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IMPLEMENTATION OF EVIDENCE-BASED MATERNITY CARE AND PERCEIVED CHALLENGES AMONG MIDWIVES AT HOLY FAMILY HOSPITAL TECHIMAN-GHANA

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Abstract

Despite technological measures, maternal morbidity and mortality remain a major problem attributable to multifactorial factors including lacked utilization of evidence-based maternal care measures centred on providing care with little or no harm. The study assessed the implementation of evidence-based maternity care among midwives at Holy Family Hospital Techiman-Ghana. A descriptive cross-sectional study design was adopted for this study. A convenient sampling technique was used to select 150 midwives for the study. A structured questionnaire was administered to collect data from the participants. Out of one hundred and fifty (150) midwives who participated in the study, only 50.7% implemented the concept of evidence-based maternal care. About 58.6% of midwives were knowledgeable on EBMC protocols despite limited utilization whereas about 55.3% of midwives responded to have received training on evidence-based maternal care. The awareness and implementation of evidence-based maternal care was low among midwives. The study findings demonstrated the need for healthcare stakeholders to intensify the provision of effective interventions aimed at addressing health system challenges among midwives within the healthcare settings.

Keywords: *Implementation, Evidence-based maternity care, Midwives.*

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Introduction

Corry (2020) defines the concept of health-related evidence at a basic level as 'facts (actual or asserted) intended for use in support of a conclusion about health events. The Strategic Policy Making Team (SPMT) (2019) gave a more inclusive definition of evidence on the basis of context and implementation as 'high quality information, derived from a variety of sources or expert knowledge; existing domestic and international research; existing statistics; stakeholder consultation; evaluation of previous policies; new research, if appropriate; or secondary sources that are intended to promote changes in health care events. According to the Department of Health in the United Kingdom (DH) (2019), evidence-based care within healthcare settings is scientific in nature, with its results derived from rigorous, objective, scientific inquiries. In the medical world, Sackett et al. (2019) described evidence-based practice as the conscientious, explicit, and judicious use of current best evidence in making decisions about the care of individual patients.

Evidence-based maternity care (EBMC) in midwifery-led care is rooted in literature reviews, primary research, and knowledge transfer through systematic reviews, guidelines, audits, and evaluations. Corry (2020) defines EBMC as the integration of education, practice, and research to guide maternity care decisions, ensuring safety and effectiveness for mothers and newborns. Therese et al. (2023) emphasize that EBMC involves safe, patient-centered, effective, timely, and equitable care, with a focus on respectful, minimally invasive practices that cause no harm. Adatara et al. (2021) note that midwives using EBMC prioritize effective, quality care with minimal risk. The primary goal of EBMC is to provide optimal care while minimizing harm to both mothers and newborns (Biza et al., 2021).Previous researchers had suggested that the principles of evidence-based maternity care involve, but are not limited to, the conduct of systematic reviews of old practices in order to gain more knowledge about the beneficial and harmful effects of specific interventions or care. (Corry, 2020). Evidence-based maternity care is therefore important to ensure that policies and practices in midwifery care are guided by the best available research or studies. Several other studies have indicated that evidence-based maternity care is derived from the principles of systematic reviews, randomized controlled trials (RCT), and experimental and expert reviews that promote a high quality of care for childbearing mothers (Biza et al., 2021; Elham et al., 2022).

Evidence from a study by Elham et al. (2022) revealed that evidence-based maternity care involves methods such as the control of induction during labour for convenience, tubs, using labour support mechanisms and other approved non-pharmacologic pain relief measures, and stepping up to epidurals only if needed, coupled with applying the many available measures for promoting labour progress before carrying out compress medical procedures such as caesarean sections.

According to Corry (2020), evidence-based maternity care does not support the constant use of some common medical practices applied in maternity care, including continuous electronic foetal monitoring, numerous prenatal tests and treatments, rupturing membranes during labour, and episiotomy. Biza et al. (2021) stated that evidence-based maternity care supports vaginal birth instead of caesarean section, midwifery-led care instead of physician-led care, as well as respectful care of women and families, including clear communication, the provision of high-quality information, and control over decision-making. According to Banchani and Tenkorang (2021), evidence-based maternity care provides support and protection for childbearing women from interference while also helping labouring women experience high levels of endogenous pain-relieving opiate beta-endorphin and endogenous oxytocin, which promote the labour process and inhibit postpartum haemorrhage. Again, research supports non-supine positioning, delayed cord clamping, and immediate skin-to-skin contact during pushing and delivery compared with routine episiotomy, which does not support women but rather exposes them to risk (Kukura, 2019).

