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Deepika Goyal
San Jose State University, deepika.goyal@sjsu.edu

Kantoniony M. Rabemananjara
The George Washington University

Sandraluz Lara-Cinisomo
University of Illinois Urbana-Champaign

Huynh Nhu Le
The George Washington University

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Healthcare worker's understanding of perinatal depression and maternal mental health service needs in rural Kenya

Deepika Goyal [a,*], Kantoniony M. Rabemananjara [b], Sandraluz Lara-Cinisomo [c], Huynh-Nhu Le [b]

[a] The Valley Foundation School of Nursing, San José State University, One, Washington Square, San José, CA 95192, USA
[b] Department of Psychological and Brain Sciences, George Washington University, 2013 H St. NW, Washington, DC 20052, USA
[c] Department of Kinesiology and Community Health, University of Illinois at Urbana-Champaign, IL, USA

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ABSTRACT

Background: Perinatal depression is a significant maternal mental health issue in sub-Saharan Africa. Because of the severe shortage of mental health specialists in this region, healthcare workers can be trained to deliver mental health services. Yet, little research has examined their views about maternal mental health.
Aims: To help inform the development of a perinatal depression screening program, the aim of this pilot study was to explore the knowledge and understanding of perinatal depression among healthcare workers in rural Kenya.
Methods: Fourteen healthcare workers participated in focus group interviews.
Results: Content analysis of interview data yielded three primary themes: 1) healthcare workers' knowledge and understanding of perinatal depression, 2) symptoms of perinatal depression, and 3) identification of perinatal mental health help-seeking resources and barriers in a rural community. Additionally, healthcare workers used a hierarchical approach to manage perinatal depressive symptoms, first by using available resources at the clinic, followed by psychiatric referral as indicated.
Conclusions: Healthcare professionals may use study findings to enhance awareness of barriers and stigma associated with perinatal depression and to create a culturally sensitive mental health program for women in this rural community.

1. Introduction

Perinatal depression (PD) is defined as the onset of depressive symptoms anytime during pregnancy and the first year after childbirth (O'Hara & Wisner, 2014). A significant public health concern, PD is associated with poor maternal and infant psychological, behavioral, and physical outcomes (Kendig et al., 2017). In the United States (U.S.), the prevalence of depression during pregnancy is 8.5%–11% and 6.5%–12.9% during the first postpartum year (Gaynes et al., 2005). Much higher PD rates are noted in low- and middle-income countries (LMICs), with rates of up to 50% in sub-Saharan Africa (Adewuya et al., 2007; Azale et al., 2016; Fekadu Dadi et al., 2020; Fisher et al., 2012; Gelaye et al., 2016; Kariuki et al., 2022; Ongeri, 2016; Ongeri et al., 2018).

When left untreated, PD is associated with low infant birth weight, preterm birth, poor maternal-infant bonding, and impaired infant cognitive development (Gelaye et al., 2016). Despite higher rates of PD in sub-Saharan Africa, a severe shortage of mental health specialists decreases the likelihood that women will receive much-needed mental health care. For example, there are 125.2 mental health workers per 100,000 population in the U.S. (World Health Organization, 2014), in stark comparison to 1.7 mental health workers per 100,000 population in Africa (WHO, 2011), and 500 specialist mental health workers in Kenya with a population of over 50 million (Marangu et al., 2014). Due to the extensive mental health treatment gap in Kenya, healthcare workers (HCWs) have been trained to deliver services through *task-shifting*, a process where mental healthcare professionals train HCWs to provide psychological services in settings within existing health programs in LMICs, including prenatal clinics (Chowdhary et al., 2014: Gilmore & McAuliffe, 2013).

1.1. Maternal mental health in Sub-Saharan African countries

Researchers have included pregnant and postpartum women, their families, HCWs, and community healers as stakeholders in determining

* Corresponding author.
E-mail address: deepika.goyal@sjsu.edu (D. Goyal).

