

# Perceptions and experiences of prenatal mental health: A qualitative study among pregnant women in Ghana

Health Psychology Open July-December 2023: 1–16 © The Author(s) 2023 Article reuse guidelines: sagepub.com/journals-permissions DOI: 10.1177/20551029231202316 journals.sagepub.com/home/hpo

# Buruwaa Adomako Agyekum

#### Abstract

Prenatal mental health problems can have adverse effects on the health and wellbeing of the mother as well as her baby. However, the factors associated with its etiology, expression, and coping mechanisms in Ghana remain understudied. This qualitative study explored the perceptions and experiences of prenatal mental health problems among 21 pregnant women in Accra through semi-structured interviews. Interpretative Phenomenological Analysis led to three dominant themes; "conceptions of prenatal mental disorders" (sub-themes: awareness and constructions of prenatal mental health problems), "experiences of mental health problems" (sub-themes: symptoms of prenatal mental health problems and causal attributions of prenatal mental health problems) and "coping mechanisms of the pregnancy experience" (subthemes: faith, social support and work). The lack of knowledge of mental health disorders in this study and the expression of contextually relevant and culturally defined constructions and experiences of prenatal mental health problems, highlight the need for the development of culturally suitable interventions within the Ghanaian context.

#### **Keywords**

prenatal mental health, perinatal mental health, pregnancy, social support, faith, culture, context

The period of pregnancy has been shown to be critical to the health and wellbeing of the mother as well as that of the child over a lifetime. Mental health problems such as depression, stress or anxiety during pregnancy have been linked with an increased risk of emotional and behavioral problems in infants right up to adulthood (Glover, 2014). Examples of such emotional and behavioral issues may include problematic infant feeding, poor sleep patterns (Laplante, 2016) higher probabilities for ADHD, Autism, as well as low school achievement in later years (Pearson et al., 2016, Varcin et al., 2017). Maternal mental health problems have also been shown to contribute to low birth weight, preterm birth, stunting and malnutrition, higher rates of infectious illness, diarrheal episodes and more frequent hospital admissions in low-income settings (Heaman et al., 2013, Staneva et al., 2018). All these effects are significant contributors to increased child mortality rates. Indeed, within the Sustainable Development Goals blueprint, the United Nations has called for a greater attention to prevention interventions in mental health. This focus has been prioritized through the 2013-2030 mental health action plan (World Health Organization, 2021). Interventions which are culturally relevant and effective however, cannot be developed without evidence on the local manifestations of prenatal mental health problems which may fall within the scope of perinatal mental health problems; which generally refers to a woman's mental health during pregnancy and/or the first year after birth (Austin et al., 2017, England, N.H.S., Improvement, N.H.S.).

#### University of Ghana, Ghana

#### **Corresponding author:**

Buruwaa Adomako Agyekum, Department of Family and Consumer Sciences, University of Ghana, P O Box GP 14833, Legon, Ghana. Email: baagyekum@ug.edu.gh

Data Availability Statement included at the end of the article

Creative Commons Non Commercial CC BY-NC: This article is distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 License (https://creativecommons.org/licenses/by-nc/4.0/) which permits non-commercial use, reproduction and distribution of the work without further permission provided the original work is attributed as specified on the

SAGE and Open Access pages (https://us.sagepub.com/en-us/nam/open-access-at-sage).

Prenatal mental health experience, characteristics and etiology are not homogeneous across cultures (Galderisi et al., 2015). The experience of mental health is shaped by the context, explanatory models and figurative expressions which carry conventional meanings in specific communities (Stein et al., 2006). Kagawa-Singet et al., (2016) as part of an expert committee of the National Institute of Health advocated that culture be an integral part of public health programs in order to increase their effectiveness. Furthermore, a policy brief by the World Health Organization (Napier et al., 2017) emphasize that awareness of the culture of a people is critical to understanding health and wellbeing within communities. Evidence from African contexts show that although prenatal mental health problems are present, they are largely downplayed as a normal consequence of stress and not a health issue (Ng'oma et al., 2020). In sub-Saharan Africa, experiences of prenatal mental health problems have been characterized with varying terminology. However, these terminologies are not the exact equivalencies of their western constructs because of differences in culture and context. By extension, they do not also embody the full meaning and range of symptomatology as evidenced in the western terms that may be similar in meaning to them. These terminologies include "Amakiro" as used in Uganda (a prenatal mental health condition with symptoms of restlessness and confusion said to be caused because the woman was promiscuous during pregnancy (Neema, 1994). Cox (1979) suggests that this may be a form of traditional puerperal illness among the Baganda women of Uganda.

With reference to interventions which are culturally relevant; Honikman et al., (2012) developed a model of psychological care for pregnant women in Cape Town south Africa, which took into consideration local evidence addressing the mental health and wellbeing of those who provide care, as a critical aspect of effective intervention development. Also, a well-known mental health intervention developed in Pakistan and adapted by the World Health organization; "the Thinking Healthy Program" (Rahman et al., 2008) is made up of culturally relevant images and illustrations and also encourage family support. This intervention has proven effective in halving the prevalence of prenatal depression (Fuhr et al., 2019). Similarly, a study by Chibanda et al., (2014) utilizing the Shona version of the Edinburgh Postnatal Depression Scale (EPDS) found that a group solving approach proved to be effective than pharmacological interventions in reducing depressive symptomatology among prenatal women in Zimbabwe. In addition, Lund et al., (2020) in a study in South Africa which found no effect of a psychosocial intervention for antenatal depression deployed in Cape Town, subsequently recommended that in developing psychological interventions in low resource settings, there must be a determination to address both the psychosocial symptoms of depression as well as the social determinants more directly though interventions such as cash transfer programs and other strategies to reduce gender-based violence. Finally, in his epidemiological and clinical work in Zimbabwe, Patel et al., (1997) relied on qualitative studies to design the Shona Symptom Questionnaire and Bolton (2002) in his work in Rwanda after the genocide, employed qualitative data on local expressions of depression in his work validating the depression subscales of the Hopkins Symptoms Checklist. This type of qualitative research is not yet part of prenatal mental health research in Ghana.

A study in Ghana by Avotri and Walters (2001) showed that mental health experiences within the Ghanaian context tend to be manifested somatically. These variations of distress in cultures where emotional distress and its expression are negatively perceived, tends to feed the notion that mental health problems during pregnancy and after childbirth do not exist in West Africa (Gardner, 2014). This notion has been perpetuated as a result of the perception that cultural rituals such as; mandated periods of rest and healing, gift giving and help with household chores, offer a robust protective psychological buffer to the pregnant woman and new mother (Anugwom, 2007, Liamputtong, 2003). Although some studies have supported this viewpoint, (Rahman et al., 2003) other studies (Fisher et al., 2004), have not, although their findings show that practices that involve practical support lower the risk of perinatal health problems. It has been noted (Fisher et al., 2014) that about one in six women who are pregnant and one in five women who have given birth experience perinatal mental health problems in low and lower-middle-income countries (LLMIC's). Additionally, a recent systematic review across several African countries has revealed high rates of prenatal mental health problems (Endomba et al., 2021).

In Ghana, estimates of the prevalence of mental health problems have varied across settings. Prior research has mostly focused on the post-natal period, been quantitative, and conducted in locations outside Accra in less population dense contexts (Asare and Rodríguez-Muñoz, 2022, Pobee et al., 2022, Weobong et al., 2014). For instance, Bindt et al., (2013) and Weobong et al., (2014) have estimated the prevalence of depression among childbearing women to be 10%-38% and the prevalence of anxiety is estimated to 33% (Bindt et al., 2013). On the other hand, a study in Bole; a district in Ghana by Saeed and Wemakor (2019), among mothers whose children were under 5 years found that prevalence of depression was 16.8%. Also, Scorza et al., (2015) conducted a postnatal period qualitative study in Kintampo, in the Bono East region of Ghana, exploring the cultural expressions of perinatal depression among women. 'Thinking too much' was the term that came up most frequently in their descriptions of their experiences. According to De-Graft Aikins and Ofori-Atta (2007), the rapid urbanization of Accra; the capital city of Ghana has had a detrimental effect on the mental as well as physical health of its inhabitants. However, there is sparse literature on mental health in pregnancy, particularly in Accra which is the capital city; a melting pot of culture, commerce and social activities. For instance, a study to estimate the prevalence of postpartum depression in three (3) public hospitals in Accra using the EPDS found rates of 8.6%, 31.6%, and 41.1% respectively (Sefogah et al., 2020). Furthermore, Adjorlolo et al., (2022) in a study that investigated psychotic-like experiences among pregnant women in Accra observed a high risk for psychosis at 27.3%. Nevertheless, there is a dearth of studies that utilize qualitative methodologies to explore context specific understandings, forms, expressions and experiences of mental health during pregnancy. In view of this research gap, the current study seeks to explore perceptions and experiences of prenatal mental health in an urban area, specifically Accra. The objective of this study is to better understand the local evidence concerning the representations, cultural constructs, meanings and experiences associated with mental health problems among pregnant women in Accra in order to inform evidence-based policies as well as prevention and intervention programs.

