

Petriano, H., Lestari, R., & Windarwati, H., D., (2025). Psychometric properties of the Edinburgh Postnatal Depression Scale (EPDS) for depression screening in pregnant and postpartum women: a systematic review. *Indigenous: Jurnal Ilmiah Psikologi*, 10(3), 377-391. <https://doi.org/10.23917/indigenous.v10i3.13370>

Psychometric Properties of the Edinburgh Postnatal Depression Scale (EPDS) for Depression Screening in Pregnant and Postpartum Women: A Systematic Review

Haris Petriano¹, Retno Lestari², Heni Dwi Windarwati³

Faculty of Health Science, Universitas Brawijaya¹²³

Submitted: 17 October 2025	Accepted: 29 November 2025	Published: 30 November 2025
----------------------------	----------------------------	-----------------------------

Abstract. *Depression is a significant mental health disorder that has a considerable effect globally. Early identification using valid and reliable screening tools, such as the Edinburgh Postnatal Depression Scale (EPDS), is essential for its prevention and management. This review aims to assess the psychometric characteristics of the EPDS, concentrating on its reliability and validity in identifying depressive symptoms. This research is a systematic review of scientific publications sourced from three major databases: ScienceDirect, PubMed, and ProQuest. The literature search included works published between 2021 and 2025, utilizing a mix of the keywords "Depression", "Edinburgh Postnatal Depression Scale", "Mental Health", "Psychometrics", "Postpartum", and "Pregnancy" combined with Boolean operators AND and OR to obtain studies related to the EPDS's validity and reliability. Article selection followed the PRISMA framework, using predefined inclusion and exclusion criteria. Out of a total of 337 articles found, 20 were chosen for further examination. The results suggest that the EPDS exhibits good internal consistency and sufficient validity in identifying depressive symptoms. The EPDS is a dependable screening tool for identifying perinatal depression, with its reliability upheld through linguistic and cultural adaptations.*

Keywords: *Depression, edinburgh postnatal depression scale, mental health, psychometrics, postpartum*

INTRODUCTION

Depression can affect women during pregnancy as well as in the postpartum period, impacting both their quality of life and fetal development. Pregnancy is a complex transitional phase that involves physical, emotional, and social changes. While it is often linked with joy and excitement, many pregnant women also face psychological distress, such as depression and anxiety, which can lead to mental health disorders (Rogers et al., 2020). These two conditions frequently occur during the perinatal period and can lead to serious outcomes if not properly managed (Dadi et al., 2020; Rogers et al., 2020). Worldwide, around 20% of pregnant and recently post-partum women in low and middle-income nations suffer from generalized anxiety disorder, while 8.3% face post-traumatic stress disorder (Roddy Mitchell et al., 2023).

Data from the World Health Organization (WHO) in 2019 indicate that more than 280 million people worldwide experience depression, and approximately 301 million

*Corresponding author: henipsik.fk@ub.ac.id.

others experience anxiety disorders (WHO, 2022). Dennis et al., (2017) conducted A comprehensive review encompassing 102 studies with a total of 221,974 women from 34 different countries, found that 18.2% of women reported experiencing symptoms of anxiety in the first trimester. A greater prevalence of postpartum depression (PD) was noted during the late postpartum phase (3–12 months), with around 3.18% of parents—both mothers and fathers—facing PD during this period (Smythe et al., 2022). If proper intervention is not implemented, both conditions could result in a diminished quality of life, reduced productivity, and a higher risk of morbidity and mortality from other health issues (Dagher et al., 2021; Srinivasan et al., 2025).

Multiple interconnected factors, such as hormonal and physiological changes during pregnancy, can lead to depression and anxiety in pregnant women, disrupting their emotional and mood regulation (Dagher et al., 2021). Psychosocial elements—like relationship conflicts, lack of social support, domestic violence, and financial stress—further increase maternal vulnerability to mental health issues. A meta-analysis by Tilahun et al., (2022) found that low social support is significantly linked to a higher risk of antenatal depression. A history of psychological disorders, including depression or anxiety before pregnancy, also poses a significant risk. Mitchel et al., (2023) demonstrated that depression during pregnancy is associated with a greater risk of obstetric complications and adverse birth outcomes, such as preterm birth and low birth weight, as well as impairing mother-infant bonding, delaying cognitive and emotional development, and reducing maternal adherence to prenatal care and health behaviors (Rogers et al., 2020; Rossi & Parada, 2023). Faisal-Cury et al., (2021) confirmed these findings, showing that antenatal depression increases the risk of obstetric complications and adverse outcomes. Additionally, untreated anxiety during pregnancy can escalate into more severe mental health conditions like panic disorder or postpartum phobia (Dennis et al., 2017; Faisal-Cury et al., 2021). Given the complex causes and effects of perinatal depression, it is crucial to enhance detection and intervention efforts, such as using screening questionnaires that can efficiently identify depression early in couples planning pregnancy, during pregnancy, and postpartum. These screenings can be integrated into maternal and child health (MCH) clinics, hospitals, primary care centers, and community health services (El-Den et al., 2022; Faisal-Cury et al., 2021).

The Edinburgh Postnatal Depression Scale (EPDS) is among the most common tools used for identifying PPD. It includes 10 items based on depression diagnostic criteria, covering symptoms of depression and anxiety. The EPDS is valid and reliable for both postpartum women and pregnant women in diverse populations (Al-abri et al., 2025; Dosani et al., 2022; Gebregziabher et al., 2025). Joshi et al. (2020) confirmed that the Hindi version of the EPDS is a valid and reliable method for detecting depression among pregnant women in India. Similarly, Vázquez and Míguez (2019) found that the EPDS is effective for screening depression in pregnant women in Spain, with an AUC between 0.76 and 0.89, indicating strong discrimination compared to diagnoses from the Structured Clinical Interview for DSM-IV (SCID). While the EPDS is frequently used in research within Indonesia, its use in healthcare settings is still somewhat limited relative to tools like the Self-Reporting Questionnaire (SRQ), especially in community screening and primary care. This systematic review aims to gather and analyze evidence from various countries on the EPDS's effectiveness, validity, reliability, and psychometric features in detecting depression during pregnancy and postpartum.

This review aims to examine differences in cutoff values, sensitivity, specificity, and

the factor structure of the EPDS across various cultural settings. This helps to understand the tool's effectiveness worldwide better. Additionally, the review's findings are intended to inform the creation of a more precise, culturally tailored postpartum depression screening protocol in Indonesia. It also seeks to promote the use of suitable, standardized, and sustainable measurement tools in maternal and postpartum healthcare services.