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best practices to identify and treat maternal mental health among women in sub-Saharan African countries. Findings indicate women use other words to describe depressive symptoms, e.g., *efori tulu* (headache), *kufungisisa* (thinking too much) (Backe et al., 2021), sickness of thoughts (Tol et al., 2018), crying heart (Lasater et al., 2018), sleeplessness, stress, madness (Adeponle et al., 2017), and being sad or unhappy (Davies et al., 2016). Women in sub-Saharan Africa attribute depressive symptoms to financial difficulties, relationship problems (polygamy, lack of support, neglect, and infidelity), traumatic events (intimate partner violence and loss), and fear of birth outcomes (Adeponle et al., 2017; Ng'oma et al., 2019). Other risk factors implicated in the development of PD in sub-Saharan Africa include being single, divorced, separated, unemployed, lack of support, relationship problems, abuse, unwanted or unplanned pregnancies, food insecurity, and cultural factors (e.g., inability to adhere to postnatal traditions, inability to rest after giving birth, preference for males, and being attacked by "bad spirits" (Adeponle et al., 2017; Davies et al., 2016; Garman et al., 2019; Sarkar et al., 2018; Wittkowski et al., 2014). Discrimination at work and past exposure to trauma can also exacerbate prenatal mental distress (Mall et al., 2014). Relationship problems, such as conflict with a partner, can significantly increase the odds of developing postpartum depression (Ongeri et al., 2018). To our knowledge, research in Kenya has not yet explored HCWs' perinatal mental health understanding.

Several researchers have identified mental health help-seeking barriers among women living in sub-Saharan Africa during pregnancy or the postpartum period. Interview data from primary care providers in South Africa and Uganda revealed healthcare system-related barriers (lack of mental health skills training, high provider-to-patient ratio, lack of priority for screening) and patient-related barriers (poor social support, poor access to healthcare services, transportation costs, low literacy levels, stigma) that prevented women from seeking mental health help (Nakku et al., 2016). In Malawi, HCWs recognized PD as a social problem rarely identified or managed in their community (Ng'oma et al., 2019). Lastly, in South Africa, HCWs reported that perinatal women with symptoms of mental distress felt pressured to carry on with tasks regardless of how they felt (Mall et al., 2014). What remains unclear is whether HCWs in rural Kenya perceive similar barriers to perinatal mental health help.

1.2. Maternal mental health in Kenya

Idioms of mental distress unique to Kenya include problems with the mind, inability to care for the family, and hopelessness about the future (Green et al., 2018; Marangu et al., 2021). Research to date in Kenya has focused on the development and translation of PD screening tools (Green et al., 2018; Kumar et al., 2015), predictors of postpartum depression (Kariuki et al., 2022), risks for developing PD (Ongeri, 2016; Ongeri et al., 2018), infant feeding among women with PD (Madeghe et al., 2016), nurses' knowledge of depression (Muga et al., 2019), expanding PD treatment (Green et al., 2020), and assessing mental health workers' mental health literacy (Marangu et al., 2021).

However, no studies could be found that have explored the understanding of maternal mental health among HCWs who work with and support childbearing women in Kenya. An emphasis on HCWs is critical because they address vital treatment gaps in small rural clinics, where resources are scarce, by providing essential care to perinatal mothers, including mental health support.

1.3. Postcolonial perspective

This exploratory qualitative research based its theoretical foundation on a postcolonial perspective. Adopting a postcolonial perspective provides a theoretical lens through which everyday experiences of marginalization, such as PD in this paper, are situated within a particular context of power, recognizing that one's knowledge is socially constructed and value-laden and that the race, class, and gender of a researcher can influence the research process (Kirkham & Anderson, 2002).

