

## Exploring pragmatic acts in Ghanaian midwives' Facebook posts

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### ABSTRACT

In recent times, Ghanaian midwives are adopting social media to engage in outreach, patient education, and health and wellbeing promotion services. This study explores the pragmatic acts used by Ghanaian midwives in their educational posts targeted at pregnant women and women who have newborns (new mothers) on Facebook. Using the directed content analysis method, the study identified five types of pragmatic acts in the midwives posts. They are the introductory acts, explanatory acts, prescriptive acts, psychological acts, and closing acts. The findings show that during online maternal and child healthcare services, Ghanaian midwives mainly perform explanatory acts, prescriptive acts, and psychological acts to inform, guide, and support pregnant women and new mothers on Facebook. The use of social media for promoting maternal and child health care, especially in sub-Saharan Africa, is a relatively new phenomenon. However, it has the potential to provide immense help and support pregnant women and new mothers if used to complement in-person antenatal and postpartum care visits.

### 1. Introduction

To the general public with access to the internet, having health information online offers patients and even their caregivers a sense of flexibility, with fewer limitations in time and space (Kennedy et al., 2017). Thus, for the purpose of accessing health information, the number of people who visit social media platforms such as Facebook, Twitter (now X) and YouTube has risen exponentially in the past two decades (Roberts-Lewis et al., 2023). Some healthcare professionals including physicians, therapists, nurses, and midwives post healthcare information and offer medical knowledge on these platforms (Lu et al., 2017). Typically, they post texts, images and infographics, videos, and podcasts not just as one-way communication but also to foster dialogue and engage their audience (Neiger et al., 2013). Roberts-Lewis et al. (2023) observe that healthcare professionals who post on these platforms often employ media forms that are accessible, useful, and visually appealing to their audience.

Patients who require routine and non-urgent information may not need a physical consultation with a healthcare professional. Online accessibility reduces the need for travel to health centres and eliminates the wait for appointments (Ray et al., 2015). Also, there is a direct contact between healthcare professionals who can provide the information needed and the public with no gatekeeping (DeCamp et al., 2013). This form of convenience in addition to the anonymity that patients are guaranteed are important reasons why patients and their caregivers turn to social media for health information. The increased exposure of the general public to health resources through social media results in knowledge enrichment of a larger audience than through traditional means of dissemination (Baron & Ejnes, 2022). Pregnant women and women who have newborns (referred to as new mothers in this study) form part of the population that obtain healthcare information on social media platforms. Some of them even join social media support groups led by recognised professional midwives during the prenatal and postnatal period (McCarthy et al., 2017; Chatwin et al.,

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2021).

In Ghana, the Ministry of Health and Ghana Health Service have developed policy guidelines to ensure access to reproductive and sexual health services and family planning services and reduce rates of infant, child, and maternal deaths (Adu & Owusu, 2023). One of such policies is the Community-Based Health Planning and Services (CHPS) programme introduced in 2000 (Azaare et al., 2020). The goal of the CHPS programme is for people in every community in Ghana including the rural areas to easily access maternal and child health services in their communities, in order to achieve the then millennium development goals 4 and 5 targets, now sustainable development goal (SDG) 3 (see <https://sdgs.un.org/goals>). In different communities, CHPS centres act as the starting point for basic healthcare services. Specially trained community health nurses, equipped with basic obstetric knowledge, work at these facilities. They provide services to pregnant women, provide prenatal care, assist during childbirth, and refer women to advanced healthcare centres when necessary (Nyonator et al., 2005).

In 2008, the 'Free' Maternal Healthcare Policy (FMHCP) was also introduced. With this policy, every pregnant woman in Ghana is required to enrol in the national health insurance scheme (NHIS) without having to pay any fees. Pregnant women who enrol can access comprehensive maternal healthcare services at NHIS-accredited healthcare facilities at no cost, including up to 90 days after delivery (Dwomoh et al., 2020). Although there are disparities in maternal health services and the financial burden on families since the NHIS started, data indicate improvement in all three maternal health indicators: antenatal care, facility-based delivery, and postnatal care (Adu & Owusu, 2023). For instance, there has been an increase in the number of women in Ghana who received at least four antenatal care check-ups from trained health professionals and accessed antenatal services during their first trimester, which aligns with the WHO guidelines (gold standard) for routine antenatal care (Abuosi et al., 2024). Top of Form

Rezaee et al. (2022) note that in addition to accessing antenatal care in healthcare facilities, some pregnant women and new mothers search for information on social media to maintain healthy lifestyles during pregnancy, delivery, and postpartum period. Generally, these women seek online support and advice from midwives to prepare for childbirth and parenthood. Morse and Brown (2023) observe a continuous rise in social media use among this population. As earlier mentioned, these women often join midwife-moderated groups that offer maternity services to gain access to shared experiences and health engagement, to develop social and emotional support, and to improve their health outcomes. The midwives, through their posts, utilise different communication strategies to empower and support pregnant women in the online space. This trend is not limited to a particular geographical area—pregnant women and new mothers worldwide are increasingly engaging with midwives on social media (Marsh et al., 2023).

