RESEARCHED VIEWPOINT:

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Screening tools: Challenges identifying perinatal depression in primary care

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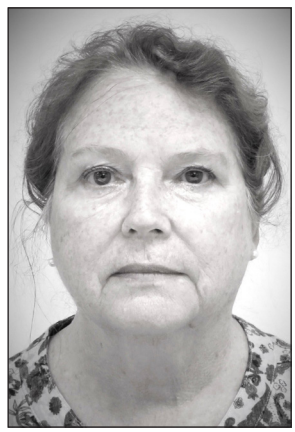
This researched viewpoint focuses on screening to assess perinatal emotional distress or depression in primary health. Perinatal depression, defined as severe depressive episodes during pregnancy (antenatal) and within 12 months postpartum (postnatal) represents one of the most ubiquitous complications of a woman's reproductive life (Yang et al., 2022). In perinatal health care, the aim is to provide the best possible start for mothers, partners and their babies, physically and emotionally. Historically, we have prioritised the physical, have improved obstetric and midwifery care, and reduced the maternal mortality rate by 40 percent between 2000 and 2020 in the Western world (World Health Organization, 2021).

Antenatal and postnatal depression share similar prevalence rates to prevalence rates for depression in the general population, with estimates ranging from 12-20 percent and a commonly reported estimate of 13 percent (Mitchell et al., 2023; Wang et al., 2021; Yin et al., 2021). While physical perinatal healthcare has improved and maternal mortality rates have decreased, emotional healthcare (which includes socio-cultural and spiritual aspects) remains a global problem, making oversight of accurate assessment a clinical ethical issue. Screening for perinatal depression (both ante and postnatal) is widely practised across the world. A systematic review and meta-analysis of 589 studies and outcomes of 61,6708 women from 51 countries by Mitchell et al. (2023) indicated the prevalence of perinatal depression to be 10 to 20 percent in developed countries and one in four women (24 percent) in underdeveloped countries.

Perinatal depression or distress can be both under-diagnosed, and over-diagnosed, neither of which is helpful to women. The former can lead them to missing out on the mental health support they need, and the latter to over-testing and feeling stigmatised, with root causes unexamined. On the one hand, perinatal emotions are often normalised, suggesting a potential gap in the current diagnostic criteria of distress or depression, and making oversight a clinical ethical issue. A significant number of women do not meet the criteria for a maternal mental health diagnosis due to the perceived lack of severity in their symptoms. On the other hand, a recent literature review (White et al, 2024) to identify current research into ante and postnatal distress and perinatal depression for a maternal mental health study in primary health highlighted various screening tools used, which may be contributing to the rising prevalence of perinatal depression, where the actual root cause persists and is left untreated.

Various ethical issues are associated with screening tools, which can result in more harm than benefit (Yong et al., 2022). The sole reliance on screening tools over or under-identifies perinatal depression or degrees of emotional distress. As reported in this article, standard screening scales used are not of acceptable quality



Gillian White

for the perinatal period and do not identify specifics where assistance may be of help, to avoid a diagnosis of depression or perinatal emotional distress. This is because they lack robust validity and cultural nuances.

Screening for health issues is generally cast in a favourable light when promoted to the public, but screening tests are not "risk free" as their use has potential harm. The possible harm from screening for perinatal mental health arises from the validity and accuracy of the self-reported tests; the cut-off used; cultural inappropriateness, being developed in a Western model; rising prevalence rates for minority cultures; the tendency to treat based on the test; and stigmatisation and fear of the baby being taken away. Zubaran et al. (2010) highlighted the challenge of existing screening scales being developed based on the English language, posing complications of local interpretations, cultural relevance, semantics and sensitivity. Highet et al. (2023) also questioned the specificity and sensitivity in screening for perinatal depression, and Wang and Kroenke et al. (2021) emphasised the importance of screening with efficient and evidence-based measures. False positives can generate psychological distress and often result in further investigations to determine if the condition of concern is present.

