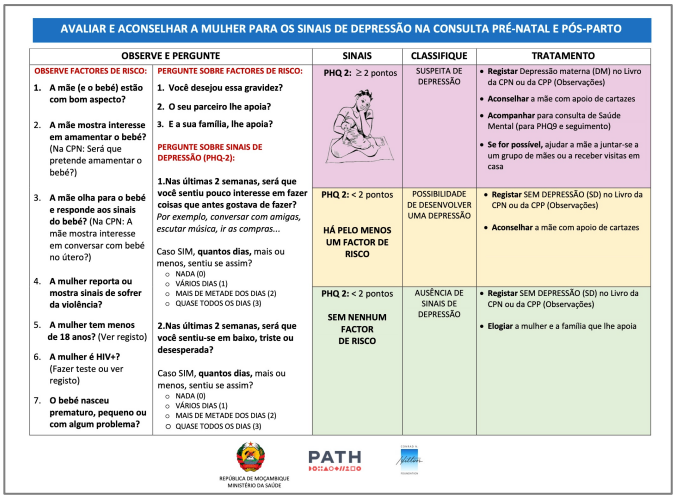
Integration of perinatal depression screening and counseling into primary health care in Mozambique

Background

Perinatal depression (PD) is a neglected public health issue in low- and middle-income countries, where the estimated prevalence of PD is at close to 20%, almost double that of developed countries.[1] PD negatively affects child health, nutrition, and development outcomes; as well as maternal self-care—including adherence to family planning and antiretroviral therapy.[2]

Iterative testing of a PD screening and counseling protocol

Mozambique has made great strides in expanding mental health service delivery by training and allocating mid-level mental health technicians in almost all urban health facilities and in main district facilities.[3] In 2019–2020, the Maternal and Mental Health Departments at the Ministry of Health (MOH), with technical assistance from PATH, developed the first ever protocol for PD screening and counseling within routine postnatal care (PNC).



AVALIAR E ACONSELHAR A MULHER PARA OS SINAIS DE DEPRESSÃO NA CONSULTA PRÉ-NATAL E PÓS-PARTO

OBSERVE E PERGUNTE		SINAIS	CLASSIFIQUE	TRATAMENTO
OBSERVE FACTORES DE RISCO: 1. **A mãe (e o bebé) estão com bom aspecto?** 2. **A mãe mostra interesse em amamentar o bebé?** (Na CPN: Será que pretende amamentar o bebé?) 3. **A mãe olha para o bebé e responde aos sinais do bebé?** (Na CPN: A mãe mostra interesse em conversar com bebé no útero?) 4. **A mulher reporta ou mostra sinais de sofrer da violência?** 5. **A mulher tem menos de 18 anos?** (Ver registo) 6. **A mulher é HIV+?** (Fazer teste ou ver registo) 7. **O bebé nasceu prematuro, pequeno ou com algum problema?**	**PERGUNTE SOBRE FACTORES DE RISCO:** 1. **Você desejou essa gravidez?** 2. **O seu parceiro lhe apoia?** 3. **E a sua família, lhe apoia?** **PERGUNTE SOBRE SINAIS DE DEPRESSÃO (PHQ-2):** **1.Nas últimas 2 semanas, será que você sentiu pouco interesse em fazer coisas que antes gostava de fazer?** *Por exemplo, conversar com amigas, escutar música, ir as compras...* Caso SIM, **quantos dias,** mais ou menos, sentiu se assim? ○ NADA (0) ○ VÁRIOS DIAS (1) ○ MAIS DE METADE DOS DIAS (2) ○ QUASE TODOS OS DIAS (3) **2.Nas últimas 2 semanas, será que você sentiu-se em baixo, triste ou desesperada?** Caso SIM, **quantos dias,** mais ou menos, sentiu se assim? ○ NADA (0) ○ VÁRIOS DIAS (1) ○ MAIS DE METADE DOS DIAS (2) ○ QUASE TODOS OS DIAS (3)	**PHQ 2:** ≥ 2 pontos	SUSPEITA DE DEPRESSÃO	• **Registar** Depressão materna (DM) no Livro da CPN ou da CPP (Observações) • **Aconselhar** a mãe com apoio de cartazes • **Acompanhar** para consulta de Saúde Mental (para PHQ9 e seguimento) • **Se for possível,** ajudar a mãe a juntar-se a um grupo de mães ou a receber visitas em casa
		PHQ 2: < 2 pontos **HÁ PELO MENOS UM FACTOR DE RISCO**	POSSIBILIDADE DE DESENVOLVER UMA DEPRESSÃO	• **Registar** SEM DEPRESSÃO (SD) no Livro da CPN ou da CPP (Observações) • **Aconselhar** a mãe com apoio de cartazes
		PHQ 2: < 2 pontos **SEM NENHUM FACTOR DE RISCO**	AUSÊNCIA DE SINAIS DE DEPRESSÃO	• **Registar** SEM DEPRESSÃO (SD) no Livro da CPN ou da CPP (Observações) • **Elogiar** a mulher e a família que lhe apoia

