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Systematic Review

Effectiveness of Antidepressants and Telehealth-Based Interpersonal Psychotherapy for Postpartum Depression: A Scoping Review

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ABSTRACT

Background: *Postpartum depression (PPD) is a common mental health issue that occurs after childbirth and can negatively impact the health of mothers and the development of their children. Addressing PPD requires a practical approach that includes the use of antidepressant therapy with Telehealth Interpersonal Psychotherapy (IPT), which is expected to enhance post partum recovery. This review explores the comparative effectiveness of using antidepressants and implementing IPT in the recovery process from postpartum depression.*

Methods: *This study reviewed and analyzed scientific articles from databases such as PubMed, ScienceDirect, Springer Link, and Google Scholar using PRISMA-ScR framework. A total of 14 original articles were selected based on inclusion and exclusion discussing the effectiveness of antidepressants and IPT.*

Results: *The evidence demonstrated that antidepressant interventions, including conventional antidepressants and newer neuroactive steroid therapies, were generally associated with improvements in depressive symptoms. Telehealth IPT also demonstrated improvements in depressive outcomes and may provide an accessible alternative. However, substantial heterogeneity was observed in study designs, intervention characteristics, treatment duration, outcome measures, and follow-up periods, limiting direct comparison between pharmacological and telehealth-based IPT interventions.*

Conclusion: *Both antidepressants and telehealth IPT effectively reduce PPD symptoms and enhance maternal well-being. However, further research is needed to understand these interventions' long-term impacts and explore the various types of available antidepressants.*

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INTRODUCTION

Postpartum depression (PPD) represents one of the most prevalent mental health conditions affecting women following childbirth and is associated with significant consequences for both maternal well-being and child development. According to the

Centers for Disease Control and Prevention, approximately one in eight women globally experiences PPD, while reported prevalence rates in Asian countries range from 26% to 85%. In Indonesia, prior to the COVID-19 pandemic, the incidence of PPD was reported to be between 11.76% and 18.37% (Amandya et al., 2021; Wang et al., 2021). The prevalence increased significantly to 31.82% during the North Jakarta pandemic, reaching 57% in Malang, East Java (Solikhah et al., 2022). This condition covers a spectrum of psychological disorders, from postpartum blues to postpartum psychosis, with a complex etiology involving biological, psychological, and social aspects.

Drastic hormonal changes after childbirth, such as decreased estrogen and progesterone, are one of the primary triggers. In contrast, psychological aspects such as stress and parenting styles and social factors such as marital conflict contribute to worsening this condition (Gondo, 2022; Faden et al., 2020). Estrogen and progesterone play a role in monoaminergic functions that affect psychosis and mood, so postpartum hormone decline has the potential to cause dopaminergic hypersensitivity (Ashok et al., 2017). These hormonal, psychological, and social changes may interact and increase women's vulnerability to postpartum mental health disorders.

From a psychological perspective, symptoms of postpartum depression include sleep disturbances, decreased appetite, restlessness, anxiety, guilt, depressed mood, and suicidal ideation. Individual personality traits, cognitive patterns, and the presence of depressive symptoms contribute to the emergence of these conditions, although they are not directly associated with postpartum depression (Perrotta, 2019). Stress, fatigue, and inability to control emotions during the adaptation process after childbirth can cause psychological disorders in parents. (Fan et al., 2020; Ningsih et al., 2023).

Antidepressants are widely regarded as the primary therapeutic option for managing moderate to severe postpartum depression. In clinical practice, these agents encompass several pharmacological classes, beginning with selective serotonin reuptake inhibitors (SSRIs), followed by serotonin–norepinephrine reuptake inhibitors (SNRIs), and subsequently tricyclic antidepressants (TCAs), in addition to neurosteroid modulators acting on GABA-A receptors. SSRIs are considered first-line agents for postpartum depression because it has fewer side effects than TCAs (Kaufmann et al., 2022; Dennis et al., 2020).

The management of postpartum depression involves an integrated approach that combines both psychotherapeutic interventions and pharmacological treatment. For individuals presenting with moderate postpartum depression, psychotherapy is considered the initial treatment option. Adequate psychotherapy can be combined to increase the effectiveness of the healing rate in patients with postpartum depression. Telehealth interpersonal psychotherapy is a health service that is based on technology and is an optimal alternative to psychotherapy associated with the use of antidepressants in patients with postpartum depression (Kaufmann et al., 2022; Dennis et al., 2020).

