

Assessment of the integration of postpartum depression screening and counseling into primary health care in Mozambique

Background

Postpartum depression (PPD) is an important but neglected public health issue in low- and middle-income countries, where the estimated prevalence of PPD is almost double that of developed countries at close to 20 percent.¹ Child health and nutritional and developmental outcomes, as well as maternal self-care, including adherence to family planning and to antiretroviral therapy are all negatively affected by PPD.²

The Maternal and Mental Health Departments at the Ministry of Health of Mozambique (MOH), with technical assistance from PATH, developed and piloted the first ever protocol for screening and management of PPD within routine postnatal care (PNC). The protocol included screening women for



Postpartum depression can affect a child's health, nutrition, and development. Photo: PATH

symptoms of depression two weeks after birth with Patient Health Questionnaire-9 (PHQ-9) followed by referral or counseling. Visual cards with negative and positive scenarios, contextualized from the Thinking Healthy manual (WHO, 2015), were used for counseling. From June 2019 to March 2020, eight health facilities in two districts of Maputo Province participated in a pilot intervention where maternal and child health (MCH) nurses working at PNC services screened and counseled women for PPD and collaborated with mental health providers to follow up on women with symptoms of depression. The initial cohort of providers participated in a 2-day classroom training; additional nurses were trained in-service during the pilot in response to high nurse rotation rates. Nurses received ongoing mentoring from onsite mental health providers, monthly to quarterly supervision from district and provincial technical leads, and bi-annual supervision from MOH.

¹ Fisher J, Cabral de Mello M, Patel V, et al. Prevalence and determinants of common perinatal mental disorders in women in low-and lower-middle-income countries: a systematic review. *Bulletin of the World Health Organization*. 2012;90(2):139–49.

² Slomian J, Honvo G, Emonts P, Reginster JY, Bruyère O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health*. 2019;15. <https://doi.org/10.1177/1745506519844044> cited in Pearlstein T, Howard M, Salisbury A, Zlotnick C. Postpartum depression. *American Journal of Obstetrics and Gynecology*. 2009;200(4):357–364.

The assessment, conducted in the second half of 2020, set out to evaluate the following aspects of the pilot:

- 1) The effectiveness of provider training and supervision.
- 2) The acceptability and feasibility of screening and counseling for PPD in routine PNC.
- 3) The barriers and facilitators of integrating postpartum screening and counseling in routine care.
- 4) The PPD detection rates achieved by the nurses.

Methods

Data collection was conducted over two weeks in September and October 2020. The assessment used a mixed-methods approach, consisting of interviews, observations, and analysis of pilot data. In-depth interviews were conducted with 12 MCH nurses, 4 mental health providers, 4 health facility directors, 9 national and subnational MCH and mental health managers, and 12 mothers. Six observations were conducted during routine postnatal consultations. Four out of eight pilot health facilities were purposefully selected for the assessment, prioritizing facilities with most consistent performance. MCH nurses working in PNC on the day of the assessment and mothers seen at the consultation on that day were interviewed and/or observed.

The interviews were conducted in Portuguese and the local language (Changana) by two research assistants from Eduardo Mondlane University. After translation, both Portuguese and English transcripts were coded in Microsoft Word. The English versions were then uploaded on Quirkos qualitative data analysis software and further analyzed thematically. Sekhon's acceptability and feasibility framework was adapted for interpreting the study results.³ The quantitative data was analyzed in Excel. The analysis was conducted by a post-doctoral student at the London School of Hygiene and Tropical Medicine, and results were verified by the PATH team.

Findings

Effectiveness of training and supervision

MCH nurses that took part in the initial training showed a 41 percent increase in their knowledge of PPD, as seen in their post-test scores. Interestingly, initial knowledge on PPD among MCH nurses and mental health providers was almost identical, suggesting that even for mental health providers this was a new technical area.

Routine pilot data from supervision visits showed that average provider performance scores increased from 50 percent, at baseline, to 80 percent at the last supervision visit conducted nearly a year later. The observations conducted in the assessment confirmed that nurses were integrating postpartum screening and counseling in their routine PNC consultations; however, a few nurses had challenges asking the PHQ-9 diagnostic questions correctly or deciding on whether to counsel and refer. Overall, the nurses that took part in initial training had better performance compared



Breastfeeding is an opportunity to both assess and counsel the mother with suspected depression. Photo: PATH

³ Sekhon M, Cartwright M, Francis JJ. Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Services Research*. 2017;17:88. <https://doi.org/10.1186/s12913-017-2031-8>.

with nurses who were only trained in-service. Engaging onsite mental health technicians in frequent mentoring, in addition to district- and provincial-level support, appeared to be crucial in improving nurses' performance.

