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# Integrating Mental Health into Maternal Health Care in Rural Mali: A Qualitative Study

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## Abstract

**Introduction:** Common perinatal mental disorders are prevalent in low- and middle-income countries. The gap between the need for and availability of mental health services, also known as the mental health treatment gap, is particularly acute for women during the perinatal period in rural Mali. This qualitative study aimed to identify a feasible and acceptable integrated care approach for the provision of maternal mental health care in rural Mali to help narrow the treatment gap and increase access to care.

**Methods:** From April to June 2016, qualitative data were collected in the Sélingué health district and Bamako, Mali. In-depth interviews were conducted among women, community health workers, midwives, and mental health specialists. Focus group participants included community health workers, midwives, and an obstetric nurse. All data were inductively coded and analyzed using a thematic analysis approach.

**Results:** Women described several coping strategies to manage their distress, including visiting their parents; confiding in a friend, relative, or community health worker; and participating in women's association groups. Mental health-related stigma was described as being widespread in the community and among health providers. In response to the lack of mental health services, midwives and community health workers supported the feasibility and acceptability of the integration of mental health services into maternal health services. Midwives were discussed as

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CONFLICTS OF INTEREST

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being key providers to conduct mental health screenings and provide initial psychosocial care for women.

**Discussion:** Integrated maternal and mental health interventions are needed to narrow the gap between the need for and availability of mental health services in rural Mali. Findings from this study underscore the great need for mental health services for women in the perinatal period who reside in rural Mali and that it is both feasible and acceptable to integrate mental health screening and low-level psychosocial care into antenatal care, delivered by midwives.

### Keywords

antenatal care; community mental health services; women's health services; Mali

## INTRODUCTION

Prominent strategies to reduce maternal morbidity and mortality globally address direct causes such as hemorrhage, infections, and hypertensive disorders.[1] However, other, more subtle, but serious, threats to childbearing women frequently go untreated, including common perinatal mental health disorders. The gap between the need for and availability of mental health services, the mental health treatment gap, is estimated to be greater than 75% globally and may exceed 90% in low- and middle-income countries.[2] The gap is particularly acute for common perinatal mental health disorders. These disorders, defined here as nonpsychotic disorders such as depression and anxiety, beginning during pregnancy or up to 2 years postpartum, are highly prevalent in low-and middle-income countries.[3] Two systematic reviews estimated the weighted mean prevalence of antenatal depression as 11.3% and 15.6%, and prevalence of postnatal depression is 18.3% and 19.8% in low- and middle-income countries,[3,4] respectively. Given the well-established negative, multigenerational impacts of untreated mood disorders in childbearing women,[5] novel strategies for addressing this particular treatment gap are needed.

Multiple, interrelated factors contribute to the treatment gap. Internalized and experienced stigma among individuals with mental illness are key contributors to the denial of mental illness as a health concern and a barrier to care-seeking.[6–9] A study of barriers and facilitating factors for mental health financing and service provision in low- and middle-income countries found that stigmatizing attitudes regarding mental health are commonly expressed by actors within the health sector, including health care providers and policy makers.[10] Globally, about one-third of all countries lack an official mental health policy or budget, and in African countries, this proportion reaches nearly 50%.[8,11] In the absence of adequate funding, the mental health workforce remains inadequate, and education and training facilities in low- and middle-income countries currently lack the capacity to make up for the scarcity of mental health professionals.[8,12,13] Collectively, structural stigma related to mental health across cultures and contexts is reflected in disparities in mental health policy, human resources, and ultimately, treatment access.[10]

Evidence from high-income countries suggests that mental health interventions can be effective in reducing perinatal depression.[14,15] In low- and middle-income countries, there is growing evidence supporting the integration of interventions for common perinatal mental

health disorders into primary health care services and provided by nonspecialists through task sharing.[14,16–18] This strategy situates midwives as critical partners to address women's mental health in low- and middle-income countries. The challenge now is to identify, adapt, and ultimately sustain delivery of these interventions at scale in low- and middle-income countries where the treatment gap is greatest.

## Background

The current literature lacks descriptions of locally informed, integrated care approaches aimed toward closing the mental health treatment gap for women in the perinatal period. To address this gap and inform development of the current study, a scoping review[19] of the global mental health literature was conducted. The review identified 34 articles with a focus on mental health stigma, integration of mental health into existing health platforms, mental health problems in low- and middle-income countries, interventions for common perinatal mental health disorders, mental health services in low- and middle-income countries, and the treatment gap.