Various psychotherapeutic approaches have demonstrated clinical effectiveness in the treatment of postpartum depression, including peer support–based interventions, interpersonal therapy, cognitive behavioral therapy, and mindfulness-based therapy. There are difficulties in accessing psychotherapy that are carried out due to constraints experienced such as time, finances, fear of social stigma, and concerns about childcare disorders. The limitations in accessing face-to-face psychotherapy can be an option to implement teletherapy that can be done anywhere the technology used for telehealth can be in the form of mobile phones, websites, applications, and videos that contain remote services by health professionals (Fan et al., 2020; Ningsih et al., 2023).

Telehealth eliminates geographic barriers, making therapy accessible to individuals who may not be able to attend face-to-face sessions due to distance, mobility problems, or lack of transportation. With the incidence of PPD continuing to increase, especially in the post-pandemic era, it is important to develop a more comprehensive integrative approach (Fan et al., 2020; Ningsih et al., 2023). Integrating telehealth into postpartum care may improve early detection, continuity of support, and access to appropriate psychological interventions for women experiencing PPD.

Although numerous primary studies have examined either pharmacotherapy or remote psychotherapy individually, there remains a critical gap in mapping the synthesized evidence that contrasts and evaluates the integration of antidepressants with telehealth-based IPT for PPD management (Zhao et al., 2021; Badowski et al., 2018; Andrianto & et al., 2022; O'Hara et al., 2019). Specifically, no existing scoping review has systematically synthesized how these two distinct paradigms compare in clinical feasibility, symptom reduction, and user adherence. Therefore, this scoping review aims to map the current literature on antidepressant efficacy and telehealth IPT implementation, identifying key therapeutic insights and highlighting existing gaps to inform clinical decision-making.

MATERIALS AND METHOD

Research Design

This research explores the effectiveness of antidepressant use and the implementation of telehealth IPT on PPD recovery. This scoping review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines. A scoping review design was selected to comprehensively map the available evidence, identify key findings and gaps, and provide an overview of the effectiveness of antidepressants and telehealth-based IPT for PPD recovery.

Search Strategy

Scientific articles analyzing in this study were obtained from several electronic databases: PubMed, Springer Link, ScienceDirect, and Google Scholar. This study utilized PCC framework (Population, Concept, Context). This framework was used to define the research focus, encompassing Population (Mothers who have given birth in hospitals who are diagnosed with depression), Concept (Antidepressant telehealth and interpersonal psychotherapy to improve the recovery rate of postpartum depression sufferers), and Context (research originated from various countries between 2014-2024).

The search strategy used the Boolean search method with a combination of keywords such as " antidepressant " AND " telehealth " OR " telemedicine " AND " interpersonal psychotherapy " OR " interpersonal therapy " AND "postpartum depression " OR " postnatal depression ". The search was conducted in two languages, namely English or Indonesian, with a publication year range from 2014 to 2024. Filter open access and full text are implemented to ensure access to the relevant full article from several electronic databases: PubMed, Springer Link, ScienceDirect, and Google Scholar.

Selection of Studies

Inclusion criteria included original articles discussing the effectiveness of antidepressants and telehealth-based IPT in PPD recovery, using observational, experimental (RCT or non-RCT) research designs, and qualitative research. Articles from

various countries were included in English and Indonesian to ensure more representative results. Conversely, articles that did not have full text were not original research types (editorial or letters to the editor), and articles related to prenatal or perinatal depression were excluded.

Data Extraction and Quality Assessment

Article selection was undertaken using a rigorous, four-step methodological approach encompassing identification, screening, eligibility evaluation, and final inclusion, in full alignment with the PRISMA-ScR guidelines to ensure transparency and methodological integrity (Curiel Montero et al., 2021). To ensure methodological rigor, article screening and eligibility assessments were independently conducted by two reviewers, with any discrepancies resolved through consensus. Full database-specific search strategies were developed and applied across all databases. Data extraction was systematically performed using a standardized data charting form. In accordance with PRISMA-ScR guidelines, a formal critical appraisal (quality assessment) of the included studies was omitted, as the primary objective of this scoping review was to map the extent and nature of available evidence rather than evaluate risk of bias or synthesize pooled effect sizes.