1.4. Study purpose

The present pilot study aimed to examine HCWs' understanding of PD in a rural clinic in Kenya. Specifically, we aimed to answer the following research questions: (1) What is the understanding of PD among HCWs in rural Kenya? (2) What PD screening resources and referral options were available to HCWs? (3) What are the identified barriers for women seeking mental health help? Adopting a postcolonial stance allows us to examine HCWs' understanding of PD and how PD is experienced and expressed by the women they serve at the recently opened antenatal clinic. The findings from this study will help inform program development within this specific setting.

2. Methods

Our study was approved by the San José State University Human Subjects Research Institutional Review Board (approval no. F19143). All participants provided written informed consent before taking part in the study.

2.1. Design

Using an exploratory qualitative design, we conducted focus group interviews with HCWs that included nurses, community health volunteers (CHVs), and clinic staff in one clinic in rural Kenya. CHVs are non-medical laypeople who are trained by the nursing staff to make home visits and deliver health promotion messages to people in their communities (CHW Central, 2022; Vareilles et al., 2017). Consonant with a postcolonial framework that places the participants' voices at the center of analysis (Kirkham & Anderson, 2002), we chose focus groups as our methodology as they are useful for understanding HCW's knowledge about healthcare services and how such services can affect women's mental health help-seeking behavior and provide insight when developing culturally appropriate and equitable intervention programs (Halcomb et al., 2007), and allow participants to share their understanding in a non-threatening environment (Tausch & Menold, 2016). It is also important to note that cultural and socioeconomic factors can influence these perspectives (Kirkham & Anderson, 2002).

2.2. Sample and setting

Using convenience sampling, HCWs (nurses, CHVs, clinic staff) currently working with perinatal women in one clinic in rural Kenya were invited to participate. The clinic serves childbearing women in one rural community at the base of Mount Kenya. At the time of data collection, perinatal care was a relatively new addition to other services provided at the clinic and had been open for 6 months. Eligible participants were 18 years of age or older and spoke Swahili or English.

2.3. Data collection procedure

The clinic manager informed staff about the study at the weekly staff meetings, and three focus groups were scheduled. The first two focus groups included CHVs, and the third included five registered nurses and clinic staff. The focus groups were conducted in English, Swahili, and the local dialect, with a translator present as needed. All focus groups were conducted in a conference room after the first author answered any questions and obtained participants' verbal or written consent to audio record the session. The first author, an English speaker and not an employee of the clinic, was the lead interviewer for all three focus group interviews, which lasted 60-70 minutes each.

2.4. Semi-structured interview guide

The focus group semi-structured interview guide was developed after reviewing previous research conducted with pregnant and postpartum women and HCWs in Africa (Adeponle et al., 2017; Ng'oma et al., 2019). We also asked participants to describe, from their point of view, patients' attitudes about mental health treatment and treatment preferences within this specific cultural setting. See Table 1 for examples of interview questions.

2.5. Research team

The research team included four members. The first author and lead interviewer conducted all of the focus group interviews in Kenya. Two local clinic members were present at the focus group interviews with the CHVs. One of the clinic members, although not Kenyan, has lived and worked in Kenya and the women in this rural community for 8 years. Her experience helped to provide an insider's view. The translator is also employed as a Community Health Field Officer at the clinic and provided real-time translation. His ability to translate between local dialects (e.g., Kimeru, Swahili) and English and being a resident was instrumental in providing an insider's view. Three additional team members in the U.S. developed the study questionnaires, coded, and analyzed the interview data. Please see the reflexivity section for full details.

2.6. Data analysis

Participant characteristics were analyzed using descriptive statistics, and we used qualitative content analysis to analyze focus group data. Audio-recorded focus group data were transcribed verbatim by the second author and two research assistants. Unclear participant comments or Swahili translations were marked, and the second author met and discussed them with the first author and the translator to clarify any unclear responses and to ensure translations were accurate. Complete transcriptions were then analyzed using content analysis. This context-based framework synthesizes a large amount of text into a concise summary of key results, which can then be developed into meanings and themes (Erlingsson & Brysiewicz, 2017). The first and second authors read all transcripts and coded meaning units into labels using the research questions as a guide. Next, the authors met to discuss emerging themes, presented their labels, illustrated the definition of those labels using quotes from the transcripts, and reached a consensus on which labels to use to code the transcripts. Throughout this process, the third author guided the analysis process and helped to resolve any discrepancies until a consensus was reached. A final meeting took place to review and determine the naming of all themes, and all authors participated in this process.

