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The expression of perinatal depression in rural Ghana

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Abstract

In low- and middle-income countries, perinatal depression (PND) has been associated with poor infant health outcomes, including frequency of infant diarrheal episodes, preterm delivery and low birth weight, and discontinuation or problems breastfeeding. Yet little is known about the awareness or expression of PND depression in Ghana. A total of 12 in-depth key-informant interviews were conducted with women who had experienced PND within the previous two-and-a-half years. Three focus-group discussions were conducted with new mothers ($n = 11$), grandmothers ($n = 8$), and fathers ($n = 9$) for contextual and supporting information. ‘Thinking too much’ was the term most commonly used to describe PND. The women saw their distress as caused largely by poverty, lack of social support, and domestic problems. Women sought help through family and religious organizations, rather than through medical services. Problems producing breast milk or breastfeeding were nearly universal complaints and suggest significant effects on infant health in the study area. These results present evidence to support the increasing consensus that depression presents in similar and disabling ways across cultures and contexts. This formative qualitative data is required to tailor depression prevention or treatment interventions to this particular socio-cultural context.

Keywords

perinatal depression; post-partum depression; depression; Ghana; maternal health

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Introduction

Qualitative methods have broad application for mental health service research, generating a richer understanding of illness experience, causal attribution, and help-seeking perceptions and behaviors (Moffatt, White, Mackintosh, & Howel, 2006). Qualitative research can provide a detailed account of the local context and social ecology in which an intervention is to be implemented, helping to understand salient norms, attitudes, and strategies relevant to prevention and treatment interventions (Hopson, Peterson, & Lucas, 2001; Sivaram et al., 2004). Without attention to a new cultural setting, adapted interventions may remain faithful to the theoretical underpinnings on which they were originally based, but will lack relevance, sustainability, and acceptability for the new target population (Bauman, Stein, & Ireys, 1991; Castro, Barrera Jr, & Martinez Jr, 2004). To improve cross-cultural assessment and treatment of mental disorders, researchers have increasingly used qualitative methods to understand local expressions of emotional and behavioral distress, and to incorporate this understanding into measurement and intervention development. For example, Patel, Simunyu, Gwanzura, Lewis, and Mann (1997) used ethnographic studies to develop the Shona Symptom Questionnaire for use in epidemiological and clinical research in Zimbabwe. Bolton (2001) used qualitative data on local expressions of grief and depression problems to validate the depression subscales of the Hopkins Symptoms Checklist for use among adults in post-genocide Rwanda. Betancourt, Speelman, Onyango, and Bolton (2009) used a similar approach to construct a scale of locally recognized depression-like problems that was employed in a trial of interventions for war-affected adolescents in Northern Uganda (Bolton et al., 2007). Such qualitative research has yet to be applied to the situation of maternal depression in Ghana.

Perinatal depression (PND), depression during pregnancy and in the year after birth, has been reported across cultures. A recent systematic review shows that in low- and middle-income countries (LMICs), 18–25% of pregnant women experience PND (Fisher et al., 2012; Husain et al., 2006). Over the past 15 years, a growing literature has shown associations between PND and adverse infant and child outcomes. Studies in LMICs have shown that maternal psychological morbidity has an adverse impact on fetal growth (Parsons, Young, Rochat, Kringelbach, & Stein, 2012; Patel & Prince, 2006; Rahman, Bunn, Lovel, & Creed, 2007) and that maternal depression is associated with infant diarrheal morbidity, independent of the effects of factors such as under-nutrition, socioeconomic status, and parental education (Parsons et al., 2012; Rahman et al., 2007). Women with PND are more likely to discontinue breastfeeding early, be unsatisfied with their infant feeding method, experience significant breastfeeding problems, and report lower levels of breastfeeding self-efficacy (Dennis & McQueen, 2007). Infants of depressed mothers show impaired maternal-child interactions, lower cognitive development, more behavioral problems, and a higher risk of psychiatric disorders during adolescent years than those of non-depressed mothers (Grote et al., 2010). In Ghana, research has shown that PND is prevalent and has adverse infant outcomes (Gold, Spangenberg, Wobil, & Schwenk, 2013; Okronipa et al., 2012; Weobong et al., 2009). A study conducted in our study area of Kintampo North and South districts in 2005 (Weobong et al., 2009) estimated the prevalence of post-partum depression to be 11.3%, which does not include depression during pregnancy

