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UNDERSTANDING PERIPARTUM DEPRESSION AMONG WOMEN LIVING WITH HIV: INSIGHTS FROM GLOBAL EVIDENCE

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ABSTRACT

Peripartum depression among women living with HIV (WLHIV) represents a profound intersection of biological vulnerability, psychosocial adversity, and structural inequity. Emerging global evidence reveals that WLHIV experience higher rates of depressive symptoms during pregnancy and the postpartum period compared to HIV-negative women, a disparity reflecting not only disease burden but also compounded social stressors. This narrative review synthesizes conceptual and empirical insights from studies published between 2020 and 2025 to illuminate the multifactorial nature of peripartum depression within the context of HIV. The literature converges on key determinants HIV-related stigma, intimate partner violence, food insecurity, poverty, and limited social support that collectively heighten susceptibility to psychological distress. Biologically, chronic immune activation and neuroendocrine dysregulation in HIV infection may interact with hormonal changes of pregnancy to increase vulnerability to mood disturbances.

The psychosocial and physiological consequences of this comorbidity extend beyond mental health, influencing antiretroviral therapy (ART) adherence, viral suppression, and maternal–infant bonding. Although integrated care approaches are gaining attention, mental health remains underprioritized within perinatal HIV services globally. The review highlights the need for intersectional frameworks that recognize gender-based violence, stigma, and social inequities as central drivers of maternal depression. Integrating routine depression screening, culturally sensitive counselling, and community-based psychosocial interventions into HIV care could mitigate these risks. Ultimately, addressing peripartum depression among WLHIV requires not only biomedical management but also social and structural transformation that affirms the psychological wellbeing and dignity of mothers living with HIV.

KEYWORDS: *Peripartum Depression, Women Living With HIV, Psychosocial Determinants, Antiretroviral Therapy Adherence, Maternal Mental Health, Integrated Care, Narrative Review.*

1. INTRODUCTION

Peripartum depression, encompassing depressive episodes during pregnancy and up to one year after childbirth, remains one of the most pervasive yet underrecognized complications of motherhood. Globally, it affects between 10% and 20% of women, with higher rates in low- and middle-income countries (LMICs), where social instability, poverty, and limited access to mental health care compound vulnerability (Zhu et al., 2019). Among women living with HIV (WLHIV), this burden assumes an even more complex and multifaceted character, as the psychological, physiological, and social challenges of pregnancy intersect with the chronic stress of living with a stigmatized infectious disease. The interplay between HIV and peripartum depression is thus not merely additive but synergistic; each condition intensifying the other's impact on women's health and well-being (Nutor et al., 2023).

The relationship between HIV and peripartum depression is deeply rooted in the structural and psychosocial conditions that define women's reproductive lives in many parts of the world. For WLHIV, pregnancy often evokes ambivalence, oscillating between joy and anxiety about the risk of vertical transmission, social rejection, and maternal mortality. Stigma and discrimination, both within communities and healthcare systems, exert profound psychological pressure, leading many women to conceal their diagnosis or disengage from care (Brittain et al., 2023). These stressors often coexist with intimate partner violence (IPV), economic dependence, and food insecurity, forming a nexus of adversity that predisposes individuals to depressive disorders (G. F. Abebe et al., 2025). Such cumulative burdens challenge the adequacy of purely biomedical approaches to HIV care, revealing the need for models that acknowledge and respond to the psychosocial realities of women's lives (Farmer, 2004).

From a biological standpoint, peripartum depression among WLHIV may reflect a convergence of immune, hormonal, and neurochemical dysregulation. HIV infection triggers chronic immune activation and inflammatory cytokine release, which can alter hypothalamic–pituitary–adrenal (HPA) axis function and neurotransmitter balance (Momplaisir et al., 2021). These processes, combined

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with the profound hormonal fluctuations of pregnancy and postpartum recovery, may lower the threshold for mood disturbances. The biological pathways of HIV-related depression thus intersect with psychosocial mechanisms such as stress, stigma, and isolation; illustrating the biopsychosocial complexity of maternal mental health in this population (Momplaisir et al., 2021). Understanding this interaction is crucial not only for mental health outcomes but also for HIV treatment adherence, viral suppression, and mother–infant bonding (Tsai et al., 2012).

Despite growing awareness, mental health remains a neglected dimension of perinatal HIV care. Global HIV programs have traditionally prioritized virological and obstetric outcomes, often at the expense of psychosocial well-being (Zhu et al., 2019). Yet, evidence increasingly indicates that untreated peripartum depression compromises antiretroviral therapy (ART) adherence, impairs immune recovery, and elevates the risk of mother-to-child transmission (Momplaisir et al., 2021). Moreover, maternal depression affects early child development by disrupting emotional attunement, breastfeeding, and caregiving behaviors. Peripartum depression is not only a mental health disorder but a structural and public health issue; one that bridges the domains of infectious disease, reproductive health, and social justice.

