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29 – Reviewing and editing; JL: Formal analysis, Writing – Reviewing and editing; CO: Formal analysis,  
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## 32 **Conflicts of interest**

33 None declared.

## Review title

How do fathers experience depression during the perinatal period? A qualitative systematic review

## Abstract

**Objective:** The objective of the review is to understand fathers' experiences of depression in the perinatal period, including how they recognize their depression, the emotions they experience, the impact of depression on their relationships, and their help-seeking behaviors and support.

**Introduction:** Whilst the prevalence of postnatal depression in men is now estimated to be just below that in women, no current care pathways exclusively for affected men exist in the United Kingdom. However, evidence demonstrates that paternal depression has severe consequences, affecting men's relationships with their partners and infants, their parenting behaviors, and the well-being of their children. This demonstrates a need to focus on the paternal experience of depression during this stage of life. Therefore, this review focuses on these topics.

**Inclusion criteria:** The review included qualitative studies that included biological fathers over the age of 18. The phenomena of interest was depression or mental distress in fathers, within the context of the perinatal period. All qualitative designs were included in the study with a focus on lived experiences of fathers.

**Methods:** Searches for similar existing systematic reviews were carried out in March 2021 and no similar protocols or completed reviews were found. Seven databases were searched in April 2021: MEDLINE (EBSCO), CINAHL, PsycINFO, Scopus, ProQuest Sociology, ProQuest Dissertations and Thesis Global, and OpenGrey. Search limits included English language and Organization for Economic Co-operation and Development (OECD) countries. Two reviewers assessed methodological quality, with a third reviewer's opinion being sought in the case of disagreement. A standardized extraction tool was used to extract data and synthesis was achieved. Confidence in the findings was subsequently assessed.

**Results:** Nine papers were included after full text review, which were considered relevant to the research questions, and which focused on fathers' experiences (n=138), although only two focused specifically on depression. The overall quality of the studies was moderate. Overall, 109 findings were collated into 22 categories producing six synthesized findings. These were: mental health literacy around paternal perinatal depression is poor amongst men; relationships are experienced as both comforting and distressing in the perinatal period; new fathers do experience depression, but

this is avoided, normalized, or hidden; fathers feel judged about mental health difficulties and so are reluctant to disclose them; help-seeking in fathers is prevented by non-targeted support for dads; and all men have the potential to become depressed because fatherhood is challenging.

**Conclusions:** The review found that fathers may experience depression and negative emotions around the time their child is born, including anger, irritability, and resentment of the child. Men found their relationship changes difficult, feeling that fatherhood did not seem real until the baby was born. There was a significant lack of father-focused support for men, who were aware of stigma and social expectations of them. Men were not keen to seek help for their feelings, in part due to prioritizing the needs of the mother (and child) as more important. There is a need for greater attention on paternal perinatal depression through research and practice.

**Systematic review registration number:** CRD42021245894

**Keywords:** Father; Paternal; Depression; Postnatal; Perinatal.

*JBI Evid Synth 2021;??(?):??-?? [publisher use only]*

**Abstract word count:** 496 words

## Summary of Findings

How do fathers experience depression in the perinatal period? A qualitative systematic review					
Bibliography:					
Synthesized finding	Type of research	Dependability	Credibility	ConQual score	Comments
Mental health literacy around paternal perinatal depression is poor among men. Fathers do not recognize or understand their distress as (postnatal) depression, but rather as stress, powerlessness, negative emotions, feeling trapped, and shame. The difference between perceptions and reality of fatherhood, and the difficulties that arise from this, causes them to feel inadequate.	Qualitative	High (No downgrading)	Moderate (Downgrade one level)	Moderate	Dependability: All studies (8/8) scored 4 and 5 for the questions relating to appropriateness of the conduct of the research.  Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=9, C=10
Relationships are experienced as both comforting and distressing in	Qualitative	High (No downgrading)	Moderate (Downgrade one level)	Moderate	Dependability: All studies (7/7) scored 4 and 5 for the

the perinatal period. Men experience complex reactions to the new relationships with their partner and child in the perinatal period. This includes feeling distant from their partner and unable to bond with the child. Transitioning to new relationships in the household triggers resentment and strain in fathers, and increases feelings of isolation as they struggle to cope. However, fathers still prioritize the partner and child's well-being in their help-seeking.					<p>questions relating to appropriateness of the conduct of the research.</p> <p>Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=10, C=9</p>
Fathers in the perinatal period do experience depression, but this is avoided, normalized or hidden. Depressed men experience cognitive changes as they become fathers. They become withdrawn as they start to feel isolated and unsupported. They cope with this by avoiding emotions and detaching, which impacts on their parenting, and they attempt to normalize their distress as a natural aspect of being a father.	Qualitative	High (No downgrading)	Moderate (Downgrade one level)	Moderate	<p>Dependability: All studies (7/7) scored 4 and 5 for the questions relating to appropriateness of the conduct of the research.</p> <p>Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=7, C=9</p>
Fathers feel judged about mental health difficulties and so are reluctant to disclose them. Men internalize social expectations around masculinity and fatherhood, and their new role causes them to feel conflicted and confused in terms of being an involved father but also seeking support. There is an overwhelming fear of judgement amongst fathers suffering with their mental health.	Qualitative	High (No downgrading)	Moderate (Downgrade one level)	Moderate	<p>Dependability: All studies (6/6) scored 4 and 5 for the questions relating to appropriateness of the conduct of the research.</p> <p>Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=8, C=4</p>

<p>                     Help-seeking in fathers is prevented by non-targeted support for fathers. A lack of specific information and support is available for fathers. This reinforces stigma and poor mental health literacy around perinatal depression, although screening helps men identify as having perinatal depression. Having no pathway to follow, fathers fear wasting professionals' time and either avoid seeking help or wait until they have reached crisis point, fearing being put on medication.                 </p>	<p>Qualitative</p>	<p>High (No downgrading)</p>	<p>Moderate (Downgrade one level)</p>	<p>Moderate</p>	<p>                         Dependability: All studies (7/7) scored 4 and 5 for the questions relating to appropriateness of the conduct of the research.                     </p> <p>                         Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=14, C=12                     </p>
<p>                     All men have the potential to struggle because fatherhood is challenging. The normative changes of fatherhood create physical and mental burdens for fathers, which start in pregnancy. Additional stressors, such as perinatal depression in the mother and breastfeeding difficulties, can be overwhelming. Men cope with these changes at home through the routine of work but also feel strained as the financial rock of the family.                 </p>	<p>Qualitative</p>	<p>High (No downgrading)</p>	<p>Moderate (Downgrade one level)</p>	<p>Moderate</p>	<p>                         Dependability: All studies (6/6) scored 4 and 5 for the questions relating to appropriateness of the conduct of the research.                     </p> <p>                         Credibility: Downgraded one level due to mix of unequivocal (U) and credible (C) findings. U=7, C=10                     </p>
<p>U, unequivocal; C: credible</p>					

## Introduction

In the United Kingdom (UK), it is recommended that all women should be screened for perinatal mental health problems <sup>1</sup> (i.e., the period spanning pregnancy through to one year after birth <sup>2</sup>), but there is no universal approach for fathers. Based on systematic reviews of international studies, paternal postnatal depression (PND) is identified as having a slightly lower estimated prevalence than maternal PND, with respective figures for fathers at 8.4% <sup>3</sup>, as opposed to 11.9% for mothers <sup>4</sup>. Whilst it is not possible to quantify the exact number of men who become fathers in a given year, this prevalence is concerning for two reasons. First, it means that nearly one tenth of fathers will suffer with depression, and second, this potentially affects not only fathers, but also their partners and infants.

This period beginning in pregnancy is relevant for men, since fathers experience the highest levels of psychological symptoms in pregnancy <sup>5</sup>. After birth, incidence of paternal depression is considered highest in the first year after birth <sup>6</sup>, suggesting the perinatal period is specifically worthy of attention. Furthermore, there are wider consequences of paternal perinatal depression. The condition increases suicide risk in fathers <sup>7</sup> and reduces positive father-infant interaction <sup>8</sup>. Paternal perinatal depression is also associated with behavioral problems in children <sup>9,10</sup>. There are also relational impacts of paternal depression. Paternal PND has been associated with maternal PND <sup>11,12,13</sup>, and concerning, is also linked with negative mother-infant interactions <sup>8</sup>. To improve outcomes for the entire family unit – that is, to support fathers with their mental health and thus limit the effects on their wider families – there is a need to understand paternal perinatal depression in the perinatal period from a father's perspective.

Existing systematic reviews offer some knowledge on wider father mental health. One qualitative review identified factors influencing fathers' mental health as including fatherhood identity, role challenges, and negative feelings and fear <sup>14</sup>. There are also other published reviews, including a narrative review of fathers' support experiences <sup>15</sup>, and a review of interventions for paternal mental illness <sup>16</sup>. Importantly, however, these reviews did not explore the paternal lived experience of paternal perinatal depression specifically.

There are limited existing findings around paternal experiences of depression. For example, one recent systematic review integrated current evidence on maternal and paternal lived experiences of postpartum depression (PPD) <sup>17</sup>. Yet, whilst findings on mothers were rich, only two papers

regarding fathers were included in the review <sup>18,19</sup>, producing only two synthesized findings: “depressed fathers experience disappointment arising from perceived imbalances between their support needs and the support they get from their partner and significant others”; and “depressed fathers are more imbalanced after childbirth than fathers who are not suffering from PPD” <sup>17</sup> (p1731). This demonstrates a limitation in the quantity of qualitative research around paternal depression. As such, the research question for the present review is: how do fathers experience depression in the perinatal period?

There are also methodological barriers to understanding these phenomena. Both papers included in the aforementioned review were partly based on parents having depressive symptoms as determined using the Edinburgh Postnatal Depression Scale (EPDS) <sup>17</sup>. This scale has been validated for use in fathers <sup>20</sup> but there are limitations to using this tool in identifying depression in men. Scholars have suggested that men with depression present differently to women with depression, with one study finding that fathers commonly experienced anger alongside depression in the postpartum period <sup>22</sup>. As such, use of the EPDS alone potentially excludes studies where men identify as having anger or other symptoms. Notably, one study also used the Gotland Male Depression Scale (GMDS), which scores for male-typical behaviors including aggression and irritability, and this has been validated in Sweden for alcohol use disorder <sup>23</sup>. However, this is not routinely used to screen fathers in the UK. To produce a review that reflects these gendered reactions to depression experienced by fathers in the perinatal period, our search strategy also includes mental distress and symptoms of co-existing depression in men, such as, but not limited to, anger <sup>22</sup>. Depression was also considered to include low mood, but also wider negative emotions. There are differences between the conceptualization of depression between diagnostic manuals (e.g., the DSM-5 and ICD-10), assessment tools (e.g., the EPDS and GMDS), and how the lay person experiences it. This informed the use of wider emotions in the present search.

