

Paternal Mental Health in the Perinatal and Postnatal Period: A Scoping Review

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Abstract

Background. Fatherhood lifestyle changes may contribute to stress and depression. Previous studies have highlighted risk factors for poor paternal mental health, including lack of social support, unemployment, and substance use. This review aimed to synthesize current evidence on paternal mental health during the perinatal and postnatal periods.

Methods. A five-stage scoping review framework based on Arksey and O'Malley was used to map current evidence on paternal mental health during the perinatal and postnatal periods, focusing on the prevalence of paternal stress and depression, risk factors, psychosocial impacts, and assessment tools. Articles published between 2015 and 2024 were retrieved from PubMed, Scopus, and Google Scholar. Data were extracted using a standardized charting form and analysed using narrative synthesis.

Results. A total of 1,142 articles were retrieved, and 11 were included in the final analysis. Studies represented Nigeria, Ethiopia, Finland, the United Kingdom, Australia, and China. Reported prevalence of paternal postpartum depression ranged from 2.5 to 54 percent. Common risk factors included unemployment, low income, lack of social support, and substance use. Psychosocial impacts included father-infant bonding difficulties, marital conflict, social isolation, and reduced quality of life.

Conclusion. Early intervention and culturally sensitive mental health support may help address these challenges.

Keywords: paternal mental health; postpartum depression; perinatal period; postnatal period; fatherhood; psychosocial risk factors; scoping review; father-infant bonding

Introduction

The perinatal period refers to the prenatal and early postnatal stages, representing a critical transition not only for mothers but also for fathers, whose mental well-being has often been overlooked in research and clinical practice [1]. Fatherhood, even when planned and desired, introduces significant lifestyle changes that can increase stress, anxiety, and the risk of depression in men [1]. A landmark meta-analysis of 43 studies involving over 28,000 fathers reported a pooled prevalence of paternal prenatal and postpartum depression of approximately 10.4% [2]. Fatherhood brings significant emotional and psychological demands, yet men remain far less likely than women to seek help for mental health difficulties during the postpartum period. This culture of silence contributes to paternal PPD going unrecognized

and untreated, increasing its prevalence and severity among new fathers [3].

Maternal mental health has received more attention because it's directly linked to pregnancy and childbirth, and women are often seen as the main caregivers. In contrast, paternal mental health has been less studied, despite its impact on family well-being. A longitudinal cohort study suggests that around 7% of fathers exhibited high stress (above the 90th percentile) during the perinatal period, rising to 10% by two years postpartum [1]. These rates are concerning given their link to adverse childhood outcomes, including increased emotional and behavioral difficulties [4].

For instance, a prospective longitudinal cohort study reported a postpartum depression (PPD) rate of 8.9%,

compared to 17.8% for maternal depression. Unemployment was identified as a key contributor to paternal PPD. The study emphasized the need for targeted postnatal mental health services for fathers, especially those who are unemployed [5]. Similarly, a pooled analysis from Ethiopia reported a 20.86% prevalence of paternal PPD, with risk factors including low income, substance use, and lack of social support [6]. This study recommended routine screening and support programs to mitigate these issues.

Despite growing awareness, paternal mental health is still not widely prioritized in global mental health agendas [7]. Organizations such as the World Health Organization (WHO) and the Global Alliance for Maternal Mental Health have only recently begun to acknowledge the need for inclusive mental health strategies that extend beyond maternal care [7,8]. Addressing paternal mental health is critical not only for the well-being of fathers but also for the stability of the family unit and the healthy development of children [9].

However, it remains unclear what kind of information is available in the literature regarding the psychosocial outcomes of fathers, the challenges they encounter in maintaining their mental well-being during the perinatal and postnatal periods, and associated risk-factors for mental health conditions. Given the increasing recognition of paternal mental health as a critical yet underexplored issue, this study reviews the current evidence on paternal mental health during the perinatal and postnatal periods, with a focus on the prevalence of paternal stress and depression, associated risk factors, psychosocial impacts and current approaches for the assessment of these conditions (5). The review will help guide future longitudinal and intervention-based studies and inform supportive strategies for addressing paternal mental health needs [1, 4].