This narrative review therefore seeks to explore and interpret the global landscape of peripartum depression among women living with HIV. Rather than aggregating quantitative data, it synthesizes conceptual, biological, and sociocultural insights from recent literature to illuminate the complex web of factors that shape women's psychological experiences during the peripartum period. By integrating empirical findings with theoretical frameworks such as the biopsychosocial model and intersectionality, this review aims to reframe peripartum depression as both a medical and societal phenomenon. In doing so, it underscores the imperative for integrated, gender-responsive, and culturally grounded approaches that honor the lived experiences of women navigating pregnancy and motherhood with HIV (Moitra et al., 2024).

2. GLOBAL EPIDEMIOLOGY AND EMERGING PATTERNS

The global epidemiology of peripartum depression among women living with HIV (WLHIV) reflects both the uneven geography of the HIV epidemic and persistent inequities in maternal mental health. Over the past decade, evidence has consistently shown that the prevalence of peripartum depression is significantly higher among WLHIV than in the general perinatal population. Estimates from large-scale analyses indicate that between 30% and 40% of pregnant women with HIV experience depressive symptoms, compared with approximately 10% to 20% of women without HIV (Woody et al., 2017). This disparity underscores that the burden of peripartum depression among WLHIV cannot be attributed solely to individual vulnerability but rather to the complex interplay of infection, stigma, and socioeconomic adversity (Farmer, 2004).

Sub-Saharan Africa remains the epicenter of both the HIV epidemic and the highest recorded rates of peripartum depression. Studies from Ethiopia, Uganda, Nigeria, and South Africa consistently reported prevalence rates between 31% and 39%, with intimate partner violence, poverty, and food insecurity identified as dominant correlates (Belay et al., 2024). In Ethiopia, for example, Gelaw et al. (2020) observed that one in three women living with HIV experienced depressive symptoms during pregnancy, with stigma and low social support emerging as potent predictors. Comparable findings across Uganda and Malawi highlighted how chronic stress, gender inequity, and limited access to psychosocial services amplify mental distress among HIV-positive expectant mothers (Kulisewa et al., 2022). These regional consistencies suggest that while the biological aspects of depression may be universal, the intensity and persistence of symptoms are shaped by context-specific social determinants.

In Asia, where HIV prevalence is lower but social stigma remains intense, emerging research indicates comparable psychological burdens. Chinese and Indian studies report peripartum depression rates ranging between 24% and 29%, driven largely by recent HIV diagnosis, partner neglect, and fear of disclosure. Cultural expectations surrounding motherhood, particularly the notion of maternal self-sacrifice and shame associated with illness, further exacerbate emotional distress (Pandey, 2017). Women often conceal both their HIV status and depressive symptoms, fearing familial rejection or public humiliation. As a result, peripartum depression may be underdiagnosed, masked by somatic complaints such as fatigue, appetite changes, or physical pain, which healthcare providers may misattribute to pregnancy rather than psychological strain (Zhu et al., 2019).

Latin American research presents a somewhat lower prevalence range, typically 19% to 25% yet similar psychosocial drivers persist. Studies from Brazil and Mexico demonstrate that HIV diagnosis during pregnancy, poverty, and relational instability contribute to depressive symptomatology (Portes et al., 2024). However, the comparatively lower rates may reflect stronger integration of psychosocial counseling within perinatal HIV programs, especially in urban centers where mental health services are more accessible (Moitra et al., 2024). Even so, structural inequalities such as gender-based violence and economic dependency continue to shape maternal mental health outcomes across this region.

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Beyond regional distinctions, one striking pattern across the global literature is the consistent underestimation of peripartum depression due to inadequate screening and cultural normalization of distress. In many LMICs, emotional suffering during pregnancy is viewed as a normal maternal burden rather than a clinical concern, and women rarely receive formal mental health assessment. Studies relying on structured diagnostic interviews are scarce, with most data derived from screening tools such as the Edinburgh Postnatal Depression Scale (EPDS) or Patient Health Questionnaire (PHQ-9) (Zhu et al., 2019). The variability in cut-off scores, timing of assessment, and translation quality further complicates prevalence comparisons. As such, reported rates likely represent only the visible fraction of a broader, largely unrecognized mental health crisis among WLHIV (Ferede et al., 2025).

The epidemiological patterns emerging from this body of literature reveal two overarching realities. First, peripartum depression among WLHIV is a global phenomenon transcending geography, culture, and income level. Second, its magnitude is modulated by social context; that is, countries with entrenched stigma, gender inequality, and fragile health systems report the highest prevalence and most severe psychosocial consequences (Farmer, 2004). These observations position peripartum depression not merely as an adjunct to HIV but as an integral component of the epidemic's psychosocial landscape (Moitra et al., 2024).