METHOD

Selection Criteria

Articles that report on the psychometric properties of the Edinburgh Postnatal Depression Scale (EPDS), such as its validity, reliability, sensitivity, and specificity for depression assessment, are available in full text. The exclusion criteria comprised articles published before 2021 to guarantee current evidence, and non-English articles were also excluded.

Participants

The PRISMA guidelines ensured a structured, transparent, and standardized approach for identifying relevant articles. Literature searches were carried out on three main databases: ScienceDirect, ProQuest, and PubMed (see Figure 1).

Quality Appraisal and Data Management

The risk of bias for each study was evaluated using the QUADAS-2 tool, which is designed to assess the methodological quality of diagnostic accuracy studies (Reitsma et al., 2011). Any disagreements between reviewers were resolved through discussion until they reached consensus. The assessment focused on four main domains: (1) patient selection, (2) index test, (3) reference standard, and (4) flow and timing. Each domain was classified as low, unclear, or high risk. The "unclear" category was used when the data were insufficient to make a definitive judgment. In contrast, the "not applicable (N/A)" category was used if a particular QUADAS-2 domain was not relevant to the study's design.

Search Strategy

The literature search was performed in October 2025 using these keyword combinations: "Depression", "Edinburgh Postnatal Depression Scale", "Mental Health", "Psychometrics", "Postpartum", and "Pregnancy" utilizing Boolean operators AND and OR. The same search strategy was applied across all databases to ensure that the relevant results matched the review objectives.

Selection Process

Initially, 1,631 articles were identified: 620 from ScienceDirect, 76 from PubMed, and 935 from ProQuest. After removing 125 duplicates, 1,506 articles remained. Title and abstract screening narrowed this down to 1,195 articles. Of these, 516 full-text articles were accessible, but 502 were excluded for not meeting the review objectives. Consequently, 14 articles fulfilled the eligibility criteria and were included in the review (see Table 1).

Data Extraction

Data were systematically collected from all qualifying studies using a standardized extraction form. The information gathered included authors and publication year, country, EPDS version, sample details, cutoff scores, and psychometric indicators such as sensitivity, specificity, area under the curve (AUC), positive predictive value (PPV), negative predictive value (NPV), and reliability measures. Since not all studies reported every diagnostic accuracy metric, only the available data were summarized. Three reviewers independently extracted the data, and any disagreements were resolved through discussion until consensus was reached, followed by a final check to ensure consistency between the narrative data and the results tables.

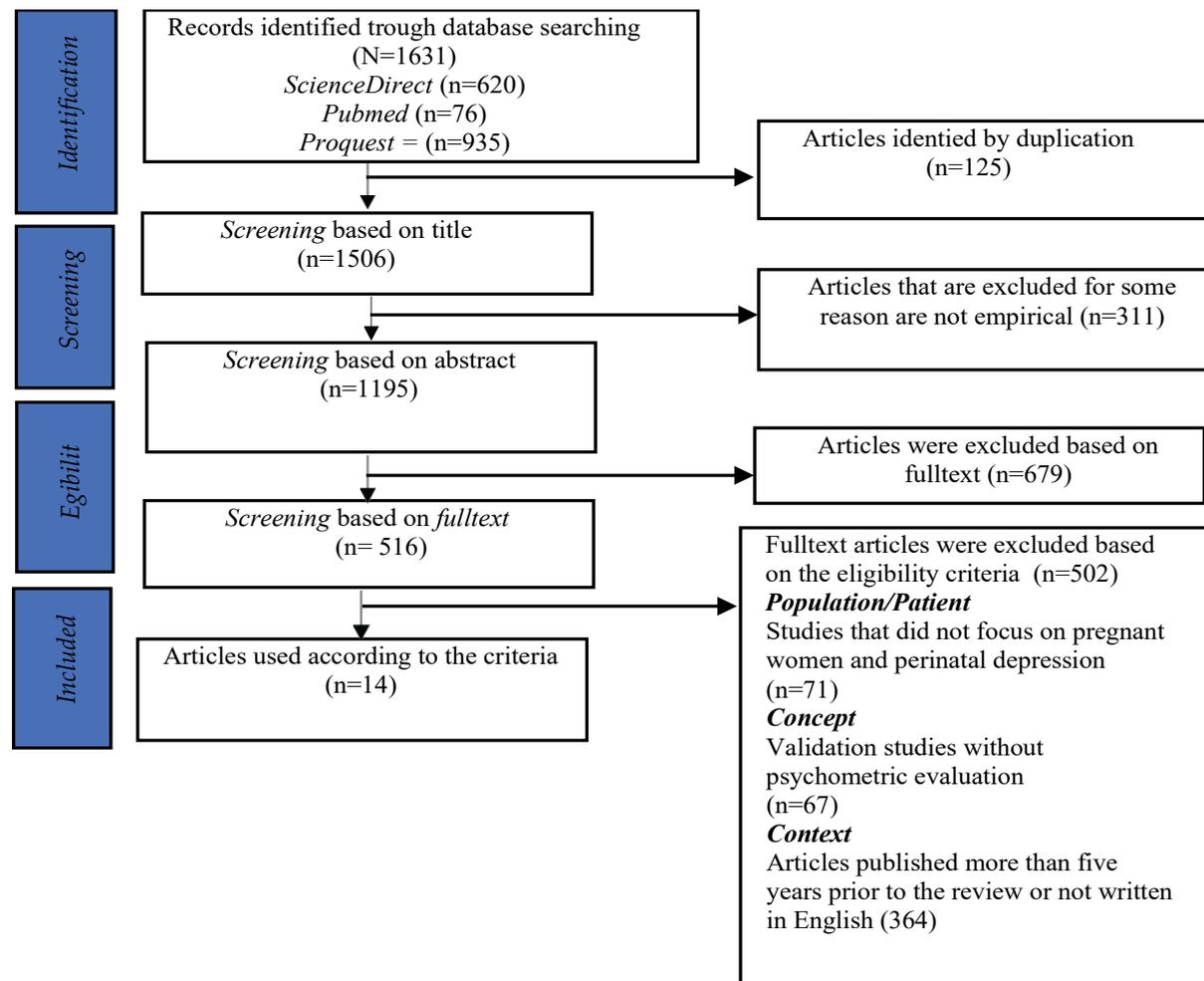


Figure 1
 Journal search and selection process flow chart using PRISMA.