Research has demonstrated poor mental health literacy around depression in men in general <sup>24</sup>, but more recently in paternal perinatal depression <sup>25</sup>, suggesting the typical terminology used around the condition (e.g., postnatal depression) may not be something with which many men identify. One study showed that men have substantively better understanding and use of the term “depression” <sup>24</sup>, which informed the use of “depression”, rather than postnatal or perinatal depression in the main systematic review question, but also protocol sub-questions.



In short, a qualitative systematic review was used to answer the research question using the JBI approach<sup>26</sup>. This is an appropriate method in healthcare topics and has well established guidance including the JBI<sup>27</sup> and is suited to investigate human experiences<sup>28</sup>. To ensure originality, an *a priori* review was registered with PROSPERO (CRD42021245894), the international prospective register of systematic reviews. A preliminary search of PROSPERO, MEDLINE, the Cochrane Database of Systematic Reviews, and the JBI Database of Systematic Reviews and Implementation Reports was conducted in March 2021 and no current or underway systematic reviews on the topic were identified.

The objective of this review was to understand fathers' experiences of depression in the perinatal period.

## Review question(s)

The primary objective of the review was to understand fathers' experiences of perinatal depression. Sub-objectives were to develop an insight into, and evaluate, fathers' recognition and understanding of perinatal depression, the emotions they experience with the condition, and the impact of their perinatal depression on their relationships with partners, infants, and others. A further sub-objective was to understand fathers' help-seeking behaviors and support experiences in the perinatal period. The main research question of this review was therefore: How do fathers experience depression during the perinatal period? Further sub-questions are also considered to meet the additional objectives. These were: (a) How do men recognize and understand perinatal depression? (b) What emotions do fathers experience with perinatal depression? (c) What is the influence of perinatal depression on fathers' relationships with partners, infants, and others? (d) What are fathers' help-seeking behaviors and support experiences in the perinatal period?

## Inclusion criteria

### Participants

This review considered studies that included fathers aged 18 or over, with born biological children (i.e., conceived together with their partner) or whose partner was pregnant with their child, and who had experienced depression/postnatal depression/depressive symptoms during the perinatal period. Adoptive fathers or stepfathers (of children not conceived with a partner, or where surrogacy has

been used), or fathers under the age of 18 years, were excluded. Fathers with a diagnosis of severe/enduring mental illness, such as bipolar disorder, schizophrenia, or personality disorder were also excluded.

Inclusion criteria aimed to ensure results included the majority of fathers, to enable generalizability in the findings. Including only biological fathers is justified, first because father distress is acknowledged to be highest in pregnancy <sup>5</sup>, but also because adoptive parents or step-parents may experience different family dynamics, such as post-adoptive depression or difficulty bonding with a non-biological child. Age limits were selected because research into younger fathers is under-represented <sup>37</sup>. Fathers under 18 years are also likely to experience different dynamics (e.g., not being employed due to being in full-time education) to fathers over 18 years, so again this does not represent the majority of fathers. Severe mental illness also increases the likelihood that depression is not associated with the perinatal period, so this was also excluded.

## *Phenomena of interest*

This review considered studies that explored depression in men, including wider mental distress terms used in databases and male-specific symptoms as outlined in literature, such as anger <sup>22</sup>, as suffered by men during the perinatal period (i.e., from pregnancy to 12 months postpartum <sup>4</sup>). Studies where the focus was trauma or perinatal loss were excluded due to grief being a cause of distress. Studies of clinical interventions, including for paternal perinatal depression, were excluded. The rationale for this was to retain a focus on fathers' lived experiences of perinatal depression, their emotions, relationships, and help-seeking (as reflected in the research objectives), rather than the effects of an intervention (which could be short term, or where findings could be less focused on the experience of depression).

## *Context*

This review considered studies that focused on the perinatal period. Geographical location of the research was limited to country members of the Organization for Economic Co-operation and Development (OECD), which works internationally with economic and social policy <sup>29</sup>. Member countries are: Australia; Austria; Belgium; Canada; Chile; Colombia; Costa Rica; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Iceland; Ireland; Israel; Italy; Japan; Korea; Latvia; Lithuania; Luxembourg; Mexico; Netherlands; New Zealand; Norway; Poland; Portugal; Slovak Republic; Slovenia; Spain; Sweden; Switzerland; Turkey; United Kingdom, and United States.

The rationale for selecting OECD countries was because member countries share some homogeneity in economic and social outlook, which likely translate into common population lived experiences (e.g., experiences of healthcare services, income, employment, and culture).

# *Types of studies*

This review considered interpretive studies that drew on the experiences of fathers with depression including, but not limited to, designs such as phenomenology, grounded theory, ethnography, action research, and feminist research..

## **Methods**

This systematic review was conducted in accordance with JBI methodology for systematic reviews of qualitative evidence [26]. This review was conducted in accordance with an *a priori* protocol, which was registered with PROSPERO and is publicly available online (CRD42021245894)<sup>30</sup>. This was to ensure transparency of reporting each stage of the review process. To avoid re-interpreting empirical findings and imposing researcher bias, a meta-aggregative approach was used to synthesize and present findings, consistent with the JBI approach<sup>26</sup>. Further studies on paternal perinatal depression have been completed since 2019, justifying a new systematic review in the area.

# *Search strategy*

The search strategy aimed to locate both published and unpublished studies about paternal perinatal depression. A three-step search strategy was utilized. First, an initial limited search of MEDLINE (EBSCO) and CINAHL (EBSCO) was undertaken based on the PiCo Mnemonic Keywords, index terms, and common words in titles and abstracts. Second, these words, alongside other words related to the objectives (e.g., ‘emotion’) and introduction (e.g., ‘anger’) were constructed into a final search strategy. This was initially run through MEDLINE to ensure relevancy of results, before being modified for each database. All searches took place on 09/08/2021. The full search strategies are provided in Appendix I. Third, reference lists of studies were screened for additional studies relevant to the inclusion criteria, but which had not already been produced by the database search.

Only studies published in English were included due to lack of resources for translation. The search included studies dated since 2000, since there are few papers prior to this date focused on paternal

perinatal depression. This is reflected in recent reviews, where papers were dated from 2002<sup>17</sup> and 2003 onwards<sup>31</sup>.

The databases searched included MEDLINE (EBSCO), CINAHL (EBSCO), PsycINFO (EBSCO), SCOPUS (Elsevier), and ProQuest Sociology. Sources of unpublished studies and grey literature were searched and include ProQuest Dissertations and Theses Global, and OpenGrey.

## *Study selection*

Following the search, all identified citations were collated and uploaded onto Endnote Web (Clarivate Analytics PA, USA) and duplicates removed. Following a pilot test, titles and abstracts were screened by two independent reviewers for assessment against the inclusion criteria for the review. Potentially relevant studies were retrieved in full and their citation details imported into the JBI System for the Unified Management, Assessment, and Review of Information<sup>32</sup>. Full-text studies that did not meet the inclusion criteria were excluded and reasons for their exclusion are provided in Appendix II. Any disagreements that arose between the reviewers were resolved through discussion or with a third reviewer.

## *Assessment of methodological quality*

Eligible studies were critically appraised by two independent reviewers for methodological quality using the standard JBI critical appraisal checklist for qualitative research<sup>33</sup>. By appraising and scoring its “design, conduct and analysis”<sup>33, p2</sup>, the credibility and dependability of each study was assessed. No modifications were made to the checklist. Authors of papers were contacted to request missing or additional data for clarification, where required. Any disagreements that arose between the reviewers were resolved through discussion or with a third reviewer. All studies, regardless of the results of their methodological quality as scored in the critical appraisal tool<sup>33</sup>, were considered for data extraction and synthesis (where possible). The justification for this was the qualitative review design, whereby participant quotes from the primary studies would be pulled into categories and synthesized themes. However, this required author interpretation of data on a sub-theme level (i.e., interpretation of concepts within identified themes). Descriptive data described by authors as interpretative would have been considered poor quality, but no such studies were excluded based on quality (see Appendix III).

## Data extraction

Data were extracted from studies included in the review by two independent reviewers using the standardized JBI data extraction tool. The data extracted included specific details about the participants, context, culture, geographical location, study methods, and the phenomena of interest relevant to the review objective (fathers experiencing depression in the perinatal period) (see Appendix IV). Findings were extracted as embedded interpretations from authors on a sub-theme level. For instance, in one study, a theme and subtheme were “Help seeking for mental health concerns in the perinatal period” (Theme) and “Stigma” (Subtheme)<sup>43, p317</sup>. Embedded within the subthemes was the verbatim interpretation of “stigma around seeking help as being driven by a reluctance to feel or be seen as weak or vulnerable”<sup>43, p317</sup>. These findings were then assessed as unequivocal (U), credible (C), or not supported (NS). The balance of credible and unequivocal findings was similar (54 to 55 respectively). There were no unsupported findings. Any disagreements that arose between the reviewers were resolved through discussion or with a third reviewer. Authors of papers were contacted to request missing or additional data, where required. In the case of two online studies, where identities of fathers could not be confirmed, it was assumed that participants met the eligibility criteria both in relation to age and that they were biological fathers<sup>34,35</sup>.

## Data synthesis

Qualitative research findings were, where possible, pooled using JBI SUMARI with the meta-aggregation approach<sup>26</sup>. This involved the aggregation or synthesis of findings to generate a set of statements that represented that aggregation, through assembling the findings and categorizing these findings based on similarity in meaning. These categories were then subjected to a synthesis to produce a single comprehensive set of synthesized findings that could be used as a basis for evidence-based practice. Where textual pooling was not possible, the findings were presented in narrative form. Only unequivocal and credible findings were included in the synthesis.