#### Method

#### Design

This study used a qualitative interview study design guided by Interpretive Phenomenological Analysis (IPA) (Smith et al., 2021). It is a qualitative research approach which has the purpose of examining the lived experiences of participants and how they make meaning of these life events.

#### Setting

The current research took place in Accra the capital of Ghana; which is a country in West Africa. Accra also doubles as the capital of the Greater Accra region which according to the Ghana Statistical Service (GSS, 2021) has a population of 5,455,692. Accra serves as the administrative capital as well as Ghana's foremost commercial hub. It hosts major international companies, arts galleries and museums such as the Kwame Nkrumah Park and Mausoleum. Accra has a diverse demographic consisting of ethnic groups such as the indigenous Gas, Akan's, Ewes and Hausas as well as immigrants from neighboring countries who all live peacefully with each other. According to the Ghana maternal health survey (GSS, 2018) about 98% of women who are pregnant attend antenatal clinics at least once during their pregnancy. In Accra, public owned health facilities comprise of; three Community-Based Health Planning and Services (CHPS) compounds, 19 community clinics, a teaching hospital, a regional hospital, nine district and submetropolitan hospitals, 31 health centers and 10 polyclinics (Amoakoh-Coleman, 2016). According to the Accra Metropolitan Director of Health Services, health care services within the Accra metropolitan area are clustered within five core sub metros: Ablekuma, Ashiedu Keteke, Ayawaso, Osu Klottey and Okaikoi (B. Adomako, personal communication, February, 17, 2016). Based on these clusters, as well as the classification of neighborhoods in Accra based on certain unique characteristics such as whether they are migrant or indigenous communities and according to their socio-economic characteristics (Owusu and Agyei-Mensah, 2011), the researcher chose one polyclinic, one public district hospital and one quasi-government district hospital (Ussher Polyclinic, Mamobi hospital and Legon hospital) respectively, all of which offer primary care services.

Out of the facilities chosen, Mamobi hospital and Ussher Polyclinic were purposively chosen out of the five most patronized health centers in terms of maternal services within the five sub metros of the Ghana health service. Ussher Polyclinic was chosen because it is located within a predominantly indigenous community which forms part of what is known as old Accra or Ga Mashie; considered the oldest neighborhood in Accra (Earth Institute Millennium Cities Initiative, 2012). It is generally considered a low-income area although it lies within the heart of the business and financial district of Accra (Quartey-Papafio, 2006). Mamobi hospital was chosen because it is located in a predominantly migrant community and among the poorest communities in the Accra metropolis. On the other hand, Legon hospital was originally established to cater for the health needs of the student and staff population of the University of Ghana. However, the hospital has currently assumed the functions of a district hospital serving a wide catchment area well beyond the University community. It is generally referred to as a quasi-government hospital (University of Ghana Health Services, 2022). Legon hospital was chosen as a result of its strategic location in a university community in providing access to people who are affluent and well-educated as well as those who are low skilled and less educated working within and outside the University community. These considerations helped in choosing the locations for this study to ensure that the sample was representative of the population within the Accra metropolitan area Table 1.

# Sample

Criteria for inclusion were adults aged 18 years and above who were between thirty-two (32) to forty (40) weeks pregnant. There was no upper age cut off. The weeks of pregnancy was used as an inclusion criterion because literature shows that the course of depression varies throughout pregnancy (Dennis et al., 2017, Evans, 2001, Okagbue et al., 2019). The author wanted pregnant

Classification of neighborhoods based on income	Sub-metropolitan area and health facility chosen	Sub-metropolitan area and health facility chosen
High class neighborhood Migrant low-class neighborhood	Ayawaso Legon hospital ªMaamobi hospital	Ashiedu keteke
Indigenous low-class neighborhood	-	<sup>a</sup> Ussher polyclinic (James Town Maternity)

Table I. Locations of health facilities utilized within the physical and socioeconomic space of the Accra Metropolitan area.

<sup>a</sup>These are the most patronized health centers in Accra terms of maternal health services within their various sub-metros according to the Accra Metropolitan Health Directorate (B. Adomako, personal communication, February, 17, 2016).

women who had experienced most of the phases of pregnancy and could give a holistic overview, hence, that inclusion criteria. Purposive sampling was used to identify participants on the basis of being 18 years and above and also being 32 to 40 weeks pregnant. Data collection was stopped when saturation was reached, resulting in 21 participants. According to (Smith, et al., 2021) sample size is contextual and must be considered on a study-by-study basis. Seven participants were recruited from each facility. No person refused to be interviewed.

#### Data collection tool

Semi-structured interviews were used to enable participants to give thick descriptions of their experiences (Hertlein and Ancheta, 2014). A semi-structured interview guide was developed to answer the research questions with a focus on the aims of the study, appropriate literature review and published interview development guidance (Smith, 2015). The semi-structured interview guide had a demographic section and three open-ended questions including several follow up questions under them. The demographic questions were used to collect demographic characteristics such as participants age, marital status and parity. The semistructured interview guide was pretested at the Madina polyclinic with five participants to ensure that the questions were clear and could be easily understood and responded to. The responses from the pretest were used to correct any errors on the semi-structured questionnaire and to improve clarity.

# Study procedure

Data was collected from pregnant women attending antenatal clinics. At the antenatal clinic, the researcher sought permission from the midwife-in-charge and introduced the study. An invitation was given for anybody who wanted to take part in the study to meet at a designated place. Since it was not possible for the participants to move very far away from the main outpatient's department because they were in a queue, the researcher ensured that they moved to a place where they would not be overheard by others but could still keep an eye on their appointment queue. Consequently, the interviews were conducted at the back of the waiting area. Most participants volunteered to come over for the interview. The study information sheet was given to participants and also explained to them. Written informed consent was sought from all potential participants and they were required to consent and sign the informed consent form. Consent to audio-record the interview was also obtained from participants before the start of the recording. All participants were assured of confidentiality.

The interviews were conducted mainly in Twi; which is generally regarded as the most spoken local language in Ghana. The interview lasted between 45 and 60 min. The researcher probed participated responses and wrote down any observations. After each interview, preliminary data analysis took place in order to guide the direction of the next interview. Interviews were recorded using a voice recorder and data collection proceeded until data saturation was reached.

A debriefing session was held after the main interview. Each participant was given the opportunity to ask any questions that they might have and to talk about the experience of the interview. A debrief sheet was given to them that detailed sources of psychological and emotional support and referral services available within Accra, should they require them following the interview. The researcher also volunteered to put them in touch with any such organizations if they might require them. During debriefing, participants were grateful to have been given a safe space to share their experiences, free from judgement and wished that more pregnant women might have that kind of opportunity as well.

# Ensuring validity of the study

In order to address the issues of validity and reliability of the study (Cypress, 2017), observations made during the interview were noted and these guided the researcher to ask relevant questions and helped to validate the data collected. Also, the same interview guide was used for all interviews.

