

Postpartum Psychosis and Mother–Infant Bonding in Southeastern Nigeria: An Evidence-Informed Integrative Review of Family Support, Maternal Functioning and Postnatal Care

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Abstract

Background: Postpartum psychosis (PP) is a rare but severe psychiatric emergency that usually emerges within the first two weeks after childbirth and carries risks of maternal suicide and harm to the infant. Even after clinical recovery, the disruption it causes to early caregiving may affect the emotional relationship between mother and child. In Southeastern Nigeria, postnatal care remains largely oriented towards physical recovery, mental health services are limited and stigmatised, and published evidence on how social support, maternal functioning and postnatal care shape bonding after PP is sparse.

Aim: To synthesise the available evidence on the relationships among PP, mother–infant bonding, social support, maternal functioning and postnatal care, and to draw out implications for nursing practice among women in Southeastern Nigeria.

Methods: A narrative integrative review informed by the Whittemore and Knafl (2005) framework; this is a non-systematic synthesis and no reproducible search log was available. Peer-reviewed studies, clinical guidelines and policy documents on PP, bonding, perinatal social support, maternal functioning and postnatal service delivery were appraised and thematically synthesised. Because PP-specific evidence from sub-Saharan Africa is limited, evidence from high-income settings and from perinatal mental disorders in low- and middle-income countries was used, with its transferability explicitly assessed.

Findings: Four organising themes were identified in the selected literature. First, PP produces an acute, often prolonged rupture in caregiving that places bonding at risk, although recovery and secure bonding are achievable with timely treatment. Second, social support, particularly from partners and female kin, may facilitate recognition, recovery and caregiving continuity, although a direct protective effect on psychosis relapse or bonding has not been established, but it can also become a channel for stigma and delayed help-seeking. Third, maternal functioning is a hypothesised mediating pathway, not an empirically demonstrated mediator between illness and bonding. Fourth, national-level evidence raises concerns about screening, referral and follow-up; state-specific service audits are needed. A conceptual model and a phase-based nursing action framework are proposed.

Conclusion: Nurses and midwives are the health workers most consistently in contact with postpartum women in Southeastern Nigeria and are therefore central to early detection, safe care, family mobilisation and bonding-sensitive recovery. Locally grounded empirical research is urgently needed.

Keywords: *postpartum psychosis; puerperal psychosis; mother–infant bonding; social support; maternal functioning; postnatal care; psychiatric nursing; midwifery; Nigeria*

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1. Introduction

1.1 Background

Childbirth is one of the periods of greatest vulnerability to severe mental illness in a woman's life. Population-based register evidence shows that the first weeks after delivery carry a markedly elevated risk of first-onset psychiatric admission and relapse of pre-existing disorders (Kendell et al., 1987; Munk-Olsen et al., 2006). Postpartum psychosis, also called puerperal psychosis, sits at the severe end of this spectrum. It is characterised by rapid-onset mood disturbance, delusions, hallucinations, confusion and disorganised behaviour, and it affects an estimated 0.89 to 2.6 women per 1,000 deliveries (VanderKruik et al., 2017; Jones et al., 2014). Although rare, the condition is a psychiatric and obstetric emergency because of the associated risks of suicide and infanticide (Spinelli, 2009; Brockington, 2017). The consequences of PP extend beyond the acute episode. Early infancy is a sensitive period in which a mother's emotional availability, responsiveness and capacity to organise care lay the foundations of the infant's attachment (Bowlby, 1969; Feldman, 2007). Mother–infant bonding, the mother's emotional tie to and feelings towards her baby, is vulnerable to maternal mental illness, and impaired bonding has been linked to later difficulties in child development and in the parent–child relationship (Moehler et al., 2006; Tichelman et al., 2019). For women who experience PP, a sudden and frightening loss of reality at precisely the time when the relationship with the infant is being established raises important questions for care: how is bonding affected, what protects it, and what can nurses do?

1.2 The Nigerian and Southeastern context

Nigeria carries a disproportionate share of the global burden of maternal mortality, contributing roughly one-fifth of estimated maternal deaths worldwide (WHO et al., 2019). Policy and programme attention has therefore concentrated, understandably, on haemorrhage, hypertensive disorders, sepsis and access to skilled birth attendance (National Population Commission [NPC] & ICF, 2019). Maternal mental health has received far less attention. The Nigerian Survey of Mental Health and Well-Being showed that mental disorders are common and that most affected people receive no treatment (Gureje et al., 2006; Gureje & Lasebikan, 2006), and subsequent analyses of mental health governance identify chronic under-financing, a thin specialist workforce and fragmented service delivery (Abdulmalik et al., 2016). The National Mental

Health Act, enacted in 2021 and signed into law in 2023, creates a policy opening, but implementation at state and facility level is at an early stage. Southeastern Nigeria comprises Abia, Anambra, Ebonyi, Enugu and Imo States and is populated predominantly by Igbo-speaking communities with strong extended-family, kinship and church-based social structures. Postpartum care in this setting is shaped both by the formal health system and by customary practices, including the expectation that a mother, mother-in-law or other senior female relative will stay with and care for the new mother and baby, a practice commonly referred to as omugwo. These structures are potential sources of support, yet they also embed beliefs about the causes of madness, the status of the woman as a mother, and the shame attached to mental illness, all of which may influence recognition and help-seeking (Adeponle et al., 2017; Kumar, 1994).