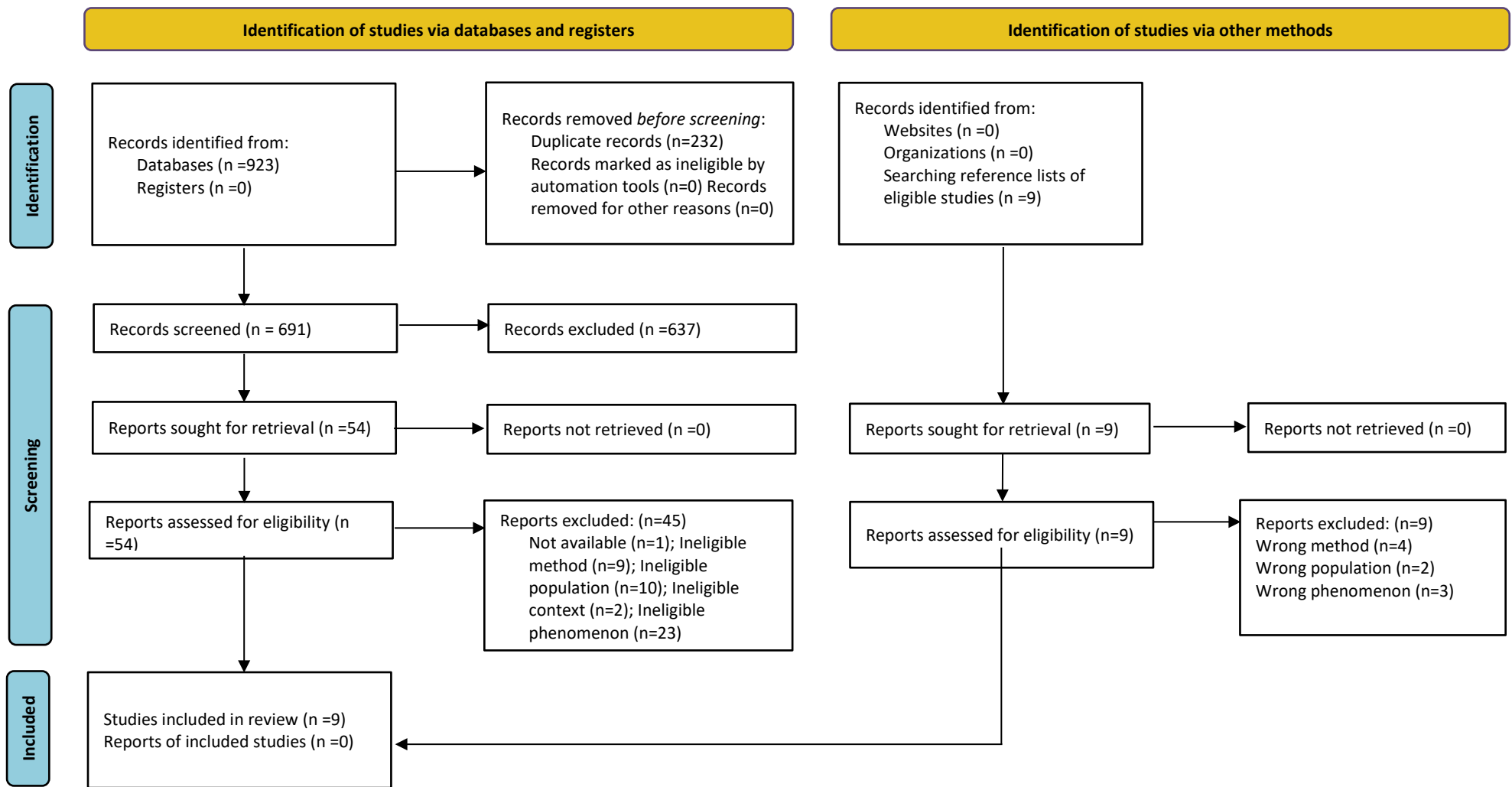
## Assessing confidence in the findings

The final synthesized findings were graded according to the ConQual approach for establishing confidence in the output of qualitative research synthesis and presented in a Summary of Findings<sup>36</sup>.

## Results

### *Study inclusion*

Overall, 923 papers were identified and exported to Endnote Web and 232 duplicates removed. 691 papers were screened by title/abstract, of which 54 were retrieved for full-text review. Of these, one was not available, nine used an ineligible method, 10 had an ineligible population, two had ineligible context, and 23 focused on an ineligible phenomenon of interest (Figure 1). Nine studies were produced through searching reference lists, but none of these were eligible. Nine studies were included for the review.



**Figure 1:** Search results and study selection and inclusion process [61].

## Methodological quality

All nine studies were included in the review following appraisal using the JBI Critical Appraisal tool<sup>33</sup> (see Table 1). Out of the highest possible score of 10, two studies scored 10/10<sup>37,38</sup>. Three studies scored 9/10<sup>39,40,34</sup>, one scored 8/10<sup>41</sup>, and three scored 7/10<sup>35,42,43</sup>. Two reviewers agreed that each study's philosophical perspective and research question were congruent. It was unclear in three of the studies if the philosophical perspective was congruent with the research methods though it is possible authors expected this would be assumed and/or may have been due to word restrictions in journal guidelines. Three of the papers did not have a statement positioning the researcher theoretically, but discussion between the first two reviewers concluded the dependability was sufficient for inclusion. All the study conclusions were considered to flow from the analysis and the reviewers agreed to include each paper in the review.

**Table 1: Critical appraisal results of eligible studies**

Study	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
Allen <sup>39</sup>	Y	Y	Y	Y	Y	Y	U	Y	Y	Y
Beestin, Hugh-Jones & Gough <sup>38</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Baldwin, Malone, Sandall & Bick <sup>37</sup>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Darwin, Galdas, Hinchliff, Littlewood, McMillan, McGowan & Gilbody <sup>40</sup>	Y	Y	Y	Y	Y	Y	U	Y	Y	Y
Eddy, Poll, Whiting & Clevesy <sup>34</sup>	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Mayers, Hambidge, Bryant & Arden-Close <sup>35</sup>	U	Y	Y	Y	Y	N	Y	U	Y	Y
Pedersen, Maindal & Ryom <sup>42</sup>	U	Y	Y	Y	Y	N	N	Y	Y	Y
Schuppan, Roberts & Powrie <sup>43</sup>	U	Y	Y	Y	Y	N	Y	U	Y	Y
Webster <sup>41</sup>	Y	Y	Y	Y	Y	N	Y	U	Y	Y
<b>Total %</b>	<b>67</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>56</b>	<b>67</b>	<b>100</b>	<b>89</b>	<b>100</b>

Y = Yes, N = No, U = Unclear; JBI Critical Appraisal Checklist for Qualitative Research Q1 = Is there congruity between the stated philosophical perspective and the research methodology? Q2 = Is there congruity between the research methodology and the research question or objectives? Q3 Is there congruity between the research methodology and the methods used to collect data? Q4 = Is there congruity between the research methodology and the representation and analysis of data? Q5 = Were those delivering treatment blind to treatment assignment? Q6 = Is there a statement locating the researcher culturally or theoretically? Q7 = Is the influence of the researcher on the research, and vice- versa, addressed? Q8 = Are participants, and their voices, adequately represented? Q9 = Is the research ethical



according to current criteria or, for recent studies, is there evidence of ethical approval by an appropriate body? Q10 = Do the conclusions drawn in the research report flow from the analysis, or interpretation, of the data?

# *Characteristics of included studies*

All studies included in the review were qualitative, dated between 2002-2021. Five were conducted in the UK <sup>35,37,38,40,41</sup>, two in the United States <sup>34,39</sup>, one in Australia <sup>43</sup>, and one in Denmark <sup>42</sup> (see appendix IV), all of which are OECD countries. Methods included phenomenology <sup>34,39,41</sup>, Interpretative Phenomenological analysis (IPA) <sup>38,42</sup>, thematic analysis <sup>35,41,43</sup>, framework analysis <sup>37</sup>, and content analysis <sup>34</sup>. Seven used interviews as their data collection method <sup>37,38,39,40,41,42,43</sup>, one examined online narratives <sup>34</sup>, and another used a survey <sup>35</sup>. All participants were fathers of babies or young children, with 138 fathers in total. At least 49 were first time fathers, with studies identifying five <sup>43</sup>, seven <sup>42</sup>, fourteen <sup>40</sup>, twenty one <sup>37</sup>, and two <sup>39</sup> first time fathers. Three studies did not report the number of first time fathers <sup>34,38,35</sup>. However, only two studies focused specifically on paternal perinatal depression <sup>34,42</sup>. Three papers focused on father mental health in general <sup>37,40,43</sup>, and four studies focused on fathers within the context of the impact of maternal mental illness on the father <sup>35,38,39,41</sup>.

# *Review findings*

Through repeated reading of the studies, and agreement by two researchers, 109 findings were extracted and aggregated into 22 categories which were subsequently aggregated into six synthesized findings based on similarity of meaning around the phenomena of interest and context (Table 2).

The 22 categories were as follows:

1. Emotions experienced by fathers in the perinatal period are distressing, but are not recognized or understood as depression
2. Reality of the situation is different to perceived expectations and often only realized after the baby is born
3. Fathers feel inadequate when their expectations do not match their actual reality of fatherhood
4. Fathers experience less closeness with partners, but they are still their main source of support

- 359 5. Partner and child well-being remained a priority to fathers above their own
- 360 6. Fathers experience distress, lack of bonding, and resentment towards their babies
- 361 7. Fathers feel progressively more isolated across the perinatal journey and retreat into themselves
- 362 to cope
- 363 8. Fathers detach from and avoid their emotions in the perinatal period, which can result in
- 364 withdrawal from their children and a reluctance to seek support
- 365 9. As their distress manifests, fathers seek to normalize and legitimize their difficult feelings
- 366 10. Fathers are aware of internal and external expectations around fatherhood and this influences
- 367 how they behave
- 368 11. Fathers experience conflict and confusion around being involved fathers
- 369 12. Fathers are fearful of judgement from others when it comes to their mental health
- 370 13. There is an acknowledged lack of targeted individualized support for fathers in the perinatal
- 371 period
- 372 14. The General Practitioner (family doctor) was the main preferred support but this was a last
- 373 resort because fathers fear wasting their time and view support for the mothers as the priority
- 374 15. In terms of support, fathers wanted a male perspective that understands the paternal experience
- 375 16. Fathers view perinatal depression as affecting mothers and experience stigma around father
- 376 mental health problems
- 377 17. Screening is beneficial in encouraging some fathers to think about their symptoms and link these
- 378 to depression
- 379 18. Fathers do not want to seek support just to be prescribed medication for depression
- 380 19. The pressures of fatherhood have negative effects on fathers' mental and physical wellbeing

20. Additional stressors are particularly problematic and include perinatal depression in the mother and breastfeeding problems

21. Pregnancy is a time of apprehension and stress around what is to come

22. Working provides fathers with an escape and somewhere to feel adequate, but they also feel stressed and financially responsible for their families.

Categories were linked by similar meanings into six synthesized findings. Final findings, illustrations, and assigned credibility levels are presented in Appendix V.

Regarding the ConQual score<sup>36</sup>, the studies in each synthesized finding scored 4-5 for dependability, thus the score remained unchanged. However, the score for credibility was downgraded by 1 due to the combination of credible and unequivocal findings. Therefore, the ConQual score for each synthesized finding was “moderate”.

The synthesized findings offer a rich understanding of fathers’ experiences of depression in the perinatal period. These are presented in numerical order. Overall, these synthesized findings answer the overall research question by describing how fathers experience depression in the perinatal period, but also the sub-objectives, including how they experience emotion, the impact on their relationships with their partner, child and others, and their help-seeking behaviors.

#### **Synthesized finding 1:**

Mental health literacy around paternal perinatal depression is poor amongst men. Fathers do not recognize or understand their distress as (postnatal/perinatal) depression, but as stress, powerlessness, negative emotions, feeling trapped, and shame. The difference between perceptions and realities of fatherhood, and the difficulties that arise from this, causes them to feel inadequate.