RESULTS

Results

This review of 14 articles from 14 different countries showed that the EPDS is effective for assessing depression, although its validity and reliability varied. Differences in psychometric properties across countries were affected by factors such as cultural context, language adaptations, and methodological differences

Assessment of the risk of bias

The quality assessment of the 14 EPDS validation studies using the QUADAS-2 tool indicated mostly good methodological quality (see Table 2). Most studies had a low risk of bias in all areas, though some differences were noted. All studies showed a low risk of bias in the index test domain. However, the Patient Selection and Reference Standard areas included some studies with unclear or high bias risk, especially those from Indonesia, Japan, and Italy. The Flow and Timing domain was generally well-conducted, with only a few studies showing moderate to high bias risk. Overall, the majority of studies were methodologically sound, but differences in how reference standards were applied across countries should be taken into account when interpreting the results.

Table 1.
 Extraction Results of Validation Studies of the EPDS
 among Pregnant and Postpartum Women Across Countries

Author and Year	Country	Questionnaire	Sample	Key Finding
Gebregziabher et al., (2025)	Eritrea	EPDS 10 Tigrigna version	479 postpartum women	AUC = 0.87 Cronbach's alpha 0.712 Sensitivity 85.7%, specificity 88%, cut-off point 10
Stefana et al., (2024)	Italy	EPDS 9	3571 pregnant women 3850 postpartum women	EPDS-9 (without self-harm item) Pregnant: AUC = 0.695, cutoff 9 Cronbach's alpha 0.928 Sensitivity 61 %, specificity 70%, cut-off point 9 Postpartum: AUC = 0.598 Cronbach's alpha 0.87 Sensitivity 52.6 %, specificity 82.4.7%, cut-off point 9
Zeng et al., (2025)	Singapore	EPDS 10	250 postpartum women	AUC = 0.927 Sensitivity 85.71%, specificity 92.37%, cut-off point >11
Al-abri et al., (2025)	Oman	EPDS 10	352 pregnant women	AUC=0.85 Cronbach's alpha 0.70 Sensitivity 78.57%, specificity 80.99%, cut-off point 11
Djatche Miafo et al., (2024)	Cameroon	EPDS 10	1,633 adolescent mothers (aged ≤ 20 years) in the perinatal period (from pregnancy to 12 months postpartum)	AUC=0.853 Sensitivity 92.6%, specificity 53.2%, cutoff point >11
Buhagiar et al., (2025)	Malta	EPDS 10	196 postpartum women	AUC=0.881 Sensitivity 75%, specificity 87.6%, cut-off point 11/12 PPV 21.4%, NPV 98.0%
Cheng et al., (2025)	China	EPDS 10	550 postpartum women	Cronbach's α = 0.783 Validity: Two-factor structure: <i>anhedonia; depression & anxiety</i> , stable across trimesters. Cut off point Cutoff ≥ 13 Mean score = 5.2 (SD = 3.8); distribution: 81.6% normal, 14.0% mild risk, 3.2% increased risk, 1.2% high risk; prevalence decreased across trimesters (6.9% \rightarrow 3.3% \rightarrow 3.0%)
de Fraga et al., (2021)	Brazil	EDPS 10	61 pregnant women in their second trimester (18–24 weeks of gestation)	Sensitivity: 80.0% Specificity: 92.1% Accuracy: 90.2% False positives: 33.3% Cutoff point ≥ 13

Author and Year	Country	Questionnaire	Sample	Key Finding
Chen et al., (2023)	Japan	EPDS-9	Postpartum mothers: 5,688 participants Pregnant women: 1,639 participants	EPDS without item 10 AUC: 0.996 Cronbach alpha 0.831 (pregnant) Sensitivity 0.773, specificity 0.718 (pregnant) Cronbach alpha 0.830 (postpartum) Sensitivity 0.770, specificity 0.778 (postpartum) Cutoff 9
Atuhaire et al., (2023)	Uganda	EPDS	287 postpartum mothers	Sensitivity (86.8%), Specificity (92.1%) PPV = 80.5% NPV = 94.9% AUC: 0.85, ROC:0.93 Cutoff point ≥ 10
Blackmore et al., (2022)	Australia	EPDS Dari language version	52 postpartum mothers	Cronbach's $\alpha = 0.79$ AUC of 0.90 for depression against DSM-5 clinical diagnoses sensitivity 100%, specificity 88% cutoff score of ≥ 9
Sari et al., (2021)	Indonesia	EPDS Indonesia version	125 pregnant women	Validity CVI = 0.98; KMO = 0.816; Bartlett's $p < 0.05$; 3-factor structure (Depression, Anxiety, Anhedonia); AVE = 0.50–0.81 Reliability Cronbach's $\alpha = 0.80$; CR = 0.74–0.84
Mutiso et al., (2023)	Kenya	EPDS Kamba language version	544 postpartum mothers	AUC 0.94 (0.91–0.96), sensitivity 88.9 %, specificity of 92.0 %. Cronbach's $\alpha = 0.85$, Cut off score ≥ 12
Lau et al., (2025)	United States	EPDS	61 postpartum mothers	Construct validity The EPDS showed a strong positive correlation with the PHQ-9 ($r = 0.70, p < 0.001$) sensitivity 100%, specificity 79.2% Cronbach's alpha 0.898

Note: AUC (Area Under the Curve), ROC (Receiver Operating Characteristic), PPV (Positive Predictive Value), NPV (Negative Predictive Value)

Among the fourteen studies reviewed, the psychometric indicators reported included a mix of diagnostic accuracy measures and internal reliability indices, which varied depending on research design and validation goals. The most common parameters were sensitivity, specificity, and area under the curve (AUC), while positive predictive value (PPV) and negative predictive value (NPV) were less frequently reported. This variation, as shown in Table 1 and Figure 2, reflects differences in methodological approaches, cultural contexts, and targeted perinatal phases.

In studies assessing diagnostic accuracy, EPDS sensitivity typically ranged from 75% to over 90%, indicating a solid ability to detect perinatal depression (Atuhaire et al., 2023; de Fraga et al., 2021; Gebregziabher et al., 2025; Mutiso et al., 2023; Zeng et al., 2025). Specificity values

were more variable, from approximately 53% to over 92%, largely influenced by cutoff scores and population characteristics (de Fraga et al., 2021; Djatche Miafo et al., 2024; Mutiso et al., 2023).