Multiple authors advocated for building political will to ensure mental health is considered a policy priority.[10,18,20,21] In a survey of progress scaling up mental health services in low- and middle-income countries, 40% of key expert informants (individuals at the national level of mental health services in low- and middle-income countries) from 26 countries identified poor awareness of and low priority of mental health by political leaders as a major barrier to improve services.[21] These leaders must be engaged in discussions on the potential for integrated mental health interventions to decentralize services and resources and promote access to care outside of urban areas.[10] Relatedly, stigma was identified as another barrier to integrated mental health interventions. Evidence about mental health-related stigma reduction programs within low- and middle-income countries is limited, which is problematic given health system differences in how mental health services are delivered in high versus low-income countries.[22–24]

Finally, task sharing emerged as an effective strategy to integrate mental health care into other routine health care systems. Task sharing refers to the sharing or shifting of tasks, usually from more- to less-highly trained individuals for the efficient use of resources.[25] In rural Pakistan, the Thinking Healthy Programme demonstrated the feasibility and effectiveness of task sharing as a part of an integrated mental health intervention for women in the perinatal period with depression.[18] In this intervention, community health workers integrated components of cognitive behavioral therapy into their routine work that had been adapted to the context. The program included one weekly session (home visits) for the last 4 weeks of pregnancy, 3 sessions in the first postnatal month, and 9 once-monthly sessions thereafter.[18,26] Community health worker trainings included a 2-day workshop, a one-day refresher 3 months later, and monthly supervision.[18] At both 6 and 12 months, the prevalence of major depressive disorder was almost 2 times higher in the control group (routine care) compared with the intervention group (Thinking Healthy Programme).[18] Moreover, women in the intervention group reported less disability and better overall and social functioning, effects that were sustained at one year. Building on this existing

evidence, this qualitative study aimed to identify a feasible and acceptable integrated care approach for the integration of mental health into maternal health services in rural Mali.

## METHODS

Qualitative data were collected in the Sélingué health district of southern rural Mali, which is home to approximately 91,425 people.[27] Poverty is profound in Sélingué; most women are illiterate and receive very limited education. Sélingué is comprised of 9 health districts (subdistricts), each containing one community health center that provides routine primary care, including antenatal care (ANC) and postpartum care, delivered by midwives. In areas of rural Mali like Sélingué, ANC attendance is characterized by late entry and low completion rates, with only 37% of women meeting the national recommendation of 4 or more ANC visits.[27] Relatedly, women in Mali experience extremely high rates of maternal mortality; the World Health Organization reported a national maternal mortality ratio (MMR) of 562 per 100,000 live births in 2017, whereas Aa et al documented an MMR of 3131 maternal deaths per 100,000 live births in the rural Kita District in 2011 (most recent estimate for this region).[28,29]

Formal psychiatric or psychosocial services are not available in Sélingué. The Malian Ministry of Health lacks an official mental health policy and budget for mental health expenditures.[11] Additionally, there are no dedicated mental health hospitals and only 5 mental health outpatient facilities in the country.[11] At the population level, there are only 0.04 psychiatrists, 0.02 psychologists, and 0.26 nurses per 100,000 people, which falls below the overall average for low-income countries.[11]

### Data Collection and Analysis

Data collection took place from April to June 2016 and included semistructured in-depth interviews and focus group discussions. All data collection activities were conducted in Bambara or French based on the participant's language preference.

Participants were recruited participants from 5 health centers in Sélingué and included (1) community health workers, (2) midwives or obstetric nurses, and (3) women in the perinatal period. To be eligible for inclusion, participants had to be at least 18 years of age and living in Sélingué. Using a purposive sampling strategy, interviews were conducted among women (n = 10), midwives (n = 7), and community health workers (n = 8). In addition, mental health specialists (n = 4) located in Bamako were recruited, including one psychiatrist, one psychologist, one psychiatric medical assistant, and one psychiatric medical resident. These specialists were eligible if they routinely provided psychiatric care.