1.3 Problem statement

The literature on PP is dominated by studies from Europe, North America and Australasia, and the literature on perinatal mental health in Nigeria is dominated by postnatal depression and anxiety (Abiodun, 2006; Adewuya et al., 2005; Adeponle et al., 2017). Published evidence that connects PP, bonding, social support, maternal functioning and postnatal care in a single frame, and does so for women in Southeastern Nigeria, appears to be very limited. Nurses and midwives, who deliver most antenatal, intrapartum and postnatal contacts, therefore work with little context-specific guidance on recognising PP, protecting mother and infant during the acute phase, and supporting the relationship afterwards.

1.4 Aim and objectives

The aim of this review is to synthesise current evidence on postpartum psychosis and mother–infant bonding in relation to social support, maternal functioning and postnatal care, and to translate it into implications for nursing practice among women in Southeastern Nigeria. The specific objectives are to:

- i. Describe the clinical features, epidemiology and risk profile of postpartum psychosis, with attention to its presentation in the Nigerian context;
- ii. Examine how postpartum psychosis affects mother–infant bonding and what is known about recovery of the relationship.
- iii. Appraise the role of social support and of maternal functioning in the psychosis–bonding relationship.

- iv. Analyse the adequacy of postnatal care in Southeastern Nigeria for detecting and managing postpartum psychosis and promoting bonding.
- v. Propose a conceptual model and nursing practice framework, and identify priorities for research.

1.5 Significance

The review is significant for nursing in three ways. It consolidates a fragmented evidence base into a usable practice framework for a setting where specialist perinatal psychiatric services are scarce. It highlights the nursing contribution across the whole perinatal pathway, from antenatal risk identification to long-term relapse prevention. It also sets out a research agenda that can inform the integration of perinatal mental health into maternal and newborn services in line with global guidance (WHO, 2022a, 2022b).

2. Review Methodology

This article is a narrative integrative review. The integrative approach was selected because the topic spans several bodies of evidence, namely psychiatric epidemiology, developmental psychology, nursing and midwifery science, and health systems research, and because these cannot be combined by meta-analysis. The review followed the five stages described by Whitemore and Knafl (2005): problem identification, literature search, data evaluation, data analysis and presentation.

Problem identification. The problem was framed by the aim and objectives above.

Literature search and sources. The review draws on peer-reviewed literature indexed in major biomedical, nursing and psychology databases (such as MEDLINE/PubMed, CINAHL and PsycINFO) and in African Journals Online, supplemented by World Health Organization (WHO) guidance, the Nigeria Demographic and Health Survey, and clinical guidelines. Search concepts combined postpartum or puerperal psychosis, bonding or attachment, social support, maternal functioning, postnatal care, Nigeria and sub-Saharan Africa. Reference lists of key reviews were hand-searched. The review is not a registered systematic review and does not claim exhaustive retrieval.

Data evaluation. Sources were prioritised if they were peer-reviewed or issued by recognised authorities, reported methods sufficient to judge quality, and addressed at

least one of the four constructs. Because PP-specific data from sub-Saharan Africa are scarce, three tiers of evidence were distinguished: (a) direct evidence on PP, (b) direct evidence from Nigeria or comparable African settings on perinatal mental health, and (c) indirect evidence on bonding, support and functioning drawn from other populations. Where an inference rests on tier (c), this is stated.

Data analysis and presentation. Findings were extracted, compared, and grouped thematically around the four constructs. The themes were then combined into a conceptual model, presented in Section 3.4 and refined in Section 9.

3. Conceptual and Theoretical Framework

3.1 Attachment theory and the concept of bonding

Attachment theory holds that infants are biologically predisposed to seek proximity to a caregiver and that the caregiver's sensitivity and consistency shape the infant's later security (Bowlby, 1969; Ainsworth et al., 1978). The two constructs, attachment and bonding, are related but distinct. Attachment describes the infant's tie to the caregiver, while bonding, in the maternal literature, describes the mother's emotional orientation towards the infant, including warmth, interest, protectiveness and, when disturbed, rejection, anger or anxiety about care (Klaus & Kennell, 1976; Bicking Kinsey & Hupcey, 2013). The distinction matters clinically because bonding is the part of the relationship that nurses can observe and influence through the mother's feelings and behaviours in the early weeks. Bonding is commonly measured with instruments such as the Postpartum Bonding Questionnaire, the Mother-to-Infant Bonding Scale and the Maternal Postnatal Attachment Scale (Brockington et al., 2001, 2006; Condon & Corkindale, 1998; Taylor et al., 2005).

3.2 Maternal role attainment

Mercer's theory of maternal role attainment describes how a woman progresses from anticipating motherhood, through formal and informal learning of the role, to a personal, 'becoming a mother' identity, with the process shaped by the mother's characteristics, the infant, and nested social systems including family, community and health services (Mercer, 2004; Mercer & Walker, 2006). The theory is useful for nursing because it links maternal functioning, defined here as the mother's ability to

care for herself, her infant and her household and to carry out her social roles, to the quality of the maternal–infant relationship. PP interrupts this process abruptly. A woman may lose weeks of the early postpartum period to acute illness and hospitalisation, return home to find that others have taken on her role, and struggle to reclaim her identity as a mother (Robertson & Lyons, 2003).