Table 2.
 The Results of the Article Quality Assessment Using the QUADAS-2 Checklist

Author	Risk of bias				Applicability		
	Patient selection	Index test	Reference standard	Flow and timing	Patient selection	Index test	Reference standard
Gebregziabher et al., (2025)	Low	Low	Low	Low	Low	Low	Low
Stefana et al., (2024)	Low	Low	Low	Low	Low	Low	High
Zeng et al., (2025)	Unclear	Unclear	Low	Low	Unclear	Low	Low
Al-abri et al., (2025)	Low	Low	Low	Low	Low	Low	Unclear
Djatche Miafo et al., (2024)	Low	Low	Low	Low	Low	Low	Low
Buhagiar et al., (2025)	Low	Low	Low	Moderate	Low	Low	Moderate
Cheng et al., (2025)	Low	Low	Low	Low	Low	Low	Low
Chen et al., (2023).	Low	Low	High	High	Low	Low	High
de Fraga et al., (2021)	Unclear	Low	Low	Low	Low	Low	Low
Atuhaire et al., (2023)	Low	Low	Low	Low	Low	Low	Low
Blackmore et al., (2022)	Unclear	Low	Low	Low	High	Low	Low
Sari et al., (2021)	Unclear	Low	High	Unclear	Low	Low	High
Mutiso et al., (2023)	Low	Low	Low	Low	Low	Low	Low
Lau et al., (2025)	High	Low	Unclear	Low	High	Low	Unclear

Note. Low, high, and unclear indicate low risk of bias, high risk of bias, and insufficient information to permit judgment, respectively. In accordance with QUADAS-2 guidance, no numerical scores were assigned.

Studies reporting NPV showed consistently high values (> 90%), highlighting the EPDS's strong ability to rule out perinatal depression, whereas PPV ranged from moderate to high, depending on depression prevalence in the study populations (Atuhaire et al., 2023; Buhagiar et al., 2025). AUC values, especially those comparing EPDS to clinical diagnostic standards like DSM-5, SCID-5, or MINI in countries including Cameroon, Brazil, Eritrea, Uganda, Kenya, Singapore, and the U.S., generally ranged from 0.75 to 0.94, indicating good to excellent discriminatory power (Gebregziabher et al., 2025; Mutiso et al., 2023; Zeng et al., 2025). While seven studies demonstrated strong criterion validity of the EPDS against gold standards and revealed optimal cutoff scores between 9 and 13, the variation in scores underscores the influence of cultural, linguistic, and perinatal phase differences on the instrument's performance.

In addition to diagnostic accuracy measures, multiple studies examining construct validity and internal reliability found Cronbach's α values mostly ≥ 0.80 , for both local-language versions and the shortened EPDS-9, demonstrating strong internal consistency (Chen et al., 2023; Cheng et al., 2025; Sari et al., 2021; Stefana et al., 2024). Overall, the emerging pattern indicates a tradeoff between sensitivity and specificity: lowering the cutoff score boosts sensitivity but decreases specificity, whereas higher cutoff scores improve specificity but raise the risk of false negatives.

EPDS performance also varied across different perinatal phases. Research involving pregnant women in China, Singapore, and Indonesia generally used lower cutoff scores (9–11) to identify mild to moderate depression symptoms, which frequently overlap with antenatal anxiety symptoms (Cheng et al., 2025; Sari et al., 2021; Zeng et al., 2025). In contrast, research involving postpartum women across Brazil, Eritrea, Italy, Oman, and the United States found higher optimal cutoff

scores (11–13), which resulted in improved accuracy for identifying major depression (Al-abri et al., 2025; de Fraga et al., 2021; Gebregziabher et al., 2025; Lautarescu et al., 2022; Stefana et al., 2024). These findings highlight the need to interpret EPDS scores within the specific perinatal context to ensure a proper balance between sensitivity and specificity.