Methods

This study followed the five-stage scoping review framework developed by Arksey and O'Malley (2006), which provides a structured approach to mapping key concepts, types of evidence, and gaps in research [10]. The framework was chosen to explore the breadth and depth of existing literature on paternal mental health during the perinatal and postnatal periods, an area that remains underexamined in both research and practice [11]. A scoping review was considered the most appropriate method, as it allows for the inclusion of heterogeneous evidence and provides a comprehensive overview of current knowledge, while also identifying conceptual and methodological gaps in the literature [12]. According to Arksey and O'Malley's (2006), this scoping

review followed five stages namely: identifying the research question; identifying relevant studies; study selection; charting the data and results presentation [10].

Stage 1: Identify the research question

Through the initial exploration of literature on characteristics of paternal mental health, the key objective of this scoping review is to map the available evidence on paternal mental health issues in the context of perinatal and postnatal phases. This review was guided by the following questions: 'What is the current prevalence of paternal stress and depression during the perinatal and postnatal periods?', 'What are the risk factors for paternal stress and depression', 'What are the psychosocial impacts of paternal stress and depression' and 'What are the current approaches for the assessment of these conditions?'

Stage 2: Identify the relevant studies

Search Strategy

A comprehensive search was performed to identify studies about paternal mental health during perinatal and postnatal periods [12]. This review followed Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines for scoping reviews [13]. The following Boolean search string was used: ("paternal depression" OR "father mental health" OR "paternal anxiety") AND ("perinatal period" OR "postnatal period" OR "fatherhood transition"). The search strategy primarily focused on peer-reviewed articles published in English between January 2015 and December 2024 and retrieved from three main databases: PubMed, Scopus, and Google Scholar. These databases were selected for their broad and multidisciplinary coverage of biomedical and psychological literature relevant to paternal mental health. The year 2015 was selected to ensure inclusion of the most current research and to reflect recent developments in clinical and policy discussions on paternal mental health. Grey literature and non-peer-reviewed sources were excluded to maintain the quality of included evidence. However, the absence of certain keywords in the search strategy, such as "paternal stress," "risk factors," "stress," "depression," "psychosocial," "screening," and "assessment," may have led to the exclusion of some relevant studies.

Stage 3: Literature selection

Inclusion and Exclusion Criteria

Studies focused on paternal mental health during the

perinatal or postnatal period, published in peer-reviewed journals and written in English were included. Literature concentrating exclusively on children and maternal mental health, non-English publications, and grey literature such as reports, theses, or non-peer-reviewed sources were excluded from the search.

Stage 4: Charting the data

Data Extraction and Synthesis

To ensure consistency and accuracy, a structured data extraction process was implemented in synthesizing findings from the eleven included studies. An excel template for data extraction was used to record details on authors & publication year, sample size, study design, study tools, and key findings related to paternal mental health. These findings included the prevalence of paternal stress and depression, risk factors, and approaches for mental health assessment.

Data Analysis

Data analysis involved textual narrative synthesis, where quantitative data, such as prevalence proportions, were tabulated to support cross-study comparison, and qualitative findings were categorized into themes such as risk factors,

assessment tools, psychological impacts, and intervention strategies.

Results

Stage 5: Findings

Characteristics of Included Studies

The initial database search yielded 1,142 articles. After initial and full-text screening, 162 studies were duplicates, 750 studies were irrelevant to the topic, 149 studies did not report data relevant to this review, while 70 papers were excluded as they were grey literature, lacked primary or empirical data, or had inadequate methodological details. After these were excluded, 11 articles were selected for inclusion (Figure 1) [1, 4-6, 9, 11, 14-18]. The selected studies encompassed diverse study designs including longitudinal cohort studies, systematic reviews and meta-analyses, mixed-method studies and cross-sectional studies. Sample sizes ranged widely, from as few as 38 participants in matched-design studies to as many as 29,286 participants in meta-analyses. The geographic coverage of these studies included Nigeria, Ethiopia, Finland, the United Kingdom, Australia, and China.