3.3 The social support buffering hypothesis

The buffering hypothesis proposes that social support protects health principally by moderating the effects of stress, so that individuals with strong support suffer fewer adverse consequences from a given stressor (Cohen & Wills, 1985). Support is multi-dimensional and is usually described as emotional (empathy, reassurance), instrumental (practical help with childcare and household tasks), informational (advice and guidance) and appraisal-based support, and as perceived versus received support (Zimet et al., 1988). In the postpartum setting, buffering may operate at three points: reducing the exposure to triggers such as sleep loss and role overload, speeding recognition and treatment of early symptoms, and sustaining caregiving while the mother is unwell.

3.4 An integrated conceptual model

The three perspectives are combined in a model that structures the rest of the review. It rests on the following propositions:

1. **P1:** Postpartum psychosis disrupts maternal functioning and the mother's emotional availability during a sensitive period, creating risk for impaired bonding.
2. **P2:** Social support buffers the effect of PP on maternal functioning and bonding by sustaining caregiving, hastening treatment and reducing relapse and distress.
3. **P3:** Maternal functioning mediates part of the relationship between illness and bonding; recovery of function precedes and enables recovery of the relationship.
4. **P4:** Postnatal care, as the formal health-system context, determines whether PP is detected early, whether mother and infant are kept safe, and whether support and function are rebuilt in a structured way.

5. **P5:** Cultural beliefs and stigma moderate the pathway at every point, shaping help-seeking, the content of support, and how women interpret the illness and their own mothering.

These propositions are conceptual hypotheses derived from the literature and are not empirical findings from the zone. They are examined in turn in Sections 4 to 8.

4. Postpartum Psychosis: Clinical Picture, Epidemiology and Risk

4.1 Definition and presentation

Postpartum psychosis is not a separate diagnostic category in the major classification systems; clinically it is understood as an acute affective psychosis, most often within the bipolar spectrum, with onset in the immediate postpartum period (Chaudron & Pies, 2003; Bergink et al., 2016). Typical onset is abrupt, with most women becoming unwell within the first two weeks after delivery, and often within the first few days (Heron et al., 2008; Sit et al., 2006). Prodromal features frequently include insomnia, restlessness, irritability and a sense of being unusually energised or perplexed, and these may be mistaken for the normal sleep disruption of new motherhood (Heron et al., 2008). The florid phase may include elevated or depressed mood, delusions, hallucinations, confusion, disorientation and rapidly shifting presentation. Delusions concerning the baby, for example that the infant is defective, possessed or in danger, are clinically important because of their link to risk to the child (Spinelli, 2009).

4.2 Epidemiology

A systematic review of 33 studies, drawing on data from many countries but with few from sub-Saharan Africa, estimated the incidence at between 0.89 and 2.6 per 1,000 births (VanderKruik et al., 2017). Risk is dramatically higher in women with a history of bipolar disorder or earlier PP. Family studies and clinical cohorts suggest that a woman with bipolar disorder faces a substantial risk of puerperal relapse, and that recurrence after a previous PP episode was historically cited at approximately one in two subsequent deliveries (Jones & Craddock, 2001; Jones et al., 2014). More recent meta-analytic work gives lower and more variable estimates that depend on case definition and on whether prophylaxis is used (Wesseloo et al., 2016; Blackmore et al., 2013). Evidence from Nigeria and other African countries is largely hospital-based and historical, and reported frequencies are therefore difficult to compare (Kumar,

1994; Ndosi & Mtawali, 2002). Under-reporting is likely: women with PP in the community may be taken to prayer houses, traditional healers or relatives' homes rather than to a clinic (Adeponle et al., 2017). Facility statistics should therefore be read as a floor rather than an estimate of the true burden.

4.3 Risk factors

The strongest established predictors are a personal or family history of bipolar disorder or PP (Jones & Craddock, 2001; Jones et al., 2014). Primiparity is repeatedly reported as a risk marker, and obstetric factors, hormonal shifts after delivery, immune dysregulation and acute sleep loss have all been proposed as contributors, although no single mechanism is established (Bergink et al., 2016; Sit et al., 2006). Psychosocial adversity, including bereavement, conflict, and low support, is more strongly established for non-psychotic perinatal disorders (Howard et al., 2014; Fisher et al., 2012), and its direct contribution to PP is less certain. In Nigeria, additional vulnerabilities may include poverty, marital conflict and intimate partner violence, pressure related to the sex of the infant, and traumatic or complicated births (Mapayi et al., 2013; Adewuya et al., 2005). These should be understood as contextual risk markers for perinatal distress generally, not as proven causes of PP.

4.4 Differential diagnosis: a nursing priority in the Nigerian setting

Acute confusion or psychosis in the days after delivery is not always primary psychiatric illness. In settings with a high burden of infection and hypertensive disease, organic causes such as puerperal sepsis, eclampsia and its sequelae, severe anaemia, cerebral malaria, electrolyte disturbance, substance use and HIV-related conditions must be excluded or treated alongside psychiatric care (Bergink et al., 2016; Spinelli, 2009). Failure to do so risks both missed medical emergencies and mislabelling of a physical illness as mental illness. Nurses have a key role in vital-sign monitoring, early escalation and accurate documentation that allows the medical team to differentiate causes quickly.