Facebook is the most popular and widely used social media platform globally (Jumaat et al., 2019; Van Couvering, 2021). The platform provides multiple services to users such as forming groups, instant messaging, and allowing users to post text messages as well as images and videos with captions that other users can 'like', 'comment' or 'share' (Jumaat et al., 2019). All of these options allow users to interact easily with each other, thereby maintaining social relationships. English is the primary language used for interaction on Facebook and other interactive online platforms, although occasionally, users intersperse their posts with single words or expressions from indigenous Ghanaian languages (see Thompson, 2019, 2021; Anderson et al., 2024). In terms of literacy, the 2021 Ghanaian census report shows that 96.1 % of Ghanaians aged 15 years and older can read and write in English (Ghana Statistical Service, 2021: 29). Health professionals trained in Ghana receive their training in English. Aside English, it is not a requirement for medical graduates to be proficient in any language. Thus, practice placement after training is done without consideration of linguistic competences in indigenous languages and cultures (Houphouet et al., 2018). It is, therefore, not surprising that Ghanaian health professionals who

disseminate health information through social media platforms such as Facebook do so mainly in English.

Using Facebook for disseminating health information serves various purposes. People with certain health conditions or a particular health need around the world can instantly obtain new information from others in a similar situation, support groups or health professionals on Facebook. In Ghana, Facebook users are estimated at 8.7 million out of 24.06 million internet users (Sasu, 2024). Majority (65.7 %) of the Facebook users are between the ages of 18 and 34 years, which coincidentally falls within the childbearing age range of Ghanaians (15–44 years) (O'Neill, 2024). However, there is no research into maternal and child healthcare on Facebook in Ghana.

Despite the progress made in maternal and child healthcare globally, the challenges in sub-Saharan Africa remain a pressing concern (Barros et al., 2010; Garenne, 2015; Sahoo et al., 2021). Various studies on the interaction on social media maternal and child healthcare focus on Western societies, but little is known about sub-Saharan Africa. Also, as noted by Blommaert (2010), scholars in health communication research tend to prioritise identifying effective communication practices over language analysis. He, therefore, calls for an evolution of discourse study in the broader sense. In response, the present paper contributes to a growing number of linguistic analyses that take into consideration social media communication and its social significance (Bouvier, 2016). It aims to explore the communicative functions of Ghanaian midwives' educational posts on Facebook. Specifically, it examines the pragmatic acts used by Ghanaian midwives in their Facebook posts in light of Mey's (2001) pragmatic act theory. The rest of the paper is organised as follows. 2 presents the pragmatic acts theory as the theoretical framework underpinning the study. 3 describes the data collection, coding scheme, and data analysis procedures. Findings are presented in 4 and discussed in 5. This is followed by some concluding remarks in 6.

## 2. Pragmatics Acts Theory

Mey (2001) introduced the pragmatic acts theory based on the speech acts theory. The speech act theory, developed by Austin (1962) and Searle (1979), seeks to establish the goals of language use. Scholars from various disciplines, with a focus on illocutionary force, have developed different kinds of speech acts including assertive, commissive, directive, performative, and verdictive utterances (Kreidler, 1998). Mey's (2001) pragmatic acts theory extends the speech act theory from a more socially grounded perspective. To him, "there are no speech acts, but only situated speech acts, or instantiated pragmatic acts" (see Mey, 2001: 216–218 for more).

He maintains that "speech by itself does not act: strictly speaking there are no speech acts since ultimately all speech acting crucially depends on the situation in which the action takes place. Hence, speech acts, in order to be viable, have to be situated" (Mey, 2006: 751). A situated speech act identified as a pragmeme does not rely on the words used by just an idealised speaker but on the interactional situation in which the speech participants realise their aims. A pragmeme is, as described by Capone (2005), "a situated speech act in which the rules of language and of society combine in determining meaning, intended as a socially recognized object sensitive to social expectations about the situation in which the utterance to be interpreted is embedded" (p. 1355). The instantiation of a pragmeme in a particular situation is known as a *pract*.

Capone and Graci (2024) note that it is challenging to define pragmemes and clearly differentiate them from speech acts, as they are closely related concepts in the field of pragmatics. However, we can consider pragmemes in line with the concept of triple articulation of language: form, meaning and culture (see Wong, 2010). That is, pragmemes consist of phonological-syntactic units that convey specific content associated with a social context and a certain culture. Speech acts are more concerned with the illocutionary force (i.e., intention) behind what someone said. They are the specific acts that speakers

perform when they use language, such as giving advice, making requests, making promises, or asking questions. Pragmatic acts involve the speech acts themselves as well as their social function in terms of context, social norms, and cultural factors that influence the use and interpretation of language (Capone, 2010). That is to say, a speech act can be a pragmatic act, but a pragmatic act cannot be a speech act (Capone, 2020; Capone & Graci, 2024).

Mey (2001) suggests that pragmatic acts can be approached from two points of view: 'agent' and 'act' (p. 227). As far as the individual 'agent' is concerned, gender, age, education, and experiences can affect communication. These factors also constitute affordances that shape the degree of freedom that the agent is allowed in the society. The act has to do with the resources (e.g., gestures, plain text, text with emojis, images, audio-visuals) the agent employed in carrying out a pragmatic act. In the context of the present study, for instance, a midwife serving as the 'agent' may have experiences and age significantly influencing communication with pregnant women and new mothers. A midwife's experiences in the field may shape her approach to offering insights and advice related to different situations based on her past encounters with expecting mothers. Similarly, age can influence communication. Younger midwives may offer familiarity with modern practices, while older midwives may draw from extensive experience and wisdom accumulated over years of service. Overall, these factors contribute to the midwife's ability to establish rapport, understand the needs of pregnant women and new mothers, and effectively communicate information and support throughout the pregnancy and postpartum journey.

