l-e-n-t-y! [voice emphasis]; and also, sometimes when they organize harvest at their churches, I go there! Even sometimes they don't invite me, but I will hear someone is naming her child - she delivered here; then I will go, aha!

> So as for a funeral, almost every funeral, I am there with them, ahah! Even when I go to Amrale [name of midwife's family residence in the next town], on Saturday, I will come to the funeral and go back [to residence]. Weddings too, mostly I go! So, it's like now, I am part of the town, mmhhh [raises the tone of voice, smiling and gesturing in chair]. I am part of the community! They really appreciate the work I am doing. Even when I am going on leave, I have to inform the Chief and Elders and they might not even allow you to go. (UME-A2).

In another rural birth setting within the same district, one midwife shared her unique experience of weak community relationships and how losing a baby in rural practice can damage one's integrity as a health professional:

> The community is not much involved in the welfare of the clinic; that is what I have experienced so far. There is no interpersonal relationship between health workers and community members…You tend to do everything you can just to save the baby because this mother needs her baby and even you, as a midwife will earn a bad name in the community if you should lose the baby. People will think you are not qualified. (UME-A5, R#1).

In lone practice, midwives benefit from traditional health volunteer work schemes. Such support enhances community relational experiences and influences intention to stay in rural practice. One midwife shares her relational experience with community volunteers:

> It is wonderful working in the rural setting and when you relate with them well, you gain their trust, and anything you tell them, they listen and anywhere they see you [smiling], they will call you. They [community health volunteers] are sort of volunteers, but let me say, the backbone of the clinic. They are people in the community who have nominated themselves to help us... [We] have their phone numbers. (UME-A3, R#1).

In another rural health setting, a midwife who is the only skilled birth attendant feels a sense of commitment to the community and subsequently demonstrates her commitment to maintain a harmonious communal relationship (Heidegger, 1927/1962) with minimal focus on herself:

> If you are a midwife and you are in a community and there is a case and they call you, you have to go [nods head affirmatively], and attend to the case. You are not supposed to travel a lot, because they might bring a case whilst you are not around, and they will have to send the case to the hospital. When this happens, your people [community members] will not be happy with you. (UME-A1, R#1).

A midwife in lone practice narrates further how a neonatal death at her facility can break the graceful relational ties she has with her community, and this could have a negative lasting effect on her practice within the rural community:

> …and in a small community like this, immediately one mother loses the baby at your facility and the news gets to the community, you are finished! [increases tone of voice, opens eyes widely, and slaps her palms against each other whilst swinging head side to side]…5secs. They will be saying, ‘as for this facility when you go there to deliver, you wouldn't come home with your baby’. The news will go all [long stretch on the word ‘all’ as sounding like ‘aaalll’] around. (UME-A2, R#1).

The midwives' report about harmonious relationships with community members served as opportunities for strengthening ties with women, families and local leadership. Within the same district however, other midwives shared their experiences about fear of rejection and social stigmatization which were perceived as threats to community bonding and women's' optimal health-seeking behaviors.

Hemmed in between Rural Maternal and Newborn Emergencies

In rural spaces, the lack and or/malfunctioning of lifesaving resources such as suction devices, oxygen, self-inflating bags (ambu-bags), and medications impede effective resuscitation; timely referrals are subsequently indicated. However, poor geographical terrain, transportation challenges, and communication barriers delay the smooth transfer of mothers and newborns to the next level of care. The midwife's only option of transporting the pregnant woman or ill newborn from the rural birth setting to the next rural town may be an okada. These transportation options depend on the level of remoteness, time of day, road terrain and family's financial capacity to afford the transport charges. The resource-limited contexts pose life threatening situations that unite midwives, pregnant women, new mothers, newborns and their families in vulnerability on a continuum.