Nineteen findings matched into three categories produced this synthesized finding (see Table 2). The most pertinent observation from the studies was that emotions experienced by fathers in the perinatal period are distressing but are not always recognized or understood as depression (Category 1). Fathers did not explicitly consider themselves to suffer from depression, nor did they commonly verbalize themselves as experiencing depression, despite many of the terms they use to describe their feelings being consistent with depression. Rather, they described “emotive feelings”

408 <sup>41,p392</sup> such as “confusion, exhaustion, helplessness, feeling alone, and trapped” <sup>34,p1008</sup>. Some of these  
409 feelings arise from the difficulties of parenting, where a participant acknowledges his depression in  
410 relation to mood and irritability:

411 “I’m always exhausted, even the rare nights where I get 7 or 8 hours of (albeit interrupted  
412 because of baby) sleep. I’m very frequently depressed, in a sour mood or very irritable” <sup>37,p1008</sup>.

413 This is supported in reference to “heightened physical changes and emotional responses” <sup>35,p6</sup>:

414 “I was scared. I could not sleep. My memory lapsed and I cried too often” <sup>35,p6</sup>.

415 Similar emotions identified through findings included both a feeling of “neglect and powerlessness”  
416 <sup>42,p5</sup>, which one participant contextualized as being unimportant:

417 “I feel totally unimportant [...] what is it, that my role is then? [...] I hoped [...] that we would be  
418 equal” <sup>42,p5</sup>.

419 Fathers also referred to a need to control the situation:

420 “So where there’s something like that, like, fatherhood and things that I can’t plan and things  
421 like that, I find it quite hard to digest. If there’s something I can control, a plan and put in a Gantt  
422 chart, great, I can deal with that” <sup>40,p8</sup>.

423 This seemed to be in relation to “feeling trapped and unable to escape from the reality of  
424 fatherhood” <sup>42,p5</sup>, where participants vividly verbalized the feelings arising from this as including  
425 hate, irritation, and anxiety <sup>42</sup>:

426 “I didn’t feel frustrated, I felt [...] a hate, almost [...] my life was so good before I met [my wife].  
427 Why in hell did I agree to this? [...] This child [went] from being something fantastic to be a drag,  
428 a major source of irritation in my everyday life” <sup>42,p5</sup>

429 Fathers were also ashamed of their emotions:

430 “When you have these thoughts inside your head, you become completely broken inside.  
431 Because it is so shameful” <sup>42,p5</sup>.

There were, therefore, difficult feelings experienced by fathers during the perinatal period, which may be linked to an interpretation of the "general feeling" <sup>41,p392</sup> of fathers that:

"It is something that people tend to keep to themselves and don't want to admit to. If they do admit, then there are no resources there to actually help you" <sup>41,p392</sup>.

However, despite verbalizing these emotions, fathers were aware about changes to their mental health, highlighted by the finding "all the fathers recognized different changes in their mood and behavior, but many of them did not perceive these changes as signs of depression" <sup>42,p6</sup>. One participant stated:

"You know that something is wrong, but you don't know what it is" <sup>42,p6</sup>.

This demonstrates that, in addition to not always considering depression in the perinatal period as a condition they are experiencing, they also exhibit poor mental health literacy around their perinatal depression. This is highlighted by men referring to "'Stress' rather than mental health" <sup>40,p5</sup>:

"I think for me it's just-the never having any time to relax, it's just not possible. I've got a stressful job then I come home and I tend to get...the tired, stressed baby...I think the stress for me is just the non-stopness of it" <sup>40,p5</sup>.

In the perinatal period specifically, feeling this 'stress' had consequences for their behavior: fathers reacted by "minimizing feelings and becoming more irritable with their partner" <sup>40,p5</sup>, which is illustrated by a father claiming:

"I tend to do the typical man thing of hiding it until I can do so no longer...I'm not the sort to wail and shout and whatever...I probably just get grumpy and a bit snappy about stuff. That's pretty much it really" <sup>40,p5</sup>.

They also experienced "feelings of being overwhelmed that were difficult to express" <sup>34,p.1008</sup>, but which are consistent with depression:

"I was so ready to be a dad but all I can think about is how miserable I am" <sup>34,p1008</sup>

“I have the feeling that I’m constantly on the edge of bursting into tears. My work, which I used to be able to cope with well, seems extremely stressful now. I’m easily irritable, I can’t stand my 7-month baby’s cry over more than a few minutes without becoming angry” <sup>34, p1008</sup>.

For many fathers, linked to emotions is the notion that their parenthood does not feel real until it happens. The second category identifies that the reality of the situation is different to perceived expectations and often only realized after the baby is born (Category 2).

For fathers, this was specifically observed during pregnancy, highlighting that this is a unique period for men in terms of their transition to fatherhood and mental health. One finding suggests that “for many men, their baby did not seem ‘real’ during their partner’s pregnancy” <sup>37,p5</sup>. This is illustrated by an unequivocal quote:

“Even though the baby was there, you can see the bump, you can see, you know, the baby moving around inside, to me, it wasn’t there. Yeah, it wasn’t real. It’s only until she was born” <sup>37p5</sup>.

This statement is further reinforced by the finding “parenting only became ‘real’ once they were ‘doing’ it” <sup>40,p8</sup>, affirming pregnancy as a time of ‘unreality’ for fathers-to-be, but one which they react to pragmatically:

“As we approached due date, I was getting less sleep due to worrying about it, but once it was there, we just got on with it” <sup>40,p8</sup>.

The difference between reality and expectations meant that “fathers’ great expectations were later replaced by a very different reality of fatherhood” <sup>42,p4</sup>, indicating a perceived incongruence between what is meant to be and what is. Three men commented on this in one study <sup>42</sup>:

“It’s a radical change that you just can’t imagine” <sup>42,p4</sup>;

“Nobody tells you how hard it really is, and thank God for that, because then there wouldn’t be born any more children into this world” <sup>42p4</sup>, and:

“All of these false fantasies, which are set up by other parents, society, everything. It’s not what you think” <sup>42p4</sup>.

Consistent with these bleak observations of reality, the perinatal period was also perceived as a “mundane manifestation” <sup>38,p724</sup>, a further negative description of the situation which one father described:

“I have been really fed up and I just don’t want anyone around me [...] I just don’t wanna be around anyone and the kids will be like, saying like ‘daddy’s in a really bad mood, what’s wrong with you daddy?’ and I’m mumbling and being grumpy and whatever, but it’s a case of it’s just too much” <sup>38,p725</sup>.

The third category represents where fathers feel inadequate when their expectations do not match their actual realities of fatherhood (Category 3). Both their experienced negative emotions and the feeling that the situation is not ‘real’ in pregnancy have a deep impact on fathers. Fathers’ reactions to their expectations not matching reality are also aligned with their negative emotions and left them with a “feeling of being inadequate” <sup>42,p4</sup>. Two fathers in one study related this to feeling they were lacking personal skills in some way<sup>42</sup>:

“There are a few things a father needs to handle [. . .] He needs to have a job, and he needs to have a garage [. . .] and I didn’t have any of those things” <sup>42,p4</sup>

“I felt like everything had to be perfect. [I wanted] my family to thrive, and in the end, it backfired” <sup>42,p4</sup>.

Particularly in the context of the mother struggling with depression, fathers struggled “around not being able to ‘fix’ things” <sup>39,p48</sup>. One participant stated:

“Well like I said, I didn’t really have a huge instinct as to how to care for a newborn baby or how to parent, I never spent time with a baby so when my wife didn’t want to do it anymore or wasn’t sure what to do it made things more helpless. You know being a guy you want to fix it and if you can’t fix it and you feel helpless” <sup>39,p49</sup>.

These findings also link to the ‘powerless’ emotion felt in the first category, generating a similar meaning that contributed to this synthesized finding. Another negative emotion linked to inadequacy experienced was where “expectations of fatherhood were replaced by feelings of unfulfillment and inadequacy” <sup>42p4</sup>: in contextualizing the reality between his expectations, one father stated:

“[...] the strength as I imagined. The magic, if you can call it that, I never felt it” 42,p4.

## **Synthesized Finding 2:**

Relationships are experienced as both comforting and distressing in the perinatal period. Men experience complex reactions to the new relationships with their partner and child in the perinatal period. This includes feeling distant from their partner and unable to bond with the child. Transitioning to new relationships in the household triggers resentment and strain in fathers, and increases feelings of isolation as they struggles to cope. However, fathers still prioritize the partner and child’s well-being in their help-seeking.

Here, 19 findings comprising 3 categories were aggregated (see Table 2). Overwhelmingly, when men become fathers, the studies suggest that complex relationships with the partner and child are related to both a father’s mental health and his help-seeking.

The first category identifies that fathers experience lower closeness with partners, but partners are still their main source of support (Category 4). Strikingly, “changes they noticed in their relationship with their partner” <sup>37,p7</sup> were verbalized, and this referred to both arguments and decreases in sexual activity. Two participants in one study on father mental health during transition to fatherhood <sup>37</sup> disclosed:

“I probably argue a bit more and that’s probably just due to my tiredness” <sup>37,p7</sup>; and:

“What possibly has suffered is that in some way, sexually, we haven’t been as intimate” <sup>37,p7</sup>.

These changes included a “negative impact on their relationship with their partner” <sup>35,p6</sup> and were significant in explaining father distress, highlighted by a participant who wrote:

“Things became very difficult and pushed us apart” <sup>35,p7</sup>.

Such ‘pushing apart’ is consistent with fathers perceiving the “loss of a previous closeness” <sup>40,p7</sup>. One father described this in reference to the mother and baby being a unit, with him being separate:

“[For women] it becomes about me and bump, and then me and baby. Whereas fathers, it’s about them, you know, them two over there and me. You feel part of that unit but nonetheless, you’re always separated slightly.. .that’s just how it is” <sup>40,p9</sup>.



Aligned to this separation was that men also “felt neglected by their wives”<sup>34,p1009</sup>, which was damaging to the relationship:

“I blamed both her [wife] and my son for my feelings of loss and insignificance. I took on every parental responsibility with sucked up reluctance on the outside and contempt on the inside. My wife seemed to consider me selfish and irresponsible. Even when the bickering ended, the wounds never healed. Our marriage took a fatal hit”<sup>34,p1009</sup>.

Despite this distance, partners remained a key source of support for fathers: one finding identified that “their partner or other family members could have had a great influence on the father’s help-seeking behavior”<sup>42,p7</sup>. Men particularly verbalized that they needed their partners to initiate the conversation around their depression; this was highlighted by two participants<sup>42</sup>:

“Maybe the mothers need to be better at saying something [...] because, we don’t say anything in the beginning. It takes a long time before we say anything”<sup>42,p7</sup>, and:

“I don’t think [fathers] know that they have [PPD]. I think someone needs to grab [the fathers] and say, ‘you need help’ [...] just like [my wife] said to me”<sup>42,p7</sup>.

Furthermore, partners were pivotal in men recognizing their depression, highlighted in the finding: “disclosures about the psychological and emotional challenges men had experienced were prompted by discussions between partners”<sup>40,p6</sup>: in response to a partner noticing a man’s withdrawal, he directly replied:

“Yes, I could feel myself withdraw, so I wouldn’t communicate as much and I would get snappy when sometimes I wouldn’t do”<sup>40,p6</sup>.