Since its inception, the pragmatic act theory has been applied to situation-bound acts, speech events, and diverse situations (Allan et al., 2016). These include tattooing (Bergh, 2016), interactions surrounding death events (Parvaresh & Capone, 2017), disagreement (Radulović & Jovanović, 2020), street protests (John & Agbara, 2021), alms begging (Oluseyi et al., 2023), humour in selected political cartoons (Adeoti, 2023), and traditional weddings (Unuabonah, & Kupolati, 2023). In the area of health communication, the pragmatic act theory has underpinned studies exploring online medical consultations (Tseng & Zhang, 2018), campaign messages on HIV/AIDS (Solomon-Etefia, 2018) and discourse around COVID-19 pandemic (Tseng, 2023; Wang, Ahrens, & Huang, 2022). The present paper extends this theory to the context of maternal and child healthcare and explores the pragmatic acts that midwives in Ghana employ to educate and empower pregnant women and new mothers in Ghana.

### 3. Methodology

The study employs the directed content analysis method with a qualitative focus (Hsieh and Shannon, 2005). Unlike the conventional content analysis method which seeks to deepen one's understanding of less-explored phenomena, the directed content analysis seeks to validate or expand an existing theoretical framework. The directed content analysis has been extensively applied in health research, serving as both a qualitative and quantitative method (Evans et al., 2012; Smedley and Coulson, 2018). It enables the analysis of various types of textual data such as posts on online platforms to mainly tease out patterns or themes.

#### 3.1. Data Collection and Management

We conducted a comprehensive search on Facebook to find community pages containing publicly available posts (e.g., videos, images, weblinks to articles, text) related to pregnant and postpartum women. Our search identified more than 10 Facebook community pages with Ghanaian midwives as the administrators. The posts on many of these pages were primarily videos, with few or no text posts. To meet the inclusion criteria for this study, a page needed to have at least 30 text posts originating from midwives within the last 365 days. We found that three community pages created between 2019 and 2021 met these

criteria. Each of these three community pages had more than 30,000 followers. Although the content on these pages is publicly available, considerations were taken to anonymise the account information of these community pages as best practice.

We copied all text posts appearing on the selected community pages from January 1, 2021 to February 2024 to form the dataset. The posts were written by the midwives who served as the administrators of the pages. The data collected include the date and content of the post. A total of 378 text posts were gathered across the three community pages. They were coded in three phases and categorised in relation to their communicative functions and topics. The text posts were initially categorised as related or unrelated to pregnancy, childbirth, and postpartum care. Those that were categorised as related ( $n = 245$ ) were then coded as: (1) interaction-generating question, (2) promotional (advertisements of products and services), (3) experiential (experiences of midwives or pregnant/postpartum women), (4) motivational, and (5) educational (information related to pregnancy, childbirth, and postpartum/baby care). Given the aim of this paper stated in 1, posts that were coded as educational ( $n = 130$ ) were selected as the final dataset. They were further coded on the types of situated speech acts the midwives employed to convey their messages.

In order to have consistency in the coding process, two of the authors independently coded and categorised the posts in the final dataset. The codes were then compared to ensure consistency and resolve discrepancies. To ensure credibility, both authors engaged in 'prolonged engagement', 'persistent observation' and 'negative case analysis' (Hsieh & Shannon, 2005). Thereafter, there was peer debriefing by all the authors in a meeting to look for and categorise posts that did not fit into any of the categories. This led to the development of an extra category for posts with two or more communication functions. All discrepancies were resolved through discussion, and the authors reached consensus on the set of codes.






#### 3.2. Data analysis

Each text post formed a unit of analysis. In the directed content analysis method, the coding process starts with pre-determined codes. Thus, the pre-determined coding categories adopted for analysis in this paper are explanatory acts, prescriptive acts, and psychological acts (Mey, 2001; Capone, 2005; Tseng & Zhang, 2018; Tseng, 2023; Capone & Graci, 2024). There were instances when posts could not be coded into any of the pre-determined coding categories because they consisted of more than one speech act. After a careful analysis, we put such posts in a new category and labelled it 'mixed speech acts.' All posts used as examples in this paper are without alterations and are not corrected for grammar or spelling.





### 4. Findings

The study identified five types of pragmatic acts: (1) introductory/initiating acts, (2) explanatory acts (3) prescriptive acts, (4) psychological acts, and (5) closing acts. The introductory acts are often in the form of greetings (e.g., Hi moms); rhetorical questions (e.g., Can my waters break before labour sets in?); titles (e.g., Ectopic Pregnancy); alerters (Why you should take watermelon during pregnancy); and scenarios created from (in) tangible experiences. The closing acts are usually in the form of a call to action (e.g., Don't leave your pregnancy to chance); a rhetorical question (e.g., Why do you even want to do that?); an invitation to a WhatsApp group/virtual class (e.g., Join our pregnancy class to learn more); or asking readers to share (e.g., #share). The remaining three types of pragmatic acts performed in between are discussed in the following subsections, because they constitute the main content of the Facebook posts. Of the 130 Facebook posts collected for this analysis, 74 (57 %) posts involve explanatory acts; 30 (23 %) posts involve prescriptive acts; and 8 (6 %) posts involve psychological acts. The remaining 18 (14 %) posts consist of more than one speech act. The