In the first step, the identification process involved retrieving a total of 852 articles through comprehensive searches across four electronic databases: PubMed, ScienceDirect, SpringerLink, and Google Scholar. All 852 retrieved records were systematically imported into the Mendeley reference management system for centralized organization and tracking. During the screening process, deduplication via Mendeley resulted in the removal of 127 duplicate records, leaving 725 unique articles to undergo title and abstract screening.

This stage led to the exclusion of 701 articles based on specific non-eligibility criteria: 316 articles did not align with the core research topic, 47 records were non-original research articles (e.g., reviews or editorials), and 338 articles were excluded due to inaccessible full texts. Subsequently, in the eligibility evaluation process, the remaining 24 full-text articles were thoroughly assessed against pre-defined inclusion and exclusion criteria. During this detailed evaluation, 10 articles were excluded: 7 articles were omitted because their content was irrelevant to postpartum depression, and 3 full-text articles were excluded because their outcome parameters did not match the review's objectives.

Following this four-step process, a total of 14 articles met all eligibility criteria and were selected for the final inclusion stage to be synthesized in this study. The included studies were reviewed systematically to identify consistent findings and key evidence related to antidepressant use and telehealth interpersonal psychotherapy for postpartum depression recovery. The complete selection procedures and article flow across all four stages are visually summarized in the PRISMA-ScR flow diagram shown in Figure 1 (Curiel Montero et al., 2021).