Furthermore, the steps involved in the study are clearly outlined to enhance its reliability and aid any future study on the same issues within that particular context. Keeping an audit trail also meant that other researchers will be able to verify the processes used in the study. In ensuring that the analyses and interpretation of the data were not unduly influenced by the researchers' experiences, there was the use of intersubjective interpretations by anchoring analyses of the data on the shared meanings of the participants. Verbatim quotes of participants were also given to support themes in order to support the transferability of the findings. Additionally, there was the use of member checks to review assumptions and interpretations made from the data. This was done by communicating summaries of interviews with participants during field work as well as ensuring they had access to interpretations and conclusions emerging from the data. This ensured accuracy and verified conclusions arrived at, by ensuring that it was a true reflection of the perspectives and experiences of the participants themselves. A supervisor, an expert within the field of IPA, also carried out audits of analyses and is in agreement with how themes have developed from the transcripts. Relevant literature is included in the discussion and where the findings from analyses have gone contrary to what is presented in the theoretical frameworks and literature, such deviations have been pointed out and discussed appropriately.

#### Data management and analysis

Twi was the main language used for the interviews, however some of the women were proficient in English and consequently, English was used for those women. The guide was written in English and revised iteratively by the researcher and the research team made up of two research assistants who are bilingual. The semi-structured interview guide was translated into Twi. The Twi language was chosen because it is well known to be the commonest language spoken in Accra. The focus in translation was to ensure cultural as well as conceptual equivalence. The forward translation was done by the researcher whose native language is Twi. It was back-translated by a professional with the department of Linguistics of the University of Ghana and reviewed by the bilingual members of the research team. Pilot study interviews were held in Twi and English, and the interview guides were revised based on the feedback received. For the main study, audio-recordings were transcribed and translated into English. Translated transcripts were reviewed and compared to the audiorecordings by the bilingual members of the research team to ensure clarity and accuracy of translation. According to Chen and Boore (2010), it is important in ensuring the adequacy of translations for the translators to be fluent in both source and target language and also to be knowledgeable of both cultures. Also, in order to ensure conceptual equivalence and credibility the translated transcripts were compared to the transcriptions of the English interviews done.

Immediately after the transcription, and again during data analysis, the transcripts were checked against the data from the digital recorders for accuracy. The researcher utilized Interpretative Phenomenological Analyses method. IPA allows the researcher an in-depth view on "what it is like" to experience a given phenomenon. It is influenced by concepts such as hermeneutics, phenomenology and ideography (Smith et al., 2009). Analysis was carried out manually. Principally, there was individual in-depth analysis of each interview as proposed by IPA's idiographic leanings (Smith et al., 2021). The interview recordings were listened to repeatedly to ensure that what was transcribed was actually what the participant said. Notes capturing comments, initial thoughts and reflections about the interview process, the use of language such as repetition and pauses, unique expressions and context, were written next to the transcriptions. There were two coders involved in the coding with one being the researcher and the other, a supervisor not involved in data collection process. An inductive framework guided the coding process with a focus on shared meanings. There were regular meetings and where there were any outstanding issues, they were resolved by consulting a senior researcher with expertise in qualitative methods. The dialogue resulted in a codebook which was applied to coding the remaining manuscripts. The next stage entailed transforming notes into emergent themes and superordinate themes. Subsequently, similarities across transcripts were ascertained and grouped. This was achieved by clustering major themes that shared similarities into master themes which then had their subthemes. The analyses were carried out by the researcher and a supervisor assessed the interpretation to strengthen the credibility of the findings. Themes were discussed and refined to present the most credible interpretation of the data.

#### Results

Twenty-one interviews were completed. The mean age of participants was 28 years. All participants had some form of formal education. Additionally, 48% of the participants were married, 28% were cohabiting and 24% were single. For more than half of the participants; 53%, this was not their first pregnancy. Three dominant themes emerged from the data: (1) conceptions of prenatal mental health problems (sub-themes: awareness of prenatal mental health problems and constructions of prenatal mental health problems), (2) experiences of mental health problems (sub-themes: symptoms of prenatal mental health problems and causal attributions of prenatal mental health problems) and (3) coping mechanisms of the pregnancy experience (subthemes: faith, social support and work). Participants' names used are pseudonyms.

# Theme 1: conceptions of prenatal mental health problems

This theme explores participants awareness and conceptualizations of mental health problems during pregnancy and also their constructions and descriptions of the mental health challenges that pregnant women face during this period within the Ghanaian context. Two sub-themes emerged (awareness of prenatal mental health problems and constructions of prenatal mental health problems).

Awareness of prenatal mental health problems. Most of the participants expressed viewpoints that indicated limited knowledge of mental disorders during pregnancy. For instance, Amina said, "I don't know about it" (Amina, 23) and Lamisi, asked whether it was comparable to madness. "Like you are mad or what? (Lamisi, 22). The use of the word "mad" is very stigmatizing and telling. A mad person would not be wanted in the society. Consequently, the terminology and description is problematic and point to a deeper societal dislike and distancing from mental health problems. Another participant also used the same terminology. Tsootsoo asked, -Is it like madness? (Tsotsoo, 34). Other participants referenced some of the symptoms of mental disorders during pregnancy but were unsure whether pregnancy could result in mental disorder. Ayorkor, said: "I believe it is the condition that can make a woman exhibit certain lonely behaviours and sit quietly but I didn't know pregnancy too could also result in mental disorder" (Avorkor, 28). Probably due to the overwhelmingly positive narrative associated with pregnancy, it may be difficult for some women to associate it with negative experiences, especially in a culture where even the most negative symptoms during pregnancy are considered normal.

Constructions of prenatal mental health problems. Most participants used the terms excessive "thinking" and "worrying" to describe prenatal mental health problems they know about. For example, Anna says, "the scan report showed I have a fibroid which was scary, and needed to do surgery before giving birth. I think a lot and I had to stop work because of a lot of issues" (Anna, 25). Also, according to Juan: "What I know is too much worrying" (Juan, 35). Amina also admitted that, "I talk to myself sometimes when am alone and have many things that worry me" (Amina, 23). For most participants, "worrying and thinking" became the idiom of distress to capture a broad range of varied and complex emotions, thoughts and behaviors that would be characterized as mental health problems during pregnancy. This may be a form of denial used to protect themselves and their emotions from the reality of the burden of mental ill health; an euphemism, substituted either consciously or unconsciously with the blunt reality. A cultural script that has evolved from a society's glorification of childbearing.

# Theme 2: Mental health experiences of the pregnancy period

This theme explored the experiences of participants during the prenatal period. Two sub-themes emerged: symptoms of prenatal mental health problems and causal attributions of prenatal mental health problems. Although participants were largely unaware of diagnosable disorders during pregnancy, they reported having symptoms that could generally be indicative of such disorders. Participants also described some of the causal factors responsible for their mental health symptomatology.

Symptoms of prenatal mental health problems. Participants described feeling irritable, experiencing changes in their appetite, and excessive crying as some of the negative emotions they experienced during the prenatal period. According to Eunice: "I am always sad. I will be lying to my soul if I say am happy" (Eunice, 25). This seems to suggest a protracted negative affect and a sense of despondency. These intense feelings of diminished wellbeing were also expressed by Praise who reported symptoms related specifically to loss of appetite. She says, "It is not every day that I feel hungry. Sometimes I don't even feel hungry. If I endure pain for a long time, I can't eat". [The pain she is referring to is the emotional hurt she feels when her partner is unfaithful to her] (Praise, 25). This loss of appetite is also a characteristic of depressive symptomatology. Other symptoms of mental health problems experienced by participants also included symptoms of anxiety. Amina, whose boyfriend had refused to acknowledge paternity said, "Sometimes when I am alone, all of a sudden, I start to panic." (Amina, 23). Amina further explained that she has had five abortions with her boyfriend and that he wanted her to abort the current pregnancy also, except that she had discovered she was pregnant when the pregnancy was advanced and she had refused to go ahead with the procedure as a result. Coming from a poor background, she was filled with dread and apprehension as to how she was going to manage financially with a baby whose father had abandoned her. Participants also experienced other serious mental health challenges such as suicidal and infanticidal ideations According to Amina, she does have thoughts of harming her unborn baby. "I contemplate causing harm to the baby but I will not do that. I sometimes feel I can hurt the man also by doing that." (Amina, 23). Her level of desperation and hopelessness in the situation is evidenced by the fact that she even considers harming her baby in order to hurt a man who does not care about her baby. It seems she is clutching at straws, signifying a level of desperation that is worrying. In all their experiences, the issue of lack of access to adequate mental health care came to the fore strongly. Not one mention was made of reporting these experiences, or even being asked of their mental health and wellbeing at their antenatal appointments. This highlights the marginalized position of women within the society as well as the systemic and cultural failings that perpetrate inequalities and reinforce patriarchy and gender stereotypes.