but only depression rates in the year after birth. Yet little is known about the experiences or perceived effects of PND cases on women and their children or about existing methods of care or coping in this area. It is also not known whether PND is a condition that is widely acknowledged or recognized in Ghana.

While there is an increasing consensus among researchers that depression exists universally and is disabling across cultures (Hirschfeld, 2014), culture and context-specific manifestations may impact how interventions need to be tailored to particular settings in order to achieve maximum effect. To provide such information, this study sought to explore the experiences of women with PND in Kintampo North district, central Ghana. We sought to: (1) characterize perceptions surrounding PND, from both mothers and relatives; (2) illuminate participants' understanding of contributing factors; (3) describe experiences and perceived health implications for the mothers and newborns; and (4) elicit their views about help-seeking behaviors and access to care. Understanding the patients' and relatives' experiences and perceptions surrounding PND in Ghana could help in prevention and treatment efforts.

Methods

We obtained data from two sources: (1) focus-group discussions (FGDs), and (2) key-informant interviews (KIIs). These were collected, coded, and analyzed through comparative analysis as they were being collected to ground and inform further data collection.

Setting and participants

Kintampo North District, with a population of slightly over 96,000 and an area of approximately 5108 square kilometres, is one of 27 districts in the Brong-Ahafo Region of central Ghana. The major economic activity of the inhabitants is subsistence farming, and literacy is estimated at 45%. About 70% of the population of the district live in rural areas, making healthcare service delivery challenging. Health workers travelling on motorbike make monthly visits to all communities to deliver maternal and child health services. There is a district hospital in Kintampo town that includes a Reproductive and Child Health Unit and Maternity Unit, and there are five health centers in the district. In all, 60% of births occur in the hospital or in a clinic and are supervised by a skilled attendant, not including traditional birth attendants. Another 24% of deliveries are supervised by a traditional birth attendant, who have no formal training in this setting (*Kintampo Municipal Hospital 2012 Annual Report*, 2012). There are two psychiatric nurses offering mental health services at the Kintampo Municipal hospital. However, many women in the rural areas have not registered for the National Health Insurance and cannot afford these services.

The district is endowed with a Health and Demographic Surveillance Site, one of over 46 research sites in LMICs where demographic data is consistently and intensively collected from all inhabitants (Baiden, Hodgson, & Binka, 2006). The Kintampo Health and Demographic Surveillance System (KHDSS) was created in 2003 and collects both socio-demographic and vital data on all inhabitants of the Kintampo North district (Owusu-Agyei et al., 2012). Ethical clearance for the study was granted by the Ethical Review Committee of the Ghana Health Service and the Kintampo Health Research Center, the research center

of the KHDSS. All women who were interviewed gave active informed consent to their participation. Women who were not literate gave informed consent through fingerprints.

Between May and July 2007, three FDGs were conducted, one with new mothers ($n = 11$; between ages 22 and 38), one with grandmothers ($n = 8$; between ages 53 and 79), and one with fathers ($n = 11$; between ages 24 and 53). Convenience sampling was used to recruit participants in the demographic categories of the three focus groups. The mothers in the first FGD were sampled from a clinic where children come for well-baby visits in Kintampo Hospital. Grandmothers and fathers in Kintampo town were identified by local fieldworker supervisors, who were familiar with the local population. Focus-group discussions with mothers and grandmothers were conducted in the early phases of the research when the investigators were focused more on post-partum depression, therefore the FGD guides for mothers and grandmothers focused primarily on post-partum experiences. Vignettes of post-partum depression cases described by health workers in the area were also used to stimulate discussion. These are shown in Figure 1. The fathers' FGD was conducted after data emerged from the KIIs suggesting that depression occurred during pregnancy as well. Therefore, the FGD guide for the fathers contains questions about pregnancy as well as the post-partum period. The FGD and KII guides are presented in Table 1. All FGD participants spoke Twi, the predominant native language in Ghana, and FGDs were conducted by a native Twi speaker who was trained and had experience in leading FGDs. The topic guides in Table 1 were used.