One midwife explains the means by which pregnant women who are experiencing prolonged labor, travel to the referral center for emergency care; however due to transportation challenges, pregnant women needing close monitoring sometimes travel without healthcare support:

> She [heavily pregnant woman] has to manage especially at midnight, sometimes on a motorbike when there is no taxi. You [pregnant woman in labor] have no choice than to go on the motor; sometimes we go with them and their relatives on the motorbike. You will pick another motorbike, but in a case where there is only one motorbike, you give them the referral note to go with their support person. I am the only midwife in this birth facility, I was here alone when the baby was birth asphyxiated, unfortunately for me, the mother had post-partum hemorrhage too; there was a tear because she pushed through the cervix. I just had to cork the perineum with a pad, then I had to leave the mother and come to the baby, because already, [intravenous] cannula was in situ. I just had to give normal saline and shift attention to the baby. So, immediately the baby responded, I went back to the mother to care for her. I didn't alert her

[mother] because she was already pouring [bleeding], if she [mother] gets to know [that] this is what was wrong with the baby, we may lose her; I just let her lie down to relax. (UME-A5, R#1).

In rural health emergencies, midwives in lone practice make sustained efforts to demonstrate professional ethics in critical clinical situations (Austin et al., 2013) where communicating health information could potentially create panic and endanger the mother and family. Midwives subsequently demonstrate their skilled obstetric activities at birth facilities, in taxis, and in the bush (en-route to referral center). In another facility, one midwife narrated her efforts to transport a mother and her retained second twin to the next level of care for comprehensive emergency obstetric care in order to save their lives:

> When I delivered the first one, with the second one, I had to do the examination to see whether there was any other second twin. With the second twin…the scan also, emmm, showed one cephalic, one breech. So, the one cephalic [presentation] is the one I delivered first. So, with the second one, I saw it was breech. So when we were transporting [on a motor bike], on the way… ohhh!...5s she said she wanted to push, I told her that she should not. But because I was having the forceps, the cord clamp and everything, I stopped when we were going, and she delivered on the way. (UME-A1, R#3).

In a follow up research conversation with one midwife who is in a lone professional practice, she shared her experience of facing a moribund baby with history of birth asphyxia in a geo-social context where poor transportation and communication networks rendered midwives, ill newborns and their families vulnerable to emotional and physical stress:

> There was one case where the client came in labor. The membrane bulged. That is when I was able to rupture it and saw the baby was in distress. …so, I tried also to resuscitate to see if the

> baby would respond to resuscitation. So, I was cleaning and felt the heartbeat. I proceeded on cleaning fast [demonstrates by hand] to revive the baby. That day… hhhmm, I did all my best to ensure the baby was fine. The baby was gasping [for air] so I had to refer the baby since I didn't have oxygen. It was during the day, so they went with a taxi. They went with a relative… I was alone and there was another client who was also in labor, so I couldn't leave that client and go with the relatives. I asked myself – what if something happens to this baby in the car? If I had gone with them at least, I know I will go with my ventilation bag and continue to be bagging [positive pressure ventilation] till we get to the referral center. (UME-A5, R#2).

Late reporting to the labor ward is a common phenomenon in the rural communities. This poses as a risk to the newborn and makes them vulnerable to respiratory distress as transition is made from intra-uterine to extra-uterine life. One midwife reveals the challenges of caring for a woman who reports late to the birth facility as a first time attendant in labor with a risk of respiratory distress at birth:

> Yes! First time you are seeing her! Yes! And she is in labor! And they [pregnant women] come in a critical state, so you can't send them back. I have two CHNs and one EN, but none of them have midwifery background! I am the only midwife. [having a look of frustration – eyebrows raised]. It is not easy at a-l-l. When you see the baby can't breathe well, the baby is not crying, the baby can't move, then you will just be shivering [gesturing with hands and entire body]. This might lead to you losing the baby because what you are expected to do, you may sometimes forget...5s because you are panicking…and the panicking alone will let you lose the baby! (UME-A2, R #1).