This mirroring of a partner’s voice is also consistent with their reactions to a partner’s depressive symptoms, where fathers “internalized their partner’s symptoms and felt they were to blame”<sup>39,p46</sup>. This is highlighted in the following quote:

“When my wife was very down and depressed and especially when she was angry, it kind of came over on me and then made some frustrations in our relationship. We seem to argue a lot more because of it. I would notice when we were around each other and she was down like that, I would get more down. Or, when she was more irritated, I would be more irritated”<sup>39,p46</sup>.

It is therefore clear that each partner's needs, and acknowledgements of these, affect men's experiences of their relationships. Another example was where there were difficulties in fathers understanding their partner's physical and emotional needs, which could be "a source of strain in the relationship" <sup>40,p7</sup>:

"I struggled at times because whilst I could see of the physical effects on [partner], I couldn't understand the emotional and mental effects it was having on her, so I struggled with that, and I probably did become a bit more snappy, definitely low mood at times and struggling to sort of sleep properly, and you have a lot to think about" <sup>40,p7</sup>.

To negate this strain and loss of closeness, fathers want mothers to understand their fears, because these cause fathers to withdraw from their relationships:

"I think men have received a lot more messages in terms of what not to do than what to do. I guess just some societal validation for being a good dad, they're just isn't much of it. You never hear anything like you know he's a really good dad, you just don't hear that much" <sup>39,p66</sup>.

This withdrawal is also represented in a further finding, where despite partners being a support for fathers, their needs would overrule their help-seeking where they are "unable to seek help when there were others, particularly their partners, who were having a more difficult time" <sup>43,p320</sup>.

Thus, despite their acknowledged distress in the perinatal period, and the documented changes in relationships with their partner, partner and child well-being remained a priority to fathers above their own (Category 5). This was confirmed by the unequivocal statement that in the case their mental health affected their partner or child would be a strong prompt to seek help:

"I think if at any stage I recognize in myself that I was yea putting myself ahead of those two then that to me wouldn't that wouldn't sit well with me [yea] internally not to say it's not right but then that's when I'd be looking for services to help try and combat that" <sup>43,p318</sup>.

However, despite fathers wanting to protect their families from their mental health problems, they were simultaneously fearful of verbalizing their true feelings because of both what this might mean in terms of safeguarding and professional reaction: they "feared that speaking openly about suicidal thoughts and thoughts about harming their own child would be used against them" <sup>42,p7</sup> and this was disclosed particularly in reference to the health visitor:

“[The health visitor] is a public authority [...] She has to go forward with the [information], if it is [necessary] [...] If I say too much about something, will they take [my son]?” <sup>42,p7</sup>.

This highlights another conflict in fathers’ mental states around the well-being of their children and themselves. The third category in this synthesized finding indicates that fathers experience distress, lack of bonding, and resentment towards their baby (Category 6). There was a common acknowledgement that fathers “expected an instant bond with their baby and when this didn’t happen they found the experience quite challenging” <sup>37,p6</sup> and this was evidenced by a father verbalizing the child did not know him:

“... particularly in the first week when the baby doesn’t recognize you, of just not feeling like they- you can make them feel better. I would say that’s probably a challenge” <sup>37,p7</sup>.

Fathers felt there was “not enough information (and reassurance) on father-child bonding activities” <sup>35,p6</sup>, a finding that was illustrated unequivocally. Furthermore, in addition to not always bonding instantly, fathers also felt that they did not know how to comfort their child, summarized in the finding “perceived inability to comfort and meet the basic needs of their child” <sup>42,p4</sup>:

“When [my daughter] became upset [...] I felt the frustrations building up inside, and then I gave up [...] I simply couldn’t do it [...] and then I felt guilty [...] I’m not even good at that” <sup>42,p4-5</sup>.

This was both distressing and also reinforced feelings of guilt. Linked to this frustration is the “strong emotional distress” <sup>42,p5</sup> fathers experience when their babies cry:

“It’s when he cries. I simply can’t have it” <sup>42,p5</sup>, and:

“It is during the night [...] he just screams. Imagine a child who just screams, and you cannot do anything. You don’t know what to do about it” <sup>42,p5</sup>.

This highlights guilt and distress arising directly from the baby’s cry. Perhaps unsurprisingly, men “resented their baby’s constant needs and attention” <sup>34,p1008</sup>, although it is important to note that this was mainly disclosed in a study, which analyzed anonymous online forums <sup>34</sup>. However, it was evidenced repeatedly:

“Baby cries can unearth some darkness in me, I’ve found” <sup>34,p1008</sup>,

“When I’m personally caring for our son I’m overwhelmed with hate. I hate this baby. I thought my dislike for him would go away and I’d start to bond but it’s gotten worse. I hate him. I hate his crying, his needs, his endless discontent. I’m suppressing violent thoughts of ending his life and ending my own” <sup>34,p1008-9</sup>, and:

“...angrily typed into google, ‘I hate my baby’” <sup>34,p1009</sup>.

In some cases, highlighting resentment and lack of bonding, fathers experienced “painful thoughts of suicide and harming their own child” <sup>42,p5</sup>. One participant described his thoughts vividly:

“I was cooking in the kitchen and I thought [...] I wonder what would happen if I cut [my son’s] throat” <sup>42,p5</sup>.

One positive finding was that fathers’ relationships with their children improved over time once the child became more interactive, with “men’s coping capacity was often strengthened through their positive and rewarding experiences of fatherhood; something that grew with the child’s development and his/her increasing ability to interact” <sup>40,p9</sup>:

“I mean you cope through him as well, as he gets older. I mean just smiling to himself and being able to come back and he recognizes your face, that kind of stuff is a huge coping strategy” <sup>40,p9</sup>.

In summary, this synthesized finding suggests that men experience complex reactions to the new relationships with their partner and child in the perinatal period. This includes feeling distant from their partner and unable to bond with the child. Transitioning to new relationships in the household triggers resentment and strain in the father, and increases feelings of isolation as he struggles to cope. However, fathers still prioritize the partner and child’s well-being in their help seeking.

### **Synthesized Finding 3**

Fathers in the perinatal period do experience depression, but this is avoided, normalized, or hidden. Depressed men experience cognitive changes as they become fathers. They become withdrawn as they start to feel isolated and unsupported. They cope with this by avoiding emotions and detaching, which impacts on their parenting, and they attempt to normalize their distress as a natural aspect of being a father.

Sixteen findings produced three categories that contributed to this synthesized finding (Table 2), which identifies that depression is likely experienced by many fathers, but the way by which they cope with this is to avoid, normalize, or hide their feelings. The first category found that men feel progressively more isolated across the perinatal journey and retreat into themselves to cope (Category 7). An important finding was fathers' "need to cope alone" <sup>37,p7</sup> in their fatherhood experience:

"I tend to keep it in myself so, you know, I battle it myself" <sup>37,p7</sup>.

Despite trying to cope, however, fathers suffer "feelings of rejection or being 'pushed out' by the closeness between their baby and partner" <sup>40,p9</sup>. Isolation was experienced internally by fathers in three ways. The first was by "taking a self-reliant and stoical attitude when deemed necessary" <sup>40,p9</sup>, highlighted by two participants:

"I'd just get on with it. I would just deal with it myself. That's what I've always done. I think it tends to be a male reaction for most people" <sup>40,p9</sup>, and:

"And I think generally, that's my approach. It's just a case of head down, battle on through" <sup>40,p9</sup>.

The second part of coping alone was where men were "feeling lost or forgotten during this time of their lives" <sup>34,p1009</sup>, where a participant refers to men's experiences of secret struggle:

"Many men I've spoken to share a similar story of struggling with depression when their children were first born, but they do so secretly, quietly, away from the dinner table. They understand that there's no truly acceptable place or context for men to publicly reveal being challenged" <sup>34,p1009</sup>.

The third is represented through "feeling of being a spare part" <sup>43,p320</sup>, though one father contextualized this through not feeling included in appointments:

"Obviously partners can attend to all your prenatal classes and that sort of stuff but generally [...] generally speaking [...] most blokes are just like oh yea they sort of shrug it off and they don't well they do listen but they don't ask questions because they feel it's not really their place" <sup>43,p320</sup>.

Therefore, isolation was also experienced externally, where men identified they “were not asked about their mental health” <sup>37,p8</sup>:

“... no one really asks you how the father is doing, it’s all about the baby and the mum. So, yeah, it’s just a foreign concept, I think” <sup>37,p9</sup>.

They also “experienced lack of support from health professionals” <sup>35,p6</sup>, which one father related directly to his experience of midwifery services:

“My wellbeing was of little interest to midwives, health visitors ... [I] had not given birth so had no cause for sympathy. A leaflet for my wife and a page for the fathers to read which wasn’t enough” <sup>35,p6</sup>.

In the case of parenting falling to the father because of depression in the mother, fathers found this isolating, which is represented by the finding an “unshared parenting load rendered fathering an unexpectedly solitary experience” <sup>38,p723</sup>, highlighting maternal depression as a risk factor for father isolation. They also feel “lost and forgotten” <sup>34,p1009</sup>:

“Many men I’ve spoken to share a similar story of struggling with depression when their children were first born, but they do so secretly, quietly, away from the dinner table. They understand that there’s no truly acceptable place or context for men to publicly reveal being challenged” <sup>34,p1009</sup>.

Hiding their struggles alongside their progressive isolation was, alongside “not receiving information from doctors or therapists” <sup>34,p1007</sup>, related to late identification of the father’s depression:

“None of our reading and none of the medical professionals we talked to ever mentioned anything significant about fathers getting PPD. By the time I realized I had depression, our family had nearly broken apart” <sup>34,p1007</sup>.

Perhaps linked to the internal and external feelings of isolation and poor acknowledgement of father depression by health professionals is where fathers view “help-seeking as a matter of personal responsibility” <sup>43,p315</sup>, a concept raised in reference to screening. Fathers verbalized that it was on their initiative that they take action:

695 “It certainly is up to the individual to do that”<sup>43,p315</sup>.

696 The effects of this profound isolation, based on their feelings, attitudes, and experiences led to the  
697 second category.

698 Another form of coping was where men detach and avoid their emotions in the perinatal period,  
699 which can result in withdrawal from the child and reluctance to seek support (Category 8). Men’s  
700 isolation had consequences on their relationship to the child, where “becoming preoccupied by the  
701 difficulties within the adult relationship meant that some men felt they were psychologically and  
702 physically absent as fathers”<sup>38,p724</sup>.

703 “it was his wife’s emotional rejection of him, rather than her absence from mothering, which  
704 preoccupied him, leading to ‘darker’ times and ‘switching off my feelings [...] to make like your  
705 own, kind of like your own postnatal depression pills”<sup>38,p724</sup>.

706 In addition, men would not seek help “out of a desire to avoid difficult feelings or a sense that it was  
707 not the done thing”<sup>43,p318</sup>.