Semistructured in-depth interviews were conducted to understand local mental health problems. Women and community health workers were asked to participate in interviews that focused on understanding mental health problems and if and how women seek care to manage their distress. For example, women and community health workers to describe "the problems that affect women's emotions, thoughts, and feelings" and "what women do when they have these problems." Interviews with mental health providers in Bamako sought to elicit descriptions of care-seeking patterns and information about informal and traditional

mental health treatment modalities used in Mali. At the start of interviews, providers were asked, “What kinds of perinatal mental health problems do you see at this facility? Can you tell me when and for what reason a would women come here rather than somewhere else?” Additionally, 3 focus group discussions were conducted among mixed groups of community health workers (n = 1), auxiliary midwives (n = 8), and obstetric nurses (n = 1). The purpose of these focus groups was to discuss the feasibility and acceptability of integrating mental health components including screening, referrals to higher level care, and psychosocial care into existing ANC services. At the start of the focus groups, examples of integrated maternal mental health interventions, such as the Perinatal Mental Health Project in South Africa, were described, and participants were asked whether or not they thought such an intervention could be adapted and implemented for ANC in Mali.

All interviews and focus groups were audio recorded and lasted approximately 60 to 90 minutes. A member of the research team also took detailed notes. Immediately following data collection, local research assistants listened to the audio recordings and expanded their notes, including key quotes, to create data collection transcripts. Interview and focus group transcripts were translated into English and analyzed using Atlas.ti software.[30] The first author aggregated, read through, and inductively coded all transcripts to identify emerging themes and develop a formal codebook. The first author then recoded all transcripts following the themes outlined in the codebook. Regular meetings took place among the first author and the research team to discuss emerging findings and to ensure the credibility and confirmability of the research. All study participants provided verbal informed consent. The study was approved by the Institutional Review Boards of the Johns Hopkins Bloomberg School of Public Health and the University of Sciences, Techniques and Technologies of Bamako.

## RESULTS

Qualitative analysis of both the interviews and focus groups indicated 3 key themes that emerged from the data: (1) the need and acceptability of integrated mental health care by women in the perinatal period, (2) the role of stigma in accessing care, and (3) health worker support for the integration of mental health services in to ANC.

### Need and Acceptability of Integrated Mental Health Care by Women

Women described several strategies for coping with common perinatal mental disorders that have important implications for the selection of locally relevant and appropriate mental health interventions integrated into ANC. In response to weak health systems and a lack of mental health services, several participants described a reliance on family for support and would visit their parents for 2 to 3 days at a time to help them cope and manage their stress and pain. This coping method was echoed by multiple women, particularly regarding marital conflicts. Women also described the importance of trusting friendships, when available, which allow for joint problem solving: “It was my childhood friend who came and stayed with me, and I confided in her. When I have geleya [difficulties] in my life, she will talk about her difficulties too, so we mutually support each other.”

Similarly, women discussed confiding in their community health worker about any hardships in their lives and receiving advice on how to cope with or resolve the problem.

Each village in Sélingué has a women's association that primarily acts as a joint voluntary savings and loan program. Although these groups are oriented toward poverty reduction, they function as de facto social support and problem-solving networks. One woman said:

> Women don't participate in the associations by pleasure, we go confide to the other members of the association to exchange ideas among them. We gather to talk about our Dusukasi [sadness]…women can give her story and another person who is in the same situation will picture herself in this situation.

### Role of Stigma in Accessing Care

Women revealed that stigma from the community and health providers may be an obstacle to seeking mental health care. Stigma was described as being related to a pervasive understanding that mental health problems are the result of curses or malevolent spirits. One mental health specialist remarked that Malians believe that mental illness "is not a doctor sickness…they will say you have a curse or an evil spirit is after you, or you have done something bad so this [mental health problem] is the consequence."

Community health workers and midwives also described how women may also feel reluctant to discuss their distress with their peers out of fear of stigma. Instead, one community health worker described how women would frequently choose to confide in their community health worker rather than a friend to avoid being judged or blamed for their problem. Relatedly, community gossip was described as a factor that increases internalized stigma among women:

> If you find someone that you can trust, which is rare in Africa, and if you confide in this person, maybe you will be released [feel better], but it is difficult to find this kind of person because most of the time these people go and tell your story to others. When your story is told to everyone, you are ashamed.

Although stigma was seen as a barrier to care-seeking among individuals in distress, women still frequently described a prevailing need to confide in peers, close family members, and community health workers to help release and relieve them of their distress.

### Health Worker Support for the Integration of Mental Health Services into Antenatal Care

During interviews and focus groups, midwives and community health workers voiced support for the feasibility and acceptability of integrating mental health services into existing community-based maternal health care systems. Relatedly, one mental health specialist described efforts made by mental health providers over the past 2 decades to create a national mental health policy. However, these efforts were limited by the priority placed on physical health problems, such as malaria, tuberculosis, and cholera.