During the same months, May–July 2007, KIIs were conducted with 12 women, between ages 27 and 40, who had had confirmed or suspected cases of PND within the previous two-and-a-half years. All of the women were either married or co-habiting; eight were Christian and four Muslim. All reported either farming or food-selling as their income-generating activities. The average number of living children per woman was 5.25.

Cases were identified through three sources:

1. Six of the women who were interviewed were identified as cases in a post-partum depression diagnostic tool validation study (Weobong et al., 2009). Women were sampled from those who scored two overall on the Comprehensive Psychopathologic Rating Scale (CPRS), signifying probable cases.
2. Five women were selected who reported a high number of symptoms in a survey that was administered to a random sample of women in the KHDSS site who had given birth in the previous six months.
3. One case was identified through the mothers FGD in this study.

An experienced interviewer from the KHDSS site who was a Ghanaian male and a native Twi speaker served as a translator for all interviews, translating interviewer questions and interviewee responses throughout the interview to allow the principal investigator to probe specific areas. The KIIs followed a topic guide and lasted between a half hour and an hour each (Table 1). Topics and themes emerging from early KIIs were incorporated into the topic guide for later interviews.

Data analysis

The KIIs and FGDs recordings were transcribed in the original Twi and then translated into English. Verbatim transcripts of the audiotaped FGD and KIIs were manually coded and analyzed through constant comparative analysis: (1) comparing incidents applicable to each category, and (2) integrating categories and their properties as described by Glaser and Strauss (1965). All transcripts were initially coded separately. Each specific mention of depressive symptoms and related terms was coded until no new codes were generated. Then a taxonomy of the initial themes that emerged was developed (e.g. how the symptom affected the women). As themes were identified, the transcripts were re-coded to document evidence that supported or refined the themes, to examine other mentions of these themes, or to identify other themes. Specific quotations within each category were then analyzed to identify similarities or differences to determine trends that might tie them together. This final code list was then applied to the transcripts.

Results

We present the results in four categories: (1) expression of the condition; (2) contributing factors; (3) perceived negative health effects; and (4) help seeking, coping and recovery. The former two encompass illness-specific symptomatology and perceptions of causation (etiology). The third characterizes perceived negative impact of PND, while the last describes specific contextual community reactions and how they affect help seeking behaviors.

Expression of the condition

Women in this study described their experience of depression surrounding pregnancy and childbirth in the context of Kintampo North district in central Ghana. The term most commonly used was *'thinking too much'*, highlighting the rumination aspect of the syndrome, which interfered with sleep and functioning:

I don't sleep at night or in the day because the eyes cannot close while the mind is still thinking.

You sleep small [a little bit], and when those thoughts come into your mind you cannot sleep anymore.

Women with PND as well as grandmothers and fathers described this depressive condition as commonly beginning during pregnancy and often continuing for up to a year after childbirth. Expression both in somatic terms, particularly complaints of bodily pain, trouble eating and sleeping, and trouble producing breast milk, and cognitive emotional terms, specifically intrusive thoughts, social withdrawal, sadness, and tearfulness, were commonly present.

Contributing factors

Three major categories were recognized as being contributing factors to cases of PND. These were financial problems, family stress/lack of social support, and problems between women and their husbands/partners. In terms of financial problems, women described

struggling to get money, not having money to buy basic necessities, and specific events that stressed the women financially, including loss or lack of employment, and having spent all one's money on hospital bills.