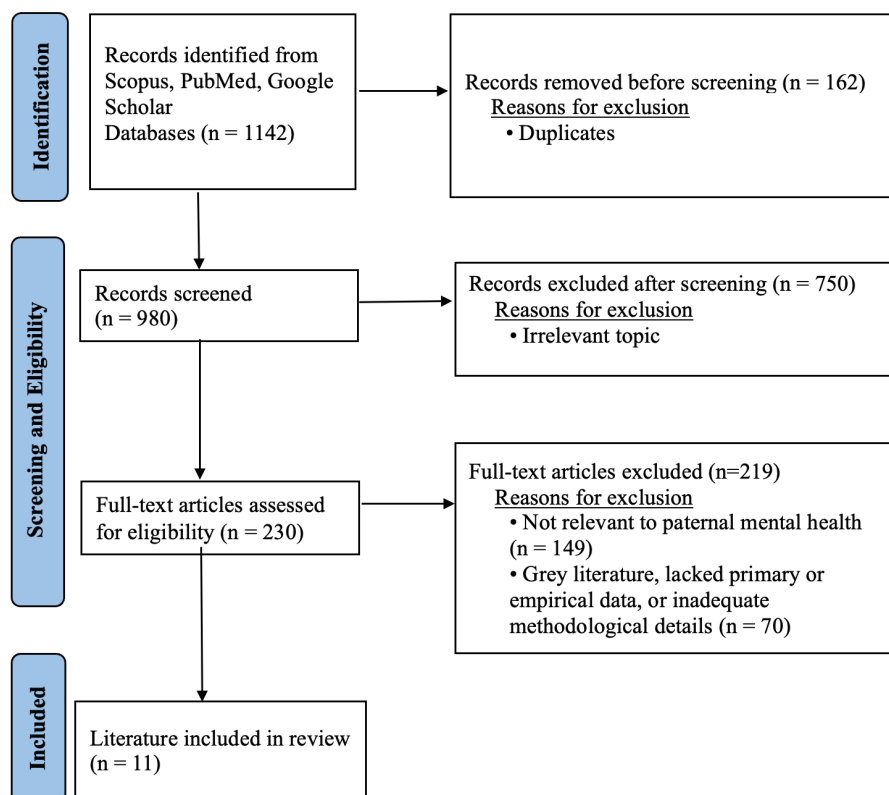


Figure 1. PRISMA flow diagram for scoping review

Narrative Synthesis

Prevalence of Paternal Stress and Depression

Prevalence proportions for stress and depression identified across the reviewed studies varied significantly, ranging from approximately 2.5% to 54%. The prevalence of paternal postpartum depression was notably high in Ethiopia at 20.86%, while studies from Nigeria reported a lower rate of approximately 8.9%, underscoring considerable geographic variation.

Risk Factors for Stress and Depression

Several psychosocial and economic risk factors for paternal PPD were identified by a number of studies including unemployment, lower family income, substance use habits, and low social support [5, 6]. Of these, unemployment emerged as a particularly strong predictor of paternal postpartum depression in multiple studies [5, 9]. Economic hardship, such as lower family income, also featured prominently as a determinant influencing the mental health of fathers during these critical periods [14, 15].

Psychosocial Impacts of Paternal Mental Health

Included studies revealed a consistent association between paternal PPD and overall family well-being [13, 14]. Nine studies demonstrated a negative impact of paternal PPD on family dynamics, particularly in areas such as family stability and interpersonal relationships [2, 5, 6, 9, 12, 13, 14, 16, 17]. Additionally, two studies observed the role of paternal stress on children's emotional and behavioral development reporting a link between the psychosocial distress of fathers and behavioral problems in children [1, 17].