Women, community health workers, ANC providers, and mental health specialists all described how ANC is frequently the only health service that women can access in rural Mali. In focus groups, midwives and community health workers described how women are

busy maintaining their households and have extremely limited financial resources to use for seeking health care. When women do seek care, they explained that it is typically during pregnancy. Thus, ANC emerged as a prime platform for an integrated mental health intervention, where screening for mental health problems in ANC was discussed by mental health specialists and ANC workers. Both midwives and community health workers felt that midwives were ideal health providers to screen women for mental illness and deliver low-level care given their status in the community as trusted individuals whom women already seek out if they have a mental health or other problem. The mental health specialists described how midwives could play a key role in mental health screening and provision of initial psychosocial care for women. To this effect, mental health specialists in Bamako reported already having begun trying to increase the mental health competency and capacity of midwives, ANC providers, and general practitioners.

> We fought to train midwives and the general medicine physicians who are working all over [the country] on basic courses in psychiatry, and we have even created model courses. We would train them over 15 days and then they would return back to their posts. We should normally supervise them to see if they are able to do the work. It seems like we have a little bit of money and I don't know [if] it will be done or not.

Delivery of interventions for maternal mental health within ANC was also discussed during focus groups with midwives and community health workers, who expressed support for delivering mental health services during ANC. One midwife said,

> If we are taught, we will have motivation to identify them [women] and give them explanations and help…They [women] need their antenatal care…So if you can chat with them in these places they can accept it, and especially if we give explanations to them.

Midwives discussed that with mental health trainings they would be able to provide women with explanations and low-level psychosocial support to help them with their problems and cope with their distress. Moreover, midwives and community health workers across focus groups stated that mental health trainings would provide midwives with extra motivation to help women address their mental distress.

## DISCUSSION

Findings from this study support an integrated mental health care approach within the maternal health care system as an appropriate and feasible way to reduce the mental health treatment gap and increase access to mental health care in rural Mali. Women described several strategies to cope with their mental distress, including confiding in trustworthy friends, the women's association, and health workers to engage in joint problem solving and mutual learning. This suggests that not only group format interventions may be readily acceptable for the Malian context, but also low intensity talk-based psychosocial interventions.

Despite the lack of a national mental health policy, health care providers in Mali at multiple levels recognized and supported the need for integrated mental health screening,

implemented through ANC, as has been done successfully in both the Perinatal Mental Health Project in South Africa[31] and the Thinking Healthy Programme in rural Pakistan.[18] In Mali, the majority of mental health services are located in Bamako, the capital city. Given distance, transportation costs, and stigma associated with accessing mental health care, women in rural Mali, like in Sélingué, are largely unable to access care. As many women in Sélingué only seek care during pregnancy, integrating mental health screening and services into ANC emerges as a key, feasible strategy to reduce barriers and increase access to care.

Midwives articulated that with training, they would be well equipped to screen for mental illness, make referrals to specialized care, and deliver psychosocial care to women. These findings align with strong evidence from Perinatal Mental Health Project in South Africa[31] and the Thinking Healthy Programme (described above) in Pakistan[18] indicating the feasibility of a task-sharing approach that integrates mental health into routine care provided by nonspecialist health workers, including community health workers and midwives. For example, the Perinatal Mental Health Project in South Africa found training nurses and midwives to deliver low-level mental health services, including screening and referral, was a feasible and acceptable integrated, task-sharing strategy.[31] Specifically, 90% of the women who attended the health facility were offered mental health screening, of which 95% of the women accepted. Of the 5407 women screened, 32% qualified for referral to a counselor, and 62% agreed to be referred. Among the referred women, 77% attended their counseling sessions and received an average of 2.7 face-to-face sessions. The authors suggest that the high coverage and uptake of screening may be attributed to consistency in delivering screening, involvement of the clinical coordinator in motivating and supervising the staff to administer screening, or the strong investment in training of health care staff. For the Malian context, these findings suggest that task-sharing approaches implemented in tandem with a robust referral system, and strong and continual training and supervision can help narrow the treatment gap and make more efficient use of scarce financial and human resources.[20,32–34] Moreover, task-sharing approaches create opportunities for locally informed and delivered mental health services. That is, people of the same culture and language, often with less formal education, can be trained to deliver such services in Mali. As such, subsequent interventions may be perceived as more culturally appropriate by users, potentially encouraging greater usage and reach.[9,14,34]