3. PSYCHOSOCIAL DETERMINANTS OF PERIPARTUM DEPRESSION AMONG WOMEN LIVING WITH HIV

Peripartum depression among women living with HIV (WLHIV) is not merely a biomedical complication but a psychosocial phenomenon deeply intertwined with stigma, gendered power dynamics, and structural deprivation. Across diverse contexts, psychosocial factors emerge as the most consistent predictors of depressive symptoms, reflecting the ways in which social adversity becomes biologically and emotionally embodied during pregnancy and motherhood. The perinatal period, traditionally celebrated as a time of hope and renewal can instead become a site of profound vulnerability for WLHIV as they navigate secrecy, discrimination, and social isolation (Bengtson et al., 2023; Brittain et al., 2023).

3.1 HIV-Related Stigma and Discrimination

Stigma remains one of the most powerful and pervasive determinants of peripartum depression among WLHIV. The triple burden of being female, pregnant, and HIV-positive subjects women to multiple layers of discrimination that operate at individual, interpersonal, and structural levels. Internalized stigma characterized by shame, guilt, and self-blame often leads to emotional withdrawal and lowered self-esteem, precursors to depressive symptomatology (Brittain et al., 2023). Anticipated stigma, or the fear of being rejected by family and community, compels many women to conceal their status, even from partners or healthcare providers. This concealment often results in poor adherence to antiretroviral therapy (ART) and avoidance of antenatal visits, thereby exacerbating both mental health and clinical outcomes (Momplaisir et al., 2021). Enacted stigma, manifesting as overt discrimination by healthcare workers or relatives, compounds these experiences. In Ethiopia and South Africa, for instance, women recounted being verbally shamed or physically segregated in maternity wards experiences that intensified feelings of alienation and despair (Belay et al., 2024). Such encounters transform healthcare settings, which should serve as safe spaces, into environments of retraumatization .

3.2 Intimate Partner Violence and Gendered Power Imbalance

Another recurring determinant is intimate partner violence (IPV), reported in more than half of the studies reviewed. IPV not only precipitates depressive episodes but also perpetuates them through chronic stress and emotional trauma. Abebe et al. (2025)) found that women exposed to IPV were over four times more likely to exhibit peripartum depressive symptoms compared to those in non-violent relationships. The perinatal period often heightens these dynamics, as financial dependence, unplanned pregnancies, and fears surrounding HIV disclosure increase women's vulnerability to coercion and abuse. In many African and Asian contexts, cultural norms that valorize male dominance and female submissiveness further silence women's resistance or help-seeking behaviors (Jones et al., 2021). This lack of autonomy creates a psychological environment characterized by helplessness, a central feature of depressive cognition. Moreover, IPV frequently coexists with stigma and poverty, forming an interconnected web of psychosocial risks that compound mental distress (G. F. Abebe et al., 2025).

3.3 Social Isolation and Lack of Support

Social support has been consistently identified as a buffer against perinatal depression, yet it remains scarce for many WLHIV. The fear of disclosure isolates women from familial and community networks, depriving them of emotional and practical assistance during pregnancy and postpartum. Gelaw et al. (2020) reported that WLHIV who perceived low social support were nearly four times more likely to experience depression. The absence of partner involvement in prenatal care further intensifies loneliness, especially in cultural settings where pregnancy is idealized as a shared familial experience (Nutor et al., 2023). Religious and community organizations, which could provide solace, sometimes reinforce stigma through moral condemnation of HIV, thereby perpetuating exclusion (Brittain et al., 2023). This deprivation of social connectedness undermines psychological resilience and contributes to the chronicity of depressive symptoms (Moitra et al., 2024).

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3.4 Poverty, Food Insecurity, and Structural Deprivation

Beyond interpersonal determinants, structural conditions such as poverty and food insecurity exert a profound influence on maternal mental health. Economic precarity not only restricts access to healthcare but also generates daily stress that heightens vulnerability to depression. Boateng et al. (2022) demonstrated that food insecurity among WLHIV in sub-Saharan Africa was independently associated with higher depressive symptoms, even after adjusting for sociodemographic factors. The inability to provide for oneself or one's child compounds feelings of inadequacy and hopelessness, which are core features of depressive thought patterns. Moreover, poverty interacts with stigma in a cyclical fashion: financial dependency discourages women from leaving abusive relationships, while depression further erodes economic productivity and health-seeking motivation (Ferede et al., 2025). This intersection of mental distress and material deprivation exemplifies how social inequality becomes biologically embedded, reinforcing the intergenerational transmission of disadvantage (Farmer, 2004).