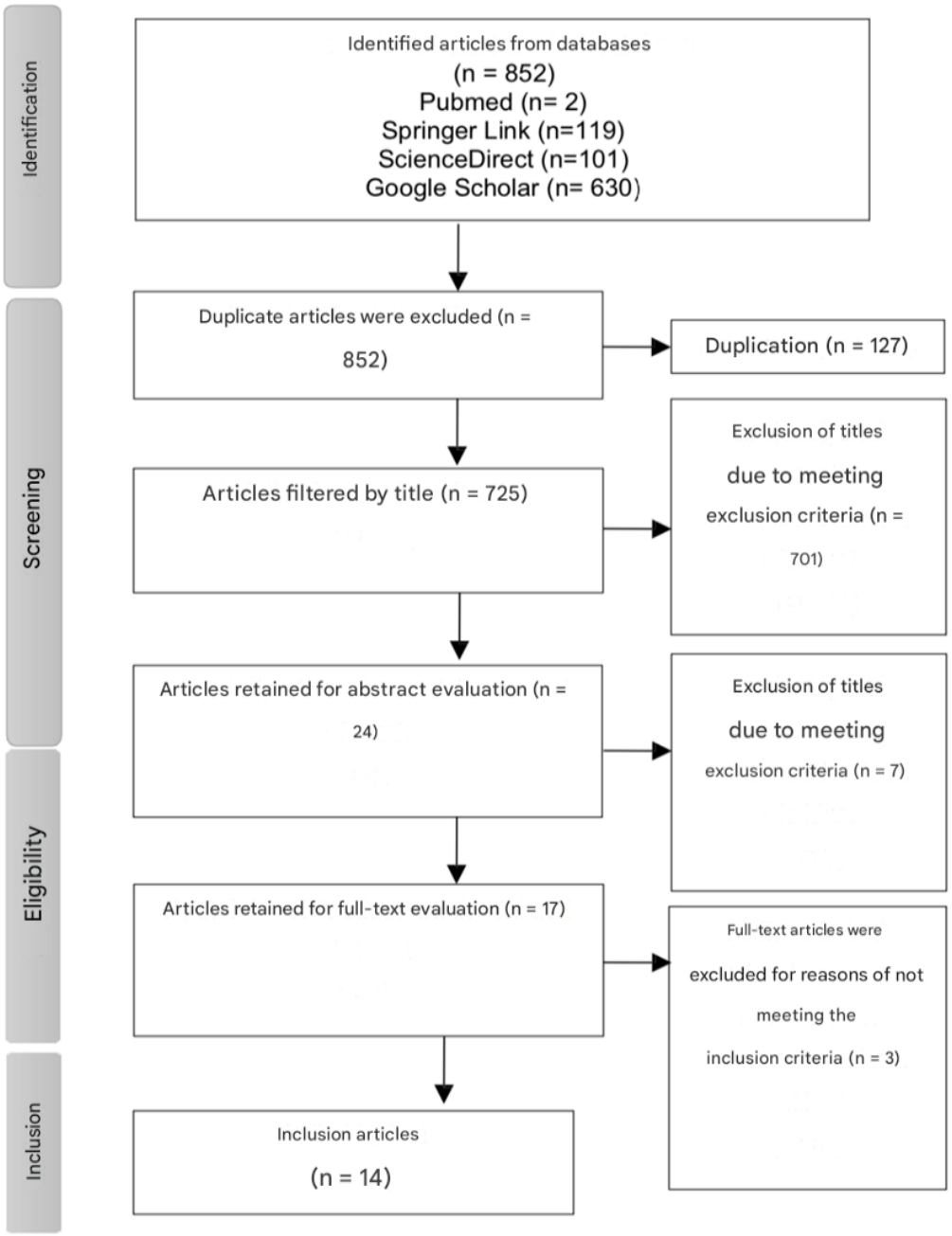

Figure 1. PRISMA-ScR Flowchart

RESULTS

A data charting approach was utilized to systematically extract and organize essential information from each included study, including the article title, authorship, publication year, country of origin, study aims, methodological framework, sample characteristics, and key outcomes, which were subsequently presented based on the 14 selected articles in table view (Table 1).

Table 1. Summary of Included Studies on Antidepressants and Telehealth-Based Interpersonal Psychotherapy (n = 14 articles)

No	Title and Country	Method, Population and Sample	Research Findings
1	A placebo-controlled treatment trial of sertraline and interpersonal psychotherapy for postpartum depression United States (O'Hara et al, 2019) Country: United States	Randomized Controlled Trial (RCT). 162 women (breastfeeding and not breastfeeding) with postpartum depression in the first year. -Sertraline: 56 women -IPT: 53 women -Placebo: 53 women Research Duration: Research in progress for 12 weeks.	Compared with interpersonal therapy (IPT) and placebo, sertraline, a selective serotonin reuptake inhibitor, was associated with significantly greater improvements on the General Depression scale of the Inventory of Depression and Anxiety Symptoms. Statistically significant effects over time were identified for both treatment responses ($F(2.233) = 13.28$, $p < .0001$) and remission outcomes ($F(2.233) = 11.30$, $p < .0001$). A reduction of ≥50% in symptoms were observed on the Hamilton Depression Rating Scale (HamD-17) compared to baseline scores.
2	Be a mom, a Web-Based Intervention to Prevent Postpartum Depression: Results from a Pilot Randomized Controlled Trial (Fonseca et al., 2020) Country: Brazil	Pilot Randomized Controlled Trial (RCT). 194 postpartum women who showed risk factors or early symptoms of postpartum depression. Web-based psychological intervention. 98 intervention group and 96 control group.	Changes in Edinburgh Postnatal Depression Scale (EPDS) scores indicated a greater improvement from baseline (T1) to follow up (T2) among participants in the intervention group ($t = 4.95$, $p < .001$, $d = 0.623$) when compared with those in the control group ($t = 3.162$, $p = .002$, $d = 0.275$). Participants who received the intervention demonstrated a markedly greater reduction in depressive and anxiety symptoms relative to the control group, with the mean decrease in depression scores in the intervention group being nearly twice that observed among controls. Approximately 41.8 percent of women completed the program, and 71.4 percent stated that they would use the program again if needed.

