

# Screening for common perinatal mental disorders in low-resource, primary care, antenatal settings in South Africa

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The Perinatal Mental Health Project (PMHP) has validated a short, accurate and easy to use mental health screening tool for pregnant and postnatal women in the South African setting. It has been tested for common mental disorders: depression and anxiety.

- Depression and anxiety, also known as common mental disorders, are highly prevalent during and after pregnancy. Prevalence is three to four times higher in South Africa than in high-income countries.<sup>1</sup>
- In a peri-urban settlement outside Cape Town, rates of women meeting screening criteria for depression ranged between 32-47% during pregnancy, and between 16-35% in the postnatal period (within one year after giving birth).<sup>2</sup>
- Common perinatal mental disorders (CPMD) are directly linked to maternal mortality and morbidity<sup>3</sup>, and are associated with adverse outcomes for child health and development<sup>4</sup>.
- Despite the evidence of effective psychosocial treatments<sup>5</sup>, there are many gaps in the detection and treatment of CPMD at primary care level in South Africa.<sup>6</sup> These gaps are linked, in part, to inadequate screening instruments.<sup>7</sup>
- The first step towards increasing detection and access to care is by integrating mental health screening into routine, primary level antenatal care.<sup>8</sup>
- Several screening tools have been tested in South Africa, but may be too long and cumbersome for administration by frontline workers<sup>a</sup>.

The PMHP proposes a short mental health screening tool, for use in low-resource primary care settings in South Africa. It is suitable for routine integration into history-taking in busy facilities.



## About the PMHP

PMHP envisions mental health support for all mothers to promote their well-being, and that of their children and communities. Its mission is to develop and advocate for accessible maternal mental health care that can be delivered effectively at scale in low-resource settings.

PMHP provides mental health services for pregnant and postnatal women, trains those who work with mothers to improve the quality of their care, forms partnerships to promote the scale up of services and informs global interventions through robust research and advocacy.

CPMH Policy Briefs present summarised research findings and key policy recommendations on important public mental health issues in low- and middle-income countries in Africa and Asia.



<sup>a</sup> All practitioners who interface with pregnant and postnatal women, whether they are located in the social, development or health sectors.

## What kind of mental health screening tool is needed?

If a mental health screening tool is to be integrated into routine care, it must be acceptable and feasibly used in busy, low-resource settings. For this to be possible, the tool must be:

- Relevant to South Africa  
The tool should reflect the symptomatology of, and risk for, CPMD in South African women specifically.
- Short and quick to administer  
Because of a lack of mental health specialists in South Africa, there has been a call to shift certain health care tasks, such as mental health screening, to non-specialist, frontline workers.<sup>9</sup> In a context where staff are already overworked, it is necessary to ensure that the administration of the tool is not too burdensome or overwhelming.
- Easy to score and interpret  
The scoring system must be simple. Questions with a binary answer (yes/no) usually require less time to score, and allow for the total score to be more easily calculated. This means that scoring is less time-consuming, and that a lower mathematical literacy is required of the administrator.
- Clinically relevant  
The screening tool must be able to detect women with symptoms of CPMD and in need of mental health care. However, it should not 'over-detect' CPMD and lead to 'false positive cases'.  
This would overwhelm the capacity and resources of the health care system. So, the tool must show:
  - Good sensitivity: adequate detection of pregnant women who actually have a CPMD; **AND**
  - Good specificity: adequate detection of pregnant women who correctly do not have a CPMD.



### PMHP's research study to develop the short screening tool (2012)

#### Objective

**Determine the optimal *brief* mental health screening tool, for use in low-resource primary care maternity settings, to be administered by non-specialist frontline workers**

- The study took place at the Midwife Obstetric Unit (MOU) at Hanover Park Community Health Centre;
- 376 women who attended their first antenatal visit at the MOU were recruited;
- Women were interviewed using a structured diagnostic interview (the MINI Neuropsychiatric Interview; MINI Plus), to diagnose mood and anxiety disorders, suicide and substance use disorders;
- Women were also assessed on 5 screening tools for CPMD and on 8 tools assessing risk for CPMD;
- Screening tools and individual items were analysed (ROC analysis) against diagnoses of Major Depressive Episode (MDE) and/or any anxiety disorders on the MINI Plus. This was done to identify the best existing tool and best combination of items to detect these diagnoses.