3.5 Cultural and Societal Norms

Cultural expectations surrounding motherhood also play a subtle but powerful role in shaping the emotional lives of WLHIV. In many societies, motherhood is idealized as a symbol of womanhood, purity, and family continuity. An HIV-positive diagnosis disrupts these ideals, rendering motherhood socially suspect. Studies in Asia and Latin America illustrate how cultural silence around mental illness and reproductive stigma combine to suppress open discussion of emotional suffering (Portes et al., 2024). Women often internalize guilt for "endangering" their unborn children or violating social expectations, thereby reinforcing depressive self-perception. The moralization of HIV because of "sexual misconduct" further compounds these pressures, situating depression within a moral and social, not merely psychological framework.

Collectively, these psychosocial determinants reveal that peripartum depression among WLHIV is less about individual pathology than about social injustice. Stigma, gender inequality, and economic deprivation converge to transform the perinatal experience into a period of psychological turbulence rather than joy. The evidence demonstrates that psychosocial suffering is not an incidental consequence of HIV but a direct manifestation of structural violence, where social conditions themselves become pathogenic (Farmer, 2004).

4. BIOLOGICAL AND NEUROENDOCRINE PATHWAYS

While psychosocial and structural adversities explain much of the emotional burden among women living with HIV (WLHIV), the biological underpinnings of peripartum depression reveal an equally compelling dimension. The convergence of HIV-induced immune dysregulation, hormonal fluctuation during pregnancy, and neuroendocrine vulnerability forms a biological milieu that heightens susceptibility to depressive disorders. These processes illustrate that peripartum depression among WLHIV is not simply a psychological reaction to social hardship but also a physiological manifestation of chronic infection and systemic stress.

4.1 Immune Activation and Inflammatory Cytokines

HIV infection is characterized by chronic immune activation and persistent inflammation, even in individuals receiving antiretroviral therapy (ART). Elevated levels of proinflammatory cytokines such as interleukin-6 (IL-6), tumor necrosis factor-alpha (TNF-α), and interferon-gamma (IFN-γ) have been repeatedly linked to depressive symptoms (Ferede et al., 2025). During pregnancy, these cytokines can cross the placental barrier or modulate placental function, potentially affecting both maternal mood and fetal neurodevelopment. The "cytokine hypothesis" of depression proposes that systemic inflammation disrupts monoamine metabolism, particularly serotonin and dopamine synthesis, leading to mood dysregulation. For WLHIV, whose immune systems are already hyperactivated by infection, pregnancy represents an additional inflammatory challenge (Mersha et al., 2018). Elevated IL-6 and TNF-α may therefore not only influence depressive symptomatology but also compromise maternal immunity and obstetric outcomes, establishing a physiological bridge between HIV pathogenesis and mental health vulnerability (Belay et al., 2024).

4.2 Hypothalamic–Pituitary–Adrenal (HPA) Axis Dysregulation

The hypothalamic–pituitary–adrenal (HPA) axis plays a central role in the body's stress response and has been implicated in both major depressive disorder and peripartum depression. Chronic HIV infection disrupts normal cortisol regulation, leading to sustained elevations in glucocorticoid levels and impaired feedback inhibition. This hypercortisolemia contributes to neurotoxicity in hippocampal regions involved in mood regulation and emotional processing. During pregnancy, physiological changes already induce significant shifts in cortisol metabolism; when combined with HIV-associated endocrine disruption, the result may be an exaggerated stress response and greater vulnerability to mood disorders (Zhu et al., 2019). Furthermore, HPA axis dysfunction can interfere with reproductive hormone regulation, particularly estrogen and progesterone, both of which exert mood-stabilizing effects. Postpartum withdrawal of these hormones, compounded by preexisting HPA irregularity, may explain the persistence or worsening of depressive symptoms among WLHIV after childbirth (W. Abebe et al., 2022).

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4.3 Neurotransmitter Imbalance and Neuroinflammation

Beyond the endocrine system, HIV directly impacts the central nervous system (CNS) through viral proteins such as gp120 and Tat, which induce neuroinflammation and synaptic injury (Li et al., 2023). These viral neurotoxins activate microglial cells and astrocytes, leading to excessive production of inflammatory mediators that alter monoaminergic neurotransmission. Reduced availability of serotonin, dopamine, and norepinephrine, a hallmark of depressive pathophysiology has been observed in individuals with chronic HIV infection (Cruess et al., 2003). During pregnancy and postpartum, fluctuating sex hormones further modulate these neurotransmitter systems, intensifying the neurochemical instability that predisposes to depression. The overlap between HIV-associated neurocognitive disorders and peripartum mood disturbances suggests shared neuropathological mechanisms, including oxidative stress, mitochondrial dysfunction, and glutamatergic excitotoxicity(Zaongo et al., 2025).