We acknowledge that the research team was composed of four different members with different knowledge of qualitative research and perinatal depression in Kenya, which may bias our interpretation of the types of questions that we ask as well as our interpretation of the results. We acknowledge that we have different ethnic and cultural backgrounds in terms of power and education levels in reviewing the stories that emerged in the focus groups. This context informed the choices of the quotes that we provided in this manuscript. As described above, the first and second authors reviewed the data analysis coding and use of quotes with the third author to ensure they represented the data and not the assumptions or understanding of those analyzing the data.

2.7. Reflexivity

We acknowledge that implicit bias and cultural experiences of the research team may have informed data review and analysis. The first author (DG) is of Asian Indian descent, grew up in the United Kingdom, and completed her education as a nurse practitioner in the United States. The second author (KR) was born and raised on the island of Madagascar, located in the Southeast of Africa. She moved to the United States more than 10 years ago and is now a psychologist in training. We recognize that our background and fields provide a lens that enables us to have insight into the responses/data. The third author (SL) is a Mexican immigrant raised in the United States. The fourth author (HL) is a clinical psychologist, an immigrant to the United States of Southeast Asian descent, and a researcher with extensive experience in adapting and developing interventions for perinatal depression for rural women in Kenya, Tanzania, and other parts of sub-Saharan Africa. The first author (DG)has obtained feedback from health providers, CHVs, and women on understanding how PD affects perinatal women in Kenya; this lens helped her to develop the research questions with the larger research team and analyze the results collectively with the research team. The second (KR) and fourth authors (HL) are familiar with the geographic area and have worked with providers and women at the study site. Additionally, the second author (KR) is familiar with the contextual factors examined in the study as she was exposed to similar environments in her home country (knowing also that the sub-Saharan African region is very diverse). This insight enabled us to consider the complex factors that may have affected responses and our data assessment. The third author (SL) reviewed and discussed the findings with the first (DG) and fourth authors (HL) to reduce potential bias to ensure the data supported the data coding. Because of this insight and data analysis procedures, we could consider the cultural influences in our study populations, such as poverty, subservience of women, a preference for boys, multiple wives, and the notion that mental health issues are the consequence of a curse.

Using a postcolonial theoretical framework, we further acknowledge that the research team's implicit bias and cultural experiences may have informed data review and analysis. The third author reviewed and

Table 1
Examples of semi-structured interview guide questions.

Area of Inquiry	Questions
Understanding of Perinatal Depression	1. Please tell us what is your understanding of perinatal depression (PD). *What is depression?* 2. What describe the things you think can cause a new mother to become depressed? *(Probe for stress from family, work, economic factors, work, etc.)* 3. How can depression affect a pregnant woman or a mother? (*Probe for psychological impact.)* 4. Can you describe what it is like for a woman who is experiencing depression from your perspective? (*Probe here for specific symptoms.)* 5. What other words are used in the community for a new mother who is experiencing depression? *Probe: Would you describe her as depressed?* (Note: *Ask this only if the term depression is not mentioned.)*
Perinatal Depression Resources	1. What are the treatment options here for women with PD? 2. How likely is it that a depressed mother will seek help? 3. What can keep a depressed mother from seeking (the specific) approach/treatment *(Probe for instrumental barriers, family obligations, stigma, etc.)* 4. What should be avoided when informing mothers of their treatment/help options *(Probe for privacy)*

discussed the findings with the first and fourth authors to reduce potential bias to ensure the data supported the data coding. From a post-colonial perspective, the data indicate that macro-level factors influence our study population's health-seeking behaviors and experiences of PD, such as poverty, gender expectations, and healthcare-level barriers, and that women's symptoms and behaviors are not solely a result of individual factors (O'Mahony et al., 2013). These influences can also affect women's health and mental health care in the antenatal clinic and other related services in the community in which they reside.