708 “men talk it’s not normally expressing things that are that are difficult in their lives and how they  
709 they work through that particularly [laughing] which particularly in in their marriages is is not it’s  
710 not popular to [...] yea express things that are hard”<sup>43,p318</sup>.

711 In addition to their isolation and avoidance, it was concluded that, as their distress manifests, men  
712 seek to normalize and legitimize their difficult feelings (Category 9). For instance, they viewed their  
713 “expectations as an explanation for their own depression”<sup>42,p4</sup>.

714 Specifically, it was identified that fathers “tried to normalize their emotions”<sup>42,p6</sup>. This is a  
715 particularly pertinent finding to this review, since in the study participant illustrations are directly  
716 related to perinatal depression:

717 “I kept saying to myself that [my feelings] were normal [...] Somehow, [I] kept challenging the  
718 narrative [regarding perinatal depression]”<sup>42,p6</sup>;

719 “At that time, I did not think ‘I have post-partum depression’. I just thought ‘This is normal’,  
720 because it is so damn hard”<sup>42,p6</sup>.

In addition is the observation that “they also underrate their symptoms when feeling uncomfortable” <sup>43,p316</sup>. This is illustrated by one father:

“There may be some questions oh no I better not answer that this way because that might mean this this this or [mm] you know they they’re judging me for how I’m going to be as a father and therefore [...] like I’ll just not [yep] tell the truth on this” <sup>43,p317</sup>.

One finding suggests fathers are “questioning the legitimacy of their own mental health needs” <sup>40,p5</sup>: feeling the partner’s needs are more important is a key observation:

“I’m always conscious that [partner]’s got it a lot worse so I just sort of get on with it” <sup>40,p5</sup>.

#### **Synthesized Finding 4:**

Fourth, fathers feel judged about mental health difficulties and so are reluctant to disclose them. Men internalize social expectations around masculinity and fatherhood, and their new role causes them to feel conflicted and confused in terms of being an involved father but also seeking support. There is an overwhelming fear of judgement amongst fathers.

Twelve findings and three categories comprise this synthesized finding (see Table 2), which focuses on paternal perceptions around what is expected from them and their subsequent fear of judgement.

First is where fathers are aware of internal and external expectations around fatherhood, and this influences how they behave (Category 10). Masculinity was a key feature in this category and evidenced repeatedly. Comments represented “perceived expectations of masculinity as well as negative attitudes towards depression” <sup>40,p9</sup> as an unequivocal finding:

“... there’s always the fear, if you open yourself up and you explain how you are feeling emotionally, like blokes will, sort of, ridicule you, don’t be so airy fairy, you know, that, sort of thing... just because blokes try and act all macho and stuff” <sup>40,p9</sup>; and

“I am a depressive, I’m depressed right now, have been for a few days...I don’t think, in any stretch of the imagination, I’m the image of the stereotypical man, and yet I’m never going to be



746 able to breakout of the, man up, get on with it thing. And I don't know where that comes from,  
747 just it's there" <sup>40p9</sup>.

748 These expectations are related to "men's reluctance of men to share their thoughts and feelings"  
749 <sup>34,p1007</sup>, and are almost unanimous in content:

750 "I don't feel I can tell my wife about these feelings. It will make me look weak or it will sound  
751 ridiculous because she is with the kids more than me" <sup>34,p1007</sup>;

752 "I found myself huddled in my home office, secretly and somewhat reluctantly shedding a tear in  
753 the dark" <sup>34, p1008</sup>.

754 Not being able to speak with a partner is also linked to men needing "to be seen to remain  
755 emotionally and mentally strong to support their partner and baby, despite coping with their own  
756 mental health" <sup>35,p6</sup>. This highlights the suggestion that men have a clear picture of how they should  
757 behave as a father, and maintaining this image is something they strove for despite suffering. One  
758 participant described his coping retrospectively:

759 "It was challenging supporting my partner and baby and managing with my own mental health,  
760 but I coped" <sup>35,p6</sup>.

761 Mirroring this comment is another illustration <sup>43</sup>:

762 "I think that especially if they're trying to maintain this you know strong position [...] you know  
763 especially trying to support the the female [...] they might not want to show any kind of  
764 weakness" <sup>43,p318-9</sup>

765 This demonstrates that fathers feel "a need to be strong" <sup>43,p318</sup>. Yet, whilst fathers may try and  
766 maintain this, believing it is a positive thing, they experience "normative masculine expectations as a  
767 barrier in seeking help" <sup>42,p7</sup>:

768 "Men don't consult a doctor when their toe is a little red, they consult a doctor when the toe is  
769 red, blue and black [...] So, for men to admit [...] 'I have PPD. I need [anti-depressives]. I think  
770 that [...] many men would see that as a giant failure" <sup>42,p7</sup>.

The conflicts about asking for help in relation to paternal perinatal depression are significant in relation to how men seek support for their depression in the perinatal period. A second category contributing to this synthesized finding is where fathers experience conflict and confusion around being involved fathers (Category 11).

Conflict was consistent in men's narratives. For instance, they felt conflicted about "wanting to be more involved" <sup>40,p6</sup> in relation to health professionals' support. They also felt conflicted about needing support which was illustrated by one participant's quote <sup>40</sup>:

"I'd feel like I maybe shouldn't want to want some support, and that I should be find and I should just get by, and actually I have so did I need it? Probably not. Would it would be nice? Yes, maybe. Would I have gone? Different question again, maybe not" <sup>40,p11</sup>.

Therefore, fathers internalized the perceived social expectations of others, which then resulted in them feeling conflicted about seeking help for their mental health. Additionally, when they felt conflicted in terms of understanding their experience, their efforts to find information to improve the situation were unsuccessful. This is illustrated in a finding where "confusion of what they were experiencing and although some sought information, they were usually unable to find it" <sup>34,p1007</sup>. In reference to literature on postnatal mental health, one participant suggested:

"The book gives surprisingly minimal attention to what a postpartum husband might do to take care of his own well-being" <sup>34,p1007</sup>.

Within this category, conflict and confusion are also linked with change. Three participants unequivocally shared their feelings and reactions regarding "changed priorities and an altered mindset" <sup>37,p5</sup>:

"In terms of your mind set changes a bit, as well...so you start thinking differently. Now you've got boundaries, yeah? You can't cross them boundaries" <sup>37,p6</sup>.

A final category describes that fathers are fearful of judgement from others when it comes to their mental health (Category 12), further emphasizing the inner turmoil some fathers experience in relation to their mental health struggles in the perinatal period. Two findings directly linked to this category, both with similar meanings. First, fathers experienced "fear of being perceived negatively by work colleagues, friends and family if a mental health problem was identified" <sup>37,p9</sup>:

“I guess, it’s that fear of worrying about well, if you went and then seek help, how would your company see that? How would your friends and family see that? Is that something you want to disclose? ... I think that sometimes can be the making or breaking point for someone where, if you do need to seek the advice, but you don’t because of other fears, it then means that you’re learning to cope with it in different ways” <sup>37,p9</sup>.

Fathers’ “fear of judgement” was also evidenced <sup>43,p316</sup>:

“what are they going to what are they going to think of me if my [...] you know my struggling is to get out in the open [yea] what consequences does that have [yep] you know I’m supposed to be the strong [...] person [yea] particularly at this time of my life [...] so I don’t want weakness to show” <sup>43,p316</sup>.

#### **Synthesized Finding 5:**

Fifth, help-seeking in fathers is prevented by non-targeted support for dads. A consistent lack of specific information and support is available for fathers. This reinforces stigma and poor mental health literacy around perinatal depression, although screening helps men identify as having perinatal depression. Having no pathway to follow, fathers fear wasting professionals’ time and either avoid seeking help or wait until they reach crisis point, fearing being put on medication.

Meta-aggregation of 26 findings and six categories produced this comprehensive theme focusing on support (Table 2). The first category identified that there is an acknowledged lack of targeted individualized support for fathers in the perinatal period (Category 13). Whilst support for men was raised in all studies, it was identified that the format of this help should be exclusive to the fathers’ needs. For instance, one author identified that “support groups are not something that would work well with fathers” <sup>39,p61</sup>, and this was based on both taking away from family time for fathers, but also men’s discomfort in disclosing their feelings:

“I would like it if it was for the father and it helped me know how to react. I would really be open to that, but like I said the last thing I want to do, is be in a room full men when I could be at home with my kids and wife” <sup>39,p62</sup>;

“In theory [a group] it’s a good idea, but I think when you look at the psyche of man, they aren’t really going to sit around and talk to each other and open their feelings” <sup>39,p62</sup>.

827 These findings were mirrored in other results, where a participant cited “a lack of equivalent groups  
828 for fathers” <sup>40,p10</sup>.

829 “I think in some ways it would be helpful before and after to make sure that dads are prepared  
830 and that they’re coping and maybe even if it was just away from the mums for some people  
831 maybe, because I think some dads might find it a bit embarrassing to say I don’t know what I’m  
832 doing” <sup>40,p10</sup>.

833 Whilst this highlights groups are not the preferred method of support for men, it was identified that  
834 there was “a preference for information that was geared towards fathers” <sup>40,p11</sup>, illustrated by men  
835 referring to the websites mothers use. Some participants positively referred to written materials:

836 “I really enjoyed reading [the Dad’s handbook]...because a lot of it was based on other people’s  
837 experiences so you realise you’re not in the boat by yourself, that there are other people that  
838 have been through it and obviously a natural thing that everyone does every day” <sup>40,p11</sup>;

839 “Perhaps if there was some sort of dads thing, like a bounty pack which is just for dads” <sup>40,p11</sup>.

840 This difference between support availability for mothers and fathers was verbalized:

841 “Mothers have support from midwives and health visitors, but dads get nothing” <sup>35,p6</sup>.

842 One study highlighted the “overwhelming sense of despair” <sup>43,p321</sup> men feel about there being no  
843 support available:

844 “I didn’t really feel that I didn’t really you know come across any services that were directly  
845 offered for me” <sup>43,p321</sup>.

846 However, mirroring the previous synthesized finding, fathers felt “the focus should primarily be on  
847 the woman, as she carries the baby and gives birth to their child” <sup>35,p6</sup>. Similarly, fathers feel they are  
848 responsible as a source of support and protection for their families:

849 “You gotta be the bloke and hold the family up” <sup>43,p318</sup>

850 This category therefore raises support targeted for fathers as an important issue, with numerous  
851 potential barriers to success including format (e.g., group vs. written), family pressures and men’s

feelings around being the strong one for the family. The subsequent category focuses on where men first access support. In this review, the General Practitioner (GP) was the main preferred support, but this was a last resort because fathers fear wasting their time and view the support for the mothers and babies as the priority (Category 14).