The urgent need to save newborn lives in emergency situations create fear and panic in midwives that discloses specific events. In a phenomenological sense, the unexpected events can

potentially occur as we actively let go of ourselves to meet the possibility of that particular occurrence in whatever form (Heidegger, 1927/1962). In a follow up research conversation (R#2), one midwife narrates the concerns with late reporting and the advance preparations she makes for such occurrences: "Some will come with normal pregnancies; some might come with head in perineum [baby's head in perineum]. You have to make sure that even after a delivery, you set up your delivery instruments". (UME-A5).

In lone practice, midwives who have Community Health Nurses, Enrolled Nurses and Healthcare Assistants in their settings engage their services to save maternal and newborn lives:

> I call the CHNs, ENs, and HCAs because I'm alone in the health center- the only one midwife in the health center – as for that one 'deɛ' (Akan language used to express emphasis) it's too much! So, I used to call one to help me. (UME-A1, R#2).

Having the support of other health staff offered opportunities for midwives to maximise their life saving efforts in rural birth settings.

An Engagement with Equipment in Rural Birthing Spaces

As a Low Middle Income Country (LMIC) (International Monetary Fund, 2016), Ghana has seen the gradual introduction of technology into its health care system particularly in urban health facilities where life support and mobility-assistive devices are available although not very common. In rural health centres or Community-Based Health Planning and Services (CHPS) compounds (i.e., local clinics at community levels), it is the inadequate number or lack of equipment in health care delivery and not the domination of technology that is challenging. In this study, midwives related to ambu-bags (self-inflating bags or bag and valve masks for positive pressure ventilation), bulb syringes (for oro-nasal suctioning), deep suctioning devices and electricity supply as basic to lifesaving in maternal and newborn care. With an understanding that the things around us appear as

'ready-to-hand' (Heidegger, 1927/1962), when in close proximity with life-threatening conditions such as birth asphyxia, midwives explored resources and improvised with local tools in the absence of medically approved bulb syringes for saving newborn lives. Families residing in rural settings need to purchase an enema syringe (locally referred to as *Bentoa*) from the local market for a price ranging between 13-15 Ghana cedis (approximately $ 2 – 3 U.S.) as part of required items on the maternity list for newborn oro-nasal suctioning at birth. In a research conversation, one midwife narrates her experience with available equipment and newborn lifesaving interventions:

> Sometimes you have a case that at the hospital, you would have the equipment to manage, but this facility…[…<3Secs], you don't have! [Increased tone in voice]. Ahah! Like you have an asphyxiated eerr, emmm…baby. You have done your resuscitation…you have done your ambubagging [… <3Secs], even with the bulb syringe for the suction, it does not go as deep as a suction machine. So, at the CHPS compound, we only have the bulb syringe so you can't go far [pharyngeal suctioning], you suck from the mouth and the nose, so you can't go deeper…you will see that the bulb syringe is not sucking everything. You may need a suction machine, but you don't have [drops both hands on lap in desperation]. In some places, they don't even have an ambu-bag or a bulb syringe. But sometimes when there is no bulb syringe, they use enema syringe [Locally referred to as 'Bentoa'] to improvise. So, with those basic things, every facility should have, and it should not be [only] one too! (UME-A2, R#2).

In health care crises situations, midwives engage in creative solutions. One midwife shares her experience with lack of equipment:

> When lights go off, I use torch or rechargeable lamps for deliveries…and if the lamps are not working, I use my phone light. When I get a case of a baby who is asphyxiated, I tell the relatives to look for a taxi. I bag [positive pressure ventilation] till the taxi comes and I bag in

the taxi till I reach the hospital… the bulb syringe cannot go far so when the baby breaths', you still hear it, so you still have to send the baby to the hospital. (UME-A3, R#1).

A midwife expresses concern about the lack of oxygen supply and the need to build her capacity in the use of basic life-saving equipment, specifically, mobile oxygen tank: "No, we don't have oxygen! But if they [District Health Authority] bring the oxygen here, I don't know how to use it, so I will call for them to come and teach me how to use it". (UME-A1, R #1).