4.4 Effects of Antiretroviral Therapy (ART)

Although ART has revolutionized HIV care by improving survival and maternal outcomes, certain regimens may contribute indirectly to depressive symptomatology. Efavirenz, for instance, has been associated with neuropsychiatric side effects, including vivid dreams, anxiety, and mood disturbances (Zaongo et al., 2025). While newer ART combinations have reduced these risks, the potential for drug-induced neurotoxicity remains a consideration, particularly when combined with the hormonal volatility of pregnancy (Faherty et al., 2023). Moreover, strict adherence to ART can become psychologically burdensome during the perinatal period, when women face fatigue, nausea, and competing childcare responsibilities (Momplaisir et al., 2021). Missed doses often generate guilt and anxiety, reinforcing a cycle of self-blame and emotional exhaustion. Thus, ART adherence in this context must be viewed not only as a behavioral issue but also as a mental health outcome influenced by biological and psychological feedback loops (Bengtson et al., 2023).

4.5 The Biopsychosocial Convergence

Taken together, these biological insights affirm that peripartum depression in WLHIV arises from a complex biopsychosocial convergence, where immunological inflammation, hormonal fluctuation, and neurochemical imbalance interact with social stressors to produce emotional distress. This perspective aligns with contemporary models of psychoneuroimmunology, which conceptualize depression as both a mental and systemic inflammatory condition. The biological and psychosocial mechanisms are not separate but mutually reinforcing chronic stress and stigma elevate inflammatory markers, while immune dysregulation amplifies emotional reactivity and fatigue (Mersha et al., 2018). This cyclical interplay underscores that effective intervention must address both physiological and social determinants simultaneously. Ignoring one-dimension risks perpetuating the other (Moitra et al., 2024). These biological pathways do not diminish the role of social context but rather deepen understanding of how the HIV-infected body metabolizes social pain into biological stress. Illuminating these molecular and endocrine mechanisms, researchers and clinicians can better appreciate the embodied nature of mental health in WLHIV where the line between psychosocial suffering and biological alteration is blurred (Kinyanda et al., 2021).

5. INTERSECTIONS OF DEPRESSION, ART ADHERENCE, AND MATERNAL–INFANT OUTCOMES.

Peripartum depression among women living with HIV (WLHIV) has far-reaching implications that extend beyond emotional distress to directly influence adherence to antiretroviral therapy (ART), viral suppression, and maternal–infant health outcomes. The interrelationship between depression and HIV treatment is circular and self-reinforcing: depression diminishes motivation and self-efficacy, leading to poor ART adherence, while uncontrolled viremia and disease progression deepen feelings of despair and hopelessness.

5.1 Depression and ART Adherence

Depression is a well-documented predictor of suboptimal ART adherence in both general and perinatal HIV populations. Women experiencing depressive symptoms often struggle with concentration, memory, and daily organization cognitive domains essential for maintaining consistent medication routines (Faherty et al., 2023; Momplaisir et al., 2021). The emotional exhaustion and anhedonia that accompany depression also erode the motivation required for self-care. A meta-analysis of studies conducted between 2020 and 2025 revealed that WLHIV with depression were up to three times more likely to report missed ART doses than non-depressed counterparts (G. F. Abebe et al., 2025). Qualitative research corroborates these findings, describing how feelings of hopelessness and fear of infant infection often leads to disengagement from care (Bengtson et al., 2023).

5.2 Depression and Viral Suppression

The consequences of poor ART adherence are clinically significant. Suboptimal adherence undermines viral suppression, increasing maternal viral load and heightening the risk of mother-to-child transmission (MTCT) (Zaongo et al., 2025). Beyond pharmacological mechanisms, chronic stress and depression exert physiological effects that may blunt immune recovery even when ART adherence is adequate. Elevated cortisol and inflammatory cytokines such as IL-6 can suppress CD4+ T-cell proliferation, perpetuating immunological fragility (Ferede et al., 2025). Thus, the biological and behavioral dimensions of depression converge to compromise treatment outcomes.

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5.3 Impact on Maternal and Infant Health

Peripartum depression also disrupts maternal behaviors essential to infant health. Depressed mothers are more likely to experience difficulties with breastfeeding, reduced responsiveness to infant cues, and impaired bonding all of which affect infant emotional and cognitive development (Wagner et al., 2023). In low-resource settings, where social support networks are limited, these disruptions can translate into poor infant growth and increased susceptibility to illness (Brittain et al., 2017). Moreover, maternal depression indirectly influences infant outcomes through inconsistent clinic attendance and diminished participation in early child health programs (Larsen et al., 2022).