No	Title and Country	Method, Population and Sample	Research Findings
3	Brexanolone injection in post-partum depression: two multicentre, double-blind, randomised, placebo-controlled, phase 3 trials (Meltzer-Brody et al., 2018) Country: United States	Multicenter, double-blind, randomised, placebo-controlled, phase 3 trial. Women aged 18-45 years, 6 months postpartum or less, with a Hamilton Rating Scale for Depression (HAM-D) score were eligible. A 60-hour infusion of brexanolone was given.	The study demonstrated an average decrease in overall scores on the Hamilton Rating Scale for Depression (HAM-D) score of 19.5 points in the group receiving brexanolone injection after 60 hours and 17.7 points in the group receiving injection at 90 hours compared to the placebo group.
4	Brexanolone (SAGE-547 injection) in post-partum depression: a randomised controlled trial (Kanes et al., 2017) Country: United States	Randomized controlled trial (RCT). 21 women with severe postpartum depression. 10 women received brexanolone and 11 women received placebo. All participants had a total HAM-D score $\geq$ 26, indicating severe postpartum depression.	A larger average decrease in HAM-D scores was observed among participants receiving brexanolone, with a reduction of 21.0 points, compared with an 8.8-point reduction in the placebo group, indicating superior efficacy of brexanolone in alleviating depressive symptoms. The antidepressant effects of brexanolone persisted for up to 30 days after infusion, suggesting that patients may experience sustained recovery. Among the 10 women treated with brexanolone, 4 reported experiencing side effects, whereas in the placebo group, 8 out of 11 women reported similar reactions. The side effects most frequently observed were dizziness and drowsiness.

No	Title and Country	Method, Population and Sample	Research Findings
5	Depressive symptoms during pregnancy and postpartum in women and use of antidepressant treatment – a longitudinal cohort study (Sunnqvist et al., 2019) Country: Sweden	Longitudinal cohort study. 1.939 women participated, proportion of women reporting depressive symptoms (EPDS score ≥ 13) during pregnancy and postpartum	90% of women who continued SSRI antidepressant treatment during pregnancy and postpartum had a lower risk of relapse and showed better recovery outcomes as indicated by an EPDS score <13 at 1-1.5 years postpartum. The remaining 10% of women still had an EPDS score >13.
6	Effect of Zuranolone vs Placebo in Postpartum Depression (Deligiannidis et al., 2021) Country: United States	Phase 3, double-blind, randomized, outpatient, placebo-controlled clinical trial. 153 Women aged 18 to 45 years, 6 months or less postpartum, with PPD (major depressive episode beginning in the third trimester or within 4 weeks of delivery), and a baseline HAMD-17 score of 26 or higher. Given zuranolone 30 mg for 2 weeks.	Improvement in depressive symptoms began to be seen on day 3 after zuranolone administration, indicating that the drug worked quickly to reduce PPD symptoms. Zuranolone showed higher response rates (53% reduction in score) and remission (score ≤7) compared to placebo (30% [21/69]), indicating that patients receiving zuranolone experienced recovery from PPD symptoms.

No	Title and Country	Method, Population and Sample	Research Findings
7	Evaluation of a Technology-Based Peer-Support Intervention Program for Preventing Postnatal Depression (Part 1): Randomized Controlled Trial (Shorey et al., 2019) Country: Singapore	Randomized controlled trial (RCT). The study involved 138 mothers at risk of postnatal depression, with 69 mothers in the intervention group and 69 mothers in the control group. The intervention was a technology-based support program.	Mothers involved in the intervention experienced improvements in mental health outcomes, as measured by questionnaires completed at 4 and 12 weeks postpartum. Providing social support through digital interventions may reduce the impact of postpartum stress, thereby aiding in the recovery from PPD.
8	Interpersonal therapy versus antidepressant medication for treatment of postpartum depression and anxiety among women with HIV in Zambia: a randomized feasibility trial (Spelke et al, 2022) Country: Zambia	Randomized Feasibility Trial (unmasked, unblinding). 80 women with postpartum depression with anxiety and receiving antiretroviral therapy participated from October 29, 2019 to September 8, 2020.	The final visit showed a decrease in EPDS scores from >13 to <10, affecting 33% of those on antidepressants and 55% on IPT, suggesting that both antidepressants and IPT effectively lessen postpartum depression symptoms. Partial recovery in 67% of patients with antidepressant intervention and 45% with IPT intervention because at the final visit EPDS ≥10 was obtained. The application of telehealth in IPT sessions also shows the potential to increase access and convenience for participants.