Another participant also experienced suicidal thoughts, Eunice said, "Hmmm... Last 2 weeks I said to myself that I will commit suicide and noticed my mind was tuning to it. Fortunately, we had a revival in church and it was as if I had told the pastor what I was going through. After the revival, I never dreamt of such a thing again." (Eunice, 25). Her sentiments positively referenced the important place of faith in coping but did not capture the role of mental health services in the mitigation of her symptoms. Although just one person admitted to suicide ideation, the prevailing culture in Ghana which makes suicide a taboo subject, makes it an important admission. Eunice's narrative also positions faith as an important intervening variable between mental health difficulties and their outcomes.

*Causal attributions of prenatal mental health problems.* Unplanned pregnancies as a cause of negative mental health experience during pregnancy was a recurring theme among participant. According to Ohenewaa's explanation:

Actually, for me, this is my sixth born, but with this one, I am not happy because I didn't expect the pregnancy. I did family planning and it failed so it has created a lot of confusion. It is like a punishment. It is not easy. It is frustrating (Ohenewaa, 36).

Her expression of "confusion", "punishment" and "frustration" when talking about children, birth and pregnancy seems to deviate from the normal usage of positive language, terminology and association when referring to motherhood and childbirth in Ghana. Whiles Ohenewaa was blunt, Adukwei, preferred to moderate her language, using the more preferred terms of "thinking too much" and "worrying too much". Adukwei reiterates, "If you are both not ready and it comes and the man also doesn't accept it, it is a problem so I was worried and always thinking" (Adukwei, 28).

For others, the mistreatment from intimate partners, caused mental health problems during pregnancy. According to Priscilla, "For some, it is how their husbands will attend to them. Their husband's behavior changes and that mostly leaves the women worried" (Priscilla, 35). The issue of lack of emotional support and mistreatment from intimate partners was a common

attribution of mental distress during pregnancy. Participants were vulnerable during this period and they expected their partners to provide them with some emotional support or at least not cause them any sadness. According to Praise,

Yes, I have some things that worry me. If the man doesn't stay home and does not assist in anything... He should stay home and make me happy and stop chasing other women (Praise, 25).

Although the reasons for the cause of negative emotional and psychological problems during pregnancy was attributed to varied reasons, the consequences in terms of the hurt and the pain was common across the experience of all participants. The pain was real and it brought real tears to their eyes. According to Eunice who burst out in tears when narrating her experience, she said:

"The man I am staying with, it's like his life has become someway and after I got pregnant. Looks like he wants to forget me... If I deliver safely and have my baby in my arms, it is by the grace of God but if I give birth and I die too [Starts crying]" (Eunice, 25).

On the other hand, some participants attributed the mental health challenges they faced during pregnancy to diabolical spiritual manipulations. According to Araba:

Once the man's family have been unable to prevent the marriage, they will do anything to prevent you from having the baby so all those things (referring to the signs and symptoms of prenatal mental health problems) are a result of that, and you as a woman must be very prayerful. They will even influence the man concerning you so that he doesn't care for you, it is all spiritual (Araba, 31).

From Araba's perspective, the reality of black magical manipulations against women could manifest as signs of mental health problems. It is believed that a woman is particularly vulnerable to spiritual manipulations during pregnancy and childbirth. Consequently, physical as well as mental health problems that are experienced within the prenatal period are all regarded as effects of the work of evil forces that must be resisted.

# Theme 3: Coping with mental health problems during pregnancy

A variety of coping mechanisms were used by participants in helping them handle their experiences of pregnancy.

Faith. Faith was used by many participants to help them to cope with their experiences during the prenatal period.

Describing how her faith has helped her cope with difficult times, Ohenewaa intimated:

For instance, last two months when I came, they said my blood level had dropped to 7.5. They gave me one week to come back again...the doctor gave me medicine and prescribed a drug of 150 cedis (approx. USD 34) for me and how do I get that money? When I came again, it had risen to 10.6... So it's God who has been working. God works in mysterious ways (Ohenewaa, 36).

Ohenewaa seemed to suggest that a divine intervention had occurred in a largely physical condition. Although she may have used other means, she credits the rise in her blood levels to the work of God. This use of faith is emphasized in the experiences of most of the participants. Another attribute of faith that emerged from the study centered on prayer. According to Eunice, "What helps me a lot are prayers...the Methodist church teaches that if you have faith, you believe and your prayers will be answered." Another participant, Ohemaa, also talked about the fervency of prayer needed. She said, "For us we don't relax we pray a lot." This belief in prayer, from Eunice's estimation, seemed to be attached to one's faith. Thus, prayer mixed with faith produced answers. Ohemaa's narrative also suggests that a certain quantum of prayer is necessary for it to be effective and that the individual needs to invest effort into prayer.

As regards faith as a coping mechanism, the church and the leaders within the church emerged as providing support for the women. According to Eunice, she coped through, "counselling and advice from church elders because left to her partner alone, I will have no hope". Another participant, Ohenewaa, also mentioned the church leadership as providing support. According to her, "The blood issue I was talking about, I went to see our pastor and he prayed for me." (Ohenewaa, 36).

The leaders of the church from Eunice's narrative were filling in the gaps that were left by her partner's unwillingness to provide the support she needed. She needed hope and the church provided that. Ohenewaa also from her narrative demonstrated the willingness of the clergy to be of help by listening and providing prayer support. In so doing faith seems to be filling up a critical space in the lives of these women during this critical time by providing hope, a safe space to offload their burdens and holding their hand through the journey. For the women, there seems to be a depth of need during the prenatal period that necessitated an all-hands-on deck approach.

Work. Engaging one's self in a productive venture was seen by many participants as a protective factor against excessive thinking and worrying. Ayele points out, "*If you are working nothing worries you*" (Ayele, 31). Another participant Kande explained further that this protective effect was the case even against extreme mental health problems such as suicide, she said:

I have never attempted suicide because he has set me up in business. I am a seamstress myself, and he has opened a shop for me. Because of the pregnancy he asked me to quit for a while but at first when I wake up, I am not idle at home. I go to my work, come back home, bath and sleep. I don't have a problem with anyone. It is when you have nothing doing, that you think of these things (Kande, 25).

It may be gleaned from Ayele's narrative that engagement in productive activity offered protective effects on the mental wellbeing of women. Kande in her narrative, seems to echo the idiom that the devil finds work for idle hands, and seems to suggest that "too much thinking" could also be as a result of idleness and having too much time on one's hands. Other women spoke about how engaging in productive ventures could help them cope with their partners and reduce conflict within their homes. According to Tsotsoo, "When you work, the man will not worry you. If you are working you are always happy and he merely assists so he can't do anything to hurt you" (Tsootso, 34). Similarly, Priscilla spoke about how engaging in productive work could help women cope with their partners. She says:

Oh it helps, she can support herself. Someone will say she is pregnant so this and that. But if you are working it helps. You go and you bring something home, but you if say he alone should pay everything, it brings about a lot of worries (Prisilla, 35).

It can be deduced from the voices of Tsotsoo and Priscilla that engagement in a productive venture was a form of help to partners and prevented conflicts within the home. Particularly, it helped these women bring resources within the relationship that helped to reduce some of the unequal power dynamics, domination and control.

Social support. Social support also emerged as one of the ways in which participants coped with the mental health challenges they faced. According to Ayorkor, "Mostly people tell me I should be exercising but my man wants to do everything for me now. They advised me not to sit idle but my man doesn't understand so he does everything instead of me doing it." (Ayorkor, 28). Ayorkor seems to have a helpful partner who is willing to lighten her load by taking on her house chores. In an overtly patriarchal society, this level of direct support and help is not common, especially as practical care within this period is perceived to be the preserve of elderly women in the family. However, with the impact of globalization and technology, these kinds of notions are gradually being challenged by the younger generation and a new breed of men are emerging who are

changing dominant stereotypes of masculinity within Ghanaian culture.