**Table 1**  
Coding Scheme.

Code	Definition	Sample Post
Educational	Posts consisting of information related to pregnancy, childbirth, and postpartum/baby care.	<p>i. Wondering why you are visiting the washroom frequently during pregnancy? This is why the uterus is right on top of the bladder. It does allow the badder [sic] to expand fully, hence the desire to urinate is frequent.</p> <p>ii. The first movement of the baby felt by a pregnant woman is called quickening. It occurs between 16 to [sic] 22 weeks of gestation</p>
Interaction-generating questions	Questions posted by the midwives to generate a conversation among their followers.	<p>i. How will you know that your c-section Wound is not healing well?</p> <p>ii. When should one start packing her hospital delivery bag?</p>
Promotional	Posts involving advertisements of products and services.	<p>i. We have high quality diapers in stock for both wholesale and retail. It absorb more water and can last on your baby without giving the baby any problem like rashes on their buttocks. Available in three different sizes (Large, Medium and Small) GHCI10                        for a pack. The small size contains 50 piece in pack. Medium size contains 46 pieces and The Large contains 42 pieces in a pack. Delivery service available. Contact us for your diapers on xxxxxxxxxxxx</p> <p>ii. Don't wait for complications to set in before you start looking for solutions. We are here to help you go through your 9 Months Journey safely. Sign for our pregnancy class let guide you through your pregnancy journey. xxxxxxxxxxxx Outside Ghana click here to join xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx</p>
Experiential	Posts that share the personal experiences of midwives or pregnant/postpartum women	<p>i. Promises some mothers in Labour make. My favorite scrubs                        was torn by a client. While she was experiencing contractions and I was performing sacral massage for her, she held me tightly, and then boom, the sleeve ripped off. She even promised to "dash" her baby to me, but once the contractions ceased after delivery the "eye clear"  </p> <p>ii. After I packed to the hospital was checked and they said I have dilated 2 cm                        . They made mockery of me "mpo" as in first time mum she don't want any trouble in their voice                        so I unpacked my stuff, went to the canteen to get some pineapples</p>

**Table 1 (continued)**

Code	Definition	Sample Post
		 did all the rounds myself ie lab, OPD so I can take opportunity to walk around. All this while the pains was getting intense but I endured after all the rounds went to the back to climb some stairs, some of my pregnant colleagues were there
		 Now I couldn't stand again so I went inside since they told me if the pains become intense I should come. When I entered they told me to go back but I knew the kind of pains I was enduring. Meanwhile I felt like pooing so I told them to check only for them to realize I was 8 cm they were like eiii is trueoo
Words of Motivation and Prayers	Posts involving words of encouragement or prayers for pregnant women	 . I couldn't wait again so they helped me push out my Baby. i. This pregnancy will end with many good testimonies! Keep believing ! ii. The grace of God will carry you through this pregnancy! Keep believing! iii. We pray for a safe delivery for all expectant mothers and to those looking for the fruits of the womb, may your prayers be answered 
Unrelated	Posts that are not related to pregnancy, childbirth, and postpartum/ baby care. They include season greetings, gratitude to followers, and other random messages.	<p>i. Happy Labour Day Lovely People. May Your Contributions And Efforts Towards The Society Be Immensely Rewarded.</p> <p>ii. Don't rush out of the slippery bathroom to pick calls. Many have slipped, slumped and died in the process. Allow the phone to ring, take your time and call back. Recharge card is cheaper than Brain surgery; choose wisely.</p>

following subsection discusses each of these acts (pragmemes) and how they are performed (practs) as observed in the data.

**4.1. Explanatory acts**

The most prevalent situated speech act in this study is the explanatory act. The explanatory act can be in the form of asserting, reporting, describing, explaining or other speech performances used to achieve understanding (Putri et al., 2020). Through this act, the midwives share knowledge about pregnancy, childbirth, and postnatal care. They provide information and describe in detail some regular occurrences that the expectant and new mothers are likely going to encounter. As evident in the examples below, the information given usually focuses on a single topic. Here, the explanatory act is performed in five related ways: (1) providing information about Food/Lifestyle; (2) indicating normality/abnormality; (3) describing a (named) condition; (4) pointing out

potential complications and (5) describing a situation and possible intervention. Examples are provided below:

Ways of Performance	Examples
Providing information about -Food -Lifestyle	<p>1. IS IT SAFE TO TAKE "SOBOLO" DURING PREGNANCY?</p> <p>The fact that it is herbal does not mean it is safe Yes it has antioxidants, vitamin C and other nutrients but what are the other components and how does it affect pregnancy Some effects it can have on your pregnancy</p> <ul style="list-style-type: none"> <li>● It lowers your blood pressure and also can increase blood flow to the uterus.</li> <li>● It can initiate contractions which can lead to bleeding</li> <li>● It may also affect your hormones and should be avoided during the first trimester of pregnancy</li> <li>● Women on antihypertensive should avoid taking "sobolo" or hibiscus More research needs to be done on its effect during pregnancy. Avoid "SOBOLO" during pregnancy if possible and use with caution under your doctors instructions.</li> </ul> <p>2. Drinking water in pregnancy is so important because it keeps you well hydrated, prevents constipation, urinary tract infection and any other uncomfortable pregnancy symptoms. Aim for 8–12 glasses of water per day and if you don't enjoy the taste of water, try adding a squeeze of lime or a splash of fruit juice. Dehydration can lead to lower levels of amniotic fluid, which can influence the baby's development, lead to preterm labor. Dehydration can cause deficiencies in nutrients that are vital for the health of the pregnant woman and the developing baby.</p> <p>3. Wondering why you are visiting the washroom frequently during pregnancy? This is why the uterus is right on top of the bladder. It does allow the bladder [sic] to expand fully, hence the desire to urinate is frequent.</p> <p>4. During pregnancy, you should gain about 1–2 kg in the first trimester. After that the normal weight gain is 0.5 kg weekly. There could be a slight variation in individuals Please remember. Excessive weight gain is not normal. If all of a sudden you are gaining too much weight, your doctor will have to investigate if all is well. Pre-eclampsia can cause excessive weight gain as well. There could be other reasons. Mentioning pre-eclampsia since it's one of the leading causes of maternal deaths in Africa.</p> <p>5. Ectopic Pregnancy It is #pregnancy in which the #fertilised egg implants outside the uterus. The fertilised egg can't survive outside the uterus. If left to grow, it may damage nearby organs and cause #life-threatening loss of blood. It's not enough you have a positive pregnancy result from a test kit. You must have a scan done to be able to detect pregnancy and locate of the fertilised egg.</p>
Indicating - Normality - abnormality	<p>6. CAN MY WATERS BREAK BEFORE LABOR SETS IN?</p> <p>Every baby is beautifully enclosed in membranes surrounded by water or amniotic fluid during pregnancy. This protects the baby in utero. It should not break until labor sets in. Yes the membrane around your baby can break before labor sets in, when this happens it means the water around your baby can leak or come out. No matter what weeks you are once your water breaks you need to report to the hospital immediately. This is an emergency. If you wait too long an infection can set in. Your baby can also go into fetal distress. Report immediately for the best care to save your baby.</p>
Describing a (named) condition	
Pointing out potential complication	

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Ways of Performance	Examples
Describing a situation and possible intervention	<p>7. After the second stage of labour, babies are supposed to breathe and cry spontaneously. When this does not happen, resuscitation takes place. Depending on the state of the baby and the hospital protocol, the baby is stimulated, suctioned, ambu bagged, oxygenated and kept warm.</p> <p>8. WHAT HAPPENS IF MY CERVIX STOPS DILATING DURING LABOR</p> <p>Yes, no vaginal delivery can occur if your cervix does not dilate. It has to open to allow vagina birth. The cervix is the opening of the uterus. It is also known as the mouth of the uterus. During pregnancy it is closed. It has to open from 0 to 10 cm, then we say it's fully dilated. Your midwife will then ask you to push your baby out. In some women it may stop dilating during labor even with severe contractions. The midwife will continue to monitor with a patograph every 4 hours by performing vaginal examination especially in the active phase of labor. Assuming you repeat the same figure, 4 cm continuously, they may decide to take further steps to prevent complications associated with prolonged labor. They may choose to augment or move to the next step of performing a cesarean section. Know that prolonged labor can lead to fetal distress, maternal exhaustion, obstetric fistula etc</p>

#### 4.2. Prescriptive acts

The prescriptive acts are employed when the speaker aims to influence the actions or attitudes of the addressee or get the addressee to do something (Toprak, 2020). The belief is that the action which needs to be taken or avoided will impact positively on the addressee (Agyekum, 2019). The prescriptive acts in the dataset are performed in the form of advice, instruction, recommendation, or suggestion. As shown in examples 9 – 13 below, the linguistic strategies used include the use of the modal verb 'should'; imperative sentences (e.g., 'Take only prescribed medication', 'exercise frequently'), and conditional clauses (e.g., '... If your baby's not interested in the pacifier ...', 'If you wake to realize you are lying on your back ...'). These linguistic strategies employed by the midwives prescribe or proscribe certain actions or behaviours for pregnant women and women who have a newborn. The use of the expression "keep these tips in mind" in example 10 for instance demonstrates that the midwife has knowledge of the use of pacifiers and wants to share. Additionally, the repeated use of "don't" serves as a pointer to the instructions or recommendations offered on how to introduce a pacifier to a baby successfully and more effectively. Consider the examples below:

Ways of Performance	Examples
Advice/ Instruction/ Suggestion/ Recommendation	<p>9. Most medications have side effects. As a pregnant woman, you should tell your doctor about any medication you're currently taking because most medications are not to be taken during pregnancy. Take only prescribed medication. Every pregnant woman should know the names of the medications she is taking. Monitor what happens to you after any medication, if you feel unusual after taking any medication, report to your doctor or midwife.</p> <p>10. Do you want to offer your baby a pacifier? Keep these tips in mind*Don't use a pacifier as a first line of defense. Sometimes a change of position or a rocking session can calm a crying baby. Offer a pacifier to your baby only after feeding. *Pacifiers can pose a choking hazard if they break.*Let your baby set the pace. If your baby's not interested in the pacifier, don't force it.*Until your baby is 6 months old and his or her immune system matures,</p>