No	Title and Country	Method, Population and Sample	Research Findings
9	Manage postpartum depression with psychosocial strategies, psychotherapy and/or pharmacotherapy based on its severity (Writers AM, 2019) Country: New Zealans	Observational Study. women who experience postpartum depression with varying participants	Antidepressants, such as sertraline, venlafaxine, desvenlafaxine and brexanolone, have shown effectiveness in reducing symptoms of postpartum depression. SNRIs and SSRIs have minimal transfer effects into breast milk, while brexanolone and TCAs have the potential to transfer into breast milk The implementation of telehealth interpersonal psychotherapy has also shown positive results in improving recovery and providing needed support for women experiencing PPD.
10	Predicting Factors of Depression, Antidepressant Use and Positive Response to Antidepressants in Perinatal and Postpartum Women (Vu & Shaya., 2017) Country: United States	Observational Study. The population consisted of pregnant women and women in the 18-month postpartum period (n=492).	Selective Serotonin Reuptake Inhibitors (SSRIs) are the most commonly prescribed antidepressants, accounting for 52.93% of use. Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) represent 12.5%, while Tricyclic Antidepressants (TCAs) make up 8.65% of prescriptions.
11	Telephone-Administered Interpersonal Psychotherapy by Nurse-Midwives for Postpartum Depression (Posmontier et al., 2016) Country: United States	Prospective cohort study. 41 women in the treatment group received up to eight sessions of certified nurse-midwife telephone-administered interpersonal psychotherapy (CNM-IPT), while 20 women in the control group were referred	At week 8, the treatment group had an average depression score of 7.92, while the control group had 12.30 (P-value 0.047, significant). At week 12, the treatment group had an average of 7.49 and the control group 12.43 (P-value 0.029, significant). This shows a significant decrease in depression scores in the group receiving CNM-IPT, indicating better recovery from PPD symptoms.

No	Title and Country	Method, Population and Sample	Research Findings
		to a mental health professional.	
12	Telephone-Based Depression Care Management for Postpartum Women (Wisner et al., 2017) Country: United States	Randomized Controlled Trial (RCT). Women who screened positive for depression (score 10 or more on the Edinburgh Postnatal Depression Scale) 4 to 6 weeks after delivery (N = 628). Telephone-delivered depression care management (DCM) intervention	Depression scores in the DCM group dropped by over 50% on average compared to the Enhanced Usual Care (EUC) group, reflecting a substantial improvement in depressive symptoms.
13	Telephone-based nurse-delivered interpersonal psychotherapy for postpartum depression: nationwide randomised controlled trial (Dennis et al, 2020) Country: Canada	Randomized Controlled Trial (RCT). 241 postpartum women with characteristics Women aged over 18 years, experiencing clinical depression based on the Structured Clinical Interview for DSM (SCID), and within a time span of 2 to 24 weeks after giving birth	After 12 weeks of receiving 12 telephone-based IPT sessions of 60 minutes each, 62% of women in the intervention group no longer met the criteria for depression. In contrast, only 48% of participants in the control group were free from depression at the same time point. Among 94 individuals with untreated major depression, 47 (50%) experienced spontaneous remission within one year.

No	Title and Country	Method, Population and Sample	Research Findings
14	Telephone delivery of interpersonal psychotherapy by certified nurse-midwives may help reduce symptoms of postpartum depression (Guille & Douglas., 2017) Country: United States	Prospective, non-randomized, open-label study. 61 Postpartum women who met DSM-IV-TR criteria for Major Depression and had a score ≥ 9 on the Edinburgh Postnatal Depression Scale (EPDS)	At 8 weeks post-intervention, the IPT group had a mean HRSD score of 7.92 (SD = 1.20), while for the control group it was 12.30 (SD 1.27). At week 12, the mean HRSD score for the IPT group was 7.49 (SD 1.27), while for the control group it was 12.43 (SD 1.74).

DISCUSSION

Key findings suggest that both antidepressants and IPT have a significant impact on reducing PPD symptoms. harmacological approaches for postpartum depression (PPD) show clear efficacy across various drug classes, though response trajectories differ depending on the mechanism of action (Kaufman et al., 2022). First-line selective serotonin reuptake inhibitors (SSRIs), such as sertraline and fluoxetine, remain the most frequently prescribed treatments (accounting for 52.93% of prescriptions in observational data) due to their acceptable safety profile and low transfer rates into breast milk (Vu & Shaya, 2017; Writers, 2019). Serotonin–norepinephrine reuptake inhibitors (SNRIs) and tricyclic antidepressants (TCAs) are utilized less frequently (12.5% and 8.65%, respectively) due to higher side-effect burdens (Vu & Shaya, 2017).