Three specific manifestations of family stress and lack of social support seemed to contribute to the women's experiences of depression: grief due to relatives having died, problems of other family members, and lack of support because of loss or absence of family members. Mothers in the FGD also attributed the condition to women not getting help after birth or to a helper leaving earlier than expected. Often, the loss of a loved one became too difficult for the women to bear when combined with other stresses such as financial constraints, multiple deaths, or marital problems.

One woman described:

Imagine, my elder brother fell sick for three months and died. My younger brother at Nigeria was sick the following week. They carried his body to us. He was also dead. Two weeks later my mother followed. We had not finished with the funeral when my father too followed them.

The women who were interviewed frequently associated problems with husbands with the onset of PND, as did FGD participants. Cheating or jealousy of other women was a common cause of problems with husbands. For example one woman said that her husband married another woman who slept on the bed while she and her newborn slept on the floor. Participants in all three FGS's also stressed problems with husbands as contributing factors. Only 2 out of 12 cases interviewed reported that their husbands had physically abused them, though there may have been under-reporting, given the sensitive nature of reporting abuse.

Men in the FGD seemed to be aware of the tendency of husbands to distress their wives during pregnancy. One man explained that a husband should not do anything to disturb the wife's heart, such as going out frequently, since when a man goes out frequently people normally think he is chasing women. Another man said that a husband should have sex with his wife during pregnancy for easy delivery. Most men, he explained, refuse to sleep or go near their wives during pregnancy. A father explained that the men who maltreat women after delivery do so because they think that women after delivery can neither help them in their farms nor provide sexual satisfaction for them.

Perceived negative health effects

The women who were interviewed described their conditions as having effects that could be detrimental to their own health and the health of their children. The fact that 7 out of the 12 women interviewed believed that their condition could kill them or their infants and the fact that 5 of the women had suicidal thoughts shows the severity of the suffering. Additionally, participants in all FGDs – mothers, fathers, and grandmothers – were able to describe serious health and development effects on women and children that result from PND. These effects fall into three major categories: effects on breastfeeding, sickness in the infant, and sickness or death in the woman.

Breastfeeding—Effects on breastfeeding were nearly universally recognized and described. One woman said that when she ‘thinks too much, the child doesn’t get breast milk to suck because breast milk is not available’. Some women reported that they didn’t feed the child often enough when they were depressed. Mothers from the FGD said that a woman with such problems thinks too much, grows lean, and cannot breastfeed. Grandmothers also said that women without happiness either cannot breastfeed or refuse to breastfeed their babies. One grandmother said that if a woman has no happiness, her baby can see that her mother is sad by looking at the mother’s face, in which case the baby would not breastfeed. Fathers also said that babies of withdrawn women are not breastfed well because mothers do not eat well and therefore do not produce enough milk for breastfeeding. Thus it was nearly universal in KII and FGD respondents that women suffering from this condition after birth have problems with breastfeeding.

Sickness in the infant—Of the 12 women, 2 reported chronic sickness in their infants. In the FGDs, however, the participants more readily mentioned illness in the infants as an effect of PND. Mothers, grandmothers and fathers said that the baby in such situations can fall sick very often, get diarrhea, and grow lean. Fathers said that ‘thinking too much’ makes babies unable to grow well because women in that state do not spend enough time with their babies. One father said that ‘thinking too much’ causes some women to throw their babies into the gutters, abort, or kill them.

Sickness/death in the women—Of the 12 women, 5 reported suicidal thoughts, although none said they had considered ways of killing themselves. Of the 12 women, 7 said they thought the depressive condition could kill them and some of them expressed how too much thinking can make the mind full, which leads to sickness or death:

You can even die and leave the children behind. Yes, it can result in heart disease and madness, which can all end in death.

A car may knock her down due to [too many] thoughts. This is because when you start thinking of the problem, you can’t think of any other thing than your problem. You don’t think of where you are going.