4.5 Risks, treatment and prognosis

Untreated PP is associated with serious risk. Clinical reviews cite figures of approximately 5% for suicide and 4% for infanticide among affected women,

although these estimates come from older and selected samples and should be interpreted cautiously (Spinelli, 2009; Brockington, 2017). Admission to hospital, ideally to a unit able to keep mother and baby together, is the standard of care, with treatment comprising mood stabilisers such as lithium, antipsychotic drugs, benzodiazepines for short-term control, and in some cases electroconvulsive therapy (Bergink et al., 2015; National Institute for Health and Care Excellence [NICE], 2014). Prospective treatment data show high rates of remission, and many women make a full recovery (Bergink et al., 2015). However, relapse in later pregnancies and the development of recurrent mood disorder are common enough that long-term follow-up is warranted (Blackmore et al., 2013; Wesseloo et al., 2016). Recovery is not only symptomatic. Women describe long periods of confusion, shame and grief for the early weeks with their baby, and a need for information and support that is often unmet (Robertson & Lyons, 2003; Heron et al., 2012).

5. Postpartum Psychosis and Mother–Infant Bonding

5.1 Why bonding is at risk

Mother–infant bonding is built through repeated, reciprocal interactions in which the mother reads, responds to and soothes the infant, and the infant's cues in turn reinforce her sense of competence and connection (Feldman, 2007; Tronick, 1989). Severe maternal mental illness can disturb this process through several routes. During the acute phase, delusions or hallucinations may involve the baby, mood may be elevated or profoundly low, and thought and behaviour may be disorganised, making sensitive caregiving impossible. Hospitalisation, where it occurs, frequently separates the mother from the infant for days or weeks. Treatments such as sedating medication may reduce alertness, and decisions about breastfeeding may be complicated by pharmacological considerations (Bergink et al., 2015; NICE, 2014). The evidence that maternal depression compromises early interaction is strong. Infants of depressed mothers show less engaged interaction, and the effects on later infant outcomes are greatest where adversity is also present (Murray et al., 1996). Longitudinal work shows that postnatal depressive symptoms are associated with long-term impairment of mother–child bonding (Moehler et al., 2006). A review of bonding correlates confirms that maternal depression and anxiety are among the most consistent predictors of poorer bonding quality (Tichelman et al., 2019). In Nigeria, postnatal

depression has been associated with poorer infant growth, which suggests that disrupted maternal care has measurable consequences in this setting (Adewuya et al., 2008; Oyetunji & Chandra, 2020). Evidence that is specific to PP is more limited, but points in the same direction. A prospective study of women with severe psychopathology, including affective psychosis, found that infant–mother attachment security was less likely in the presence of severe maternal illness, with the quality of early mother–infant interaction contributing to the outcome (Hipwell et al., 2000). Studies of women discharged from mother and baby units, a population in which psychotic illness is common, show that the parenting outcome depends not only on diagnosis but also on factors such as illness severity at discharge, partner relationship and social circumstances (Howard et al., 2004). Taken together, these findings support the proposition (P1) that PP creates risk to bonding, while also indicating that the risk is not deterministic.

5.2 The lived experience of bonding after psychosis

Qualitative research with women recovering from puerperal psychosis offers insight that quantitative studies cannot. In an interpretative analysis of women's accounts, Robertson and Lyons (2003) described a process in which the illness was experienced as a loss of time and of the early mothering experience, followed by feelings of guilt, grief and fear about being judged an unfit mother, and then a gradual effort to rebuild confidence and reclaim the maternal role. A later study of recovery needs found that women wanted clear explanations of what had happened, information about the likelihood of recurrence, and help to reconnect with their babies, and that these needs were often unmet (Heron et al., 2012). Such accounts suggest that bonding after PP is better understood as a process of repair than as a fixed outcome, which is a hopeful message for nursing. It also implies that a woman's own interpretation of the illness, including culturally shaped interpretations, will affect how she approaches the baby on her return.

5.3 Bonding in the Nigerian cultural context

A bonding disturbance in Southeastern Nigeria cannot be separated from the meaning of motherhood in the community. Motherhood is a valued social status, and a woman's standing in her marital family often depends on her fertility and her ability to

nurture children, including the birth of sons in some households. In such a setting, a mother who is unable to care for her newborn because of psychosis may be judged harshly, and her illness may be explained through spiritual, moral or hereditary frameworks that attach blame to her or to her family (Adeponle et al., 2017; Kumar, 1994). These interpretations can lead relatives to remove the infant from the mother's care, which may protect the child in the acute phase but may also prolong separation if no plan is made for graduated return. Alternatively, an infant may be left in the sole care of a mother who is unwell if relatives fail to recognise the danger. Neither pattern has been systematically documented for PP in the zone, so the account presented here is an informed hypothesis drawn from perinatal mental health research in Nigeria and from cultural psychiatry, and it is a priority for empirical testing.

5.4 Is impaired bonding inevitable?

The evidence does not support pessimism. Most women with PP recover, and many go on to care well for their infants, particularly when treatment is rapid and the family is engaged (Bergink et al., 2015; Howard et al., 2004; Robertson & Lyons, 2003). The key practical conclusion is that bonding should be actively assessed and supported as part of PP care, rather than assumed to have resolved when the psychiatric symptoms have settled. Measurement tools such as the Postpartum Bonding Questionnaire can be used to structure conversation, but their cut-offs were developed in other populations and should be used cautiously and alongside clinical judgement in Nigerian settings (Brockington et al., 2006).