Longitudinal findings indicate that continuing SSRI therapy from pregnancy through the postpartum period significantly reduces relapse rates and supports sustained recovery (Sunnqvist et al., 2019). In addition to traditional monoaminergic agents, novel neurosteroid modulators acting on GABA-A receptors, specifically brexanolone and zuranolone, demonstrate rapid therapeutic onset (Faden & Citrome, 2020; Kaufman et al., 2022). Clinical trial evidence shows that brexanolone intravenous infusion yields substantial reductions in Hamilton Rating Scale for Depression (HAM-D) scores (ranging from 17.7 to 21.0 points) within 60 to 90 hours (Kanes et al., 2017; Meltzer-Brody et al., 2018). Similarly, oral zuranolone administered over 2 weeks achieves rapid symptom reduction beginning as early as day 3, with up to 53% of participants meeting response criteria (Deligiannidis et al., 2021).

In the management of PPD, two other new antidepressant drugs that can be used are brexanolone and zuranolone. Brexanolone, a synthetic form of allopregnanolone, works by increasing the activity of GABA-A, which functions to calm the central nervous system. This drug has shown significant effectiveness in reducing symptoms of depression in a short time, with some patients reporting improvement within hours of infusion Brexanolone modulates inhibitory neurotransmitters, thus providing better therapeutic effectiveness in PPD patients. Studies show that 50% of participants experienced reduced symptoms within 48 hours of brexanolone infusion (Meltzer-Brody et al., 2018; Kanes et al., 2017).

In a study conducted by Spelke et al., 2022, recurrence of symptoms was frequently attributed to nonadherence to prescribed antidepressant therapy. These findings highlight the importance of adopting a comprehensive approach to the management of postpartum depression. In addition to pharmacological treatment, psychological support such as talk therapy and participation in support groups plays a critical role in helping women cope with the emotional challenges experienced during the postpartum period. (Spelke et al., 2022).

Telehealth-delivered Interpersonal Psychotherapy (IPT) provides a practical non-pharmacological strategy that targets postpartum role transitions and interpersonal stress (O'Hara et al., 2019). Across evaluated studies, remote delivery via telephone calls, web-based platforms, or smartphone applications led to significant reductions in depressive symptoms compared with usual care (Fonseca et al., 2020; Shorey et al., 2019; Wisner et al., 2017). For example, nationwide trial data of a 12-week nurse-delivered telephone IPT program revealed that 62% of participants no longer met diagnostic criteria for clinical depression post-intervention (Dennis et al., 2020).

Similarly, web-based psychological tools ("Be a Mom") produced a mean decrease in Edinburgh Postnatal Depression Scale (EPDS) scores nearly double that of control

groups (Fonseca et al., 2020). Telehealth IPT effectively bridges critical access barriers, such as geographical isolation, transportation challenges, childcare burdens, and social stigma, that frequently hinder mothers from seeking in-person care (Andrianto & Athira, 2022; Badowski et al., 2018; Zhao et al., 2021).

Regarding treatment safety, both modalities were generally well-tolerated (Kanes et al., 2017; Spelke et al., 2022). Mild adverse reactions (e.g., dizziness and somnolence) were noted in a minority of patients receiving neurosteroid infusions (Kanes et al., 2017; Meltzer-Brody et al., 2018). In feasibility trials comparing SSRIs and IPT, non-adherence was a primary factor in symptom recurrence among medication users, whereas psychotherapeutic interventions required structured clinical monitoring for rare severe events, such as worsening depression or suicidal ideation (Spelke et al., 2022).

Combining antidepressant medication with telehealth IPT provides additive clinical benefits by addressing both the biological neurochemical disruptions and the psychosocial stressors of PPD (O'Hara et al., 2019; Writers, 2019). Evidence indicates that multimodal care accelerates recovery kinetics and enhances overall maternal quality of life more effectively than monotherapy alone (O'Hara et al., 2019). However, comparative studies evaluating full recovery versus partial recovery highlight that treatment response varies according to baseline symptom severity (Spelke et al., 2022).