5.4 The Bidirectional Cycle of Distress and Disease

What emerges from the literature is a bidirectional cycle linking depression, ART adherence, and health outcomes. HIV infection and its social sequelae precipitate depression, while depression undermines treatment adherence, immune function, and maternal engagement in care (Moitra et al., 2024)). This, in turn, exacerbates disease progression and further fuels psychological distress (Yator et al., 2016). The cycle is reinforced by systemic neglect: mental health screening is rarely integrated into routine antenatal or HIV care, allowing symptoms to remain undetected until they manifest as clinical nonadherence or maternal morbidity (Boateng et al., 2022).

5.5 Implications for the HIV Care Continuum

Recognizing the intersection of mental and physical health is essential for sustaining progress toward global HIV targets. Depression represents a critical point of vulnerability along the HIV care continuum from testing and initiation to retention and viral suppression (Gurung et al., 2022). The findings from recent studies reaffirm that improving ART outcomes requires a parallel commitment to maternal mental health. Integrating depression screening tools such as the EPDS or PHQ-9 into routine antenatal visits, coupled with on-site psychosocial counselling and peer support, can create a more holistic model of perinatal HIV care (Concepcion et al., 2023). Moreover, addressing depression during the perinatal period has a ripple effect: it enhances ART adherence, strengthens maternal–infant bonds, and promotes early childhood development, ultimately contributing to healthier families and communities (Bengtson et al., 2023).

6. EMERGING INTERVENTION FRAMEWORKS AND INTEGRATED CARE MODELS.

The growing recognition of the bidirectional relationship between peripartum depression and HIV outcomes has inspired a gradual shift toward integrated models of care that address both conditions simultaneously. Traditional HIV programs have long prioritized viral suppression, often overlooking the psychological distress that undermines treatment adherence and maternal well-being. Recent evidence, however, suggests that effective perinatal HIV care must go beyond pharmacological management to include structured psychosocial and behavioral interventions (Bengtson et al., 2023). The emerging paradigm emphasizes person-centered, community-driven, and task-shifted approaches designed to meet women where they are emotionally, socially, and structurally (Moitra et al., 2024).

6.1 Integrating Depression Screening into Routine HIV Care

The foundation of integrated care lies in early detection. Studies across sub-Saharan Africa, Asia, and Latin America have shown that routine screening for depressive symptoms using validated tools such as the Edinburgh Postnatal Depression Scale (EPDS) or Patient Health Questionnaire (PHQ-9) significantly improves identification of women at risk (Al-abri et al., 2023). In South Africa, embedding the EPDS into antenatal HIV clinics allowed nurses to detect depressive symptoms in over one-third of pregnant WLHIV who would otherwise have gone unnoticed (Peltzer et al., 2015). Importantly, these tools require minimal training, can be administered by midwives or counsellors, and offer rapid feedback for referral decisions. However, screening without accessible treatment risks burdening already strained health systems; thus, screening programs must be paired with locally feasible therapeutic pathways (Ferede et al., 2025).

6.2 Task-Shifting and Community-Based Counselling

Given the scarcity of specialized mental-health professionals in low-resource settings, task-shifting has emerged as a pragmatic strategy. This approach involves training lay health workers, community volunteers, or nurses to deliver evidence-based psychosocial interventions. In Ethiopia and Uganda, community health workers trained in basic cognitive-behavioral and problem-solving techniques successfully reduced depressive symptoms among WLHIV (Wagner et al., 2023). Similar success was documented in Malawi, where trained maternity-clinic staff delivered group problem-solving therapy to pregnant WLHIV with high acceptability (Kulisewa et al., 2022). These interventions, often delivered in home or community settings, leveraged peer solidarity and cultural familiarity to enhance engagement. Task-shifting not only expands access to care but also reduces stigma, as mental-health support is reframed as part of routine maternal or HIV services rather than a separate psychiatric concern (Moitra et al., 2024).

6.3 Peer Support and Group Therapy Models

Peer-support interventions represent another promising frontier. Group-therapy models in which WLHIV meet regularly to share experiences and coping strategies foster belonging and mutual empathy. The “Friendship Bench” model in Zimbabwe and similar group-

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counselling initiatives in Malawi and Nigeria have shown reductions in depressive symptoms and improvements in ART adherence (Passchier et al., 2018). These programs operate on the principle that emotional healing is collective rather than individual, a notion deeply resonant with African and Latin American cultural frameworks that value community solidarity. Peer counsellors, often women living with HIV who have navigated depression themselves, serve as credible messengers and role models, bridging the gap between biomedical care and lived experience (Passchier et al., 2018).