6. Social Support as a Protective and Complicating Factor

6.1 Evidence on support and perinatal mental health

Low social support is among the most consistently reported correlates of perinatal mental disorders in low- and middle-income countries. A systematic review of 34 studies across such settings found that perinatal common mental disorders were associated with, among other factors, a lack of partner support, marital conflict, intimate partner violence and poor relationships with in-laws (Fisher et al., 2012). A later review similarly identified low support, adverse life events and poverty as risk factors for maternal depression and noted adverse child outcomes (Gelaye et al., 2016). Studies within Nigeria and in neighbouring African countries support these

patterns: women with poor partner relationships and low support were more likely to report postpartum depressive symptoms (Adewuya et al., 2005; Kakyo et al., 2012). Violence by an intimate partner is also associated with higher levels of anxiety and depression among Nigerian women (Mapayi et al., 2013). The evidence for PP specifically is much thinner, because the condition is rare and studies seldom have the numbers to model psychosocial predictors. Biological vulnerability appears to be the dominant driver of onset (Jones & Craddock, 2001; Bergink et al., 2016). Social support is more plausibly relevant to the course of illness: how quickly the family recognises symptoms, whether the mother obtains treatment, how her recovery proceeds, and whether she can return to caregiving. Women recovering from puerperal psychosis in qualitative studies consistently identify family, and particularly the partner, as central to their recovery, and conversely identify a lack of understanding by others as a source of distress (Robertson & Lyons, 2003; Heron et al., 2012). This is a central point of the model proposed in this review (P2), and it is a plausible mechanism rather than a demonstrated effect.

6.2 Sources of support in Southeastern Nigeria

Support for a new mother in the zone typically has several layers.

- **The partner:** a husband's emotional and practical engagement, and his willingness to seek help, is central; partner conflict and violence are recognised risk factors for poor mental health (Mapayi et al., 2013).
- **Female kin:** the mother, mother-in-law or sisters often move into the home to assist with the baby and household in the early weeks, a practice that provides instrumental support and a sense of continuity of care.
- **Wider kin and community:** extended family, women's associations and age-grade networks can mobilise money, food and attention.
- **Faith communities:** churches and prayer groups are widely used sources of emotional comfort and, in many cases, the first point of contact when a person behaves in an unusual way.
- **Formal services:** nurses, midwives and community health workers provide clinical support but are often the least continuous source of contact after discharge.

The quality of these layers varies greatly. Urban migration, financial strain and changing household patterns may mean that the traditional kin network is thinner than assumed, and women who are unmarried, widowed, displaced, or in conflict with in-laws may have little support at all. The assumption that the extended family will always be available should therefore be checked and not simply presumed.

6.3 When support becomes a barrier

Social support is not uniformly beneficial. Qualitative research on perinatal depression in Nigeria shows that women, family caregivers and providers often attribute emotional distress to spiritual causes, to financial hardship or to character, and that family members may discourage women from voicing distress for fear of shame (Adeponle et al., 2017). In the case of PP, in which behaviour may appear frightening, such interpretations may lead families to seek help first from religious or traditional healers. This is understandable and, where the family brings the woman to prayer or to a healer as a source of comfort, it may be harmless; it becomes harmful when it delays assessment and treatment for a condition that is rapidly dangerous. Evidence from Nigeria shows that formal mental health services are used by only a small proportion of people with disorders, and that lack of recognition and stigma are among the barriers (Gureje & Lasebikan, 2006; Abdulmalik et al., 2016). Nurses must therefore work with, and not against, existing support systems, engaging faith leaders and family elders as partners in early referral.

6.4 Supportive interventions with promise

Several interventions in comparable settings suggest feasible ways of strengthening support. Peer support, a form of emotional, informational and appraisal support from someone with shared experience, has a well-developed conceptual basis in health care (Dennis, 2003). Community health worker delivered psychological interventions have been tested in Pakistan with improved maternal depression and infant outcomes (Rahman et al., 2008), and in Zimbabwe, where trained lay health workers delivered problem-solving therapy in primary care (Chibanda et al., 2016). Although these trials addressed depression and common mental disorders and not psychosis, they show that task-sharing with lay and nursing cadres can be effective and acceptable in low-

resource settings and may be adapted for family psychoeducation and relapse prevention after PP.

7. Maternal Functioning as a Mediating Pathway

7.1 Concept and measurement

Maternal functioning refers to the mother's capacity to carry out the tasks and roles expected of her after birth, including self-care, infant care, household management, social activity and the parenting relationship. It differs from symptom severity, because a woman may have few residual symptoms but still be unable to cope with daily demands, or may function relatively well despite continuing symptoms. Instruments such as the Barkin Index of Maternal Functioning were developed to capture this domain in the postpartum period (Barkin et al., 2010). The concept is attractive for nursing because it links directly to the observable tasks with which nurses help, and because it provides a practical target for rehabilitation.

7.2 Functioning after psychosis

During the acute phase of PP, functioning is typically severely impaired, and the woman may need complete supervision. As symptoms resolve, a period of depressive, anxious and fatigued symptoms is common, and many women experience a slower return of functioning than of mental state (Bergink et al., 2016; Robertson & Lyons, 2003). Practical barriers are significant: sleep deprivation, side-effects of treatment, loss of confidence and the shame attached to the illness all reduce a woman's willingness and ability to resume infant care. Mercer's theory suggests that role attainment depends on opportunities for the mother to practise the role in a supported way (Mercer, 2004; Mercer & Walker, 2006); where relatives take over entirely, or the infant is cared for by someone else for a long period, those opportunities are lost.