A literature search was conducted on the major perinatal screening tests used, accessing Scholar One, Semantic Scholar, Google Scholar, PubMed and PsycINFO. In addition, the notes of pregnant and postnatal women attending two local primary health care clinics in a medium-sized, low socio-economic urban area in New Zealand were reviewed over a retrospective period from March 2022 to March 2023. The purpose of reviewing the notes was to ascertain which screening tools were commonly being used and the interventions

recommended, to provide a foundation for the literature review and critique.

Both practices inform patients that their notes may be subject to review for research purposes when they register with the practices and have given permission. The women's notes were reviewed by senior practitioners. Individuals were given codes; no names were recorded, and the data collected were amalgamated for descriptive statistics.

Seven tools investigated

Seven screening tools commonly used around the world in primary health to test pregnant and postnatal women for depression or anxiety were identified and investigated.

1) Edinburgh Postnatal Depression Scale (EPDS) (Cox, 1987)

Inspired by Brice Pitt, who published a seminal paper, ' "Atypical" depression following childbirth', in the *British Journal of Psychiatry* (1968), John Cox carried out a controlled study of perinatal psychiatric morbidity in 263 rural women in Uganda. Later he undertook a prospective study in Edinburgh – each followed by the Structured Psychiatric Interview (as described in Pitt,1968). Cox found that the existing scales lacked criterion and face validity for postnatal depression. Hence, a short self-report questionnaire acceptable to mothers and health professionals, with satisfactory psychometric properties, was required. Collaborating with his team and exploring existing depression scales such as the Hospital Anxiety and Depression Scale (HAD), General Health Questionnaire (GHQ), and Beck Depression Inventory (BDI), Cox rejected somatic symptoms attributed to postnatal physiological changes. Drawing insights from his Edinburgh study, he developed the Edinburgh Postnatal Depression Scale (EPDS) through iterative testing for validation. Omitted items, however, included social and domestic circumstances of the peripartum period. Cox emphasised that the EPDS should be administered by a trained health professional to identify women with a "false negative" score, potentially indicating severe retarded depression or psychotic symptoms. Cox noted that the EPDS did not offer a differential diagnosis, as a score above the cut-off could occur in mothers with post-traumatic stress disorder or an anxiety disorder. Despite its ease of use (and potential misuse), the EPDS is widely employed by doctors, midwives and other health professionals for both antenatal and postnatal depression screening. While it is rarely accompanied by a Structured Psychiatric Interview, Loney and Frick (2003) and Cox et al. (1987) recommended using it as a starting point for further discussion with the mother about her symptoms. This approach allows for clarification of the nature of the underlying psychiatric condition and determination of the impact on the infant and extended family. Following a systematic review to assess the appropriateness of the EPDS, Highet et al. (2023) found it showed high certainty (sensitivity and specificity) for major depression in both the antenatal and postnatal periods, in multiple languages and populations. The authors strongly recommended its use to screen women for possible perinatal depressive disorder with a strong proviso that women with a cut-off score of >13 should be further assessed.

2) Kessler Psychological Distress Scale (K10)

The K10 is a questionnaire for patients to complete. It is a measure of psychological distress (Kessler et al., 2002). About one in four patients seen in primary care will score 20 and over (mild mental disorder) with 13 percent of the adult population scoring 20 and over (Highet et al., 2023). This is a screening instrument, and practitioners should make a clinical judgment whether a person needs treatment. The development of the Kessler scales was based on a review of psychopathological screening scales by Dohrenwend et al. (1980), based on a probability sample of 200 adults, through interviews, drawn from heterogenous sex, class, and ethnic groups in New York City (Andrews & Slade, 2001). It has never been validated for perinatal women, yet is used by some New Zealand practitioners. Indeed, the K10 was found to have low certainty for its adequacy in screening for major perinatal depression. Highet (2023) does not recommend its use.