Fathers referred to the GP as a source of help-seeking, where the GP would be their “professional of choice”<sup>37,p8</sup>. Participants referred to the GP in numerous studies<sup>37,40,42</sup>. Another study<sup>40</sup> identified that the fathers who visited the GP for their mental health struggles “described more marked symptoms”<sup>40,p6</sup>:

“In the end I just couldn’t function... I wasn’t myself. I couldn’t even make simple decisions”<sup>40,p6</sup>;

“I felt so ill, I just wanted to die. I just thought this is awful”<sup>40,p6</sup>.

However, again, men felt the professionals’ time may be better used elsewhere, indicating a lack of value on their own needs:

“I feel like you really are aware-with that in mind, you really are aware that you’re taking up somebody else’s time if you are to be in that position, and it’s like, you know, I don’t want to bore you with my troubles”<sup>37,p8</sup>.

In addition to this, men’s “conception of the perinatal healthcare services being geared towards women”<sup>42,p7</sup>. A further category identifies that in terms of support men want a male perspective which understands the father experience (Category 15). One study found that “fathers want the information to be explicitly from the male perspective”<sup>39,p61</sup>:

“You know sometimes the women get that stuff about postpartum depression. I mean it says postpartum depression so who are they talking about, the mother's right? So you know women may get those brochures and whatnot but not for the dads. Maybe if some of that says, for the dad. I think if you want to reach the dad, then it has to be for the dads”<sup>39,p61</sup>.

In reference to therapeutic support, it was also identified that “fathers want therapists who understand what the father goes through”<sup>39,p63</sup>.

It was identified that men view perinatal depression as affecting mothers and feel stigma around father mental health problems (Category 16). Participants described taboo and stigma, forming an unequivocal illustration for “paternal [perinatal depression] as taboo”<sup>42,p6</sup>:

“it is taboo”<sup>42,p6</sup>;

“[...] people are afraid to say something [about their experiences with perinatal depression]”<sup>42,p6</sup>, and:

“They won’t open up because they are afraid that they get stigmatized [...] as someone [...] weak or inadequate”<sup>42,p7</sup>.

Fathers did not know “men could suffer from postpartum depression”<sup>34,p1006</sup>. This also was consistent with the views of fathers in another study on “believing that [perinatal depression] is a gender specific condition”<sup>42,p6</sup>:

“Why should a man have [perinatal depression]? He is not the one giving birth”<sup>42,p6</sup>, and:

“[My girlfriend and I] took the screening, but I thought that it was the girlfriend [who would show signs of perinatal depression]. I never thought that the father [...] would go down with PPD”<sup>42,p6</sup>.

It was found that “stigma was a barrier to help seeking”<sup>43,p317</sup>, which was in part, “driven by a reluctance to feel or be seen as weak or vulnerable”<sup>43,p317</sup>. Most concerning, was the finding “crisis point”<sup>43,p318</sup>, highlighted by one participant as being the point of help-seeking only when things were at rock-bottom:

“Personally I think I [...] quite often end up seeking help when its when something’s reached breaking point [mm] and there’s no [...] okay well I want to get you know get help to prevent breaking point [yea] and I probably imagine that that would be a common scenario”<sup>43,p318</sup>.

This links back to findings around men seeking the GP when they had “marked symptoms”<sup>40,p6</sup>, highlighting late presentation for support for paternal mental health problems.

A positive observation was that screening is beneficial in encouraging some fathers to think about their symptoms and link these to depression (Category 17). Again, screening was “an important part of the help seeking process”<sup>42,p7</sup> in terms of raising awareness of paternal perinatal depression:

“When the health visitor told me that men also could get [perinatal depression] [I thought] ‘Oh! You can?’”<sup>42,p7</sup>;

“It is one thing that [my partner and I] have talked about me having a problem, and that I have a short fuse [...] But now we have [...] scientific evidence that I’m not all right”<sup>42,p7</sup>, and:

“[My general practitioner] tested me, [and] it was only then that I actually started to believe that I had [perinatal depression]”<sup>42,p7</sup>.

However, whilst this was a credible illustration, the authors also noted that other fathers did not feel this significance<sup>42</sup>, explaining the ‘some fathers’ phrase within category 17. Despite this observation, one study also highlighted “the screening process as raising their awareness of their own symptomatology”<sup>43,p315</sup>:

“It does kind of twig you a little bit as well [mm] so yea so I did kind of think ooh actually I have felt a bit like that”<sup>43,p315</sup>.

In addition to stigma and lack of awareness around paternal perinatal depression being a barrier to help-seeking, the potential treatments are also a concern. The final category in this synthesized finding found that fathers do not want to seek support just to be prescribed medication for depression (Category 18). Antidepressants were viewed particularly negatively. A specific finding was where men feared that “seeking support would be met with a psychopharmacological response”<sup>43,p321</sup>, unequivocally illustrated by one father:

“I didn’t want to [...] all of a sudden go to the doctor and walk out with a prescription for antidepressants and be on them for the next twenty years I had a fear of [yea] becoming [...] you know [...] medicated”<sup>43,p321</sup>.

This was mirrored by another study’s participant:

“[Anti-depressives] is not an option for me”<sup>42,p7</sup>.

**Synthesized Finding 6:**

All men have the potential to struggle because fatherhood is challenging. The normative changes of fatherhood create physical and mental burdens for fathers, which start in pregnancy. Additional stressors, such as perinatal depression in the mother and breastfeeding difficulties, can be overwhelming. Men cope with these changes at home through the routine of work but also feel strained as the financial rock of the family.

This synthesized finding comprises 17 findings and four categories (see Table 2) and encompasses general fatherhood and the related stresses in relation to mental health. The first category contributing to this states that the pressures of fatherhood have negative effects on fathers' mental and physical well-being (Category 19). Numerous findings evidence this. Again, in line with the observation that men refer to their mental health as stress<sup>40</sup>, stress is a common element of the category "a lack of sleep, missing meals and having to balance work commitments with family life were commonly reported triggers for tiredness and stress"<sup>37,p6</sup>, with one participant referring to sleep specifically:

"It's tough 'cause you've got - you're not sleeping, you're missing meals and like, I think those - that, for me, just missing the sleep and missing the meals, makes me more cranky and you just become a bit more snappier"<sup>37,p6</sup>.

The finding "perinatal depression in men"<sup>41,p392</sup> also referred to a lack of sleep:

"When you have had no sleep, you are pulling your hair out and you have bags under your eyes and you think, why have I bothered, why are we having a family, I don't want to feel like this... is that depression? Could be, I don't know"<sup>41,p392</sup>.

Consistent with the effects of lack of sleep is "the additional stress resulting from the tiredness and pressure to provide for their family impacted negatively on several fathers"<sup>37,p6</sup>, which appears to be illustrated in relation to lowered mood:

"... it can bring you down very, very fast. Very difficult situation sometimes and yeah, an element of you can go into some form of a depressive state where, you know, you start to get frustrated at each other, because you're both unaware what to do and your children are crying and it's like, what do we do?"<sup>37,p6</sup>.



955 The theme of tiredness continues through another finding where “participants did not feel they had  
956 enough energy and mental strength to become the kind of fathers they wanted to be” <sup>42,p4</sup>:

957 “There was this pressure [...] I wanted to be there as a father, but I couldn’t. I wanted to be with  
958 my son [...] but I couldn’t” <sup>42,p4</sup>.

959 Pressure was also felt in relation to “the lack of time the fathers felt were available to them given  
960 the new responsibilities in their lives” <sup>39,p57</sup>:

961 “who has time to lick your own wounds when you're trying to tend to so many others” <sup>39,p57</sup>.

962 The effects of new fatherhood on men’s well-being were documented as including “physical and  
963 behavioral signs, including difficulty concentrating at work and suffering with headaches” <sup>40,p5</sup>, and  
964 were something linked to help-seeking <sup>40</sup>:

965 “...something physically is going on, on top of the mental stress... I felt mentally drained as well  
966 and tired, but once the physical aspect came into the whole situation as well, that’s when I went  
967 to the GP” <sup>40,p5</sup>.

968 In addition to the tiredness and physical burden of fatherhood, it was found that additional stressors  
969 are particularly problematic and include PND in the mother and breastfeeding problems (Category  
970 20). Men found their “fathering was thwarted by the constraints generated by their partner’s mental  
971 health” <sup>38,p725</sup>, with one father describing the impact of his partner’s mental health difficulties on his  
972 mood:

973 “There’s no enjoyment, no fun, there’s no [sigh], you can’t see a way out and all you can do is  
974 pitch in and try to stick it out and survive [...] no fun, no happiness, no smiles” <sup>38,p725</sup>.

975 Additionally, “breastfeeding was a subject of concern” <sup>42,p5</sup>. Some participants described this in  
976 relation to their child’s health:

977 “[my daughter] wouldn’t eat because she was so weak [...] on the seventh day [after delivery]  
978 we had a child who looked like a skeleton. [She] was completely weakened” <sup>42,p5</sup>, and:

979 “what can I do, really? [...] No matter how many times I run up and down the stairs, she won’t  
980 necessarily put on weight” <sup>42,p5</sup>.

Clearly, fatherhood poses stresses for fathers. One category found this arose from pregnancy, where pregnancy is a time for apprehension and stress around what is to come (Category 21). One study refers to “stress in the antenatal period” <sup>37,p5</sup>, where a father uses a metaphor for emotional changes:

“a rollercoaster ride...we’ve got a long way to go yet until the baby arrives in this world and having that mixed emotions, really, so there’s been stressful times” <sup>37,p5</sup>.

In particular, “feelings of apprehension and nervousness appeared to be related to the ‘unknown’ about becoming a father” <sup>37,p5</sup>:

“Excitement was probably the first thing that I felt...it was a little bit of, kind of, apprehension, as in how-what will I need to, kind of, do in terms of being a dad” <sup>37,p5</sup>;

“Pretty scary, overwhelming, life-changing” <sup>37,p5</sup>.

One of the most significant categories in terms of findings of similar meanings was around work: working provides fathers with an escape and somewhere to feel adequate but they also feel stressed and financially responsible for their family (Category 22).

The role of work was multifaceted. It comprised maintaining a role as provider, but in a way which also contributes to the relationship: this is embodied in the finding “if he is working more, he is staying out of her way and successfully providing for the family that he is responsible for” <sup>39,p59</sup>. This same study further demonstrates men’s efforts to try and do the right thing despite how this may appear to others <sup>39</sup>:

“The message for me at least, sort of the implicit in that is the assumption that the behavior that you're seeing may look unsupportive and has the intent of being unsupportive. I don't think it always does, but sometimes I think a husband for example may start working a lot more. They may feel like o my gosh I need to make more money, so it can be really easy to label them as sort of the withdrawn, deadbeat opportunistic husband. As anything moving forward, I think what husband isn't going to walk towards something that's labeling him in that way” <sup>39,p60</sup>.

Work also provided fathers with distraction from the challenging experiences of raising a small baby at home: “they found focus on the work outside of the home to be a way to better cope with what

1008 was going on inside of the home”<sup>39,p60</sup>. This finding is unequivocally illustrated to demonstrate  
1009 men’s attempts to use work to manage the difficulties of fatherhood:

1010 “I have three mouths to feed so I had to get to it and I had to get to work and that was that”,  
1011 and: <sup>39,p60</sup>,

1012 “So, I just went on about my work, trying to work, work, work”<sup>39,p60</sup>.