7.3 Functioning, bonding and the mediation argument

There are conceptual and empirical reasons to regard functioning as a mediator between illness and bonding (P3). Responsiveness and sensitivity, key components of the interaction through which bonding develops, require a certain level of cognitive organisation, emotional regulation and energy (Feldman, 2007; Murray et al., 1996). Women with greater impairment of daily functioning are likely to engage less in

infant care and to feel less competent, which in turn may reduce the pleasure and reinforcement derived from the relationship. In a study of women discharged from mother and baby units, good functioning at discharge and supportive social circumstances were associated with better parenting outcomes (Howard et al., 2004). This is consistent with the mediation argument but does not prove it, because few studies have tested functioning formally as a mediator after psychosis.

Functioning is also the most natural meeting point between maternal capacity and social support. Where a mother's functioning is impaired, support is needed to maintain infant care, and where support is available, functioning may recover faster because the demands on the mother are scaled to her capacity. The challenge, and it is a nursing challenge, is to ensure that support helps the mother to resume her role in graduated steps instead of replacing her completely.

8. Postnatal Care in Southeastern Nigeria: Opportunities and Gaps

8.1 What good postnatal care should include

The WHO recommends that healthy mothers and newborns remain in the facility for at least 24 hours after birth, and that they receive at least three further postnatal contacts, at 48 to 72 hours, 7 to 14 days and six weeks after birth, with assessment of the mother's psychological wellbeing and of family and social support as part of routine care (WHO, 2022a). Clinical guidance in high-income settings additionally calls for risk assessment of women with a history of bipolar disorder or PP, a written plan for the late pregnancy and postnatal period, and rapid access to specialist services and to mother and baby units where admission is necessary (NICE, 2014; Glangeaud-Freudenthal et al., 2014). The WHO's mental health gap programme similarly supports the recognition and initial management of psychosis by trained non-specialist health workers, with referral for specialist care (WHO, 2016).

8.2 The current situation

National survey data show that a substantial proportion of Nigerian women do not receive a postnatal check in the first days after birth, even though skilled birth attendance varies by region and is generally higher in the South East than in the northern zones (NPC & ICF, 2019). Where postnatal contact does occur, it is typically

concentrated in the facility stay and in the routine immunisation visits for the infant, and the maternal component focuses on bleeding, wound healing, blood pressure, breastfeeding and family planning. The structure of routine care therefore does not systematically include a mental health review, and the contact most likely to occur beyond the first days is the infant's immunisation or weighing visit, which can easily bypass the mother's own condition.

Mental health services in the zone are concentrated in a limited number of tertiary and neuropsychiatric facilities, and mental health is often delivered separately from maternity care (Abdulmalik et al., 2016). To the extent that the available literature shows, there are no dedicated mother and baby units in Nigeria, which means that a woman admitted with PP is usually admitted to a general psychiatric ward, where her infant cannot be accommodated, leading to separation or to the infant staying with a relative. These are structural observations drawn from national-level analyses, and they should be verified through facility audits in each state before they are used for local planning.

8.3 Screening and recognition

The most widely used perinatal screening tool, the Edinburgh Postnatal Depression Scale, was designed to detect depression and not psychosis (Cox et al., 1987). It may identify a woman who is distressed, but it will not reliably identify the early signs of an affective psychosis, such as marked insomnia, perplexity, rapid mood change or unusual beliefs about the baby (Heron et al., 2008). For nurses, therefore, recognition rests on clinical observation, a structured question about sleep and mood, and information from relatives. Because PP typically presents within days, the opportunity to detect it is concentrated in the facility stay, the first home or clinic contact, and informal contact with community health workers. In the Nigerian context, in which many women return home within 24 hours of an uncomplicated birth, the family is frequently the first to witness the earliest signs, which is why family education before discharge is of such importance.

8.4 Care pathways and the role of nurses

In the Nigerian health system, nurses and midwives are the largest group of health professionals in maternity services and in primary health care, and they carry out most

antenatal and postnatal contacts. They are therefore the logical agents of early detection and first response. Task-sharing models show that trained non-specialist providers can deliver effective psychological care for perinatal mental disorders in low-resource settings (Rahman et al., 2008; Chibanda et al., 2016). The barrier is not lack of capacity in principle but lack of training, protocols, supervision and referral routes. Strengthening these elements is consistent with the direction of national mental health policy and with WHO guidance (Abdulmalik et al., 2016; WHO, 2022b).

9. Integrative Synthesis

The four constructs examined above are summarised in Table 1, which shows the strength and source of the evidence for each element of the conceptual model and the principal gaps relating to Southeastern Nigeria.