Help seeking, coping, and recovery

Role of family/community—Some women reported having presented at a health facility with somatic symptoms, but largely they dealt with the distress by seeking loans or alms from family or friends, by praying, or by waiting until their infants were old enough for them to resume work. Six of the women interviewed said that the people around them either didn’t know what they were going through or couldn’t help. In the FGD with fathers, one man said that to prevent anger that can lead to miscarriage, some women become very reserved during pregnancy. A father further described that some women do not like disturbances. ‘*Ne weni mpe nipa*’ is the name given to such a woman, which means, ‘her nose doesn’t like human beings’. The only thing that can be done about this problem, they said, is to prevent people from getting closer to such women since she would want to be left alone. Some women in the KIIs also said that they didn’t tell those around them what they were going through.

At the same time, seven of the woman said that others in the community had given them advice or had prayed for them. The advice was to stop thinking so much, to take heart, to have patience, to concentrate on taking care of the other children, to divorce, to put faith in God, and not to be too quiet and isolated. Two of the women said that the advice of those around them helped them to recover from their condition after some time. Three women described how their older children succeeded in supporting them while they were suffering. One woman described, how her daughter inspired her to act to better her financial situation:

She sat down quietly and also looked at me and asked ‘Mummy, what are you thinking of?’ I told her we didn’t have money to buy food, soap, and so on. She told me that we should go and burn charcoal, and we would get money.

Six of the women said that their husbands sometimes gave them advice or comforted them.

Help seeking—The majority of the women interviewed did go to seek help. The most significant help-seeking outlet was religion, specifically praying or going to a church or mosque for prayers. Another common help-seeking strategy was to combat financial difficulties by going to a friend or relative for a loan. Additionally, some women went to the hospital, although all who reported going to the hospital went for somatic symptoms (for example, pain and not producing breast milk). The women also described visiting traditional medical practitioners for medicines to increase appetite, produce breast milk, and relieve sickness. Most women did not feel that doctors could help with the problems associated with their depression. As one woman explained, “Maybe when you tell a nurse she will say that she is experiencing the same thing. If I go to tell a doctor will he or she lend me money to calm down my thinking?”

Discussion

To determine the culture and context-specific manifestations of PND among women in Ghana, this study explored the experiences of women with PND as well as the perceptions from other family members – grandmothers and fathers. Women, grandmothers, and fathers in this study in rural central Ghana described a condition of maternal depression very similar to what is recognized in other parts of the world. The term most commonly used to describe the condition was ‘thinking too much’. This term has been described elsewhere in Africa, for example by Patel, Abas, Broadhead, Todd, and Reeler (2001) in their research on depression in Zimbabwe. The responses from all participants in KIIs and FGDs implied that onset of depression is more common during pregnancy than after pregnancy, though the depression often carried into the postpartum period. Therefore, it may be more pertinent and comprehensive to talk about PND rather than the more familiar term, postpartum depression, in this context. Negative effects of PND on infants and mothers postpartum were readily described by participants in this study (e.g. impacts on breastfeeding and the health of mothers and infants). The impacts could extend even beyond those identified in this study, possibly impacting intra-uterine fetal developmental. Patel and Prince (2006), for example, found in India that babies born to women who were depressed during pregnancy had and lower birth weights.

By examining the experience of psychological distress around childbirth in a resource-poor rural and semi-rural district in Ghana among women with history of PND, as well as grandmothers and fathers, this study provides context-specific information that could be used to tailor an intervention for depression to this context. For example, the help-seeking behaviors found in this study seldom take place within health settings and women do not perceive health facilities as places to receive care for depression. Therefore, identifying community-level rather than institutional-level means of providing support for these women is most appropriate at this time. Community-level support could be provided by the mobile health workers who already visit each village providing maternal and child health services. A home-based program integrated into existing maternal and child health services, such as the Thinking Healthy Programme developed in Pakistan (Rahman, Malik, Sikander, Roberts, & Creed, 2008) could be appropriate in this setting. Still, health workers at clinics and hospitals, particularly health workers in routine antenatal care, should be educated about 'thinking too much' and could refer women who present with the symptoms described in this study to a treatment intervention. Women who present in health facilities with problems breast-feeding, for example, could be screened for depression and referred to a treatment intervention.