## Hanover Park short screening tool study: results

The point prevalence of mental disorders based on the MINI Plus in this study were:

- Anxiety disorders: 23%
- Major Depressive Episode (MDE): 22%
- MDE or anxiety disorder: 32%
- MDE and anxiety disorder: 12%
- Any substance use disorder: 15%
- Any psychotic disorders: 1%
- Suicidal ideation: 18%

Performance of screening tools against the diagnostic interview:

- Four screening tools for symptoms of CPMD were the best at predicting MDE and/or anxiety diagnosis. These included the Edinburgh Postnatal Depression Scale (EPDS); the Kessler Psychological Distress Scale (K-10), the Patient Health Questionnaire (9-item version) and the Whooley Questions from the National Institute for Health and Care Excellence<sup>10</sup>
- The three-item, binary scoring Whooley Questions performed comparably to other longer, more complex screening questionnaires, such as the EPDS or K-10, which have been validated in South Africa.<sup>11-12</sup>

Best combinations of items for predicting MDE and/or anxiety diagnosis:

### FIVE ITEMS

- Low mood
- Inability to experience pleasure from activities usually found enjoyable
- Difficulty with concentration
- Difficult life events in past year
- Past abuse (physical, emotional, sexual, rape)

### THREE ITEMS

- Low mood
- Inability to experience pleasure from activities usually found enjoyable
- Wanting help with the above feelings

## Recommendations

Based on the research study, the PMHP recommends the use of the following 3-item tool:

1. During the past month, have you been bothered by feeling down, depressed or hopeless? Yes/No
2. During the past month, have you been bothered by little interest or pleasure in doing things? Yes/No
3. Is this something you feel you need or want help with? Yes/No

These items are the same as the Whooley Questions. The scoring system was however modified slightly, for ease of use and referral. Women with a **score of at least 2 out of 3** (i.e. respond 'yes' to at least two questions) have a high probability of having a CPMD, and should be referred for mental health care. With this cut-off score, the tool shows adequate sensitivity (73%) and specificity (82%).

Because the tool only comprises three items, with binary scoring, the tool can be easily administered by lay health workers, community health workers or primary care (non-specialist) frontline workers.

This tool should improve mental health screening coverage and the cost-effectiveness of the screening process. This ultimately should improve detection of CPMD and facilitate access to mental health care.

### Effective screening is the entry point to care

This tool is only to be used if screening is part of a clear health care protocol, which facilitates access to mental health care. The nature with which it is administered will impact mothers' uptake of services. Therefore, the tool should be administered with care and empathy.

## References

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The **Perinatal Mental Health Project (PMHP)** is an independent initiative based at the University of Cape Town. It is located within the CPMH.

The PMHP is a non-profit entity that has been operating for more than 11 years, in partnership with the Departments of Health and Social Development. It provides screening, counselling services and appropriate referral, as well as builds capacity among various health, social and development workers to provide support for pregnant women and girls experiencing psychological distress.

The PMHP actively addresses the challenges associated with gender based violence, teen pregnancy, HIV, substance misuse, refugee status and early childhood development through its clinical engagement with vulnerable women and their families, through training of staff that interact with these women, through research projects and advocacy work. The PMHP supports state agencies to achieve health and social development objectives and address some of the challenges in meeting Millennium Development Goals 4, 5 and 6.

### PMHP donors



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Dedicated to the memory of a pioneer of public mental health in Africa, the **Alan J Flisher Centre for Public Mental Health (CPMH)** is the first of its kind on the African continent, and is a joint initiative of the Department of Psychiatry and Mental Health at the University of Cape Town (UCT), and the Department of Psychology at Stellenbosch University (SU).

The CPMH conducts high quality research on public mental health, and uses evidence for teaching, consultancy and advocacy to promote mental health in Africa. This is in recognition of the need to prioritise mental health on the public health agenda; to develop professional mental health capacity; and to develop policy, service and legislative frameworks to scale up systems of mental health care in Africa.

The CPMH incorporates the following projects:



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