Table 1. Synthesis of evidence on the constructs in the conceptual model

Construct and proposition	Principal evidence	Evidence tier	Main gap in Southeastern Nigeria
PP disrupts caregiving and bonding (P1)	Interaction and attachment studies after severe maternal illness; qualitative accounts of recovery (Hipwell et al., 2000; Robertson & Lyons, 2003; Howard et al., 2004)	Mostly indirect (c); small direct (a)	No bonding data after PP from the zone
Social support buffers course and bonding (P2)	Perinatal mental disorder reviews and qualitative PP studies (Fisher et al., 2012; Gelaye et al., 2016; Heron et al., 2012)	Indirect (c); Nigerian depression studies (b)	Support not measured in relation to PP; stigma and help-seeking pathways undocumented

Construct and proposition	Principal evidence	Evidence tier	Main gap in Southeastern Nigeria
Maternal functioning mediates (P3)	Mother and baby unit follow-up; theory (Howard et al., 2004; Mercer, 2004)	Indirect (c)	Mediation not formally tested; local tools not validated
Postnatal care shapes detection and recovery (P4)	WHO and NICE guidance; national survey data (WHO, 2022a; NICE, 2014; NPC & ICF, 2019)	Guidance (a, c); national data (b)	No audit of mental health content of postnatal care in the zone
Culture and stigma moderate pathways (P5)	Qualitative work on perinatal depression and help-seeking in Nigeria (Adeponle et al., 2017; Gureje & Lasebikan, 2006)	Nigerian (b)	PP-specific beliefs and practices not studied

Two cross-cutting conclusions emerge. The first is that the overall pattern of evidence is coherent: biological and psychiatric vulnerability are strongly associated with onset, while social, functional and service factors may influence illness course and caregiving recovery and what it leaves behind for the mother–infant relationship. The second is that the evidence specific to the zone is thin, and that the proposed model is therefore a framework for practice and for research, and should not be treated as a validated causal account.

10. Implications for Nursing Practice

The synthesis points to a set of nursing responsibilities that span the perinatal pathway. Table 2 sets these out by phase. The actions are drawn from the guidance and evidence cited and adapted to the resource context; they should be fitted to local protocols, to the scope of practice of each cadre, and to the instructions of the treating medical team.

Table 2. Phase-based nursing action framework

Phase	Priority nursing actions
Antenatal	Ask about past psychiatric history, bipolar disorder and previous postpartum illness at booking; flag high-risk women; involve the partner or a trusted relative in a written plan; discuss warning signs, sleep protection and where to go in an emergency; liaise with the psychiatric team about medication and relapse prevention (Jones et al., 2014; NICE, 2014; Wesseloo et al., 2016)
Early postnatal (0–14 days)	Observe for insomnia, agitation, elevated or labile mood, confusion and unusual beliefs about the baby; ask about sleep at every contact; check vital signs and exclude sepsis, hypertensive and other medical causes; teach relatives to report changes the same day (Heron et al., 2008; Bergink et al., 2016)
Acute episode	Escalate urgently; ensure continuous supervision of the mother and safe, supervised arrangements for the baby; avoid leaving mother and infant alone; support admission and treatment; assess risk of suicide and harm to the infant and document; explain what is happening to the family without blame (Spinelli, 2009; Brockington, 2017; Bergink et al., 2015)
Recovery (weeks to months)	Support graduated, supervised return to infant care; encourage contact and feeding where clinically safe; assess functioning and bonding using brief structured questions or validated tools; provide information about the illness and recurrence; address guilt and shame (Robertson & Lyons, 2003; Heron et al., 2012; Barkin et al., 2010)
Long term	Plan follow-up and relapse prevention for later pregnancies; support continued treatment adherence; link the woman to peer, church or community support where acceptable; monitor mood disorder and parenting (Blackmore et al., 2013; Wesseloo et al., 2016; Dennis, 2003)

10.1 Communication and cultural safety

Nurses should explain PP as a medical condition that can be treated, that is not caused by the woman's moral failing, spiritual weakness or neglect, and that usually resolves with care. This message is important for the woman and for relatives who may be anxious about blame. Because faith leaders and traditional healers are frequently the first contacts, structured collaboration with them, such as offering information on warning signs and agreed referral routes, may shorten the time to treatment (Adeponle et al., 2017; Abdulmalik et al., 2016). Respect for the beliefs of the family, joined with firm clinical advice about danger signs, is likely to be more effective than confrontation.

10.2 Protecting the bond

Where safe, nurses should preserve contact between mother and infant rather than treat separation as a default. Graduated and supervised contact, involvement of the mother in simple care tasks as soon as she is able, and encouragement of her family to avoid taking over entirely help to rebuild her confidence and role (Mercer, 2004; Mercer & Walker, 2006). Safety, however, takes precedence. Where there are delusions involving the infant or the mother is acutely disorganised, contact should be supervised or suspended according to a documented risk assessment, with a plan for resumption. Decisions on breastfeeding require medical advice because of medication, and nurses should support the mother's choice while ensuring that the prescriber's guidance is followed (NICE, 2014).

10.3 Strengthening support and functioning

Before discharge, nurses can work with the family to identify who will help, in what tasks, and for how long, and can teach relatives how to scale support to the mother's capacity. Brief psychoeducation sessions for the partner and for the senior female relative who will stay with the mother should cover warning signs of relapse, the importance of sleep, the need to continue medication and how to reach the clinic. Peer support and community health worker follow-up, adapted from the models cited above, offer scalable ways to continue support after discharge (Dennis, 2003; Rahman et al., 2008; Chibanda et al., 2016).