Given the finding that problems with male partners were seen as a major contributor to depression, and that men often maltreat or neglect women during pregnancy or postpartum, a prevention or treatment intervention should aim to involve male partners. Religious leaders and traditional healers could also be engaged for such interventions, as they may be the first to be consulted by some women with PND (Tabi, Powell, & Hodnicki, 2006). Engaging these community authority figures could also help interventions to succeed in addressing the social, cultural, and economic contexts these women experience. Interventions beyond the purview of individualized health interventions, including family- or community-based interventions may be necessary (Abramsky et al., 2014).

One potential limitation in this study was recall bias, given that the women we interviewed who had been identified through the CPRS study had had births up to two years before the interviews. The women gave full and detailed accounts of their situations, which suggested that the period of depression was a significant enough event to remain strongly in their memories. Still, it might be optimal to interview women shortly after recovering from depression, when the experience is recent in their memory. Having additional researchers code the transcripts and cross-check could also have enhanced the validity of the analysis. The consistency of responses, the agreement with other research findings, and the implications for child and maternal health make a compelling case for the development and implementation of interventions for PND in this and other settings. Given that the first year of life is a critical period of brain development (Shonkoff & Garner, 2012), this is likely a mechanism by which PND negatively impacts human capital development. In an integrated approach to improving maternal and child health, maternal mental health should be a key area to intervene, and efforts should be made to provide support to woman suffering from depression. Qualitative research, as presented in this paper, can be used in creating optimally effective and appropriate interventions.

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A woman from my home area gave birth two months ago. She is now always arguing with her husband and says she wishes she had never had her baby. She thinks that nobody helps her and that she can't manage on her own. She doesn't know what to do. Sometimes she just cries.

Another woman who had a baby recently, she used to be friendly, but since giving birth has become very withdrawn. She doesn't seem to notice things around her. She even doesn't remember to feed her baby or herself. Sometimes she says it would be better for everybody if she were dead.

Four months ago, I visited my sister who had just given birth at Kintampo. She told me how she was extremely happy when her daughter was born, because she was finally able to hold this precious baby in her arms that she had loved in her womb for nine months. Within hours, though, all the joy turned into a profound sadness that lasted for 18 months and that she had no explanation for.

Figure 1.
Vignettes of post-partum depression cases described by health workers in the area.

Table 1

Focus-group discussion and key-informant interview guides.

Fathers focus-group discussion		Mothers and grandmothers focus-group discussions		In-depth interviews	
1	What happens to a woman in the time after she gives birth?	1	How does a man feel when he finds out his wife/girlfriend is pregnant?	1	How did you feel when you found out you were pregnant?
2	How do people treat her?		How does he feel after birth?		How did your family react?
	Does she receive gifts?				Was the pregnancy planned?
	Are there things she shouldn't do?	2	What should a man do when his wife/girlfriend is pregnant?	2	What was your pregnancy like?
	What things and why?				Was it easy?
3	What kinds of problems <i>can</i> a woman have after she gives birth?	3	What problem can a woman have during pregnancy?		Difficult?
4	What causes these problems? What can she do about them?		What problems can a woman have after birth?	3	Describe the birth of your baby.
5	Do you know of a condition of deep sadness and tiredness after birth?	4	Does a woman sometimes become very sad and withdrawn during pregnancy?	4	How did you feel after the baby was born? (probe most on this question)
	What is this?		After birth?	5	Was the baby's sex what you were expecting?
	What happens to a woman who has this?		Can you describe what happens?	6	How did you adjust to having a new baby?
	What causes this?		Is there a name for this?		Was your family supportive?
6	Do you know of a condition of 'thinking too much' after birth?		What causes it?		How did you feel? (include as many probes as possible)
	What is this?	5	What is 'thinking too much'?	7	Did you have any problems breastfeeding?
	What happens to a woman who has this?		Can this happen to a woman during pregnancy or after birth?		
	What causes this?		What causes it?		
	What can she do about it?				