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Ways of Performance	Examples
	frequently boil pacifiers or run them through the dishwasher. After age 6 months, simply wash pacifiers with soap and water. Resist the temptation to “rinse” the pacifier in your own mouth. You’ll only spread more germs to your baby. *Don’t sugarcoat it. Don’t put sweet substances on the pacifier.*Keep it safe. Replace pacifiers often and use the appropriate size for your baby’s age. *Never attach a pacifier to a string or strap long enough to get caught around your baby’s neck.
	11. We are continuing with some vital things you should do while you are pregnant: * Do get enough sleepTake quick naps when you feel tired however you can set bedtimes and stick to them. Aim for 7–9 hours of shut eyes each night. Fatigue is a sign that your body needs more rest.* Exercise frequently Exercise is good for both mother and baby. Regular exercise helps combat many issues that arise during pregnancy including insomnia (difficulty in sleeping), excessive weight gain. If you exercise regularly before you became pregnant, keep it up. * Gain weight SmartlyThe ‘eat for two’ advice to pregnant women is not a license to eat whatever you’d like. You must be strategic about what you eat and how much. Gaining a lot of weight during pregnancy does more harm to your baby than good. * Drink enough water and eat more fruits Drink enough water is very important. It keeps your body hydrated. I advice that you drink more water during the day and reduce water intake at night else your sleep will be interacted since you will urinate frequently. Choose to eat fruits to taking carbonated drinks.* Have sex frequentlySex is safe for a pregnant woman as long as you don’t have any complications.Talk to your midwife or doctor if you have any questions.
	12. ● It’s best to assume a comfortable position during pregnancy  ● In your first trimester when your bump is still small. You can sleep on your back  ● As your bump grows and your weight increases you need to assume a position that will be comfortable to you and the baby.  ● Sleeping on your back is no more recommended once your bump grows and your weight increases especially in your second and third trimester  ● It’s best to sleep on your side. You can sleep either on your right side or the left side. Change positions to make you comfortable when need be.  ● Support your self with enough pillows to make you comfortable  ● Your bed should be firm enough to prevent back ache  ● Sleeping on your back will reduce the blood flow to you and your baby. It can also lead to fainting in the mum. The weight of the baby occludes blood vessels in the abdomen.  ● If you wake to realize you are lying on your back, quickly adjust to sleep on your side
	13. Once you realise you are pregnant, one of the things recommended is to do an early scan. The best time is to do it around 6–8 weeks. Depending on your setting it may vary. This will help to rule out if the pregnancy is viable. There should be heart beat present. The baby shoud[sic] be in the womb, not outside the womb. (Ectopic Gestation). An early scan also helps with determining your expected date of delivery. Dont wait for too long before doing your first scan.

### 4.3. Psychological acts

A psychological act is aimed at positively affecting the mental state

of the pregnant woman or new mother who may be anxious. It involves an expression of well wishes, encouragement, assurance or reassurance (Nasri et al., 2013; Tseng, 2023).

Ways of Performance	Examples
Well wishes	14. The labour room holds mysteries that are difficult to unravel. Every action can lead to either a favorable or undesirable result. Also, amidst challenges, both positive and negative outcomes are possible. When you offer a prayer, remember the labouring mother and the dedicated team. I wish every expectant mother safe delivery and to those looking for the fruits of the womb, may your prayers be answered. To the team praying for complicated free shifts, it’s well.
(Re)assurance	15. FALSE MENSTRUATION IN NEW BORN When you see this in your newborn female diapers right after birth, don’t be scared. It’s normal. We call it false Menstruation or Pseudo menses. It’s because the maternal hormones is withdrawing from the baby. It can occur within the first 10 days of the baby girls life. It will stop in 3–4 days on its own. Please you don’t have to do anything extra. Just clean baby and keep her clean. ... 16. God is creating babies for those who truly enjoyed themselves this Valentine’s Day. The angels have finished packing for delivery. Hello, midwives, be prepared for stories and registrations next month. To our incoming clients, worry not. We’re always at your Cervix.

**Example 14.** involves a direct well wish from the midwife to every expectant mother (i.e., “I wish every expectant mother safe delivery”). The use of “don’t be scared. It’s normal” in example 15 is another realisation of this act in the midwives’ posts as it seeks to reassure the new mother. The midwife acknowledges and normalises the experience of false menstruation in newborns, thereby making the new mother feel understood and not alone. In example 16, the statement “To our incoming clients, worry not. We’re always at your Cervix” serves as assurance of availability and readiness to provide care and support, particularly to expectant mothers. By playing on the word “service” and substituting it with “Cervix”, the midwife humorously highlights the role of midwives in maternal health.

### 4.4. Mixed speech act

This speech act in the dataset has a consistent pattern. It is a combination of the explanatory act and prescriptive act. The midwife first describes a (named) condition (as in examples 17 and 18), points out a potential complication (as in example 19), and describing a situation (as in example 20) and then offers some advice, recommendation, or suggestion.

Ways of Performance	Examples
Describing a (named) condition + giving recommendation	17. SWOLLEN HANDS AND FEET DURING PREGNANCY/PRE-ECLAMPSIA ALERT During pregnancy you may realize that your feet and arms are swollen. It does not occur in every woman. Your ring, bracelets or anklets become tight on you. Some may be due to the natural changes that occur during pregnancy. In this case you realize though your hands and feet are swollen, your BP and urine protein and other vitals are normal. You may not need any treatment. It will go away after pregnancy. On the other hand, you have swollen hands and feet. It comes along with other signs and symptoms like #headache, #highblood pressure, #protein in urine and #epigastricpain. It’s important to report swollen hands and feet to your health care provider to rule out other conditions like pre-eclampsia. The earlier it is detected the better the out come [sic]. To reduce the swelling.... It is advice that...