Mothers were also mentioned as sources of social support for some participants. According to Praise:

Sometimes I go to my mum and she tells me that as someone who is pregnant, I should not be thinking so much, so I should forget it and be happy, so it doesn't affect the child. So sometimes I have no option but to be happy because I don't want my child to have any effect (Praise, 25).

The experience by Praise is more in keeping with the traditional values and customs of Ghanaian culture where pregnant women typically confide in their mothers with some even moving to stay with their mothers or other elderly female members of their family during the entirety of their pregnancy period. Mothers-in- law were also sources of support in this study. Kande had a good relationship with her mother-in-law and she was a significant source of support to her. She said,

Me even this one too (referring to her unborn child) I want to go to my husband's mother again. When I gave birth to this child (referring to her first child) I didn't do anything. Now it's as if I am even giving birth for the first time...As for my mother-inlaw 'walayi!' she is good. She will pamper you; she doesn't have a problem (Kande, 25).

Kande's experience is a refreshing deviation from the negative stereotype of the overbearing mother-in-law especially within a Ghanaian setting where the dominant perception is that a man honors a woman by marrying her and consequently, a wife is indebted to her husband and his entire family.

### Discussion

In this current study, most participants used the term, excessive worrying and thinking to describe the mental health challenges that they faced and did not reckon that their symptoms might be indicative (if it co-occurred with other symptoms and went beyond a certain duration) of a mental health disorder. The findings of the current study are in line with findings by Scorza et al., (2015) on the expression of perinatal depression in rural Ghana. Their results showed that the term "thinking too much" was used to reference mental distress experienced by participants, based on interviews with new mothers who had experienced perinatal depression in the previous two and half years which included the period of pregnancy. Similarly, in Malawi, Stewart et al., (2015) found that participants used "nganisyo" (thinking too much) to characterize the emotional distress that they experienced during the period of pregnancy. In research across sub-Saharan Africa, thinking too much has been conceptualized as the idiom of distress across several contexts (Backe et al., 2021). Avotri and Walters (2001) found out that women's conceptualization of mental health problems, embodied in the terms; "thinking too much" and "worrying too much," were both linked closely with somatic symptoms such as headaches, disturbances in sleep and body aches and pains. Other studies have also found similar terminology in conceptualizing mental health distress and depression (Patel et al., 2001).

This is in contrast to studies in high income countries where pregnant women are very informed on the characteristics, symptoms and experiences of prenatal mental health problems and use terminology indicative of such. A study in England by Franks et al., (2017) sought to explore the experiences of pregnant women, by interviewing professionals involved in their care as well as the pregnant women themselves. In the study, both mothers and professionals gave the causes of mental disorders as being generational, as a result of a relapse of a previous mental health condition and as a result of trauma during childhood. The mothers felt guilty about their mental health challenges and its effect on their ability to care for their children. Participants in that study also routinely used diagnostic terminology to describe their experiences of mental health difficulties in contrast to findings in the current study where participants used vague terminology and did not consider mental health difficulties as treatable disorders. Similarly, a study by Bennet et al., (2007) in Ontario Canada, found that pregnant women acknowledged that they struggled with depression, felt overwhelmed and admitted to needing help. These findings highlight the fact that mental health experiences and manifestations are highly contextualized. It therefore becomes problematic when discrete illness categorizations are imposed in cultures where they may lack relevance (Stewart et al., 2015). In cultures where these disorders evoke deep shame, labelling may therefore become disabling and may worsen already existing mental health conditions through stigma, and reduced mental care utilization.

Furthermore, contextual influences such as stigma influence women's reluctance to speak of mental health problems. According to Ng'oma et al., (2020), although qualitative studies conducted in Africa have shown evidence of prenatal mental health problems within their contexts, most of these symptoms are seen as normal responses to stresses and are not considered as a health problem. In order to situate it more clearly, it is necessary to emphasize that pregnancy and childbirth in African cultures and specifically in Ghana is highly prized and bestows honor on the mother as well as her extended family. Deviating from that requirement through expressions of dissatisfaction, discomfort, distress or ill health could lead a woman to relinquish her title of honor. According to a British Broadcasting Corporation news report in 2004, a hospital in Somalia was forced to shut down after a doctor who had removed a woman's womb was threatened. Although the operation had saved the patient's life because the fetus she was carrying was dead, armed men were sent by her family to the hospital to demand 50 camels, which is what would have been paid if the woman was dead ("Is a woman only worth her children?", 2004). To the Yoruba of Nigeria, mothers' role in the preservation of humanity confers on them the highest admiration and respect given to women (Makinde, 2004), usually catapulting them from the lesser status of a wife to the more prestigious status of "mother". In Ghana, Odotei (1989) writing about the naming ceremonies of the Ga ethnic group, explains that the way a woman is addressed is used to measure when a change in her status has occurred. A woman upon marriage does not take upon her husband's name, but continues to use her own, until she gives birth. However, as soon as she gives birth to her firstborn child, her status changes. This is because her value as a human being is dependent upon her role as a mother, and her link to her husband, is emphasized by virtue of childbirth. Consequently, a woman is not identified by her husband's name but rather by the name of her child. "Kookoi married to Ataa Ako does not become Mrs. Odotei as modernity demands but "Odoi nye (mother of Odoi)" (Odotei, 1989: 43). The woman's identification now therefore, lies with the entire lineage and not only the man to whom she is married to. The whole lineage thus become responsible for her and is concerned for her wellbeing because of the children she is producing for the family. It is instructive to note that, it is not only conception that earns a woman this change in status, but more importantly, the birth of a live baby. Consequently, a pregnant woman in Ghana, may be reluctant to admit to any disorder that might alter the cultural script of what a good mother should embody (Chadwick and Foster, 2014, Staneva and Wittkowski, 2013). These cultural value systems are the foundation of the stigmatizing attitudes and behaviors that women who are not able to navigate the pregnancy and birthing process in a problem-free manner encounter. It is culturally expedient therefore, for women to downplay their distress in order to meet the cultural requirement of a good mother and not lose their identity, value and dignity within the society.

A range of factors emerged as causal attributions for the mental health problems that women experienced during pregnancy. These included unplanned for pregnancies, conflicts within intimate partner relationships and supernatural causative attributions. In terms of supernatural causative attributions, Twumasi (2005) posited that disease etiology in Ghana is reckoned as emanating from either spiritual or physical causes, with mental health problems categorized within the spiritual paradigm of disease etiology. Studies conducted in other parts of Africa have shown similar supernatural attributions. Research conducted in Malawi, showed that pregnant participants reported being susceptible to harm through spiritual attacks such as witchcraft activity (Basu, 2004). Other studies from Kenya, Mozambique, Tanzania and Ethiopia have also evidenced that women are perceived to be more susceptible to witchcraft attack during pregnancy (Chilimampunga and Thindwa, 2012). These causal attributions are evidence of some of the explanatory models that underlie disease symptomatology within particular settings and in turn imply their choice of management models. It is important therefore, for belief systems to be incorporated into prenatal mental health prevention and intervention programs.

Other causal attributions of prenatal mental health problems from this study included the stress of having low quality intimate partner relations. Low quality intimate partner relations are characterized by; low support, both practically and emotionally, increased conflict, alcohol abuse and a highly patriarchal and rigid home environment (Nakku et al., 2006). Findings which corroborate this assertion have been found in studies done in the Gambia and Tanzania (Chilimampunga and Thindwa, 2012). In view of these contextual complexities, it is imperative that family relationships are given critical attention especially in prevention interventions for prenatal mental health problems.

This study was guided by a social constructivist paradigm (Berger, 1967) which conceptualizes health and illness as socially constructed (Nettleton, 2020) and affirms participants constructions of their world based on their own meanings, experiences and relationships (Davidson and Strauss, 1992). The biopsychosocial model adopted by the WHO (Krug et al., 2002) in its conceptualization of prenatal mental health is also important for this study as it shows the interplay of biological, psychological and social factors in conceptualizing prenatal mental health problems. It is also important for this research as it brings into focus the role of sociocultural factors in explaining the development of prenatal mental health problems and outcomes (Worrell and Remer, 2002).