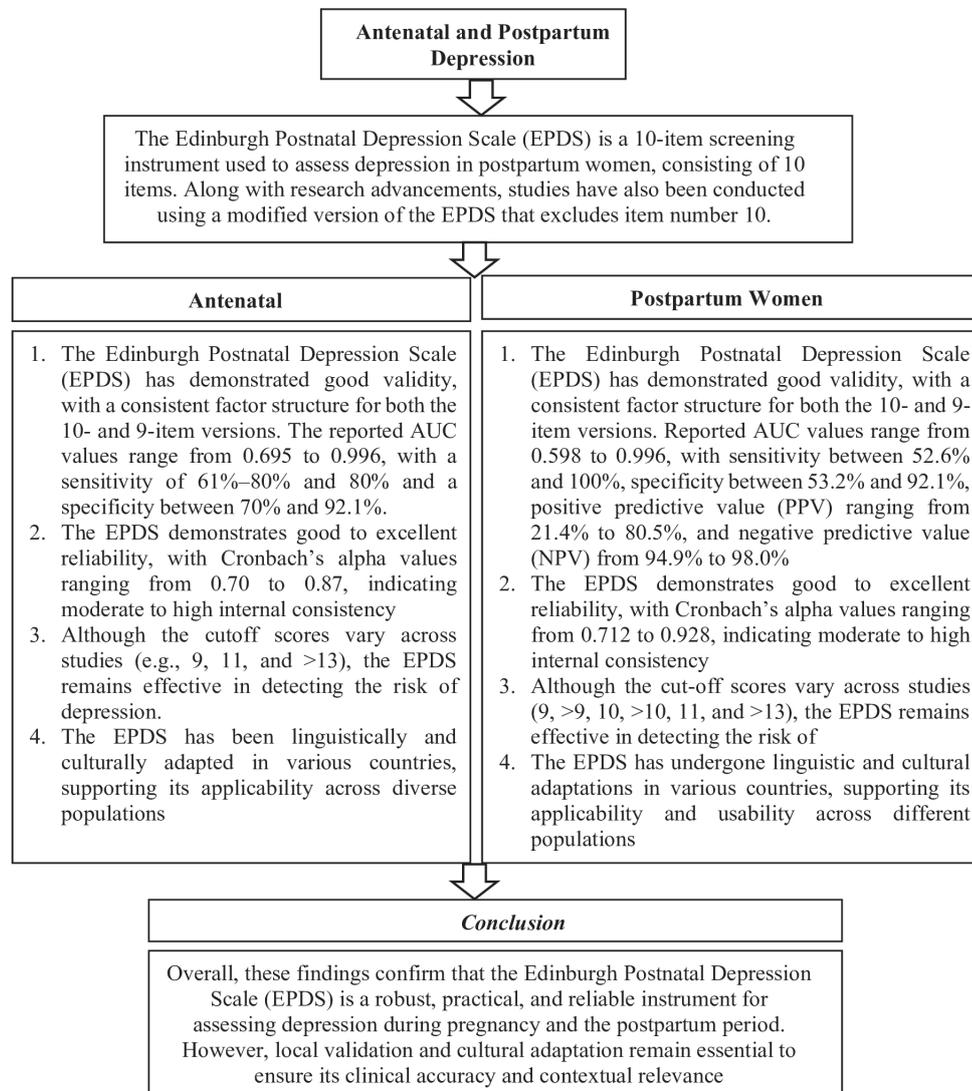


Figure 2
 . Overview of the Psychometric Evaluation Framework for the EPDS

DISCUSSION

This systematic review confirms that the Edinburgh Postnatal Depression Scale (EPDS) reliably detects perinatal depression across various cultural and clinical settings. It shows sensitivity between 80% and 92%, specificity from 75% to 90%, and high AUC values (0.83–0.93). While the EPDS is an effective screening tool, variability in sensitivity, specificity, and optimal cutoff scores (9–13) suggests its performance depends heavily on the specific context of use (Levis et al., 2020).

The observed variation in sensitivity, ranging from 80% to 92%, can be attributed to

differences in screening objectives and population characteristics. Studies in high-risk populations or primary care settings tend to report higher sensitivity, as their primary aim is to minimize undetected cases of depression (false negatives) (Kendall-Tackett, 2024). In contrast, studies in general populations or referral clinical settings often emphasize higher specificity to avoid overdiagnosis. In this context, higher sensitivity reflects a preventive screening approach, whereas higher specificity reflects the need for more stringent clinical confirmation (Levis et al., 2020; Qiu et al., 2023).

Differences in optimal EPDS cutoff scores (9–13) not only reflect variations in research methods but also stem from differences in clinical depression definitions, cultural backgrounds, and the specific perinatal phase evaluated (Levis et al., 2020; Qiu et al., 2023). Studies employing structured diagnostic interviews like DSM-5, SCID-5, or MINI suggest that lower cutoff scores (9–11) are more effective for detecting mild to moderate depression, especially during pregnancy (Levis et al., 2020; Qiu et al., 2023). This is likely due to the overlap between emotional symptoms, anxiety, and mood shifts in pregnancy, which may not satisfy criteria for major depressive disorder but are still clinically relevant (Kendall-Tackett, 2024; Stefana et al., 2024).

In contrast, during the postpartum period, higher EPDS cutoff scores (11–13) tend to improve accuracy in diagnosing major depression, as higher thresholds boost specificity for clinical diagnosis postpartum. Individual participant data meta-analyses support this, showing optimal EPDS performance at cutoff scores ≥ 11 for detecting perinatal major depression (Qiu et al., 2023). Cross-cultural validation studies also confirm that a cutoff ≥ 11 offers a better balance between sensitivity and specificity among postpartum women than during pregnancy, especially when compared to structured clinical diagnostic standards (Djathe Miafo et al., 2024).

The mechanism underlying this pattern relates to the stabilization of symptoms after childbirth, whereby depressive manifestations become more persistent and specific and are no longer confounded by transient emotional responses associated with acute hormonal changes. Consequently, a higher screening threshold becomes more clinically appropriate in the postpartum period (Kendall-Tackett, 2024). Therefore, the application of a single uniform EPDS cutoff score across all perinatal phases may reduce screening accuracy and introduce clinical bias, either through under-detection during pregnancy or over-detection in the postpartum period. This concern is also emphasized in longitudinal studies demonstrating differing threshold requirements between antenatal and postpartum periods (Tanuma-Takahashi et al., 2022).

Practically, these results have significant implications for healthcare providers. For nurses and midwives involved in maternal and neonatal care, a more sensitive cutoff in the EPDS can serve as an early warning system to spot mothers who may need additional psychological support (Stefana et al., 2024; Sultan et al., 2022). For physicians and clinical psychologists, recognizing the variability in cutoff scores aids in interpreting EPDS results within context. This helps ensure that scores are not seen as final diagnoses but rather as a starting point for further clinical evaluation. (Namatovu et al., 2025; Sultan et al., 2022). This approach is essential to prevent two major risks: under-detection of perinatal depression, which may adversely affect maternal health and child development, and over-detection, which may impose unnecessary psychological burden and stigma.

The implications for pregnant and postpartum women are equally significant. Sensitive and contextualized screening for perinatal depression using the EPDS enables early identification of depressive symptoms before progression to more severe disorders, thereby allowing timely and targeted psychosocial interventions. Longitudinal evidence indicates that postpartum depressive symptoms identified through the EPDS are associated with the quality of mother–child interactions and children’s emotional and neurobehavioral development during the first year of life, suggesting

that early detection and intervention may improve maternal quality of life and child developmental outcomes (Kumar et al., 2026). Furthermore, research shows that postpartum depression risk identified via EPDS is associated with impaired mother–infant bonding. That screening, followed by psychosocial follow-up, can mitigate long-term negative effects on maternal relationships (Ernawati & Rahayuningsih, 2025). These findings are reinforced by predictive reviews demonstrating that the use of sensitive screening instruments such as the EPDS facilitates earlier care delivery and contributes to the prevention of long-term psychological complications in both mothers and children (Motofelea et al., 2025).

Although the EPDS has demonstrated strong cross-cultural validity across international contexts, it is important to emphasize that the lack of local EPDS validation in Indonesia represents not merely an academic research gap but a tangible clinical risk within maternal and child healthcare practice (Dinescu et al., 2026; Putri et al., 2025; Zeng et al., 2025). The direct adoption of EPDS cutoff scores from international studies without adjustment to Indonesian cultural, linguistic, and healthcare system characteristics may lead to misclassification of peri-natal depression (Qiu et al., 2023). Clinically, this may result in two equally detrimental outcomes: failure to identify mothers with depressive symptoms requiring intervention (under-detection) or excessive labeling of mothers exhibiting adaptive emotional responses during pregnancy and the postpartum period (over-detection) (Moyer et al., 2023).