6.4 Integrative Care Models within Antenatal Clinics

Several pilot programs have sought to institutionalize the integration of mental health within maternal HIV care at the facility level. In Kenya, multidisciplinary teams comprising midwives, ART nurses, and psychosocial counsellors jointly managed pregnant WLHIV, addressing both clinical and emotional needs (Mwangwa et al., 2025). This collaborative approach improved ART adherence, reduced depressive symptoms, and strengthened retention in care. Similarly, in China, a two-tiered model combining obstetric follow-up with psychiatric consultation demonstrated improved postpartum adjustment and reduced anxiety (Niu et al., 2016). In Malawi, an integrated perinatal-depression intervention embedded in maternity clinics proved both feasible and acceptable to HIV-positive women, further demonstrating the practicality of blending psychosocial and biomedical services (Kulisewa et al., 2022). Such initiatives exemplify the potential of biopsychosocial integration, where depression and HIV are managed not as separate diseases but as interlinked conditions requiring coordinated intervention (Belay et al., 2024).

6.5 Digital and mHealth Innovations

The COVID-19 pandemic accelerated interest in digital mental-health solutions for perinatal women, including WLHIV. Mobile-health (mHealth) platforms offering psychoeducation, tele-counselling, and SMS-based mood tracking have been piloted in South Africa and India with encouraging outcomes (Faherty et al., 2023). These technologies increase accessibility for women facing mobility, privacy, or stigma-related barriers (Moitra et al., 2024). Digital counselling via WhatsApp or dedicated apps allows anonymity and continuity of care beyond clinic walls (Bengtson et al., 2023). However, digital interventions must be culturally tailored and supported by human contact to sustain engagement, particularly in low-literacy or rural populations (Portes et al., 2024).

6.6 Barriers and Systemic Challenges

Despite growing momentum, integrated care remains more of an aspiration than a widespread reality. Structural barriers including inadequate funding, fragmented service delivery, and persistent stigma limit scalability (Ferede et al., 2025). Mental health is still perceived as secondary to HIV management, leading to underinvestment in training and supervision. Moreover, health workers themselves often face burnout and secondary trauma, undermining program sustainability (Moitra et al., 2024). Cultural misconceptions about mental illness as weakness, witchcraft, or divine punishment further inhibit help-seeking. Addressing these systemic challenges requires national-level commitment to mental-health policy reform, cross-sectoral collaboration, and integration of psychosocial indicators into HIV monitoring frameworks (Farmer, 2004).

6.7 Toward Sustainable Integration

Sustainable progress lies in building intersectional systems of care, those that simultaneously address emotional, biological, and social dimensions of health (Moitra et al., 2024). Integrating peripartum-depression care into HIV programs aligns directly with the Sustainable Development Goals (SDG 3.3: ending the AIDS epidemic, and SDG 3.4: promoting mental health and wellbeing). Governments and NGOs should invest in capacity-building for non-specialist providers, ensure consistent psychotropic-medication supply chains, and incorporate mental-health indicators into maternal and HIV health metrics (Ferede et al., 2025). Research should prioritize implementation-science approaches to test how these models can be adapted, scaled, and sustained within resource-limited contexts.

7. CONCEPTUAL AND POLICY IMPLICATIONS

The synthesis of evidence across psychosocial, biological, and structural dimensions underscores that peripartum depression among women living with HIV (WLHIV) is not merely a medical condition it is a multidimensional health inequity situated at the intersection of gender, stigma, and systemic neglect. Traditional biomedical models that separate physical illness from mental suffering fail to capture the lived realities of these women, whose experiences of depression are both embodied and socially produced. A conceptual reframing is therefore necessary one that recognizes peripartum depression as a manifestation of structural violence, gendered inequality, and human-rights violations rather than as a discrete psychiatric disorder.

7.1 Reframing Peripartum Depression as a Gendered Structural Issue

At its core, peripartum depression in WLHIV reflects the cumulative impact of intersecting oppressions. Gender inequality, poverty, and HIV-related stigma converge to restrict women's autonomy over their bodies, relationships, and reproductive choices. This

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intersectional lens first articulated by Crenshaw (1989) clarifies that WLHIV do not experience depression in isolation but within systems that marginalize them for being women, mothers, and HIV-positive. In many contexts, cultural norms define womanhood through motherhood, yet an HIV diagnosis simultaneously delegitimizes this role (Brittain et al., 2017). The resulting contradiction between the societal expectation to nurture and the stigma of infection creates profound emotional dissonance. Policies that treat peripartum depression as an individual disorder therefore miss its social origins. Effective solutions must dismantle gender-based inequities and stigma at structural levels rather than merely offering symptomatic relief (Ferede et al., 2025).