Evidence-based maternity care forms an important component of the health care system across the world and renders invaluable health care services to childbearing women and new-borns (Elham et al., 2022). According to Kukura (2019), women receiving evidence-based maternity care are less likely to rely on pain medication, episiotomy, vacuum extraction, and a caesarean section than similar women receiving usual care. The reports further state that caesarean sections and other complicated procedures used during labour, such as the persistent use of artificial inductions to stimulate labour, increase the risk of complications for women and babies without offering clear health benefits.

Furthermore, Elham et al. (2022) stated that complications such as maternal death, emergency hysterectomy, blood clots and stroke, surgical injury, longer hospitalization, re-hospitalization, infection, poor birth experience, less early contact with babies, intense and prolonged postpartum pain, poor overall mental health and self-esteem, and poor overall functioning attached to caesarean sections and other medical procedures in maternal care validate EBMC as a more holistic approach to the care of childbearing mothers. Additionally, women given inductions are more likely to experience foetal monitoring, epidural analgesia, assisted delivery by forceps or vacuum extraction, postpartum haemorrhage and transfusion, a longer intrapartum period and postpartum stay, and higher costs (Lee et al., 2022).

Despite limited implementation, evidence-based maternity care promotes maternal care that is less harmful than more complicated procedures that pose a risk to childbearing mothers (Banchani & Tenkorang, 2021). Moreover, in order to achieve the best care for childbearing mothers, it is necessary that midwives use the best available research on the safety and effectiveness of specific practices to help guide their decisions and facilitate optimal outcomes among mothers and new-borns.

Statement of the Problem

Currently, healthcare for women during childbirth is complicated. According to Kukura (2019), childbearing mothers are exposed to interventions with a greater risk of established harm, such as caesarean sections and the induction of labour through the use of synthetic oxytocin, without a clear medical rationale. On most occasions, childbearing women are left with these practices without being given alternatives to less risky interventions (Gebreyohannes et al., 2020). Despite the constant use of these technological measures in modern healthcare systems, maternal morbidity and mortality remain a major problem in most developing countries (Lee et al., 2022).

In 2020, a total of 295,000 women lost their lives due to pregnancy and childbirth across the globe, with sub-Saharan Africa accounting for approximately 86% of all maternal deaths. In Ghana, the maternal mortality ratio remains high, with 310 deaths per 100,000 live births, despite attaining the status of middle-income status (Ghana Maternal and Health Survey, 2020). This rate is alarming when compared with lower-middle-income countries like Sri Lanka, India, and Bangladesh, which reported a maternal mortality ratio of 30, 174, and 178 deaths per 100 live births, respectively (Ghana Maternal and Health Survey, 2020).

Chirwa and Nyasulu (2022) reported that in most occasions the high prevalence of maternal mortality rates and other maternal health problems could be attributable to a lack of quality health care policies that are geared towards the promotion of evidence-based maternity care, with an emphasis on providing care with little or no harm. Gebreyohannes et al. (2020) argued for the adoption of evidence-based interventions such as the promotion of prenatal vitamin usage, smoking and alcohol cessation interventions, preventing preterm birth, and hands-to-belly manoeuvres to turn foetuses to a head-first position before birth. Evidence-based measures before and during pregnancy, during, and after birth, such as labour support, non-supine positions for birth, delayed cord clamping, and early mother-baby skin-to-skin contact, as well as breastfeeding support measures, must be promoted by midwives in maternal care settings (Côrtes et al., 2022).

It is disheartened to know that despite the availability of quality systemic reviews of evidence-based maternity care initiatives, midwives underutilized these policies, practices, education, and research while taking into consideration harmful and inappropriate practices that foster risk to mothers (Kukura, 2019). According to Grol and Grimshaw (2019), the implementation of new evidence and interventions has proven to be a tedious and slow process among all healthcare professionals. The report further states that there is much resistance to change, especially when the evidence calls for an unsolicited change in old practices. According to Grol and Grimshaw (2019), the inability of midwives to adopt and implement evidence-based maternity care could be a result of challenges ranging from inadequate in-service training, limited knowledge of health policies by midwives, increased workload, risks of infection, low motivation, inadequate labour wards, and problems with transportation, among others. This problem necessitated research to examine the implementation of evidence-based maternity care among midwives in the Holy Family Hospital of Techiman, Ghana. The study aimed to examine the implementation of evidence-based maternity care among midwives at Holy Family Hospital Techiman, Ghana. The specific objectives is to examine the utilization of evidence-based maternity

care among midwives at Holy Family Hospital, Techiman.

Materials and Methods

The study adopted a cross-sectional descriptive design to assess the implementation of evidence-based maternity care among midwives at Holy Family Hospital, Techiman, Ghana. The target population for this study are midwives working at Holy Family Hospital, Techiman. There are 240 midwives at The Holy Family Hospital (HFH). The sample size for this study was 150 midwives.