In a similar situation, a midwife expressed challenges associated with lack of nasal oxygen prongs which makes the use of oxygen tank impossible, and the need to gain skills in oxygen usage:

> Midwives are assigned to the maternity ward only. Sometimes with the use of oxygen like this, we had to call another nurse to come and teach us how to use it. We were recently supplied with one; that is the cylinder but there was no oxygen for about three (3) months before they filled it. But now we lack the neonatal nasal tube- that is what we don't have. (UME-A7, R #1).

Another midwife narrates the dependence on family support and expresses the inherent frustrations in labor and delivery service:

> In our labor ward, most times I use the support persons; those who come with the client. I try to call on one person to come and assist me in the ward in case there is no one to help me. But they too, because they have no idea about the equipment you have to tell them what to pick, which is very stressful. Sometimes I ask myself – "am I the only midwife"? Because my other colleagues have support from the other midwives who are experienced but I am here alone! It's very challenging, very scary. (UME-A5, R#1).

Reminiscing delays in the requisition of medical supplies, one midwife explains how political leaders who traditionally hail from the community demonstrated their willingness to help to equip

birth facilities in the community. These unique inter-subjective experiences enrich the midwife's community relations, and shape strategic healthcare interventions initiated by indigenous members of the community serving leadership positions at the national level. The midwife explains in R#2: "I think my other colleague has made this requisition [for healthcare supplies], especially the MP [Member of Parliament], he wants to help us with those things, yeahhhh!], ...10s..So we are still on it. Sometimes you write the requisitions and the memo, [but] it takes time." (UME-13).

Delays in procuring age-appropriate basic health care supplies such as suction tubes, bulb syringes, nasal prongs and facemasks create challenges for optimal rural practice.

Discussions

The achievement of maternal and newborn health targets in LMICs requires a sustained focus on rural, remote and underserved communities. Within such places, health care systems need to be strengthened (Lassi & Bhutta, 2015; Sami et. al., 2018; Wiseman et al., 2016). A community-based approach that integrates local governance is recommended to improve maternal and newborn survival (Save the Children, n.d.; UNICEF, 2014). High rates of rural maternal and newborn deaths compared with urban has been a predominant issue in sub-Saharan Africa (WHO, 2015, 2020). The effect of consistent geographical disparities on women and children (Avoka et al., 2018) pose as a major challenge to meeting the SDG 3.2 target by 2030. Whilst midwives in rural practice experience numerous challenges as frontline health service providers in maternal and newborn health care delivery (Issah et al., 2011; Lori et al., 2012; Nkwonta, & Oyetunde, 2017), they make sustained efforts to save lives. In this study, major challenges that impacted midwives' rural maternal and newborn practice were skilled staff shortage culminating into poor skill mix, lone practice and distressing moments. Other areas of concern were late maternal reporting, weak referral systems, lack of basic life-saving resources, practice learning gaps and transportation challenges. In the midst

of these challenges, midwives made consistent efforts to demonstrate their social competence to increase their bonding with the community in order to gain the trust of the women and community in professional and facility-based health care.

To maintain harmonious communal relations, midwives had to express "*Sorge*" – by demonstrating pure concern (Dreyfus, 1995) and "paying attention" to that which mattered (Heidegger, 1977) to the Chief (head of the village), women, their newborns, families and the community. Similar to other contextual views, midwives as Africans in this interpretive phenomenological study reminisced; "I am because we are"; "you are because we are"; this is the concept of Ubuntu (Tutu, 2000) that is shaped by past, present, and future events (Dreyfus, 1995; Heidegger, 1927/1962). The midwives upheld their communal values and deemed harmonious relationships fundamental to their very existence and survival as healthcare providers in the community. Strong relational ties with key stakeholders including Chiefs, Members of Parliament, Community Elders, Health Volunteers and members influenced midwives' intention to stay or leave the work setting. However, health care delivery and practice issues which create inter-subjective tensions also generate moral distress among care providers (Austin et al., 2013; Reiger & Lane, 2013). Particularly, when called to respond in a morally appropriate way - to be present with the 'Other' (Austin et al., 2013; De Beauvoir, 1985) it becomes challenging for midwives to do so when in a lone practice or with poor skill mix. Lone practice was a common phenomenon for midwives in rural practice, however when an enabling environment is provided, midwives obtain support to deliver safe and competent maternal and neonatal care (Engmann, Khan, et al., 2016; Lassi & Bhutta, 2015). This support must be research driven, sustainable and locally informed (Save the Children, n.d.; Wiseman et al., 2016).