7.2 Integrating Mental Health into HIV and Maternal Health Agendas

Globally, mental health remains one of the most neglected components of HIV and maternal-health programming. Despite WHO's repeated calls for integration, mental-health budgets in low- and middle-income countries (LMICs) account for less than 2 percent of total health spending (WHO, 2023). The evidence presented here calls for mental health to be institutionalized as a core pillar of HIV response strategies, not an optional add-on. Integration should include (1) routine depression screening within antenatal and ART clinics (2) task-shifted psychosocial counselling embedded in community HIV programs; and (3) policy frameworks that incentivize mental-health service delivery. National HIV strategies should adopt dual-outcome metrics that measure not only viral suppression but also maternal psychological wellbeing. Without such integration, the global goal of ending AIDS by 2030 remains incomplete, as untreated peripartum depression undermines adherence, retention, and intergenerational health outcomes (Niu et al., 2016).

7.3 Human Rights and Health Systems Perspectives

From a human-rights standpoint, failing to address peripartum depression among WLHIV constitutes a violation of the right to the highest attainable standard of health, as enshrined in international instruments such as CEDAW. The silence surrounding maternal mental health perpetuates what Kleinman (1995) termed social suffering the collective pain produced when political and institutional systems neglect human vulnerability. Health systems must therefore evolve from treating depression as a private affliction to recognizing it as a public-health responsibility. Policy frameworks should include maternal-mental-health indicators in national HIV monitoring and allocate dedicated budgets for perinatal psychosocial care (Ferede et al., 2025). Additionally, legal and ethical safeguards should protect WLHIV from discrimination in healthcare settings, ensuring confidentiality, dignity, and respectful maternity care (Mersha et al., 2018).

7.4 Research and Implementation-Science Directions

Despite growing awareness, significant knowledge gaps persist. Most studies remain cross-sectional and descriptive, limiting causal inference and intervention evaluation(Belay et al., 2024). Future research should employ implementation-science approaches to test the feasibility, scalability, and sustainability of integrated-care models in diverse cultural and economic settings (Mersha et al., 2018). Longitudinal designs could elucidate how psychosocial stressors, immune function, and ART outcomes evolve across the perinatal trajectory. There is also an urgent need for participatory research involving WLHIV as co-investigators to ensure interventions are culturally grounded and contextually relevant (W. Abebe et al., 2022). Implementation studies should measure not only symptom reduction but also empowerment, quality of life, and social reintegration outcomes that reflect a more holistic understanding of recovery (Roddy Mitchell et al., 2023).

7.5 A Paradigm Shift Toward Psychosocial Justice

Ultimately, the findings call for a paradigm shift from treating peripartum depression as an individual pathology to viewing it as a form of psychosocial injustice. Depression in WLHIV is a mirror reflecting broader societal failures of gender systems that silence women, of economies that impoverish them, and of health systems that fragment their care. Addressing it requires re-humanizing HIV care: restoring dignity, voice, and agency to the women most affected (Crenshaw, 1989; (Farmer, 2004). In this view, psychosocial interventions are not only therapeutic but emancipatory tools for reclaiming identity and resilience in the face of intersecting marginalization.

8. CONCLUSION

Peripartum depression among women living with HIV (WLHIV) stands at the crossroads of biology, psychology, and social injustice. The global evidence reveals that this condition is not merely a psychiatric disorder arising in isolation but a deeply contextual manifestation of stigma, gender inequality, and structural deprivation. Its roots are social, its mechanisms biological, and its consequences intergenerational. The convergence of psychosocial distress, chronic inflammation, and neuroendocrine imbalance transforms pregnancy a period meant for renewal into one of heightened vulnerability. Yet within this complexity lies the potential for equally integrated solutions.

The findings across continents affirm that peripartum depression remains consistently higher among WLHIV than in HIV-negative women, with prevalence estimates ranging from 20% to 40%. Factors such as stigma, intimate partner violence, social isolation, poverty, and food insecurity emerge as dominant determinants. These stressors interact with biological mechanisms immune activation, hypothalamic–pituitary–adrenal (HPA) axis dysregulation, and neurotransmitter imbalance to create a feedback loop that perpetuates

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emotional and physiological suffering. Depression, in turn, disrupts ART adherence, compromises viral suppression, and endangers maternal and infant wellbeing, entrenching a cycle of disease and distress.

Despite this, progress is emerging. Integrated care models that embed mental health screening and counselling within antenatal HIV services are proving both feasible and effective. Community-based and peer-led interventions grounded in solidarity and cultural resonance demonstrate that healing is often collective rather than individual. Digital innovations are expanding access, while implementation science is beginning to chart the pathways for sustainable scale-up. However, systemic barriers underfunded mental health services, fragmented care delivery, and enduring stigma continue to constrain the promise of integration.

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