10.4 Education, organisation and policy

At the system level, nursing and midwifery curricula and in-service programmes should include perinatal mental health, including PP recognition and response. Maternity units can adopt simple protocols that specify the questions to ask, the signs to escalate, the person to call and the pathway to the nearest psychiatric service. Local referral agreements between maternity services and psychiatric services, and, in the longer term, development of mother and baby provision at a regional level, would reduce enforced separation. These steps align with the opening created by national mental health legislation and with global guidance on integrating mental health into primary and maternal care (WHO, 2016; WHO, 2022b).

11. Research Agenda and Limitations

11.1 Priorities for research

Several questions follow from the gaps identified:

1. What is the incidence, presentation and treatment pathway of PP in tertiary and community settings in the zone, including the proportion first taken to non-clinical healers?
2. How do mothers, partners and relatives interpret PP and what influences the timing of help-seeking?
3. What is the trajectory of bonding, maternal functioning and infant outcomes after PP, measured with tools that are culturally adapted and validated?
4. Does maternal functioning mediate the relationship between PP and bonding, and does perceived social support moderate it?
5. Can a nurse-led package of early detection, family psychoeducation and graduated infant contact improve outcomes, and is it feasible and cost-effective in routine facilities?

Appropriate designs include multi-site facility-based surveillance, prospective cohort studies of women at high risk, mixed-methods studies combining validated measures

with interviews, and pragmatic implementation trials. Because PP is rare, collaboration across facilities and states is needed to achieve adequate numbers.

11.2 Limitations of this review

The review has limitations that readers should keep in mind. It is a narrative integrative review and not a systematic review, so retrieval may be incomplete and selection subject to bias. Much of the evidence comes from high-income countries and from perinatal depression, and its transferability to Southeastern Nigeria is assumed with caution and not demonstrated. Several statements about the local health system and cultural practice rest on national surveys and on cultural psychiatry research and need to be verified by local study. The conceptual model is a synthesis of the literature and has not been empirically tested. Estimates of risk, such as those for suicide, infanticide and recurrence, are drawn from selected clinical samples and may not apply to community populations.

12. Conclusion

Postpartum psychosis is uncommon but has consequences for the safety of the mother and infant and for the relationship between them. The evidence reviewed suggests that bonding after PP is vulnerable but recoverable, that recovery may be facilitated by the mother's regained functioning and on the quality of the support surrounding her, and that postnatal care determines whether illness is recognised quickly and whether support and function are rebuilt systematically. In Southeastern Nigeria, where family and community structures are strong but stigma, service fragmentation and limited screening constrain care, nurses and midwives occupy a pivotal position. They can recognise early warning signs, exclude medical causes, keep mother and baby safe, mobilise and educate families, work with faith and community leaders, and protect and rebuild the bond between mother and child. Realising this potential requires training, protocols and referral pathways, together with locally grounded research that tests the model proposed here and measures what matters to women and their families.

13. Critical Appraisal, Evidence Boundaries and Implementation Priorities

The reviewed literature supports a strong clinical consensus that postpartum psychosis is an emergency requiring urgent specialist assessment and coordinated mother–infant safety planning. By contrast, the proposed pathways from psychosis to bonding through maternal functioning and social support remain largely inferential. Studies of

postpartum depression, general severe mental illness, and mother-and-baby unit populations cannot establish the magnitude or direction of postpartum-psychosis-specific effects. Accordingly, P1–P5 should be treated as research propositions rather than tested findings.

The key methodological limitation is that the original review does not report dated, database-specific search strings, the number of records retrieved and excluded, independent screening, extraction procedures, or formal study-level quality ratings. These details cannot be reconstructed reliably after the fact. This manuscript therefore remains a transparent, non-systematic integrative review; it must not be described as a systematic review or PRISMA-compliant evidence synthesis without a fresh documented search and appraisal.

A future rigorous update should prospectively search MEDLINE, Embase, CINAHL, PsycINFO, Scopus and African Journals Online; specify dates and inclusion criteria; duplicate-screen studies; appraise qualitative studies with CASP or JBI instruments and quantitative observational studies with appropriate JBI checklists; and maintain an auditable extraction matrix. Studies should be grouped as direct postpartum psychosis evidence, indirect perinatal mental health evidence, and health-system guidance, with design limitations and transferability considered separately.

Implementation should begin with a state-level mapping of emergency referral capacity, psychiatric–obstetric liaison arrangements and available mother–baby accommodation. Pilot evaluation could track recognition-to-referral time, documented infant-safety plans, follow-up attendance, maternal functioning, culturally adapted bonding outcomes and caregiver-reported experience. These are proposed evaluation indicators, not measured outcomes of the present review.

14. Contemporary Evidence Update (2023–2026)

Recent reviews reinforce the need for dyadic, family-centred assessment. Friedman, Reed and Ross (2023) emphasise the distinctive clinical profile of postpartum psychosis and the importance of including the infant and family in assessment. Jairaj et al. (2024) present a treatment algorithm prioritising urgent inpatient care and evidence-informed pharmacological treatment; this is a specialist management pathway, not a justification for independent prescribing by nurses. The World Health

Organization (2022) provides a framework for integrating perinatal mental healthcare into maternal and child health services, including training, supervision and culturally appropriate referral. A 2026 systematic review of the experiences of women and families (Sanadi et al., 2026) highlights the centrality of the baby, family support, caregiving burden and future pregnancy planning. These publications strengthen the clinical and implementation rationale, but do not validate the proposed mediation or moderation relationships in Southeastern Nigeria.

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