Both scenarios have direct implications for clinical decision-making quality, referral accuracy, and effectiveness, and the psychological burden experienced by mothers and their families. In healthcare systems with limited resources, such misclassification may also contribute to suboptimal service allocation (Perrykkad et al., 2025). Therefore, culturally sensitive and population-based EPDS validation in Indonesia constitutes an urgent clinical necessity rather than merely a methodological priority, to ensure that perinatal depression screening truly functions as a maternal health protection tool rather than a source of diagnostic bias within healthcare services (Putri et al., 2025; Vanderkruik et al., 2025).

Nevertheless, this discussion must be interpreted in light of several methodological limitations within the available literature. Most reviewed studies employed cross-sectional designs and applied heterogeneous reference diagnostic standards, thereby limiting understanding of the temporal stability of EPDS scores and their ability to predict long-term maternal mental health outcomes. These limitations underscore the need for longitudinal research to evaluate score consistency over time and the predictive validity of the EPDS for diverse maternal mental health outcomes. Moreover, local validation studies that explicitly account for linguistic, cultural, and perinatal phase differences are essential to ensure more accurate, safe, and clinically relevant EPDS use across healthcare contexts in Indonesia (Putri et al., 2025; Sari et al., 2021).

Overall, these findings affirm that the strength of the EPDS is determined not only by its psychometric quality but also by how the instrument is interpreted and integrated within healthcare systems. With a more comprehensive understanding of sensitivity variation, cutoff scores, and cultural influences, the EPDS has the potential to function as a screening tool that is not only statistically robust but also clinically meaningful, contributing substantively to the improvement of maternal healthcare quality in Indonesia. Looking forward, the integration of stronger longitudinal evidence and local validation is expected to further reinforce the role of the EPDS as a safe, effective, and sustainable screening instrument in routine clinical practice (Sultan et al., 2022).

CONCLUSION

The Edinburgh Postnatal Depression Scale (EPDS) is an effective and consistent screening tool for detecting depression among pregnant and postpartum women across diverse cultural and healthcare settings. However, variations in cutoff scores and differences in EPDS performance across perinatal phases indicates that the use of a single universal threshold is not appropriate for all conditions. As a result, the results of EPDS screenings should be understood within context and utilized as a preliminary step in the care of maternal mental health, followed by additional evaluation and suitable interventions. In practical terms, the absence of local validation, especially in developing nations like Indonesia, poses not just a limitation in research but also a potential clinical risk due to the misclassification of perinatal depression. Therefore, initiatives aimed at cultural adaptation, local validation, and enhancing follow-up healthcare systems are crucial to ensure that EPDS screening effectively contributes to safeguarding maternal mental health and enhancing the quality of maternal and child healthcare.

REFERENCES

- Al-abri, K., Sumri, H. A., Al-Azri, M., Yesodharan, D. K., & Al Kindi, R. (2025). Validation of the arabic version of the edinburgh postnatal depression scale for screening antenatal depression in Oman. *BMC Pregnancy and Childbirth*, 25(1), 677. <https://doi.org/10.1186/s12884-025-07793-9>
- Atuhaire, C., Brennaman, L., Nambozi, G., Taseera, K., Atukunda, E. C., Ngonzi, J., Atwine, D., Matthews, L. T., & Rukundo, G. Z. (2023). Validating the Edinburgh Postnatal Depression Scale against the diagnostic and statistical manual of mental disorders, 5th edition for use in Uganda. *International Journal of Women's Health*, 15, 1821–1832. <https://doi.org/10.2147/IJWH.S427752>
- Blackmore, R., Gibson-Helm, M., Melvin, G., Boyle, J. A., Fazel, M., & Gray, K. M. (2022). Validation of a Dari translation of the Edinburgh Postnatal Depression Scale among women of refugee background at a public antenatal clinic. *Australian and New Zealand Journal of Psychiatry*, 56(5), 525–534. <https://doi.org/10.1177/00048674211025687>
- Buhagiar, R., Bettenzana, K., & Grant, K. A. (2025). Validation of the Edinburgh Postnatal Depression Scale and its 3-item anxiety subscale, and the Generalised Anxiety Disorder-7 item for screening of postpartum depression and anxiety in women in Malta. *Midwifery*, 141(December 2024), 104256. <https://doi.org/10.1016/j.midw.2024.104256>
- Chen, C., Okubo, R., Okawa, S., Nakagawa, S., & Tabuchi, T. (2023). The diagnostic accuracy of the Edinburgh Postnatal Depression Scale without the self-harm item. *Journal of Psychiatric Research*, 165(January), 70–76. <https://doi.org/10.1016/j.jpsychires.2023.07.015>
- Cheng, J., Ren, Z., Rehman, S., Zhou, Z., Wang, X., Wang, Y., Peng, Y., Xiong, J., Qin, X., Peng, Z., Mao, W., Chen, M., Zeng, Y., Wang, M., Zhang, L., Ju, Y., Liu, J., Yu, Y., Liu, B., & Zhang, Y. (2025). Comparative assessment of Patient Health Questionnaire-9 and