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Ways of Performance	Examples
Pointing out a potential complication + offering advice	<p>1. Do not assume a particular position for a long time. Sit-walk-rest. Mix your activities</p> <p>2. When sitting you can rest your feet on a small chair</p> <p>3. During sleep rest the legs on pillows. The next morning you will realize it has reduced</p> <p>4. Your nutritionist will also advise on dietary changes.</p> <p>You may not be able to tell whether it's the normal one or not. Talk to your doctor about swollen hands and feet. If diagnosed with pre eclampsia kindly adhere to treatment. It is the leading cause of maternal health complications In Ghana.</p> <p>18. VERNIX CASEOSA- WHAT YOU SHOULD KNOW</p> <p>You see that whitish substance on your baby's #skin after it's born? What did you make out of it? Some even think it's dirt or as a result of eating ayilo/while/Pica. But this is not the case. This is what you should know. When your baby is born, he might be covered with a thick, white, cheese-like layer called vernix caseosa. The older the baby is, the less you find it on their skin. It begins to form around 25 weeks and dissolves into the amniotic fluid with time. It's benefits In the womb, vernix helps protect your newborn's delicate skin from the acidic quality of the amniotic fluid It hydrates her skin, insulates her body, and maintains a proper—and comfortable—temperature in utero. Vernix also doubles as a lubricant, helping your baby slide out of the birth canal a bit easier. It gives that new born smell your baby has, it helps mum and baby to bond The World Health Organization advises delaying a baby's first bath for at least 6 hours, although 24 hours is ideal. This will help baby to adjust to the new environment and the vernix plays a role as well Wash #vernix off right away if Baby has meconium staining, or if the mother has HIV or hepatitis. Do not force it to be removed all at a time. With time all will be removed.</p> <p>19. THE BABIES CORD SHOULD NOT COME OUT FIRST DURING LABOR- CORD PROLAPSE</p> <ul style="list-style-type: none"> <li>● Umbilical cord prolapse is a complication that occurs prior to or during delivery of the baby. In a prolapse, the umbilical cord drops (prolapses) through the open cervix into the vagina ahead of the baby</li> <li>● This is an emergency.</li> <li>● If the cord is seen coming before the head of the baby and membranes are broken</li> <li>● Blood supply to the baby can be cut off and you end up losing the baby or come with complications like severe asphyxiation</li> <li>● If this happens at home, don't spend a minute waiting.</li> <li>● Move into a knee-to-chest position on the floor, with your bottom higher than your shoulders, to take the baby's weight off your cervix. Stay in this position until the ambulance or until help arrives.</li> <li>● Go to the hospital immediately</li> <li>● Handling it unnecessarily can cause it to go into spasms which will cause more problems.</li> </ul>

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Ways of Performance	Examples
Describing a situation + offering advice/suggestion	<p>● At the hospital delivery will be done in the shortest possible time. An assisted delivery or an emergency Caesarian section will be done to save the baby.</p> <p>20. Labor has three stages</p> <p>First stage. Cervix which is the opening of the uterus dilates from 0 cm to 10 cm. (Full Dilation)</p> <p>Second stage... Cervix is fully dilated and mum can push baby out with midwives support</p> <p>Third stage... Placenta is delivered</p> <p>Contractions cause the cervix to dilate and it can be painful. Some few things you can do to ease the pain</p> <p>Walk around if your doctor confirms its ok to do so</p> <ul style="list-style-type: none"> <li>● Warm showers</li> <li>● Listening to music or engage in a healthy conversation with your support persons</li> <li>● Sacral massage from your support person</li> <li>● Assume a comfortable position. One that makes the birth easier. Learn about birth positions</li> <li>● Eat enough if you are permitted to do so especially when no danger is anticipated</li> <li>● Cooperate with your midwife. Always talk about your needs and how you feel with your midwife or doctor</li> <li>● Request for pain relief. It should be in your birth plan</li> <li>● Watch your favorite video or a healthy conversation with a loved one</li> <li>● Dancing helps especially in the first stage of labor</li> <li>● Don't forget prayer works as well</li> </ul>

## 5. Discussion

The posts analysed in this study involved various educational messages to pregnant women and new mothers by professional Ghanaian midwives on Facebook. The situational setting consists of midwives who have expertise in the field, the followers of the page in general, their target audience (pregnant women and new mothers), and the condition of the target audience which determines their language choice. As noted by Mey (2001), the situational setting shapes what statements are possible and how they are understood. Each of the Facebook posts determines the pragmatic act performed, and it is based on their medical and sociocultural knowledge as well as their everyday experiences as health experts. For instance, example 1 is situated in the sociocultural context of Ghana. Even though the post is in English, the use of the culture-specific term *sobolo* instead of 'hibiscus juice' reinforces the sociocultural context.

The main pragmatic acts identified from the analysis are explanatory acts, prescriptive acts, and psychological acts. The explanatory acts, which formed majority of the posts, provided information on food and lifestyle and medication, indicating what should be considered normal or abnormal during the pregnancy and postpartum period. The midwives described (named) conditions that pregnant women and new mothers are likely to experience, and they also pointed out events or occurrences that can cause complications. Consistent with the performance of explanatory act as a pragmatic act, the information provided in examples 1–8 by the midwives is straight-to-the-point and precise (Richard et al., 2023). The performance of this pragmatic act on social media can enhance the women's knowledge of health-related issues during pregnancy and postpartum period and help them commit to their own care by making informed decisions. The knowledge gained may also result in positive outcomes that can improve the well-being of both mother and child.