Acceptability and feasibility of intervention

All MCH nurses interviewed found the PPD intervention to be acceptable, feasible, and within scope of their overall duties. PPD screening was not perceived as a burden, and nurses were keen to conduct it.

"The role of the nurse is to help the patient... and the tool improves care, [it allows us] to explore further whether the mothers are doing well or not."

MCH Nurse

Similarly, all the mothers found the intervention acceptable; furthermore, several mothers felt motivated to return to the health facility after being screened for PPD.

"...with these types of questions, it was like talking with a friend... these are good questions, and they will make me want to come back [to the health center]."

Mother

Several MCH nurses highlighted the special importance of the intervention for adolescent mothers, suggesting that the tools and methods be further adapted to serve this vulnerable group.



MCH nurse counseling adolescent mother on maternal depression. Photo: PATH

"Well, I think teenagers should have a little different counseling from others... their counseling has to be a bit more careful... the cards need different scenarios... the way we talk will help us to gain the confidence of these teenagers so that we give them the emotional support they need."

MCH Nurse

Most nurses described having challenges with the wording or format of the questions on the screening tool (PHQ-9); some terms were too technical, and the double-loaded questions

about activities or emotions, and the frequency with which these were experienced, were confusing to the women. Fortunately, the tool was replaced with a more client-friendly version validated in a different study midway through the pilot.⁴

Two-thirds of MCH nurses interviewed reported using the visual counseling cards provided as part of the pilot intervention and found them easy to use; however, some felt they did not have time to counsel or considered counseling to be a task of mental health providers. All the nurses stressed the importance of empathy and strong interpersonal skills for effective screening and counseling.

⁴ Cumbe VFJ, Muando A, Manaca MN, et al. Validity and item response theory properties of the Patient Health Questionnaire-9 for primary care depression screening in Mozambique (PHQ-9-MZ). *BMC Psychiatry*. 2020;20:382. <https://doi.org/10.1186/s12888-020-02772-0>.

Facilitators and barriers to integration

Several facilitators and barriers to the integration of PPD screening and counseling in routine care were frequently cited by nurses, mental health providers, and supervisors. *Facilitators* included **the support provided by the mental health technicians to the nurses** during the intervention. Mental health technicians were perceived as accessible and effective mentors to nurses, and the pilot was seen as having elevated the role of mental health providers within primary health services.

“...we didn't have a very strong link with the MCH area, but from this pilot we ended up creating a bridge with MCH, and it... makes room for the screening of other types of problems that need mental health care.”

Mental Health Provider

An additional facilitator was **the leadership demonstrated by provincial and district MCH and mental health managers and health facility directors** throughout the pilot to address the challenges, such as initially low detection rates, lack of data records, and MCH nurse rotation.

“The factors that contributed to the success were the unity of the project, first by involving the districts, and then the health centers, and also inclusive of the directors themselves because... it is easy to implement because they will [become accountable].”

District Supervisor

The carefully designed protocol, mirroring the Integrated Management of Childhood Illnesses approach, **an indicator introduced in PNC registers** for registering cases of PPD identified, **and the clear referral pathways**, were also cited by nurses and other respondents as having made the integration easier.



Nurses integrate screening and counseling for postpartum depression with other postnatal care tasks, such as monitoring child's development. Photo: PATH.

“Every Thursday all the sectors present data... including how many postpartum women were attended and screened, how many had PPD and were receiving support. Then we cross-check if [the case] has reached the mental health technician, and so we follow up.”

Health Facility Director

Barriers to integration, and to effective detection, centered on the **frequent rotation of nurses out of pilot services and sites** and **the lack of dedicated space for consultations** that would provide needed privacy to support effective screening and counseling.

“I confess that [the results] don't reflect the reality because during a very long period... we didn't have a dedicated nurse [in PNC]... We always had a change of nurses.”

Mental Health Provider

“...it's in a very degraded place... it is a little room that is constantly in movement, someone is going out... now I ask myself: imagine it is a depressed mother who sees the health professional as someone who can help her, there are no structural conditions for her to expose [her feelings].”