Assessment Tools or Approaches for Paternal Mental Health Conditions

Different assessment tools and approaches were employed in the assessment of, paternal mental health. Common measures included the Edinburgh Postnatal Depression Scale (EPDS), Beck Depression Inventory (BDI-II), and structured clinical interviews such as the Structured Clinical Interview for DSM-IV (SCID) [4, 9, 13]. Different studies used various assessment tools to measure paternal mental health. Common measures included the Edinburgh Postnatal Depression Scale (EPDS), Beck Depression Inventory (BDI-II), and structured clinical interviews such as the Structured Clinical Interview for DSM-IV (SCID) (4)(9)(13). These tools varied in sensitivity and cultural relevance, highlighting the need for standardized and context-appropriate assessments. These findings underscore the variability and complexity in the measurement and prevalence estimation of paternal

mental health conditions.

To further clarify and visually synthesize the thematic findings identified through this scoping review, a conceptual diagram (Figure 2) was created. This diagram illustrates the interconnectedness of paternal well-being indicators, psychosocial and economic risk factors, and existing assessment tools or support strategies, offering a concise overview of critical elements influencing paternal mental health during the perinatal and postnatal periods.

Discussion

The findings of this review suggest that paternal depression and stress have a substantial impact on the family unit with emphasis on the perinatal and postnatal periods. A significant rate prevalence of PPD was identified, with paternal stress and depression consistently associated with adverse outcomes for both children and overall family dynamics. Despite these concerns, paternal mental health remains largely invisible in clinical practice, unlike maternal care, which is typically embedded in prenatal and postnatal care programs. Healthcare providers often lack adequate training and awareness to recognize paternal mental health concerns, leading to underdiagnosis and limited support services for fathers. Integrating mental health screening for fathers into routine perinatal checkups could help facilitate early identification and intervention. There is also a need for the development and validation of standardized, father-specific screening instruments suitable for use across diverse healthcare settings and populations. Mental health professionals and family physicians should receive targeted training to recognize symptoms of paternal depression, particularly when men present with somatic or "masked" symptoms. Additionally, digital health tools and mobile-based mental health interventions may offer scalable, cost-effective, and accessible solutions to support fathers in both urban and rural environments.

Consistent associations between paternal psychological distress and adverse child emotional and behavioral outcomes reinforce the intergenerational consequences of unaddressed paternal mental health issues. Socioeconomic determinants such as unemployment, lower family income, and limited social support emerged repeatedly as core contributors to PPD, underscoring the need for comprehensive family and community-based interventions. Additionally, the wide variation in assessment tools and reported prevalence rates reflects a lack of standardization in evaluating paternal mental health, particularly in under-resourced regions. To ensure a comprehensive understanding of this issue, review