3. Results

3.1. Demographic characteristics

Fourteen HCWs participated in three focus group interviews, including nine CHVs, three registered nurses, and two clinic staff. Most participants were female (64%, $n = 9$), and all were educated at the primary school level or higher. Overall, the CHVs were older [$M = 52.9$ ($SD = 13.87$) years] than the nurses/clinic staff [$M = 31.2$ ($SD = 6.14$) years]. All participants had community and public health backgrounds and had worked at the clinic for 1 to 3 years.

The following three themes emerged from the analysis of interview data: 1) HCWs' understanding of PD, 2) symptoms of PD, and 3) resources and barriers to mental health help-seeking.

3.2. Healthcare workers' understanding of perinatal depression

Participants in all three focus groups described how "stress" was commonly used by women in their community to describe depression. For example, one CHV stated, *"So stress, they normally say it's stress because the woman will just say I don't want to talk to you, I have stress."* Participants described psychosocial (e.g., interpersonal conflict), cultural beliefs, and socioeconomic factors that they believed contributed to stress or PD among the women in their community. For example, one CHV described family conflict with women's partners, relatives, or in-laws,

> *Most of the community, [in most of the families], there is a lot of fighting between the in-laws. Especially the mother and the daughter-in-law. The mother-in-law may be intending to get something from the expectant mother. And that expectant mother has nothing to help the mother [in law]. So, when she tries to explain to the family that she has nothing to help them, now there can be crisis from that.*

Another nurse discussed how infant gender such as male preference could lead to family conflict,

> *They won't have a good relationship with the husband cause most of them…they think they are not fit; the man thinks that maybe it is their [the mother's] fault that they are not able to conceive a boy. You have to have a boy to carry on the family name and be the heir.*

Another CHV described the commonly held cultural belief that PD originates from bad spirits, *"The mother decided that she should come and stay [with her mother] since there were those bad spirits that were tormenting her."*

3.3. Symptoms of perinatal depression

Participants from all three focus groups described symptoms of PD presenting as social withdrawal, isolation, emotional expression, and poor functioning. Healthcare workers described a concept of 'social withdrawal' where some women have run away from home after giving birth because of shame and stigma associated with depression. Social withdrawal was also discussed within the context of family conflict and the lack of support from the spouse and in-laws. As one participant stated,

> *So, the mother can get depression and she can run away from that family because there is no love from the in-laws. So that thing [conflict] can cause the mother to have depression and to run away from this family.*

Healthcare workers also described examples of women who abandoned or neglected their infants due to severe depression, as one nurse stated, "*Yeah, depression becomes extreme. You know some struggle with the babies you hear that somebody threw their baby at a pit latrine or just left them abandoned the baby by the roadside.*"

In addition to child neglect and abandonment, another nurse described an instance of a woman who killed herself due to severe depression,

> *It's a rare condition, but one time I came across someone who was depressed after she gave birth and one time she just left the kid laying on the bed and she just went to the washrooms and she committed suicide.*

Participants also described women who isolated themselves from the community when feeling depressed. One nurse stated, "*I've seen someone like maybe they [the mothers] have been talking a lot and suddenly they just want to be alone like they just like we're in a group and they distance themselves.*"

Healthcare workers described emotional expression as women with PD displaying a range of emotions from feeling sad, anger, quiet, to more intense emotions such as 'madness,' where women may require more urgent mental health help. One CHV said, "*Sometimes you can come across a mom who is so depressed that she is almost going mad. So, they normally send them to the psychiatrist.*"