In this study, concerns about effective resuscitation and lack of knowledge in oxygen usage establish the need for midwives' capacity building. Research evidence establish that investing in the training of frontline health workforce is a cost-effective approach that strengthens health care systems (Floyd, 2013; UN-IGME, n.d.). Moreover, when midwives are educated and regulated to international standards, they build professional competencies to deliver 87% of midwifery service need in maternal and newborn care (United Nations Population Fund, 2014) towards optimal birth outcomes (Avoka et al., 2018; Enweronu-Laryea et al., 2008; Sami et al., 2018). The lack of basic life-saving health care resources makes maternal and newborn health care delivery a challenge. However, community members blame midwives for a neonate's death, and minimal consideration is given to existing contingencies such as skilled staff shortage, late time of the day, and non-availability of lifesaving resources such as oxygen supply and suction devices. It is important to think through the reality that pregnant women, who cannot afford the *Bentoa,* may be compelled to access traditional birth attendants (TBAs) services. Besides the *Bentoa*, the other items on the maternity list, which the pregnant women must purchase for labor and delivery, are sanitary pads, chlorine solution, wrap sheets, baby diapers, clothing, toiletries, and antiseptic solution (e.g., Dettol or Savlon). These health care demands need to be reconsidered to make facility-based delivery attractive to families.

The issue of late maternal reporting is not only related to financial limitation but to the cultural expectation that projects African women as enduring and strong. Research evidence has established delays in seeking health care (Issah et al., 2011; UNFPA, 2014) as a major setback to achieving optimal maternal and neonatal health outcomes in Ghana. The phenomenon associated with late reporting to the labor ward is a typical cultural sign of endurance amongst pregnant women to demonstrate their physical strength and resistance to labor pain at home prior to moving to the birth

facility. From a cultural perspective, "strong women" need to endure labor pain until the amniotic sac ruptures, or "Show" (operculum release) is observed.

New knowledge in this study serves as basis for improving skill mix, directing care capacity building strategies, maternal education, developing policies and implementing research-informed interventions to support rural midwifery practice and improve newborn health outcomes in rural Ghana.

Limitations of the Study

The shortage of midwives in Ghana poses a major challenge not only to pregnant women, newborns, families and clinicians, but also to researchers. Due to the limited number of midwives in the district where the study was conducted, researchers had to re-schedule research conversations on several occasions whilst on site, or by telephone where communication network was efficient since midwives had busy work schedules. Frequent travels over 80 – 100 km on marshy roads for a scheduled research conversation had to be cancelled on arrival on several occasions because the midwives in lone practice were busy with women in labor. Waiting for the midwives on such occasions presented significant challenges with data collection considering the look of exhaustion on midwives' faces and the need to reschedule interview appointments. The poor road network and inaccessible road terrain during the rainy seasons generally caused transportation barriers, which further limited the ease of access to the midwives.

Conclusion

The care of pregnant women, mothers, and newborns in rural settings engenders stress among midwives in resource-limited practice spaces. Addressing birth-related morbidity and mortality is a moral imperative that requires collective responsibility to ensure maternal and neonatal well-being. It is critical that integrated efforts be made to strengthen community-based care in rural communities

using feasible culturally engrained and sustainable approaches that promote midwifery practice and optimal newborn health care. It is expedient that future research explores the experiences of pregnant women and spouses or partners, TBAs, stakeholders, and community leaders in birthing in rural communities.

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