Paternal mental health during perinatal/postnatal period

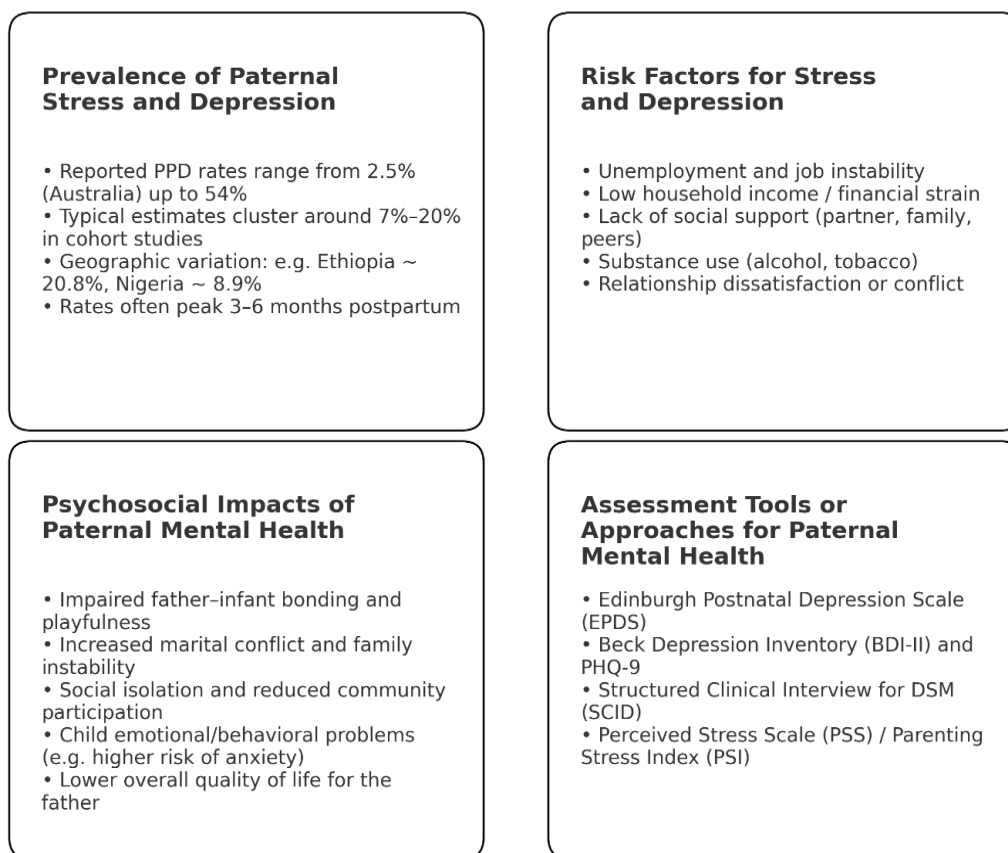


Figure 2. Conceptual Map of Paternal Mental Health During the Perinatal/Postnatal Period

articles were included alongside primary studies, as they offer consolidated insights and highlight broader trends in a research area that remains underdeveloped.

This review is strengthened by its synthesis of diverse study designs across multiple countries, offering a broad perspective on the state of paternal mental health research. A systematic search was conducted to ensure the quality and relevance of selected articles. However, several limitations must be acknowledged. The decision to include only English-language studies was made due to practical constraints, such as resource and time constraints which limited the feasibility of including non-English literature. While this approach is common in many scoping reviews, it may have excluded important evidence published in other languages, potentially introducing language bias. Additionally, it should be noted as a limitation that scoping reviews were included among the selected articles,

potentially leading to duplication of studies already identified through the search strategy. Although these reviews were included due to their relevance and synthesized insights into paternal mental health, their findings such as the reported 10% prevalence rate of paternal postnatal depression derived from meta-analyses may overlap with other studies identified directly. Therefore, interpretations of findings should account for this potential overlap. Furthermore, the absence of certain keywords in the search strategy such as “paternal stress,” “risk factors,” “stress,” “depression,” “psychosocial,” “screening,” and “assessment” may have led to the exclusion of some relevant studies.

Moreover, the relatively small number of included studies does not necessarily reflect selection bias but rather points to the overall limited availability of focused research on paternal mental health during the perinatal and postnatal periods-especially in under-researched regions.

The studies also varied widely in methodology, sample size, and assessment tools, which complicated direct comparison and synthesis. Additionally, the predominance of studies from high-income countries restricts the generalizability of findings to low-resource contexts with different sociocultural dynamics and mental health infrastructures. These limitations highlight the need for more inclusive, multilingual, and culturally contextualized research to inform equitable and effective mental health policy and practice.

Conclusion

This scoping review highlighted the significant but often overlooked issue of paternal mental health during perinatal

and postnatal stages. The findings reveal that fathers encounter forms of stress and depression, which can adversely impact family dynamics and child development. Key risk factors such as unemployment, low social support, and financial strain contribute to increased mental health challenges among fathers. This review underscores the need for inclusive mental health services that address paternal well-being alongside maternal care. Given the growing global awareness of paternal mental health as a critical component of family well-being, future research should prioritize the development of culturally appropriate screening tools and targeted interventions-particularly in low-resource settings to support fathers during the transition to parenthood and promote healthier family systems worldwide.