Lastly, participants reported women having limited functioning when she experienced depression. As one nurse stated, "*I think depression is more of a self-deficit from your day-to-day activities.*" Another nurse said, "*I came across someone who was depressed and after she [mother] give birth, and you can find that in the [maternity] ward, she [mother] doesn't want to attend to her child, even to bathe or breastfeed.*"

3.4. Resources and barriers for perinatal depression mental health help-seeking

3.4.1. Resources

Participants were also asked to describe resources or barriers in the community that would prevent women from seeking PD treatment. Participant responses fell into three distinct areas: existing resources, desired resources, and barriers.

3.5. Healthcare worker as a resource

Several participants described themselves as a resource for women who might be experiencing depressive symptoms. They described providing support and by listening, as one CHV stated,

> When you show love, you draw that mother close to you…After showing love, the mother now, she's likely then to talk to you. She's likely then to open… and tell you I am depressed because of 1, 2, 3. And now from there you try to help with the person, group *counseling, and showing her the need to live. So that she can change.*

Another CHV described their role as one of first-line support and described the process in place to refer women for further evaluation and treatment as needed,

> *If she [CHV] comes across a problem which she cannot solve she normally goes and calls the CHV leader of that area [village] and they go to the nurse in charge of that community, and then from there, the nurse will take the next step to do the referrals.*

3.6. Healthcare workers' desired resources

Healthcare workers described other resources to help them better

support the perinatal women in their community. For example, one CHV described the idea of having group counseling sessions for women to talk openly about their experiences. She also discussed the importance of including family members to obtain their 'buy-in' or openness and acceptability for any mental health treatment, "*They [family members] are the closest people. Or, you have to show them and convince them, give them the reason, the goodness, of being in the hospital.*"

3.7. Barriers

Participants described patient-level and healthcare system-level barriers that are associated with PD help-seeking for women in this rural setting.

3.8. Patient barriers

Financial limitations and social barriers were patient level barriers associated with women not being able to obtain PD referrals and treatment. Financial strain emerged as the top patient level barrier. Some women were unable to provide basic needs (food and clothing) for their family, as one CHV stated,

> *There are various problems within the locality to those expectant mothers where the mother cannot even get food, where a mother cannot even get good clothing during that time.*

All participants discussed financial strain as a significant factor in women not being able to provide preventing women from seeking mental health treatment. Finances were even more of a concern for women who were referred to the local hospital to see a psychiatrist. For example, one nurse described, "*Consultation or therapy session costs 500 Kenyan shillings ($5 U.S. dollars), too much money for women in our community.*" Another nurse stated, "*Our community is spread over a large rural area which means walking for miles over rugged terrain or hiring a motor bike taxi ($5 U.S. dollars) to appointments.*" Other participants stated that women were unlikely to follow-up on referrals due to the high costs, *"They [mothers] go through their means [financial]. So, it's upon the mother to take herself there. Those cases are very few*." Another participant stated, "*Because some of the mothers, they don't have money. So, you can't send them to big professionals. So, you try to work with the mother according to your ability."*

Participants also identified social barriers that prevented women from seeking help for PD, including stigma, cultural factors, and lack of trust. Participants described the role of stigma preventing women from seeking or following through on mental health services and how women feared being judged negatively by others in their local community. For example, one participant stated that women may be told that they are 'cursed' or not being 'good wives.' One CHV described,

> *The mother doesn't want to go to hospital, especially when they are depressed because of the pregnancy. Because people might start saying they are cursed or they are the second wives. . .*

Lack of trust was due to living in a small local close-knit community and women were reluctant to talk and share their depressive symptoms with clinic staff due to fear of confidential information being inadvertently disclosed. For example, one nurse stated,

> *There, some of them [mothers] feel like they disclose their problems to professionals they think that there is no confidentiality. That's what they think, but we assure them things are confidential and they don't believe in that and think that when they speak of their problems that…That you're going to share especially if you know the person.*