In this current study, participants reported the use of faith as a coping resource. This is in line with studies which have found significant linkages between the use of faith and better mental outcomes (Moreira et al., 2014, Ozcan et al., 2021). Other studies have also found the use of faith helpful in coping with the pregnancy experience (Vitorino et al., 2018). Ghana is a very religious country with 71. 2% of Christians, 17.6% of Muslims and 5.2% of traditional religious adherents (Ghana Statistical Service, 2012). Through belief in a higher being, people are better able to be hopeful in trying circumstances (Hasson-Ohayon et al., 2009, Loewenthal, 2000). Through prayer and other religious artefacts, participants in this study demonstrated their faith, highlighting both its causal implications and choice treatment options (Aziato et al., 2016).

Involvement in work also helped participants in this current study to cope with their mental health experiences during pregnancy. Findings by Lydsdottir et al., (2014) and Rubertsson et al., (2014) have stated that anxiety and depression in pregnancy are more associated with women not in employment, although this association was not found in a study by Agostini et al., (2015). Extant literature from Ghana shows that although women face evident gender inequalities, by their ability to contribute significant resources to the home, they are able to somewhat bridge the power gap and have a say in decision making (Oppong, 2005) leading to more positive mental health outcomes for them.

Finally, in terms of the coping resources during pregnancy, relationships within the family were a major social support mechanism. Relationships such as those with intimate partners, mothers and mothers in law had a positive effect; when those relationships involved minimal conflict and were protective of women's mental health. This finding is in line with studies which found social support to be essential to prenatal mental health (Agyekum et al., 2022) and quality of the relationship between partners as a key indicator of the woman's mental health during the prenatal period (Fisher et al., 2004). It is significant to note that participants in this study received support from mothers as well as mothers-in-law; a break from the negative discourse surrounding relationships between daughters-in-law and their mothers-in-law. Although some participants expressed misgivings about these relationships, the majority of participants spoke highly of the support they received from their family. This is indicative of the collective nature of Ghanaian societies and highlights an essential relationship that could be utilized in effective and culturally appropriate prevention and intervention programs for women experiencing prenatal mental health problems in this context.

# Significance of the study

Principally, the findings on the conceptualizations of prenatal mental health emanating from this research point to a paradigm shift, from a purely biomedical model to a biopsychosocial model of health and illness conceptualization. This conceptualization is lent credence to, by the World Health Organizations' backing of the social determinants of diseases (Thornicroft, 2011). African traditional explanatory models of health and illness also thrive on a multidimensional understanding; including social, cultural and spiritual dimensions. As such, the relevance of multidimensional explanatory models for health and disease for people of African descent have been emphasized (Amuyunzu-Nyamongo, 2013, Akyeampong et al., 2015).

This study also has important implications not only for conceptualization and integration of traditional and biomedical factors but also for intervention and treatment. Consequently, indigenous socio-cultural-spiritual norms and values can be harnessed in the development of culturally appropriate prenatal mental health interventions. For instance, inclusion of the family in health care provision, the use of rituals that encourage group togetherness and cohesion, as well as culturally rooted models of ill health that garner and reinforce community care and support, may be incorporated into treatment regimens, in order to facilitate compliance and foster positive outcomes.

In terms of analytical methods, this research chose the Interpretive Phenomenological approach, which is considered a very important addition to this research. The focus on the experience of the participant facilitated an insider's perspective which led to a greater understanding of experiences of prenatal mental health problems. This in-depth understanding of meaning is relevant in influencing effective and culturally competent interventions.

### Limitations of the study

This study included 21 pregnant women. Attention was paid to getting participants that represented the diverse socio cultural and economic population of Accra in order to make the study representative of the varied experiences of pregnant women in Accra. However, being a qualitative study, it is untenable to draw causal conclusions. Also, the focus on including pregnant women who were 32 to 40 weeks pregnant, although justifiable may have excluded others who were in the early stages of their pregnancy and may have had equally important experiences. However, interview questions during the current study cut across the entire pregnancy experience and women who were in the advanced stages of their pregnancy would therefore be better able to provide a more holistic experience of their pregnancy journey. Also, the in-depth interviews did not take place in a private room and this might have affected the interaction with the participants as they may not want their interaction to be overheard. However, the researcher ensured that the interviews were removed from the main seating area thus reducing the likelihood of being overheard. The participants were eager to talk and expressed themselves freely and openly after the initial building of rapport.

#### Conclusion

The findings from this study have shown that women's conceptualization and experiences of prenatal mental health problems were intrinsically linked with contextualized notions of health and illness causation and their coping mechanisms tempered by cultural and religious norms and value systems. It is therefore important that policy and practice guidelines take into consideration these cultural complexities in order to develop programs that are effective. Further research should therefore explore evidenced-based and culturally effective prevention and interventions

modalities in order to improve the health and wellbeing of women, children, families and whole communities.

#### Acknowledgments

The authors would like to thank all the pregnant women who agreed to take part in this study.

#### **Declaration of conflicting interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

#### Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

#### Ethical approval

The study was conducted according to the guidelines of the Declaration of Helsinki, and approved by the ethical and Protocol Review Committee (EPRC) of the College of Humanities, University of Ghana with number; ECH069/15-16 and approval given by the Accra regional directorate of the Ghana Health Service.

#### **ORCID** iD

Buruwaa Adomako Agyekum 💿 https://orcid.org/0000-0002-9721-8932

#### **Data Availability Statement**

The data that supports the findings of this study are available from the corresponding author, [BA.A], upon request.

#### References

- Adjorlolo S, Mensah G and Badzi CD (2022) Psychosis risk among pregnant women in Ghana. *PLoS One* 17(2): 0263011.
- Agostini F, Neri E, Salvatori P, et al. (2015) Antenatal depressive symptoms associated with specific life events and sources of social support among Italian women. *Maternal and Child Health Journal* 19(5): 1131–1141.
- Agyekum B, Akotia CS, Osafo J, et al. (2022) Common perinatal mental disorders: a study of correlates, quality of life and birth outcomes among pregnant women in Accra, Ghana. *IFE PsychologIA: International Journal* 30(2): 106–117.
- Akyeampong EA (2015) Historical overview of psychiatric in Africa. In: Akyeampong E, Hill AG and Kleinman A (eds) *The Culture of Mental Illness and Psychiatric Practice in Africa*. IL, USA: Indiana University Press, pp. 24–49.
- Amoakoh-Coleman M, Agyepong IA, Kayode GA, et al. (2016) Public health facility resource availability and provider adherence to first antenatal guidelines in a low resource setting in Accra, Ghana. *BMC Health Services Research* 16(1): 1–9.
- Amuyunzu-Nyamongo M (2013) The social and cultural aspects of mental health in African societies. *Commonwealth health partnerships* 2013: 59–63.

- Anugwom EE (2007) Childrearing in mothers among the Igbo of Southeastern Nigeria. *Childrearing and Infant Care Issues: A Cross-Cultural Perspective* 2: 155.
- Asare SF and Rodriguez-Muñoz MF (2022) Understanding Healthcare professionals' knowledge on perinatal depression among women in a Tertiary hospital in Ghana: a qualitative study. *International Journal of Environmental Research and Public Health* 19(23): 15960.
- Austin MP and Highet N, Expert Working Group (2017) Mental Health Care in the Perinatal Period: Australian Clinical Practice Guideline. Melbourne: Centre of Perinatal Excellence, pp. 659–668.
- Avotri JY and Walters V (2001) We women worry a lot about our husbands': Ghanaian women talking about their health and their relationships with men. *Journal of Gender Studies* 10(2): 197–211.
- Aziato L, Odai PN and Omenyo CN (2016) Religious beliefs and practices in pregnancy and labour: an inductive qualitative study among post-partum women in Ghana. *BMC Pregnancy* and Childbirth 16(1): 1–10.
- Backe EL, Bosire EN, Kim AW, et al. (2021) Thinking too much: a systematic review of the idiom of distress in Sub-Saharan Africa. *Culture, Medicine, and Psychiatry* 45(4): 655–682.
- Basu AM (2004) The squabble that never ends: religion and fertility. *Economic and Political Weekly* 4: 4294–4296.
- Bennett HA, Boon HS, Romans SE, et al. (2007) Becoming the best mom that I can: women's experiences of managing depression during pregnancy–a qualitative study. BMC Women's Health 7(1): 1–14.
- Berger PL and Luckmann T (1967) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge.* Garden City, NY: Doubleday.
- Bindt C, Guo N, Bonle MT, et al. (2013) No association between antenatal common mental disorders in low-obstetric risk women and adverse birth outcomes in their offspring: results from the CDS study in Ghana and Cote D'Ivoire. *PLoS One* 8(11): 80711.
- Bolton P, Neugebauer R and Ndogoni L (2002) Prevalence of depression in rural Rwanda based on symptom and functional criteria. *The Journal of Nervous and Mental Disease* 190(9): 631–637.
- Chadwick RJ and Foster D (2014) Negotiating risky bodies: childbirth and constructions of risk. *Health, Risk & Society* 16(1): 68–83.
- Chen HY and Boore JR (2010) Translation and back-translation in qualitative nursing research: methodological review. *Journal* of Clinical Nursing 19(2): 234–239.
- Chibanda D, Shetty AK, Tshimanga M, et al. (2014) Group problem-solving therapy for postnatal depression among HIV-positive and HIV-negative mothers in Zimbabwe. *Journal of the International Association of Providers of AIDS Care (JIAPAC)* 13(4): 335–341.
- Chilimampunga C and Thindwa G (2012) The Extent and Nature of Witchcraft-Based Violence against Children, Women and