Although the findings of this study suggest that mental health-related stigma will be an obstacle to providing and encouraging the uptake of mental health services in Mali, the process of integrating these services into existing primary health care platforms may reduce stigma.[22] First, treating individuals with mental illness in the same manner as those seeking care for other conditions may decrease experiences of stigma and discrimination by normalizing mental health as a part of broader health.[35] Second, integrated programs may make it less likely for people to be inadvertently identified as having a mental health problem and, for this reason, may be viewed more favorably by patients and family members compared with specialized treatment.[17] Third, mental health trainings for community health workers involved in task-sharing interventions have resulted in improved community health worker attitudes toward mental illness and those with mental illness.[36–39] Therefore, the integration of mental health care into existing primary health services may be a promising

strat egy for minimizing the effects of stigma at the community and individual levels in Mali.

## Clinical Implications

The findings from this qualitative study have several important implications for the promotion of integrated mental health care in Mali and public health policy and programming. First, in light of findings highlighting the favorability of task sharing and group care formats, group ANC emerges as a potentially feasible and acceptable framework to integrate mental health screening and services into maternal health care at the community level in rural Mali. Because most ANC is delivered by midwives in Mali, particularly in rural areas, this has implications for midwives' training and practice. Group ANC is consistent with the World Health Organization's (WHO's) ANC guidelines, in which women of similar gestational ages actively participate in their ANC together, facilitated by a nurse or midwife.[40,41] Several models of group ANC have been implemented in multiple low- and middle-income countries including, Kenya, Nigeria, Senegal, Malawi, Tanzania, and Nepal.[42–45] Importantly, the structure of group ANC, which encourages group discussion and social support, is particularly conducive to the integration of mental health components, which together may further bolster the positive psychosocial effects inherent to the group ANC model. By adding such components to group ANC, women may be at lower risk for developing depressive symptoms, better equipped to manage symptoms of depression if they arise, and more likely to stay engaged in antenatal and postnatal care. As such, future research should explore and test the integration of mental health into group ANC and training midwives to screen for mental illness and deliver low-level psychosocial care as a part of group ANC.

Last, to successfully integrate mental health into primary health care platforms, such as group ANC, a national public mental health policy must be adopted. The WHO's report on the integration of mental health into primary care argues that integration is "most successful when mental health is incorporated into health policy and legislation frameworks and supported by senior leadership, adequate resources, and ongoing governance."[35] Future research should examine the cost-effectiveness of mental health integration into primary health care platforms in Mali.

Several limitations should be considered when interpreting these study findings. We were unable to conduct interviews with policymakers or members of the Ministry of Health to elicit feedback about the fit of the proposed integrated mental health care model with their broader plans and goals for maternal care. However, the mental health specialists who were interviewed had a long working history of working with the Ministry of Health and other policymakers and, thus, likely provided the information and perspectives that reflect individuals in those sectors. Another important limitation is that these findings may not be generalizable to other settings. However, the data collection procedures described herein provides a framework for other researchers, policy makers, and health care providers to conduct similar research exploring the integration of mental health into primary health care platforms.

## CONCLUSION

Mental health interventions that are integrated within primary health care platforms are needed to narrow the mental health treatment gap in low- and middle-income countries. Findings from this study suggest that there are significant mental health service needs, and that it is both feasible and acceptable to integrate mental health screening and low-level psychosocial care into ANC, delivered by midwives. These findings serve as the basis for our current research to develop and pilot test a model of mental health integrated into group ANC in Bamako, Mali that can help narrow the mental health treatment gap.

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This study received ethical approval from the Johns Hopkins Bloomberg School of Public Health Institutional Review Board (no. 6913), and the Ethics Committee of the University of Sciences, Techniques and Technologies of Bamako. All local research assistants completed training in human subjects research and all respondents provided informed consent.

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**Quick Points**

- The mental health treatment gap, the gap between the need for and availability of mental health services, is particularly acute for rural Malian women in the perinatal period.
- In low- and middle-income countries, there is growing evidence supporting the integration of interventions for common perinatal mental health disorders into primary health care services and that are provided by lay-workers through task sharing.
- Findings from this study indicate that it is both feasible and acceptable to integrate mental health screening and low-level psychosocial care into antenatal care, delivered by midwives.