Participants discussed other cultural beliefs that contributed to stigma regarding PD, which may also prevent women from seeking treatment for PD. Participants in all focus groups described the strong bearing of traditional culture and religious beliefs on perceptions of mental health and how mental illness was thought to be supernatural rather than as a treatable medical condition. Some participants talked about a local religion, "*Kabonokia*," and the practice of not going to hospitals for care and instead seeking help from religious leaders and traditional healers. For example, one CHV stated, *"So this is one of the religions of the church, they don't believe in going to hospitals. They believe of healing naturally…you meet those, the followers, who don't want to go to hospitals."* Another stated, "*There are women who do not believe PD as a medical condition, but rather a "curse" so they choose to go to "witch doctors" to heal*." Another commonly held cultural belief is the notion that depression or stress and pregnancy cannot coexist, as one participant stated, "

> *Let me say here in Africa, people don't really believe you're stressed because you're pregnant. That's something that…They don't really consider that a woman can be stressed because of being pregnant.*

3.9. Healthcare system barriers

Two healthcare system level barriers were identified. The first was the lack of a formal process to screen women for PD. The clinic uses an electronic system to register patients and collect health information in the field, however, no mental health data are collected. Second, participants stated that limited mental health training impeded their ability to adequately screen and refer women at risk. One CHV described the process for making a mental health referral, "*They [nurses] normally send them to the psychiatrist at [hospital] and they take it from there."*

4. Discussion

To our knowledge, this is the first study describing the understanding of PD among HCWs (nurses, community health workers, clinic staff) caring for women in a recently formed maternal child health clinic in rural Kenya. Three main themes included: 1) HCWs' understanding of PD, 2) symptoms of PD, and 3) resources and barriers for perinatal depression mental health help-seeking.

Adopting a postcolonial theoretical lens requires our research team to listen first to the voices of our participants. Our participants described the words used for PD or depression in the community, including the word "mad" or "madness" as an extreme expression of PD, which seems to be more culturally rooted and consistent with previous qualitative findings in some parts of sub-Saharan Africa (Davies et al., 2016). Healthcare workers also discussed "stress" as another word for depression, which has consistently been reported as a way to explain depression as "an idiom of distress" in other research in Africa (Davies et al., 2016; Green et al., 2017; Ng'oma et al., 2019).

The participants also discussed barriers and facilitators to women in their community seeking perinatal mental health help. The main findings suggested there were barriers at both the individual (patient) and healthcare system levels. Patient-level barriers included a lack of financial resources and low socioeconomic status, which has been consistently reported as a risk factor for PD in other studies in Africa (Gelaye et al., 2016). Other patient barriers to mental health help-seeking included social barriers such as mental health stigma and cultural beliefs that "bad spirits" cause PD, also observed in other studies in sub-Saharan Africa (Wittkowski et al., 2014).

Participants also described healthcare system-related barriers to women seeking mental health treatment, including HCWs' limited scope of practice, warranting additional training in screening for PD practices. Our findings add new insights for identifying maternal mental health issues at a health system level were challenging for the participants in our study. For example, after referring women at risk of developing PD, participants identified the lack of follow-up for women referred to psychiatry services and cost-related issues to obtaining such care. In addition, participants discussed a general lack of trust preventing women from disclosing PD symptoms due to the small, close-knit community, where there may be inadvertent sharing of sensitive

information. The lack of trust is also associated with some women seeking alternative care, some in religious sects; for example, *Kabonokia* is present in the rural community where the study took place or other healing paths (e.g., witch doctors or traditional community healers).