Meanwhile, there was a partial recovery in 67% of patients with antidepressant intervention and 45% receiving the IPT intervention, several participants continued to exhibit elevated depressive symptoms, as indicated by an EPDS score of 10 or higher at the final assessment. Although antidepressant therapy demonstrated overall effectiveness, adverse effects were observed in 20 percent of participants (8 out of 40). Of these, seven individuals experienced mild medication related reactions, while one participant developed major depressive symptoms, reflected by an EPDS score exceeding 20, accompanied by suicidal ideation.

Importantly, no participants discontinued treatment as a result of these adverse effects. Within the IPT group, two participants reported suicidal thoughts and required further clinical intervention. Additionally, five individuals from the IPT group were referred to hospital services for further management, with four subsequently prescribed non study antidepressant medication by a hospital psychiatrist (Spelke et al.,2022). These findings highlight the importance of close clinical monitoring and timely referral when implementing IPT for women with postpartum depression.

Direct numerical comparisons between reported outcome percentages (e.g., symptom reduction rates between pharmacotherapy trials and IPT studies) must be avoided due to substantial heterogeneity across primary studies (Dennis et al., 2020; Deligiannidis et al., 2021). Studies utilized different outcome scales (EPDS vs. HAM-D vs. SCID structured interviews), making uniform outcome synthesis impossible (Dennis et al., 2020; Meltzer-Brody et al., 2018; Spelke et al., 2022). Pharmacological protocols varied widely in drug class, dosage, and administration route (oral daily vs. 60-hour continuous IV infusion), while telehealth IPT varied in delivery format (guided telephone sessions by nurse-midwives vs. self-guided digital platforms) and treatment duration (Fonseca et al., 2020).

Participants ranged from mild/at-risk postpartum cohorts to severe inpatient populations, and positive outcome reporting bias in digital health and pharmaceutical trials may overestimate true population-level effect sizes (Kanes et al., 2017; Shorey et al., 2019). Future research must address these gaps by conducting long-term follow-up studies evaluating child developmental outcomes, mother-infant bonding, and the cost-

effectiveness of integrated telehealth models (O'Hara et al., 2019; Spelke et al., 2022). Future studies should also prioritize diverse and representative populations to improve the generalizability of findings across different postpartum care settings and socioeconomic backgrounds.

A key strength of this review is its adherence to the PRISMA-ScR guidelines and the systematic search across four major international databases, providing a comprehensive evidence map of both pharmacological and tele-psychotherapeutic PPD interventions. However, several limitations must be noted. First, due to the inherent scoping design and methodological heterogeneity among included studies, a meta-analysis was not performed, precluding direct quantitative risk or effect size comparisons. Second, language restrictions to English and Indonesian publications may have omitted relevant studies from other cultural contexts. Finally, the varying diagnostic tools (EPDS vs. HAM-D vs. SCID) across primary studies limited standardized cross-study outcome evaluations.

These findings have direct implications for clinical practice and maternal healthcare policy. Healthcare providers should adopt a stratified treatment framework based on PPD severity and patient preferences. For mild to moderate PPD, telehealth-based IPT serves as an effective first-line, low-stigma intervention that bypasses structural access barriers. For moderate to severe PPD, combining SSRI pharmacotherapy with remote IPT offers an optimal integrative strategy, stabilizing neurochemical function while building essential psychosocial resilience. Health systems should invest in training nurse-midwives and community health workers to deliver tele-psychotherapy within step-care maternal health models. This study emphasizes the importance of a multidimensional approach to treating PPD, combining pharmacotherapy with psychotherapy, and utilizing technology to increase the accessibility and effectiveness of care.

CONCLUSION

The results of this scoping review suggest that both pharmacological treatment with antidepressants and the provision of IPT through telehealth modalities are effective strategies for improving recovery outcomes in women affected by PPD. Current evidence suggests that both antidepressant pharmacotherapy and telehealth-based interpersonal psychotherapy may improve postpartum depression outcomes, although further high-quality comparative studies are needed. Integrating remote psychotherapy with appropriate pharmacological management enhances healthcare accessibility and supports maternal mental well-being. Given the methodological heterogeneity of existing studies, future well-designed comparative clinical trials with extended follow-up periods are recommended to establish standardized treatment protocols.

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