- Edinburgh Postnatal Depression Scale for screening antenatal depression among Chinese pregnant women. *Journal of Affective Disorders*, 376(February), 104–112. <https://doi.org/10.1016/j.jad.2025.02.004>
- Dadi, A. F., Miller, E. R., Bisetegn, T. A., & Mwanri, L. (2020). Global burden of antenatal depression and its association with adverse birth outcomes: An umbrella review. *BMC Public Health*, 20(1), 173. <https://doi.org/10.1186/s12889-020-8293-9>
- Dagher, R. K., Bruckheim, H. E., Colpe, L. J., Edwards, E., & White, D. B. (2021). Perinatal Depression: Challenges and Opportunities. *Journal of Women's Health*, 30(2), 154–159. <https://doi.org/10.1089/jwh.2020.8862>
- de Fraga, F. S., Wan-Dall, B. S. L., de Oliveira Garcia, G. H., Pandolfo, H., da Silva Sequinel, A. M. T., Alvin, P., Serman, E. J., & do Amaral, V. F. (2021). Antenatal screening of depressive and manic symptoms in south Brazilian childbearing women: A transversal study in advance of the pandemic scenario. *PLoS ONE*, 16(12 December), 1–12. <https://doi.org/10.1371/journal.pone.0261874>
- Dennis, C.-L., Falah-Hassani, K., & Shiri, R. (2017). Prevalence of antenatal and postnatal anxiety: Systematic review and meta-analysis. *British Journal of Psychiatry*, 210(5), 315–323. <https://doi.org/10.1192/bjp.bp.116.187179>
- Dinescu, R. A. M., Motofelea, A. C., Luminosu, P.-M., Loichita, M., Motofelea, N., & Sas, I. (2026). Risk-Stratified Screening for Perinatal Depression and Anxiety: Integrating Sexual Function, Self-Esteem, and Psychosocial Context. *Diagnostics*, 16(3), 412. <https://doi.org/10.3390/diagnostics16030412>
- Djatche Miafo, J., Nzebou, D., Stoll, B., Yimga Ngambia, J. C., Kouo Ngamby Ekedey, M., von Overbeck Ottino, S., & Moayedoddin, A. (2024). Validation of the Edinburgh postnatal depression scale and prevalence of depression among adolescent mothers in a Cameroonian context. *Scientific Reports*, 14(1), 1–8. <https://doi.org/10.1038/s41598-024-79370-7>
- Dosani, A., Yim, I. S., Shaikh, K., Lalani, S., Alcantara, J., Letourneau, N., & Premji, S. S. (2022). Psychometric analysis of the Edinburgh Postnatal Depression Scale and Pregnancy Related Anxiety Questionnaire in Pakistani pregnant women. *Asian Journal of Psychiatry*, 72, 103066. <https://doi.org/10.1016/j.ajp.2022.103066>
- El-Den, S., Pham, L., Anderson, I., Yang, S., Moles, R. J., O'Reilly, C. L., Boyce, P., Raine, K. H., & Raynes-Greenow, C. (2022). Perinatal depression screening: A systematic review of recommendations from member countries of the Organisation for Economic Co-operation and Development (OECD). *Archives of Women's Mental Health*, 25(5), 871–893. <https://doi.org/10.1007/s00737-022-01249-1>
- Ernawati, S. N., & Rahayuningsih, F. B. (2025). Relationship between the risk of Postpartum Depression and the quality of mother-infant bonding attachment in Postpartum Mothers. *Adi Husada Nursing Journal*, 11(2), 87. <https://doi.org/10.37036/ahnj.v11i2.648>
- Faisal-Cury, A., Levy, R. B., Azeredo, C. M., & Matijasevich, A. (2021). Prevalence and associated risk factors of prenatal depression underdiagnosis: A population-based study. *Inter-*

national Journal of Gynecology and Obstetrics, 153(3), 469–475. <https://doi.org/10.1002/ijgo.13593>

- Gebregziabher, N. K., Netsereab, T. B., Alazar, F. A., Fessaha, Y. G., Sium, A. H., & Ghebrehiwet, N. K. (2025). Translation and validation of the edinburgh postnatal depression scale for eritrea: A screening tool for postpartum depression in primary health care facilities. *International Journal of Women's Health*, 17(February), 299–310. <https://doi.org/10.2147/IJWH.S487258>
- Joshi, U., Lyngdoh, T., & Shidhaye, R. (2020). Validation of hindi version of Edinburgh postnatal depression scale as a screening tool for antenatal depression. *Asian Journal of Psychiatry*, 48, 101919. <https://doi.org/10.1016/j.ajp.2019.101919>
- Kendall-Tackett, K. A. (2024). Screening for Perinatal Depression: Barriers, Guidelines, and Measurement Scales. *Journal of Clinical Medicine*, 13(21). <https://doi.org/10.3390/jcm13216511>
- Kumar, G., Sijmen, A., Catharina, A., Angarath, I., Magda, M., Kroon, D., & Marlou, L. A. (2026). Development Impact of trajectories of maternal postpartum depression on infants' socioemotional development. *Pediatric Research*. <https://doi.org/10.1038/s41390-023-02697-w>
- Lau, E., Adams, Y. J., & Ghiaseddin, R. (2025). Psychometric Properties of the Edinburgh Postnatal Depression Scale Among Rural-Dwelling U.S. Women. *Issues in Mental Health Nursing*, 46(1), 83–93. <https://doi.org/10.1080/01612840.2024.2434907>
- Lautarescu, A., Victor, S., Lau-Zhu, A., Counsell, S. J., Edwards, A. D., & Craig, M. C. (2022). The factor structure of the Edinburgh Postnatal Depression Scale among perinatal high-risk and community samples in London. *Archives of Women's Mental Health*, 25(1), 157–169. <https://doi.org/10.1007/s00737-021-01153-0>
- Levis, B., Negeri, Z., Sun, Y., Benedetti, A., & Thombs, B. D. (2020). Accuracy of the Edinburgh Postnatal Depression Scale (EPDS) for screening to detect major depression among pregnant and postpartum women: Systematic review and meta-analysis of individual participant data. *BMJ*, 371, m4022. <https://doi.org/10.1136/bmj.m4022>
- Mitchell, A. R., Gordon, H., Atkinson, J., Lindquist, A., Walker, S. P., Middleton, A., Tong, S., & Hastie, R. (2023). Prevalence of perinatal anxiety and related disorders in low-and middle-income countries: A systematic review and meta-Analysis. *JAMA Network Open*, 6(11), 1–20. <https://doi.org/10.1001/jamanetworkopen.2023.43711>
- Motofelea, N., Motofelea, A. C., Tamasan, I. F., Hoinoiu, T., Tabrizi, J., Ioana, M., & Vilibi, M. (2025). *Predictive Validity of Screening Tools and Role of Self-Esteem and Coping in Postpartum Depression Risk*. 1–18.
- Moyer, S. W., Brown, R., & Jallo, N. (2023). *Scoping Review of the Use of the Edinburgh Postnatal Depression Scale in the United States*. 32(7). <https://doi.org/10.1089/jwh.2022.0520>
- Mutiso, V. N., Musyimi, C. W., Tele, A., Alietsi, R., Andeso, P., & Ndetei, D. M. (2023). Edinburgh Postnatal Depression Scale (EPDS) for screening for depression in the first year