It is not surprising that prescriptive acts were also found in the posts of the midwives. By these prescriptive acts, the midwives aim to guide their target audience in ways that will advance their health and well-being and that of the baby. In example 9, pregnant women are advised on using medication during pregnancy, while example 10 offers instructions for new mothers regarding the appropriate actions to take when considering offering a pacifier to their baby. The posts (examples 9–13) involve the use of the deontic modal verb 'should' and several imperatives (e.g., Don't put sweet substances on the pacifier; Support your self with enough pillows to make you comfortable; Don't wait for too long before doing your first scan) which are typically the linguistic strategies for performing prescriptive acts. Some scholars opine that both of these strategies show the most common way of telling someone what to do, thus they impose constraints on the addressee(s) and exert power over them. (Craven & Potter, 2010; Curl & Drew, 2008). Ekström & Stevanovic (2023) describe the use of these linguistic strategies as "... stereotypical way of exercising *power-over* other people's actions ..." (p. 3, emphasis in original). They however align with other scholars such as Sorjonen et al. (2017) and argue that the use of deontic modality or imperatives can also be used to perform actions that have little or nothing to do with 'power over'. It is evident in this study that although the performance of the prescriptive acts generally involves the use of these linguistic strategies, it cannot be considered as an instance of 'power over' for various reasons. For example, a pregnant woman who reads "... Monitor what happens to you after any medication, if you feel unusual after taking any medication, report to your doctor or midwife" can freely decide whether to follow that advice or not. Also, the rhetorical question 'Do you want to offer your baby a pacifier?' that introduces the instructions in example 10 suggests that the midwife is guiding the new mother to accomplish something the new mother herself wants to do. Top of Form

The pragmatic act that is performed the least through the posts of the midwives is the psychological act. As demonstrated in Example 14, 15 and 16, the midwives, by means of well wishes and reassurance, performed this act to create some form of emotional support for the pregnant women and new mothers. In Example 14 for instance, the statement "The labour room holds mysteries that are difficult to unravel. Every action can lead to either a favourable or undesirable result..." psychologically prepares the pregnant woman for possible outcomes. Here, the midwife is expressing "emotions toward the state of affairs that is not yet realized" (Kochovska, 2013, p. 31). The positive wishes for delivery in Example 14 and the act of normalizing a negative experience (i.e., false menstruation) in example 15 provide reassurance to alleviate the concerns of the addressees. Additionally, the expression of readiness by midwives to provide care and support to expectant mothers in example 16 further contributes to this sense of reassurance.

It is evident from this study that Ghanaian midwives are adopting social media to engage in outreach, patient education, and health and wellbeing promotion services. The use of English for these services can be attributed to various reasons. First, the language of social media in

Ghana is mainly English and majority of social media users in Ghana are to some extent linguistically competent in English. Second, healthcare professionals in Ghana are trained solely in English. As a result, they find it easier (medically) to communicate medical terminologies to others in English (Houphouet et al., 2018). Despite the language limitation, the messages in the Facebook posts can reach a large segment of the target population faster. Pregnant women and new mothers with a broad range of literacy and can access social media can have their unique needs related to pregnancy, childbirth, and postpartum addressed.

## 6. Conclusion

This study focused on examining information related to maternal and child healthcare on social media. It recognises the significance and pivotal role of language in all human endeavours and looks into the various pragmatic acts in posts made by professional Ghanaian midwives on their Facebook community pages. The findings show that during online maternal and child healthcare services, Ghanaian midwives mainly perform explanatory acts, prescriptive acts and psychological acts. The study provides an understanding of how these midwives inform, guide, and support pregnant women and new mothers on this social media platform. The use of social media for promoting maternal and child health care, especially in sub-Saharan Africa, is a relatively new phenomenon. However, considering the low resource nature of healthcare in sub-Saharan Africa including Ghana, it has the potential to provide immense help and support pregnant women and new mothers if used to complement the antenatal and postpartum care visits. The implication of this study is that healthcare information on social media does not have to be less 'scientific', and evidence-based guidelines and accurate information provided in a non-face-to-face context could be equally effective. Despite the importance of this study, it has some limitations. First, though the midwives indicate on the platforms that they work with Ghana Health Service, the researchers could not verify this claim. Also, the use of the directed content analysis, which relies on predetermined codes, implies that useful information that fall outside the predefined coding scheme were excluded from the analysis. Overall, the pragmatic acts theory provides a lens to understand how midwives strategically use language in their Facebook posts to empower and support expectant and new mothers. The impact these posts have on this population as well as their relatives would be considered in a future study.

## CRedit authorship contribution statement

**Johnson Julene K.:** Writing – review & editing, Supervision. **Thompson Rachel G. A.:** Writing – review & editing, Writing – original draft, Funding acquisition, Data curation, Conceptualization. **Anderson Jemima Asabea:** Writing – review & editing, Validation. **Agbaglo Ebenezer:** Writing – review & editing, Validation. **Owner Jerry John:** Writing – review & editing, Validation, Supervision.

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## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data Availability

Data will be made available on request.

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