Mental Health Policymaker

Health facility directors in several pilot health facilities took action to respond to these to system-level challenges, by allocating permanent nurses to PNC services, for example, or by assigning PNC services a more private consultation space, which suggests the importance of involving the directors to ensure the success of the intervention.

PPD detection rates in pilot sites

While all MCH nurses interviewed were able to describe several cases of suspected depression that they had identified and referred, three-fourths of mental health providers and all of the supervisors perceived detection rates to be low. In reality, the average PPD detection rate in the pilot (3.3 percent) was not too dissimilar from the PPD detection rate in PNC clients in a recent PHQ-9 validation study in central Mozambique (5.6 percent), especially when taking into consideration that the pilot screening was done by frontline providers during routine services and not in a study setting.⁵

Over 70 percent of suspected cases of PPD referred by MCH nurses were confirmed by mental health technicians, which suggests that the accuracy of the nurses' identification was high.



Nurses consider screening women for symptoms of depression a part of their professional role. Photo: PATH

Nonetheless, these detection results are much lower compared to the global estimates of PPD in LMICs. Low PNC service coverage (at 28 percent), coupled with the screening eligibility set at two weeks postpartum, may be some of the factors behind low detection rates. It is possible that the women who need such services most are not coming to the PNC consultation to receive them. Nurse rotation and lack of privacy during the consultation may be additional factors, as pointed out by pilot stakeholders.

Most providers suggested expanding the intervention to antenatal care (ANC) and adolescent-friendly services (SAAJ), as well as to healthy or sick child consultations, to reach more women, while a few suggested adding

mental health interventions to Community Health Workers' or Traditional Birth attendants' responsibilities. Considering that, nationally, 55 percent of women come for four ANC visits, extension of maternal depression intervention to ANC and similar, well-attended touchpoints seems warranted.

Conclusions and recommendations

The pilot effectively addressed a current service delivery gap, namely, that mental health providers, as a routine, do not come into contact with women during PNC and therefore, cannot screen for depression and offer support. The results indicated wide acceptability and feasibility of integrating maternal depression screening and counseling into MCH nurse tasks during routine PNC.

⁵ Cumbe VFJ, Muando A, Manaca MN, et al. Validity and item response theory properties of the Patient Health Questionnaire-9 for primary care depression screening in Mozambique (PHQ-9-MZ). *BMC Psychiatry*. 2020;20:382. <https://doi.org/10.1186/s12888-020-02772-0>.

The following are key recommendations for the next phase emerging from the pilot:

- 1) Strengthen collaboration between MCH and Mental Health departments at MOH level around maternal depression, and jointly seek funding for scale-up.
- 2) Agree on key additional service touchpoints (ANC, SAAJ, etc.) where depression screening and counseling should be added.
- 3) Make training more practice-based, from asking the screening questions to problem-solving scenarios that can arise during consultations.
- 4) Advocate for maternal depression to be added to MCH nurse pre-service curriculum; explore online learning platforms to standardize in-service training on maternal depression at scale.
- 5) Limit screening by nurses to two or three diagnostic questions and leave the full PHQ-9 to the mental health providers to make screening more feasible.
- 6) Potentially delegate full counseling to mental health providers in health centers where these exist. In health facilities without mental health providers, continue training nurses on basic counseling or engage lay counselors.
- 7) Consider if the Common Elements Treatment Approach (CETA) should be used, instead of the adapted Thinking Healthy counseling cards, in locations where CETA is implemented. The CETA counseling approach is transversal (works for different mental health conditions), has been validated as effective in Mozambique, and is currently being rolled out nationally as a part of HIV services through training of mental health providers.⁶ Synergies with HIV/CETA team could reduce the number of tools providers need to learn and use and would favor scale-up of this critical service.
- 8) Engage subnational managers and health facility directors at the outset to reduce barriers, such as nurse rotation and lack of privacy.
- 9) Explore how community actors may be involved in educating about depression and helping detect and refer cases.

As a result of the pilot, the MOH Mental Health Department included a scale-up of this intervention to several health facilities, in four provinces, in its annual plan for 2021 and will likely include continued scale-up in subsequent annual plans until national-level integration is achieved, pending the availability of funding. PATH will support the MOH to make the needed improvements to the model and to conduct the expanded pilot, along with more rigorous evaluation of processes and outcomes.

⁶ Hammett W, Muanido A, Cumbe V, et al. Scaling up a lay counselor delivered trans-diagnostic mental health intervention for newly diagnosed HIV patients in Mozambique [Manuscript Draft]. 2020.