Despite the barriers, HCWs could describe a process available to them for referring a woman suspected of having PD for further evaluation and treatment. They see their role as a resource to women in their care and community, specifically someone who can listen to and support women with depressive symptoms. It is important to note that CHVs may have a different relationship with women than in a westernized or postcolonial notion of professional boundaries, and where the intersection of gender and class between the CHVs and the perinatal women they serve needs to also be acknowledged (Kirkham & Anderson, 2002). For example, one CHV stated, "when you show them love, you draw the mother close to you," describing the support and listening that is so valuable. We must also consider that the CHVs may have family ties and other connections with the women, given they live in a close-knit rural community. Given the limited and often inaccessible resources for support, using the self as an instrument of healing is what they can offer. When CHVs needed to escalate care, they would notify the lead clinic nurse, who would ultimately make a referral to a psychiatrist and hospitalization, as needed.

When describing currently available PD resources, HCWs stated they would like to establish group counseling opportunities for women with depressive symptoms to talk about their feelings and also encourage family members to attend if desired. Given the accumulating evidence that shows the effectiveness of delivering mental health interventions by HCWs (Chowdary et al., 2014), this can be an opportunity to implement the use of task-shifting as a way to mobilize human resources capacity in sub-Saharan Africa to support the mental health issues of perinatal women (Marangu et al., 2014). Family member support at mental health counseling sessions may make it easier for women to seek mental health help, as noted in other studies (Mall et al., 2014; Nakku et al., 2016). Moreover, given the reported supportive roles that HCWs provide for women, interventions that involve listening visits and group counseling could make a difference in the mental health of perinatal women.

4.1. Limitations

The findings from our study yield important information to help inform interventions for PD in rural Kenya, where healthcare focused on perinatal mental health is beginning to take shape. Still, our findings should be interpreted with the understanding of a few limitations. Our relatively small sample was recruited from one rural clinic, which may not represent all prenatal healthcare facilities in rural Kenya. Another limitation is that a clinic staff member who did not participate in the study translated in real time any Swahili responses into English for the audio recording, which may have led to a loss of meaning in some instances. Also, our study did not include women's voices, which could have informed the findings further and is a fruitful area in future research. Hearing women's voices firsthand is a central tenet of postcolonialism and a fruitful area of future research. Nevertheless, our results are consistent with previous research in sub-Saharan Africa.

Although our findings add value to the limited literature examining PD in rural Kenya, the results of this pilot study may not apply to other similar situations and call into question the issue of transferability. Additionally, our sample included a higher proportion of CHVs who were significantly older than the nurses and clinic staff. The larger proportion of CHVs who participated corresponds with the high number employed by the clinic at the time of data collection ($n = 198$) compared with nurses/clinic staff ($n = 10$). Other limitations include challenges/modifications when obtaining consent which can be attributed to an overall low literacy rate in sub-Saharan Africa, with poorer rates noted in rural areas and among women (Gatimu, 2018; Zua, 2021). Lastly, we did not address the reflexivity of the translator who was present for two of the three focus group interviews.

5. Conclusions

Healthcare workers' understanding of maternal mental health revealed in our study highlights areas that can strengthen current PD resources. Additionally, our findings suggest a need to take a mindful approach in setting up a future maternal mental health screening program, particularly to be aware of local religious beliefs, sources of stigma, and mistrust. Our findings also reinforce the vital role of the healthcare team in supporting and listening to women as best they can with limited resources. Future research should explore the acceptability and feasibility of using evidence-based methods of expanding maternal mental healthcare screening; for example, task shifting and listening visits have been successfully used in other communities to expand maternal mental healthcare access (Gilmore & McAuliffe, 2013; McCabe et al., 2021; Musyimi et al., 2017), with the ultimate goal of promoting maternal-infant well-being outcomes.

6. Compliance with ethical standards

Compliance with ethical standards: The research was supported by a Research, Scholarship, and Creative Activity grant from San José State University, San Jose, California, USA. *Ethical approval*: All participants agree to participate in this study. The university Institutional Review Board granted study approval.

Declaration of Competing Interest

We wish to confirm that there are no known conflicts of interest associated with this publication and there has been no significant financial support for this work that could have influenced its outcome.

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