- post delivery in a low-resourced rural setting in Kenya. *Transcultural Psychiatry*, 60(3), 476–483. <https://doi.org/10.1177/13634615211043764>
- Namatovu, H. K., Magumba, M. A., & Akena, D. (2025). E-Screening for Prenatal Depression in Kampala, Uganda Using the Edinburgh Postnatal Depression Scale: Survey Results. *Online Journal of Public Health Informatics*, 17, e51602–e51602. <https://doi.org/10.2196/51602>
- Perrykkad, K., Nicholls, I., Lewis, A., Boyce, P., Wynter, K., Bobevski, I., & Galbally, M. (2025). Screening for perinatal depression in Australia: Validation of the Edinburgh Postnatal Depression Scale in pregnancy and the postpartum. *Australian & New Zealand Journal of Psychiatry*, 59(11), 979–988. <https://doi.org/10.1177/00048674251361756>
- Putri, R. D., Kartasurya, M. I., Nugraheni, S. A., & Widjanarko, B. (2025). Cross-Cultural Adaptation of Edinburg Postpartum Depression Scale in Postpartum Mental Health Screening on Indonesian Version. *BIO Web of Conferences*, 193, 00077. <https://doi.org/10.1051/bioconf/202519300077>
- Qiu, X., Wu, Y., Sun, Y., Levis, B., Tian, J., Boruff, J. T., Cuijpers, P., Ioannidis, J. P. A., Markham, S., Ziegelstein, R. C., Vigod, S. N., Benedetti, A., Thombs, B. D., He, C., Krishnan, A., Bhandari, P. M., Neupane, D., Negeri, Z., Imran, M., ... Yonkers, K. A. (2023). Individual participant data meta-analysis to compare EPDS accuracy to detect major depression with and without the self-harm item. *Scientific Reports*, 13(1), 1–12. <https://doi.org/10.1038/s41598-023-29114-w>
- Roddy Mitchell, A., Gordon, H., Atkinson, J., Lindquist, A., Walker, S. P., Middleton, A., Tong, S., & Hastie, R. (2023). Prevalence of Perinatal Anxiety and Related Disorders in Low- and Middle-Income Countries: A Systematic Review and Meta-Analysis. *JAMA Network Open*, 6(11), 1–20. <https://doi.org/10.1001/jamanetworkopen.2023.43711>
- Rogers, A., Obst, S., Teague, S. J., Rossen, L., Spry, E. A., MacDonald, J. A., Sunderland, M., Olsson, C. A., Youssef, G., & Hutchinson, D. (2020). Association between Maternal Perinatal Depression and Anxiety and Child and Adolescent Development: A Meta-analysis. *JAMA Pediatrics*, 174(11), 1082–1092. <https://doi.org/10.1001/jamapediatrics.2020.2910>
- Rossi, A., & Parada, F. J. (2023). Cross-sector cooperation advancing perinatal mental health: An outlook from Chile Crece Contigo. *The Lancet Regional Health - Americas*, 20, 100469. <https://doi.org/10.1016/j.lana.2023.100469>
- Sari, D. N., Diatri, H., Siregar, K., & Pratomo, H. (2021). Adaptation of the edinburgh postnatal depression scale in the indonesian version: Self-reported anxiety and depression symptoms in pregnant women. *Open Access Macedonian Journal of Medical Sciences*, 9, 1654–1659. <https://doi.org/10.3889/oamjms.2021.7783>
- Smythe, K. L., Petersen, I., & Schartau, P. (2022). Prevalence of perinatal depression and anxiety in both parents: A systematic review and meta-analysis. *JAMA Network Open*, 5(6), E2218969. <https://doi.org/10.1001/jamanetworkopen.2022.18969>
- Srinivasan, G., Kondalsamy-Chennakesavan, S., McGrail, M., Garg, V., & Nasir, B. (2025).

- Depression and comorbid chronic physical health diseases in the Australian population: A scoping review. *Australian and New Zealand Journal of Psychiatry*, 59(4), 322–338. <https://doi.org/10.1177/00048674251317336>
- Stefana, A., Mirabella, F., Gigantesco, A., & Camoni, L. (2024). The screening accuracy of the Edinburgh Postnatal Depression Scale (EPDS) to detect perinatal depression with and without the self-harm item in pregnant and postpartum women. *Journal of Psychosomatic Obstetrics & Gynecology*, 45(1), 2404967. <https://doi.org/10.1080/0167482X.2024.2404967>
- Sultan, P., Ando, K., Elkhateb, R., George, R. B., Lim, G., Carvalho, B., Chitneni, A., Kawai, R., & Tulipan, T. (2022). *Assessment of Patient-Reported Outcome Measures for Maternal Postpartum Depression Using the Consensus-Based Standards for the Selection of Health Measurement Instruments Guideline A Systematic Review*. 5(16) 1–16. <https://doi.org/10.1001/jamanetworkopen.2022.14885>
- Tanuma-Takahashi, A., Tanemoto, T., Nagata, C., Yokomizo, R., Konishi, A., Takehara, K., Ishikawa, T., Yanaihara, N., Samura, O., & Okamoto, A. (2022). Antenatal screening timeline and cutoff scores of the Edinburgh Postnatal Depression Scale for predicting postpartum depressive symptoms in healthy women: A prospective cohort study. *BMC Pregnancy and Childbirth*, 22(1), 527. <https://doi.org/10.1186/s12884-022-04740-w>
- Tilahune, A., Peng, W., Adams, J., & Sibbritt, D. (2022). Social support and prenatal mental health problems: A systematic review and meta-analysis. *European Psychiatry*, 65(S1), S105–S105. <https://doi.org/10.1192/j.eurpsy.2022.300>
- Vanderkruik, R., Freeman, M. P., Gaw, M., Reuman, A. R. L., Verghese, M., Louis, C. C., Jellinek, M., Bartels, S., & Cohen, L. S. (2025). A mixed-methods study protocol: Perinatal depression screening systems and outcomes in obstetrics clinics. *PLOS ONE*, 20(3), e0319181. <https://doi.org/10.1371/journal.pone.0319181>
- Vázquez, M. B., & Míguez, M. C. (2019). Validation of the Edinburgh postnatal depression scale as a screening tool for depression in Spanish pregnant women. *Journal of Affective Disorders*, 246, 515–521. <https://doi.org/10.1016/j.jad.2018.12.075>
- WHO. (2022). *World mental health report: Transforming mental health for all*. World Health Organization. Retrieved From <https://www.who.int/publications/i/item/9789240049338>
- Zeng, N., Goh, P. H. Y., Chua, T.-E., Sultana, R., Tan, C. W., Sng, B. L., & Chen, H. (2025). Does the Edinburgh Postnatal Depression Scale (EPDS) identify antenatal depression and antenatal anxiety disorders? A validation study in Singapore. *Journal of Affective Disorders*, 380, 496–504. <https://doi.org/10.1016/j.jad.2025.03.149>