Convenience sampling was used to select midwives from Holy Family Hospital Techiman. Midwives who are easily accessible, available, and agree to participate in the study were selected for the study. A structured questionnaire was deployed to collect data for analysis. The researcher used both open-ended and closed-ended questions in the questionnaire for effective data collection. In this study, quantitative data collected from respondents were entered and analysed using SPSS software for Windows (version 26.0).

Results

Socio-demographic characteristics of midwives.

Among the total 150 distributed questionnaires, 150 completed data were returned, making a response rate of 100%. This meant that, one hundred and fifty (150) midwives from the study area were recruited into the research study. The mean age of midwives were 33.13 (5.72). About 73 (48.7%) out of 150 midwives were married at the time of study, whereas 42 (28.0%) and 26 (17.3%) were cohabiting, and single respectively. More than half, 81 (54.0%) of midwives had diploma as educational qualification whereas, 49 (32.7%) and 13 (8.7%) were degree and certificate graduates. Most, 92 (61.3%) of midwifes had 5 – 10 years working experience while33 (22.0%) of midwives had below 5 years working experience. With regard to the number of working hours, the results in table 4.1 depicted that, more than half, 87 (58.0%) of midwives were working more than the normal six (6) hours. Again, the results showed that most, 89 (59.3%) of midwives had patient load of 10 – 20 patients at the hospital whereas, 44 (29.3%) and 17 (11.4%) of midwives were managing below ten (10) and more than twenty (20) patients respectively.

Table 1: Socio-demographic characteristics of midwives (n= 150)

Variable	Category/Unit	Frequency (n=150)	Percentage(%)
Age of midwives (years)	(Mean ± SD)	33.13±5.72	
Marital status of midwives	Single	26	17.3
	Married	73	48.7
	Divorce	9	6.0
	Cohabiting	42	28.0
Educational Qualification	Certificate	13	8.7
	Diploma	81	54.0
	Degree	49	32.7
	Post-graduate	7	4.6
Work Experience	≤ 5 years	33	22.0
	5 – 10 years	92	61.3
	Above 10 years	25	16.7
Rank of Midwives	Staff Midwife	77	51.3
	Snr. Staff Midwife	16	10.7
	Midwife Officer	39	26.0
	Snr. Midwife Officer	18	12.0
Work Hours per Day	6 hrs. or less	63	42.0
	More than 6 hrs.	87	58.0
Patient Load	≤ 10 patients	44	29.3
	10 – 20 patients	89	59.3
	Not sure	17	11.4

SD- standard deviation; n- number; (%) – percentage Field Survey

Utilization of Evidence-Based Maternal Care among Midwives

Out of one hundred and fifty (150) midwives who participated in the study, only 76 (50.7%) utilized or applied the concept of evidence-based maternal care whereas; about 74 (49.3%) midwives stated that they did not utilize evidence-base maternal care. With regard to the knowledge acquired on evidence-based maternal care, more than half, 88 (58.6%) of midwives said they were knowledgeable on EBMC protocols whiles, only 62 (41.4%) of midwives said they did not understand the concept of EBMC protocols. About 83 (55.3%) of midwives responded to had received training on evidence-based maternal care whereas, 67 (44.7%) of midwives said they had not received any training on EBMC.

Table 2: Utilization of Evidence-Based Maternal Care (n= 150).

Variable	Category/Unit	Frequency (n=150)	Percentage(%)
Utilization of EBMC	Yes	76	50.7
	No	74	49.3
Knowledge on EBMC protocol	Yes	88	58.6
	No	62	41.4
Training on EBMC	Yes	83	55.3
	No	67	44.7

SD- standard deviation; n- number; (%) – percentage Source: Field Survey

Implementation of EBMC Components by Midwives

On the implementation of evidence-based maternal care concepts considered as less harmful and effective procedures of care for child bearing mothers and their newborns, about 78 (52.0%) of midwives compared with 72 (48.0%) said Yes and No respectively in the practice of non-supine position during childbirth. Most, 80 (53.4%) of midwives did not practice delayed cord clamping while only 70 (46.6%) practiced delayed cord clamp. With regard to the practice of skin –to – skin contact after birth, 82 (54.7%) compared with 68 (45.3%) of midwives said Yes and No respectively. Majority 93 (62.0%) of midwives were in support of vaginal delivery whereas, about 57 (38.0%) said No to vaginal delivery. In-terms of applying good communication, only 64 (42.6%) of midwives practiced effective communication whiles majority, 86 (57.4%) did not. About 79 (52.7%) compared with 71 (47.3%) said Yes and No respectively to supporting prenatal vitamin usage. The study results also showed that, about 80 (53.3%) supported alcohol and smoking cessation while, 70 (46.7%) midwives did not support alcohol and smoking cessation. However, in-terms of breastfeeding support, most 77 (51.3%) midwives practiced breastfeeding support whereas, 73 (48.7%) of midwives did not support mothers on breastfeeding.