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The protocol included using the Patient Health Questionnaire (PHQ-9) tool to screen women for symptoms of PD two weeks after birth, followed by referral or counseling. Counseling was done using visual cards adapted from the World Health Organization's Thinking Healthy manual. Maternal and child health (MCH) nurses received classroom training and subsequent mentoring from onsite mental health technicians, along with routine supervision from district and provincial technical leads. The first round of piloting was carried out in June 2019–March 2020 with 27 MCH nurses and 19 mental health technicians in eight high-volume facilities in Maputo Province. Lessons learned were used to make the following changes to the protocol:

- The protocol was expanded to also include antenatal care (ANC)—including youth-friendly services.
- An on-the-job training package was developed to increase the number of nurses reached.
- For initial screening by MCH nurses, the nine-item PHQ-9 tool was replaced by the PHQ-2 tool with only two questions. The question format was also simplified.
- Suspected PD cases were referred to mental health technicians for further screening using PHQ-9.
- Counseling cards were tested for clarity with end-users and further simplified by incorporating user feedback. Cards for providing PD counseling at ANC were also developed.

The second round of piloting incorporating these changes was carried out in August 2022–May 2023 with 58 MCH nurses and 12 mental health technicians in five high-volume facilities in Maputo Province. Pilot results

[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.

[3] Gouveia, L. (2018). Saude mental em Moçambique. PowerPoint presentation. Accessed at: https://www.lisboninstitutegmh.org/assets/files/Lidia_Gouveia.pdf

Address
2201 Westlake Avenue
Suite 200
Seattle, WA 98121 USA

Date
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were assessed through interviews with MCH nurses and mental health technicians (both rounds), review of service delivery registers (both rounds), client exit interviews (second round only), and key informant interviews with national and subnational health stakeholders.

Findings

Mild depression represents the majority of confirmed cases (67%), with 20% of confirmed cases being moderate depression and 13% being severe depression. Since mild depression does not require clinical management, providers can be trained to provide psychosocial support. Furthermore, mildly depressed women may benefit from peer-support networks and economic strengthening and self-help groups.

According to service delivery data, 83% of clients were screened for PD at ANC. However, only 67% were screened at PNC, with the perceived need to prioritize newborns competing for MCH nurses' attention. This was confirmed by exit interview data, where approximately 60% of women reported being screened for depression at ANC and only around 40% reported being screened at PNC.

MCH nurse counseling an adolescent mother on how to promote her mental health. Photo: PATH.

In the second pilot, 2% of women were identified with symptoms of PD at ANC and only 1% of women were identified at PNC. The average detection rate of PD went down from 3.3% in the first pilot (PNC only) to 1.5% in the second pilot (ANC and PNC), despite the simplification of the screening protocol.

The decrease in detection may be due to a shift in the capacity building strategy from classroom-based to on-the-job training, which trained more nurses but potentially resulted in weaker motivation and performance; and less intensive mentoring/supervision by district and provincial technical leads between the two pilot rounds.

While detection rate in both pilots appears low, it is not too dissimilar from the detection rate in ANC and PNC clients in a recent PHQ-9 validation study in central Mozambique (around 6%), especially when taking into consideration that the pilot screening was done by frontline providers during routine services and not in a study setting.[4]

Over 70% of suspected PD cases referred to mental health technicians by MCH nurses were confirmed. This suggests that **frontline nurses can detect PD with reasonable accuracy**.

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

All interviewed clients found the intervention to be acceptable. 74% of clients felt they could be transparent about their problems with MCH nurses. Furthermore, several women felt motivated to return to the health facility for routine services after being screened for PD.

While 75% of interviewed nurses felt confident in providing counseling and all of them found the counseling cards useful at "helping women to open up," observations suggest that the cards are often used incorrectly. **It is necessary to reflect whether frontline nurses should continue to counsel or whether the counseling component should be fully shifted to mental health technicians**.

Frequent nurse rotation and lack of privacy in consultation rooms were cited as barriers due to loss of capacity and inability of clients to share concerns, respectively.

Frequent mentoring by mental health technicians was crucial for improving nurse performance. However, an integrated MCH and maternal mental health tool proved too difficult for mental health technicians to utilize, suggesting that dedicated maternal mental health mentoring is needed.

Based on pilot findings, the MOH Mental Health Department has engaged new partners to scale up PD screening and counseling in additional health facilities in seven new provinces and has established a maternal mental health technical working group. Furthermore, the national PNC guidelines have been revised to include the tested protocol for PD screening and counseling.