3) Patient Health Questionnaire (PHQ-9)

Developed by Kroenke et al., (2001), the PHQ-9 is a nine-item component of a larger self-administered Patient Health Questionnaire (PHQ), but can be used as a stand-alone instrument. The PHQ is a depressive symptom scale and diagnostic tool introduced in 2001 to screen adult patients in primary care settings (Spitzer et al., 1999). The diagnostic validity of the PHQ/PHQ-9 was established in two studies involving 3000 patients in eight primary care clinics and 3000 patients in seven obstetrics-gynaecology clinics. The findings, however, did not differentiate perinatal women. The PHQ-9, popular among health practitioners, also includes a functional health assessment, including how any emotional difficulties or problems impact work, life at home, or relationships with other people. If the responses indicate difficulties, the suggestion is that the patient's functionality is impaired. According to Highet et al. (2023), the specificity and sensitivity in screening for perinatal major depression using the PHQ-9 is low, and very low for minor depression, and therefore it is not recommended. However, Wang and Kroenke et al. (2021) found during a systematic review that the PHQ-9 appeared to be a viable option for perinatal depression screening with operating characteristics like the EPDS, with the proviso that depression should never be diagnosed, or excluded, solely based on a PHQ-9 score.

4) General Anxiety Disorder 7 (GAD-7) and General Anxiety Disorder 2 (GAD-2)

General Anxiety Disorder 7 (GAD-7) was based on DSM-IV (American Psychological Association, 1994) criteria for anxiety, PTSD and social anxiety. General Anxiety Disorder 2 (GAD-2) uses only the first two of the core anxiety symptoms: feeling nervous, anxious or on edge; not being able to stop or control worrying. The scale was published in 2006 by Spitzer et al. and was originally developed to be used with adults (aged 18+); however it has also been validated for use with adolescents (aged 14-17) with generalised anxiety, as GAD-7 scores can support the assessment of anxiety symptoms and help differentiate between mild and moderate anxiety in youth. Using GAD, the current prevalence of general anxiety disorder is

2-3 percent, with a lifetime prevalence of over 5 percent. It is the most prevalent anxiety disorder encountered in primary care with an estimated prevalence of 8 percent. An estimated 4 percent of the global population currently experience an anxiety disorder (WHO, 2023), making anxiety disorders the most common of all mental disorders. Prevalence varies widely across countries and populations and estimating a worldwide prevalence rate is challenging due to varied study methods, cultures and access to health services (Mossman et al., 2017). Thus, validated within a generalised population in the United States, many of the symptoms would be quite normal in a pregnant or postnatal population. However, a systematic review by Sinesi et al. (2019) clearly points out how evidence regarding the screening performance of anxiety scales for use in pregnancy remains insufficient.

5) Beck's Depression Inventory (BDI)

The Beck Depression Inventory (BDI, BDI-1A, BDI-II) was developed by Aaron Beck (1996) as a tool to measure the severity of depression in a quantifiable manner. The current version, BDI-II, is intended for individuals aged 13 years and above. It consists of various items that assess symptoms of depression such as hopelessness and irritability, thoughts and beliefs related to guilt or feeling punished, and physical symptoms like fatigue, weight loss and decreased interest in sex. The BDI-II has been validated with the general population and college students in the United States, but it is also commonly used by health-care professionals to screen perinatal women for depression.

6) Perinatal Depression Inventory (PDI-14)

The Perinatal Depression Inventory (PDI-14) was developed using Modern Measurement Theory (MMT) computer-assisted item response (Brodey et al., 2016). Most measures used to assess depression in the perinatal period in this tool are designed to assess general depression (White et al., 2024). Tests using one-word Likert responses have been criticised for being confusing and idiosyncratic; some tests are too long, and none were developed and calibrated for context and universality. After stringent comparative testing, all instruments in current use, including the PDI-14, are based on the criteria for antenatal/postnatal/perinatal depression, as defined by DSM-IV (White et al., 2024). White et al.'s study on emotional distress in pregnancy and post-birth concluded that the primary goal of the PDI is to assess the severity of perinatal depression more accurately and precisely to inform treatment decisions.

7) DuKe assessment (DASI)

The DuKe assessment (Hlatky, 2024) is a generic self-report instrument containing six health measures (physical, mental, social, general, perceived health and self-esteem), and four dysfunction measures (anxiety, depression, pain and disability).

In the two primary care clinics whose records were examined, assessments showed women dealing with a range of highly stressful personal situations during the perinatal period, in which it would be quite valid to feel a high level of emotional distress. These included drug and alcohol use, post-traumatic stress disorder (PTSD) after witnessing the suicide of loved ones, traumatic birth experiences, sexual and physical assault, family violence, miscarriages, terminations, struggles with relationships and transient living situations, struggles with relationships and living situations some of which are unsafe, family violence, childhood abuse, medical conditions eg diabetes, and psychological conditions eg bipolar, schizophrenia. Inappropriate screening tests may allocate these women high scores and thus a diagnosis of depression, when the reality is they are distressed and in need of support due to intense external or health-related pressures.