Table 1. Summary of Included Studies

Authors and year	Study design	Sample size	Screening tools	Study objective	Key findings
Fiona L. Challacombe et al. (2023)	Longitudinal cohort design	901 fathers and 939 mothers	Questionnaires as part of the Finnish CHILD-SLEEP birth cohort design	To investigate the impact of paternal perinatal distress on children’s emotional and behavioral problems at 2 years, while controlling for maternal mental health factors.	<p><u>Prevalence</u> Approximately 7% of fathers reported high stress during the perinatal period, increasing to 10% at 2 years postpartum.</p> <p><u>Risk factors</u> Paternal stress at 3 months postpartum was the strongest predictor of child emotional and behavioral problems at 2 years.</p>
Álvarez-García et al. (2024)	Systemic Review	Several hundred to over two thousand participants, varying by study scope.	Edinburgh Postnatal Depression Scale (EPDS), Center for Epidemiological Studies Depression Scale (CES-D), Beck Depression Inventory (BDI-II), General Health Questionnaire (GHQ), Kessler Psychological Distress Scale (K6, K10).	To explore the prevalence and measurement of postpartum depression in fathers, identify instruments for assessing paternal postpartum depression, and highlight relevant risk factors and sources of resilience.	<p><u>Prevalence</u> Postpartum depression affects 8.75% to 18.5% of fathers.</p> <p><u>Risk factors</u> Male gender role stress and lack of support.</p> <p><u>Psychosocial impacts</u> Paternal postpartum depression is influenced by factors such as male gender role stress, unemployment, and perceived social stigma.</p>
Chen et al. (2023)	Combination of quantitative and qualitative research designs	Ranged from 331 to over 2,000 participants, varying by study design and population	Edinburgh Postnatal Depression Scale (EPDS), Center for Epidemiological Studies Depression Scale (CES-D), Beck Depression Inventory (BDI-II), General Health Questionnaire (GHQ), Kessler Psychological Distress Scale (K6, K10), Depression, Anxiety, and Stress Scale (DASS), Swedish Parental Stress Questionnaire (SPSQ).	To clarify the concept of paternal perinatal depression, including its definition, attributes, antecedents, and consequences	<p><u>Prevalence</u> The prevalence of paternal perinatal depression ranges from approximately 8.75% to 9.76% during the prenatal and postpartum periods.</p> <p><u>Risk factors</u> Personal and social issues, such as relationship problems and psychosocial stressors, which are associated with increased likelihood of depression in fathers.</p> <p><u>Psychosocial impacts</u> Low levels of social support are associated with increased incidence of paternal perinatal depression, and depression can negatively affect family dynamics, including marital relationships and maternal emotions.</p>

<p>Kara Smythe et al. (2022)</p>	<p>Systematic review and meta-analysis</p>	<p>29,286 couples across 23 studies</p>	<p>Edinburgh Postnatal Depression Scale (EPDS).</p>	<p>To examine the prevalence of perinatal mood disorders in parental dyads and identify factors associated with these disorders.</p>	<p><u>Prevalence</u> The prevalence of perinatal depression and anxiety in parental dyads ranges from approximately 1.72% to 3%</p> <p><u>Risk factors</u> Socioeconomic hardship, relationship dissatisfaction, and maternal depression increasing the likelihood of mood disorders in both parents.</p> <p><u>Psychological impacts</u> – The psychosocial impacts of perinatal mood disorders include increased risk of relationship dissatisfaction, reduced bonding with the infant, and adverse effects on child development. Factors such as socioeconomic hardship, lack of social support, and relationship stress can heighten these risks, affecting both parents and the family dynamic.</p>
<p>L.F. Philpott et al. (2017)</p>	<p>Systematic Review</p>	<p>31 to 1064 participants across different studies.</p>	<p>Perceived Stress Scale (PSS), Parenting Stress Index (PSI).</p>	<p>To systematically review evidence on stress in fathers during the perinatal period, focusing on measurement methods, stress levels, contributing factors, interventions, and the impact on fathers' health and social relationships.</p>	<p><u>Prevalence</u> Prevalence of stress in fathers during the antenatal period ranges between 6 and 8.7%.</p> <p><u>Risk factors</u> Paternal stress includes financial pressure, work problems, lower social support, social isolation, and negative feelings about pregnancy and childbirth.</p> <p><u>Psychosocial impacts</u> The psychological impacts of paternal stress during the perinatal period include increased risk of mental health issues such as anxiety, depression, psychological distress, and fatigue, which can negatively affect fathers' social relationships and overall well-being.</p>
<p>Langley, E., Totsika, V., & Hastings, R. P. (2020)</p>	<p>Cross-sectional analysis</p>	<p>10,443 fathers</p>	<p>Self-report measures, including SDQ scores.</p>	<p>To investigate the psychological well-being of fathers with children who have intellectual disabilities compared to those without.</p>	<p><u>Prevalence</u> Prevalence of psychological difficulties among fathers of children with ID is generally low, with many fathers reporting good well-being.</p> <p><u>Risk factors</u> Key risk factors for poorer paternal well-being include child behavioral problems and living in income poverty.</p> <p><u>Psychosocial impacts</u> Increased psychological distress, depression, anxiety, and stress, often linked to caregiving challenges and work-family conflict in case of fathers. These issues can affect their overall well-being and daily functioning.</p>