the Elderly in Malawi. Chancellor College: University of Malawi. Zomba.

- Cox JL (1979) Amakiro: a Ugandan puerperal psychosis? Social Psychiatry 14(1): 49–52.
- Cypress BS (2017) Rigor or reliability and validity in qualitative research: perspectives, strategies, reconceptualization, and recommendations. *Dimensions of Critical Care Nursing* 36(4): 253–263.
- Davidson L and Strauss JS (1992) Sense of self in recovery from severe mental illness. *British Journal of Medical Psychology* 65(2): 131–145.
- De-Graft Aikins A and Ofori-Atta AL (2007) Homelessness and mental health in Ghana: Everyday experiences of Accra's migrant squatters. *Journal of Health Psychology* 12(5): 761–778.
- Dennis CL, Falah-Hassani K and Shiri R (2017) Prevalence of antenatal and postnatal anxiety: systematic review and meta-analysis. *The British Journal of Psychiatry* 210(5): 315–323.
- Earth Institute Millennium Cities Initiative (2012) AMA Community Upgrading Profile: Nima-Maamobi Drain Area. New York: The Earth Institute at Columbia University.
- Endomba FT, Ndoadoumgue AL, Mbanga CM, et al. (2021) Perinatal depressive disorder prevalence in Africa: a systematic review and Bayesian analysis. *General Hospital Psychiatry* 69: 55–60.
- Evans J, Heron J, Francomb H, et al. (2001) Cohort study of depressed mood during pregnancy and after childbirth. *Bmj* 323(7307): 257–260.
- Fisher JRW, Morrow MM, Nhu Ngoc NT, et al. (2004) Prevalence, nature, severity and correlates of postpartum depressive symptoms in Vietnam. BJOG: An International Journal of Obstetrics and Gynaecology 111(12): 1353–1360.
- Fisher J, Nguyen H, Mannava P, et al. (2014) Translation, cultural adaptation and field-testing of the thinking healthy program for Vietnam. *Globalization and Health* 10(1): 1–10.
- Franks WL, Crozier KE and Penhale BL (2017) Women's mental health during pregnancy: a participatory qualitative study. *Women and Birth* 30(4): 179–187.
- Fuhr DC, Weobong B, Lazarus A, et al. (2019) Delivering the thinking healthy programme for perinatal depression through peers: an individually randomised controlled trial in India. *The Lancet Psychiatry* 6(2): 115–127.
- Galderisi S, Heinz A, Kastrup M, et al. (2015) Toward a new definition of mental health. *World Psychiatry* 14(2): 231–233.
- Gardner PL, Bunton P, Edge D, et al. (2014) The experience of postnatal depression in West African mothers living in the United Kingdom: a qualitative study. *Midwifery* 30(6): 756–763.
- Ghana Statistical Service (GSS) Ghana Health Service (GHS), and ICF (2018) *Ghana Maternal Health Survey 2017*. Accra, Ghana: GSS, GHS, and ICF.

- Ghana Statistical Service (2012) 2010 population and housing census: Summary report of final results. *Ghana Stat. Serv* 1: 1–117.
- Ghana Statistical Service (2021) Population and Housing Census. Accra: Ghana Staistcal Service. Available at: https:// census2021.statsghana.gov.gh/ (accessed on 27 March 2021).
- Glover V (2014) Maternal depression, anxiety and stress during pregnancy and child outcome; what needs to be done. *Best Practice & Research Clinical Obstetrics & Gynaecology* 28(1): 25–35.
- Hasson-Ohayon I, Braun M, Galinsky D, et al. (2009) Religiosity and hope: a path for women coping with a diagnosis of breast cancer. *Psychosomatics* 50(5): 525–533.
- Heaman M, Kingston D, Chalmers B, et al. (2013) Risk factors for preterm birth and small-for-gestational-age births among Canadian women. *Paediatric & Perinatal Epidemiology* 27(1): 54–61.
- Hertlein KM and Ancheta K (2014) Advantages and disadvantages of technology in relationships: findings from an open-ended survey. *Qualitative Report* 19(11): 1.
- Honikman S, Van Heyningen T, Field S, et al. (2012) Stepped care for maternal mental health: a case study of the perinatal mental health project in South Africa. *PLoS Medicine* 9(5): 1001222.
- Kagawa Singer M, Dressler W, George S, et al. (2016) Culture: the missing link in health research. *Social science & medicine* 1982 170: 237–246.
- Krug EG, Mercy JA, Dahlberg LL, et al. (2002) The world report on violence and health. *The lancet* 360(9339): 1083–1088.
- Laplante DP, Brunet A and King S (2016) The effects of maternal stress and illness during pregnancy on infant temperament: project ice storm. *Pediatric Research* 79(1): 107–113.
- Liamputtong P, Halliday JL, Warren R, et al. (2003) Why do women decline prenatal screening and diagnosis? Australian women's perspective. *Women & Health* 37(2): 89–108.
- Loewenthal KM (2000) *The psychology of religion: a short introduction.* Boston, MA: Oneworld.
- Lund C, Schneider M, Garman EC, et al. (2020) Task-sharing of psychological treatment for antenatal depression in Khayelitsha, South Africa: effects on antenatal and postnatal outcomes in an individual randomised controlled trial. *Behaviour Research and Therapy* 130: 03466.
- Lydsdottir LB, Howard LM, Olafsdottir H, et al. (2014) The mental health characteristics of pregnant women with depressive symptoms identified by the Edinburgh postnatal depression scale. *The Journal of clinical psychiatry* 75(4): 11633.
- Makinde T (2004) Motherhood as a source of empowerment of women in Yoruba culture. *Nordic Journal of African Studies* 13(2): 11.
- Moreira-Almeida A, Koenig HG and Lucchetti G (2014) Clinical implications of spirituality to mental health: review of evidence and practical guidelines. *Brazilian Journal of Psychiatry* 36: 176–182.