Postnatal Depression Screening Scale (PDSS)

The Postnatal Depression Screening Scale (PDSS), which is not used in New Zealand, is a screening tool developed after an extensive research process by Beck and Gable (2000) that began with women providing crucial insights into what health professionals needed to know about postnatal depression. Derived from qualitative data, the PDSS underwent testing across various countries and languages via the backtracking process and was validated through rigorous analysis. Comprising 35 self-administered survey items, the PDSS categorises responses into seven domains, each with its cut-off point. The domains are: sleeping and eating, anxiety, mental confusion, emotional lability, loss of self, guilt and shame, and suicide ideation. This approach allows health professionals to target interventions based on specific domains (with symptoms), rather than relying on a singular diagnosis of depression. A thoroughly tested and validated shorter 14-item screening scale is available.

Summary

The EPDS had high certainty for major perinatal depression with a cut-off score of >13. The Kessler 10 is not validated for perinatal women, having low certainty. The PHQ-9 appears to be viable, although there was disagreement among researchers. Evidence for the GAD-7, validated within a general population, is lacking as the symptoms are normal in pregnancy and postnatal women. The primary goal of the PDI is to assess the severity of perinatal depression, and the DuKe is too generic.

All tests have a proviso that positive results are not diagnostic. The ethical principle of informed consent to be screened, predicated on the principle of autonomy, can also be challenged if the test being used has not been validated for the presenting demographic, perinatal women. The results may suggest follow-up, specialist consultation, and further testing, causing further stress to women and additional costs to the national health service, setting up an unjust cascade of emotional distress. The perinatal screening scales examined have all been developed from a westernised medical approach to mental health and illness. There is no allowance for ethnic and cultural beliefs and values concerning pregnancy, childbirth and parenting.

While the PDSS demonstrates specificity and sensitivity for perinatal depression, its use is limited by cost, as it has to be purchased. However, identification of the domains that are problematic for the individual is very useful, in that nurses, midwives, or health improvement practitioners can explore each one with the woman and find the root cause(s) or significant factors contributing to

her emotional distress. Health-care ethics involves questions about what is right and what we ought to do, and it is essential to consider these ethical issues when making decisions about health-care improvement. Ethical analysis includes whether we treat people in acceptable ways, do not harm, do good, work in ways that embody assets, and foster social and cultural strengths.

Pregnancy and childbirth are not medical conditions. Despite the widespread availability of perinatal depression and distress screening scales, they may not be in a woman's best interests if used diagnostically without an exploration of the root causes or significant factors that can be found in exploring the domains. Management may result in medications and stigma if a woman is afraid her children will be taken from her due to a "mental illness". Even more significant if the root cause of the emotional distress is not established and appropriately managed, it can become worse, eventually leading to a full-blown depression.

Clinical findings raise many issues for perinatal women that are specific to their context and outside the range of non-perinatal experiences. The state of being pregnant and having a child involves unique physiological/hormonal changes, specific mental concerns, social worries, and existential or spiritual reflections. Perinatal women may exhibit emotional distress, misdiagnosed as depression.

Pregnant and postpartum women have complex and labile emotional reactions to their experiences. To be assessed as depressed by an inappropriate screening tool exacerbates existing distress without exploring the root cause. Different perinatal depression tests have varying levels of scientific evidence. Resources directed toward screening for perinatal depression based on unvalidated screening tools are also inequitable and uneconomical.

Clinicians should consider reframing perinatal depression as emotional distress. Exploring the domains of emotional distress shifts the focus from a broad diagnosis of depression to managing emotional distress, which is both person-centred and respectful of women and their families experiencing pregnancy and childbirth. A small percentage will have physiological and/or psychological disease; however, for most, pregnancy and childbirth will follow a normal pattern accompanied by normal day-to-day anxieties.

Is perinatal anxiety a distinct condition? A question worth exploring.

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