Table 3: Implementation of EBMC Components (n= 150)

Variable	Category/Unit	Frequency (n=150)	Percentage(%)
Practice of Non-Supine Position	Yes	78	52.0
	No	72	48.0
Practice of Delayed Cord Clamping	Yes	70	46.6
	No	80	53.4
Practice of Skin –to-Skin Contact	Yes	82	54.7
	No	68	45.3
Support Vaginal Delivery	Yes	93	62.0
	No	57	38.0
Good Communication Practice	Yes	64	42.6
	No	86	57.4
Support Prenatal Vitamin Usage	Yes	79	52.7
	No	71	47.3
Support Alcohol and Smoking Cessation	Yes	80	53.3
	No	70	46.7
Breastfeeding Support	Yes	77	51.3
	No	73	48.7

SD- standard deviation; n- number; (%) – percentage Source: Field Survey

Discussion

The findings of this study reveal that only 50.7% of the 150 midwives who participated in the study utilized evidence-based maternal care (EBMC). This suggests that a significant proportion of midwives face difficulties in applying evidence-based protocols, findings, and standards in a way that minimizes harm to childbearing mothers. This low utilization rate could be attributed to a lack of enforcement of EBMC concepts in the healthcare system. When compared with existing literature, the findings from this study are at odds with some studies that reported higher utilization of EBMC. For instance, a study by the American College of Nurse-Midwives (2012) found that midwives in the United States actively incorporated current evidence into their practices to deliver effective maternal care. The higher adoption of EBMC in the American context could be due to stronger institutional frameworks and support for evidence-based practices, contrasting with the situation in the present study where only 50.7% of midwives utilized EBMC. Similarly, a study by Yohanis et al. (2023) conducted in central Ethiopia showed that midwives were often engaged in formulating clinical questions and searching for relevant evidence. Although midwives in this study may also be aware of EBMC, the challenge lies in their ability to effectively integrate evidence into practice, possibly due to insufficient resources or training. This suggests that while midwives may

acknowledge the importance of EBMC, barriers to implementation persist.

In Ghana, a study by Abekah-Nkrumah et al. (2022) reported that midwives, along with other frontline health workers, exhibited a high level of EBMC usage in their practice decisions. The higher level of EBMC utilization in Ghana stands in contrast to the findings of this study, where the adoption of EBMC was much lower. This difference suggests that institutional support, access to continuous training, and local healthcare policies may play a significant role in shaping the application of EBMC in different regions. Further support for the importance of institutional frameworks in encouraging EBMC adoption can be found in a study by Lanssens et al. (2022) in Belgium. This study found that midwives regarded the implementation of EBMC as essential and actively incorporated evidence-based protocols into their care practices. The contrast between Belgium's high utilization and the low utilization found in the present study highlights the role of systematic support for EBMC, such as the provision of evidence-based protocols and ongoing professional development. In Ethiopia, Aynalem et al. (2017) found that midwives had limited knowledge of EBMC, which hindered its application in practice. Their findings echo those in the present study, where midwives also lacked sufficient knowledge about EBMC. Aynalem et al. (2017) recommended improving access to evidence-based guidelines, enhancing internet connectivity, and providing specific training to healthcare providers. These recommendations align with the findings of this study, which suggests that increased training and better access to evidence-based resources could improve EBMC utilization.

In addition to these international studies, findings from various African countries have similarly reported low knowledge and application of EBMC. For instance, studies in Zambia (Monde et al., 2017), Ghana (Nkrumah et al., 2018), Nigeria (Baiomy et al., 2015), and Kenya (Kyalo Mutisya et al., 2015) revealed that a significant proportion of midwives had poor knowledge of EBMC utilization. The trends observed in these studies are consistent with the findings in the present study, indicating that challenges in the implementation of EBMC may be widespread across many African nations. These challenges may stem from a lack of training, limited access to resources, and insufficient institutional support.

Conclusion

The awareness and utilization of evidence-based maternal care among midwives was low. While midwives demonstrate awareness and commitment to best practices in maternal care, their efforts are often hindered by inadequate resources, lack of continuous professional development, entrenched traditional practices, and an unsupportive healthcare infrastructure. These barriers not only affect the quality and consistency of intrapartum care but also compromise the goal of delivering patient-centered, respectful maternity services.

Recommendations:

Based on the findings of the study, the following recommendations were made;

1. There management of the hospital should organize frequent training for midwives on evidence-based maternity care. Education is one strategy to promote evidence-based maternity care among care providers in facility-based childbirth.
2. Ministry of Health, Ghana should focus on providing midwives with the necessary equipment, protocols, guidelines as well as infrastructures to empower them for effective care of childbearing mothers.
3. Future research should examine the impact of the workshops both on sustaining evidence-based care of healthcare providers and on the experiences of pregnant women receiving health care services

Conflict of interest:

The authors declare no conflict of interest.

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