- Nakku JN, Nakasi G and Mirembe F (2006) Postpartum major depression at six weeks in primary health care: prevalence and associated factors. *African Health Sciences* 6: 207–214.
- Napier AD, Depledge M, Knipper M, et al. (2017) Culture Matters: Using a Cultural Contexts of Health Approach to Enhance Policy Making. Regional Office for Europe: World Health Organization.
- Neema SB (1994) Mothers and Midwives: Maternity Care Options in Ankole, Southwestern Uganda. Doctoral Thesis. Institute of Anthropology, University of Copenhagen.
- Nettleton S (2020) *The Sociology of Health and Illness*. Cambridge, UK: Polity Press.
- Ng'oma M, Bitew T, Kaiyo-Utete M, et al. (2020) Perinatal mental health around the world: priorities for research and service development in Africa. *BJPsych International* 17(3): 56–59.
- Odotei I (1989) What is in a name? the social and historical significance of Ga names. *Institute of African Studies Research Review* 5(2): 34–51.
- Okagbue HI, Adamu PI, Bishop SA, et al. (2019) Systematic review of prevalence of antepartum depression during the trimesters of pregnancy. *Open access Macedonian journal of medical sciences* 7(9): 1555–1560.
- Oppong C (2005) Conjugal Resources, Power, Decision Making and Domestic Labour: Some Historical and Recent Evidence of Modernity from Ghanaian Families. Legon: Institute of African Studies, Occasional Research Papers Series, University of Ghana.
- Owusu G and Agyei-Mensah S (2011) A comparative study of ethnic residential segregation in Ghana's two largest cities, Accra and Kumasi. *Population and Environment* 32(4): 332–352.
- Ozcan O, Hoelterhoff M and Wylie E (2021) Faith and spirituality as psychological coping mechanism among female aid workers: a qualitative study. *Journal of International Humanitarian Action* 6(1): 1–14.
- Patel V, Simunyu E, Gwanzura F, et al. (1997) The shona symptom questionnaire: the development of an indigenous measure of common mental disorders in Harare. *Acta Psychiatrica Scandinavica* 95(6): 469–475.
- Patel V, Abas M, Broadhead J, et al. (2001) Depression in developing countries: lessons from Zimbabwe. *Bmj* 322(7284): 482–484.
- Pearson RM, Bornstein MH, Cordero M, et al. (2016) Maternal perinatal mental health and offspring academic achievement at age 16: the mediating role of childhood executive function. *Journal of Child Psychology and Psychiatry* 57(4): 491–501.
- Pobee RA, Setorglo J, Kwashie Klevor M, et al. (2022) High levels of depressive symptoms and low quality of life are reported during pregnancy in Cape Coast, Ghana; a longitudinal study. *BMC Public Health* 22(1): 1–10.

- Quartey-Papafio JJ (2006) Changing Livelihoods in Ga Mashie, A Coastal Settlement in Southern Ghana from 1957–2004. Ph. D Thesis. Legon, Accra: Department of Geography and Resource Development, University of Ghana.
- Rahman A, Iqbal Z and Harrington R (2003) Life events, social support and depression in childbirth: perspectives from a rural community in the developing world. *Psychological medicine* 33(7): 1161–1167.
- Rahman A, Malik A, Sikander S, et al. (2008) Cognitive behaviour therapy-based intervention by community health workers for mothers with depression and their infants in rural Pakistan: a cluster-randomised controlled trial. *The Lancet* 372(9642): 902–909.
- Rubertsson C, Hellström J, Cross M, et al. (2014) Anxiety in early pregnancy: prevalence and contributing factors. Archives of Women's Mental Health 17(3): 221–228.
- Saeed N and Wemakor A (2019) Prevalence and determinants of depression in mothers of children under 5 years in Bole District, Ghana. *BMC Research Notes* 12(1): 1–6.
- Scorza P, Owusu-Agyei S, Asampong E, et al. (2015) The expression of perinatal depression in rural Ghana. *International journal of culture and mental health* 8(4): 370–381.
- Sefogah PE, Samba A, Mumuni K, et al. (2020) Prevalence and key predictors of perinatal depression among postpartum women in Ghana. *International Journal of Gynecology & Obstetrics* 149(2): 203–210.
- Smith JA (2015) qualitative psychology: a practical guide to research methods. *Qualitative psychology* 1–312
- Smith JA and Fieldsend M (2021) Interpretative phenomenological analysis. In: Camic PM (ed). Qualitative Research in Psychology: Expanding Perspectives in Methodology and Design. 2nd ed. Washington DC: USA: American Psychological Association, 147–166.
- Smith JA, Flowers P and Larkin M (2009) Interpretative Phenomenological Analysis: Theory, Method and Research. London: Sage.
- Staneva A and Wittkowski A (2013) Exploring beliefs and expectations about motherhood in Bulgarian mothers: a qualitative study. *Midwifery* 29(3): 260–267.
- Staneva AA, Morawska A, Bogossian, et al. (2018) Maternal psychological distress during pregnancy does not increase the risk for adverse birth outcomes. *Women & Health* 58(1): 92–111.
- Stein DJ, Kupfer DJ and Schatzberg AF (2006) The American Psychiatric Publishing Textbook of Mood Disorders. Washington D.C: American Psychiatric Publishing, Inc.
- Stewart RC, Umar E, Gleadow-Ware S, et al. (2015) Perinatal distress and depression in Malawi: an exploratory qualitative study of stressors, supports and symptoms. *Archives of Women's Mental Health* 18(2): 177–185.
- Thornicroft G (2011) Physical health disparities and mental illness: the scandal of premature mortality. *The British Journal of Psychiatry* 199(6): 441–442.

- Twumasi PA (2005) Medical Systems in Ghana: A Study in Medical Sociology. Tema: Ghana Publishing Corporation.
- University of Ghana Health services (2022) *History*. Available at: https://www.ug.edu.gh/healthservices/history-0 (Assessed 20 November 2022).
- Varcin KJ, Alvares GA, Uljarević M, et al. (2017) Prenatal maternal stress events and phenotypic outcomes in Autism Spectrum Disorder. *Autism Research* 10(11): 1866–1877.
- Vitorino LM, Chiaradia R, Low G, et al. (2018) Association of spiritual/religious coping with depressive symptoms in highand low-risk pregnant women. *Journal of Clinical Nursing* 27(3-4): 635–642.
- Weobong B, Ten Asbroek AH, Soremekun S, et al. (2014) Association of antenatal depression with adverse consequences for the mother and newborn in rural Ghana: findings from the DON population-based cohort study. *PLoS One* 9(12): 116333.
- World Health Organization (2021) *Comprehensive Mental Health Action Plan 2013–2030*. Geneva, Switzerland: World Health Organization.
- Worrell J and Remer P (2002) *Feminist Perspectives in Therapy: Empowering Diverse Women*. New York: Wiley.

# Appendix A

Semi structured interview guide

## Introductions

- (1) Introduction of interviewers
- (2) Introduction of project:

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. We will explore what your experiences during pregnancy are and also your perceptions and understanding of perinatal mental health.

- Aim: To ask you to share your experiences of being pregnant as well as your experiences, perceptions and understanding of perinatal mental health problems. We will also explore your perceptions and experiences of health care in Accra.
- (3) Introduction of recorder
- (4) Participant signs informed consent form
- (5) Switch recorder on

#### Background information

Socio-demographic questions of pregnant women

- (1) Age.....
- (2) What is your gestational age?....
- (3) Religion.....
- (4) What is your marital status?
- (5) How many children do you have?
- (6) What is your occupation?.....

#### Main questions and follow ups

- (1) Let's talk about your pregnancy
  - How does being pregnant make you feel? Happy, sad, fulfilled, feel like a complete woman etc.
  - How is the period of pregnancy different from when you were not pregnant?
  - Is this your first pregnancy?
  - If it is, what are some of your experiences so far? Challenges and or benefits. Do you experience excessive sleeplessness, tiredness among others.
  - Was this pregnancy planned? Feelings about it
  - Do you know the gender of your baby? How do you feel about it?
  - Are there any health issues you are experiencing currently that are associated with your pregnancy? How do you feel about it?
- (2) Let's talk about perinatal mental health problems
  - What do you understand by mental disorder?
  - Do you think pregnant women experience mental disorders?
  - What do you think are some of the causes of mental disorders in pregnant women
  - Do you think there is a link between challenges/stressors during pregnancy and mental disorder?
- (3) Let's talk about the experience of perinatal mental health problems
  - Have you experienced any mental health difficulties yourself?
  - Where do you go/where would you go if you happen to experience any mental health challenge?
  - Are there any traditional rites/practices that have been performed for you or that you adhere to, that you think protect you from mental disorder during pregnancy? Not eating certain foods etc.
  - Have you ever experienced thoughts of committing suicide?
  - Has any member of your family had a history of mental illness?

• Are you satisfied with the level of care you have received from your health facility during your pregnancy?

# Closure and debriefing

- (1) Do you have anything else to tell me about this topic?
- (2) Do you have any questions for me?
- (3) How have you felt about participating in this interview that explored your experiences while pregnant and your perceptions about perinatal mental health problems?
- (4) Is there anything you wish had been done differently in this interview?