V. Sethna et al., (2018)	Matched design study	38 fathers (19 depressed, 19 non-depressed)	Structured Clinical Interview for DSM-IV-TR (SCID), Edinburgh Postnatal Depression Scale (EPDS), Global Rating Scales for Mother-Infant Interaction (GRS).	To examine the association between diagnosed paternal postnatal depression and specific dimensions of playfulness in father-infant interactions, including physicality, playful excitation, tactile stimulation, and active engagement.	<p><u>Prevalence</u> The prevalence of paternal depression in the postnatal period is approximately 5-10% within the first year of a child's life.</p> <p><u>Risk factors</u> A key risk factor for adverse child outcomes is paternal depression, which negatively affects father-infant interactions and parenting behaviors.</p> <p><u>Psychosocial impacts</u> Paternal depression is linked to negative psychosocial impacts, including increased behavioral and emotional problems in children and reduced positive father-infant interactions such as playfulness and engagement.</p>
Kitil et al. (2024)	Systematic review and meta-analysis.	2,055 fathers across five studies.	Edinburgh Postnatal Depression Scale (EPDS) or Patient Health Questionnaire (PHQ-9).	To investigate the prevalence and contributing factors of paternal postpartum depression (PPD) in Ethiopia.	<p><u>Prevalence</u> The pooled prevalence of paternal postpartum depression in Ethiopia is approximately 20.86%.</p> <p><u>Risk factors</u> Low family income, substance use, poor social support, unplanned pregnancy, and infant sleep problems.</p>
Olatunde Ayinde & Victor O. Lasebikan (2019)	Prospective longitudinal cohort study with a two-stage follow-up design	346 dyads of new fathers and their partners recruited, with 331 completing the study at baseline	Structured Clinical Interview, Statistical Manual 4th edition (SCID).	The study aimed to investigate the prevalence and characteristics of paternal postpartum depression (PPD) among fathers in Nigeria	<p><u>Prevalence</u> Overall prevalence of paternal postpartum depression (PPD) was 8.8%, while maternal depression at 6 weeks postpartum was significantly higher at 17.8% in the Nigerian cohort.</p> <p><u>Risk factors</u> Unemployment was identified as the only sociodemographic factor significantly associated with paternal depression at birth.</p> <p><u>Psychological impacts</u> Parental depression can increase stress, guilt, and feelings of inadequacy, which negatively affect both parents and parent-infant interactions.</p>
Watkins et al., 2024	Scoping Review	37 studies, with data from 646 fathers (interviews) and 1,005 fathers (surveys/questionnaires).	Joanna Briggs Institute (JBI) critical appraisal tools for data extraction and NVivo software for thematic analysis.	To explore prospective first-time fathers' views concerning fatherhood in relation to their right to parental leave.	<p><u>Prevalence</u> Approximately 10% of fathers are affected by postnatal depression, often navigating these challenges alone due to limited support systems.</p> <p><u>Risk factors</u> Low social support, financial strain, poor partner relationship, and maternal mental health issues.</p>

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AI Statement

The author declares that AI was not used in this article.