1013 Similarly, fathers are described as “using work as a distraction”<sup>40,p9</sup>:

1014 “I like my work because it’s technical stuff, I know I can bury myself in it and that will take my  
1015 mind off it”<sup>40,p9</sup>.

1016 This distraction is represented as avoidance of the reality of home in the finding “home suddenly had  
1017 many negative associations and became a place in which they tried to avoid”<sup>42,p5</sup>. Here, fathers clearly  
1018 describe work as a tool of avoidance, or something which restores good feeling:

1019 “I mostly used work to escape [. . .] because I knew that I would come back home to a screaming  
1020 kid and a moody wife”<sup>42,p5</sup>, and:

1021 “The only place I actually feel good is when I am at work”<sup>42,p5</sup>.

1022 However, despite these functional elements of work in the perinatal period, work also acted as a  
1023 burden, contributing to stress and negative emotional experiences including guilt and distress. First,  
1024 “many new fathers found it very difficult to balance work and home life”<sup>37,p6</sup>, with one participant  
1025 describing what seems like a never-ending cycle<sup>37</sup>:

1026 “You give her a feed and you put her to bed and then you unwind, if you can or you don’t, and  
1027 then you go to sleep. And then you’ll know like at 12 o’clock or 3 o’clock she’ll wake up and  
1028 you’ll have to feed her. And that’s the really difficult time. ... ‘cause you’re exhausted from work,  
1029 and then like, during that period you know something’s going to happen. So, you have to care  
1030 for her then and then, you have to wake up again at 6 o’clock to get ready for work again. And  
1031 then, you’re doing your eight or nine hours at work and you come back and it’s-you’re doing that  
1032 same cycle”<sup>37,p6</sup>.

1033 They also felt “guilt about being unable to support partner due to being at work”<sup>40,p5</sup>:

“I felt guilty actually, guilty going back to work and leaving [partner] with everything... I was like, I’ve left them all day on their own. I don’t think that’s how she felt but that’s how I felt” <sup>40,p5</sup>.

Additionally, problems with work created extra burden, with “uncertainty related to sick-leaves and dissatisfaction with work might have contributed to some distress” <sup>42,p5</sup>. In discussing paternal PPD, one participant posits work as a cause of his difficulties <sup>42</sup>:

“I felt, that [my job situation] was where it all originated from” <sup>42,p5</sup>.

## **Discussion**

This qualitative systematic review aimed to understand fathers’ experiences of depression in the perinatal period. It was identified that, among fathers, depression is poorly understood, but that they do experience difficult feelings including irritability and anger, as well as inadequacy and shame. Often, they refer to these emotions as ‘stress’. A further objective was to understand fathers’ recognition and understanding of their perinatal depression. This review identified that men’s mental health literacy around their depression was poor, and that fathers normalized their experiences, considering them to be a natural part of fatherhood. Despite this, some did have a sense of changed feelings. The role of fathers’ relationships with partners and infants was likewise complex. For instance, they felt a pressure to hide their symptoms to protect the partner. Some men felt angry and resentful of their infant and irritable towards the partner, but largely, the partner and infant’s well-being was a motivator to seek help, with partners being significant in their help-seeking. There was a notable lack of father-specific support across the studies. These findings are important since three quarters of deaths by suicide in the UK are by men <sup>44</sup>, yet perinatal depression has been considered a women’s condition <sup>45</sup>. This discussion will examine the findings in the context of the existing research.

There do exist other papers on paternal perinatal depression, but they were excluded based on the inclusion/exclusion criteria. Referring to a previous systematic review focusing on fathers’ experiences of perinatal depression <sup>17</sup>, two papers on fathers’ depression experiences were included that differ from those in this review. In one of these, 19 fathers were purposively sampled based on their completion of two screening tools (EPDS and GMDS) and demonstrating a score indicative of depression <sup>19</sup>. This was not included, first because it was based around an intervention for depression, but also because some participants directly referred to infants being born “disabled or

ill”<sup>19, p433</sup>. The other aimed to explore fathers’ psychological experiences of fatherhood and, while they held a focus group to inform the interview schedule, only one father was interviewed as a case study<sup>18</sup>. This was excluded due to reference to the participants’ past recurrent miscarriages. However, despite the differences between that review<sup>17</sup> and this, their findings are consistent with some of the synthesized findings in this review, strengthening their validity, and these are embedded under discussion of our relevant findings below, which are discussed under two headings: depression in fathers and father help-seeking.

## **Depression in Fathers**

### *Poor health literacy around paternal perinatal depression*

This review identified that mental health literacy around paternal perinatal depression is poor among men, which is concerning given that antenatal and postnatal care pathways are limited to mothers<sup>1</sup>. This finding supports wider research recognizing poor health literacy for both depression in men<sup>24</sup> and paternal postnatal depression<sup>25</sup>. One study found that men’s depressive symptoms are “poorly understood”<sup>46, p524</sup> in general, and this was consistent with the findings of this review, particularly with regards to how men experience depression perinatally. Despite this, fathers do nevertheless recognize a change in themselves, understanding “that something is wrong”<sup>42, p6</sup>, which suggests some literacy around feelings and emotions. Recognition of mental health difficulties sometimes occurred through a discussion with men’s partners<sup>40</sup>. As such, despite paternal perinatal depression literacy being limited, there is some awareness and partners can support this.

‘Stress’ was a common theme across studies and is consistent with the observation that stress is often how men refer to their perinatal mental health elsewhere<sup>40</sup>. This review identified inadequacy as commonly felt among men, which is significant since another study found their participants referring to inadequacy as stress<sup>47</sup>. What was clear across the studies, however, was that men do experience mental distress in the perinatal period and this was specific with regard to what emotions men experience, including as stress, powerlessness, negative emotions, feeling trapped, and ashamed. The difference between perceptions and the realities of fatherhood, and the difficulties that arise from this, caused them to feel inadequate. It is therefore possible that fathers feeling inadequate or stressed in the perinatal period may in fact be suffering from depression.

### *Anger and irritability as symptoms of father mental distress*

A key observation relates back to research which stated that depression and anger co-occurred in the postnatal period <sup>22</sup>. Anger and irritability were identified in numerous studies as symptoms of both fathers' depression (in the cases of those studies focusing specifically on perinatal depression) <sup>34,42</sup> or of their mental health experiences in the less specific studies <sup>39,40</sup>. This demonstrates that while perinatal depression in women may be considered in the case of low mood or tearfulness, with men the presentation may be different. What was particularly striking is the honesty with which online narratives are represented <sup>34</sup>, and it is significant that it is only within a study of anonymous forum chat users that fathers acknowledged a desire to harm their child, hatred towards their partners, and the fact they resented their children. This demonstrates new knowledge in terms of the intensity of men's feelings of anger.

Despite this, another online questionnaire offered anonymity <sup>35</sup>, yet irritability or anger were not presented as findings. However, the focus of the study was on support for men's mental health in the case of mothers with poor mental health. The present review found that men feel reluctant to seek help when their partner is struggling, and it is possible this translates into their approach to research. Furthermore, in situating their needs around those of the mother, men may not disclose irritability or anger in the instances that their partner is a key aspect of the question-asking. This highlights a clear need for anonymous questioning directly around irritability and anger in fathers. Such irritability is also identified in the wider literature <sup>48</sup>. In another study into telephone calls to an Australian perinatal support charity, 15% of callers "discussed their own feelings of anger and frustration" <sup>49p153</sup>, which is notably also an anonymous setting.

### *Negative emotions and feelings commonly experienced*

This review identified numerous emotions and feelings fathers exhibited in relation to their perinatal mental health difficulties. These included: confusion <sup>35</sup>, exhaustion <sup>34,37,42</sup>, tiredness <sup>37,40,42</sup>, and feeling alone <sup>34,37</sup>. Many felt powerless <sup>38,40,42</sup>, trapped <sup>34,38,42</sup>, isolated <sup>35,39</sup>, neglected <sup>34,42</sup>, forgotten <sup>34</sup>, helpless <sup>34,39</sup>, ashamed <sup>42</sup>, and hateful <sup>34</sup>. Whilst not all of these would be consistent with assessment tools (e.g. the EPDS), they are clearly negative, and suggest that wider questioning around distressing emotions in fathers would be productive in supporting their mental health. Conflicting with these was a feeling of unreality, which was also commonly identified in relation to the change into fatherhood <sup>37,40</sup>. Aggression and irritability have been identified in this review and are included in the Gotman Male Depression Scale, but this is not universally used as a screening

tool in the UK.

Relating to the research question around relationships in the perinatal period, some emotions were specifically experienced connected to men's intimate relationships. Regarding perinatal depression, this review found that fathers experienced relationship changes as a source of distress, mirroring the wider literature where men also struggle with deterioration in their intimate relationships<sup>18,19,47,49</sup>. In particular, such changes resulted in men feeling withdrawn, isolated, and less connected. This parallels other studies where a lack of sexual intimacy which causes a source of strain in relationships<sup>18,47</sup>. "Changes to sexual relationships"<sup>14</sup> was also identified in a systematic review into the mental health and well-being of first-time fathers.

### *Coping with difficult feelings*

The review identified that fathers in the perinatal period do experience depression, but tend to avoid, hide or normalize their feelings. Similar to how their relationships became more distant, fathers became withdrawn and isolated in general<sup>39,40</sup>, yet also attempted to normalize their difficulties as usual in fatherhood<sup>42</sup>. It is possible that this is a mechanism to protect the partner, considering men's prioritization of their partner within the help seeking context, but is also instrumental when denying their depression. Gender also had a role in men's recognition of their depression or mental distress, because they largely viewed perinatal depression as a condition only affecting the mother<sup>42</sup>, which supports the same observation elsewhere<sup>45</sup>. When considering how men experience difficult feelings, it was identified in another study identified that 55% of fathers experience poor mental health for the first time in the postpartum period<sup>50</sup>. However, men with previous history of mental ill-health had more awareness of their symptoms<sup>50</sup>, suggesting that the risk of depression remaining unrecognized and untreated, and the use of coping mechanisms like avoidance and normalization, may be higher in men with no mental health history.

## **Help-seeking in fathers**

### *Lack of parity around paternal support in comparison to mothers*

Support for fathers is inconsistent across the UK and a recent good practice guide offers guidance on asking about paternal mental health, and potential support<sup>51</sup>, though this does not formally cover Scotland, Wales, or Northern Ireland. In comparison, mothers are supported with perinatal mental health in line with national guidance<sup>1</sup>. This disparity was experienced by numerous fathers, who

labelled it as an “extreme imbalance”<sup>35, p6</sup>. An important observation was that men seek help when at crisis point. This was supported findings that when calling a helpline for parents, men felt at a “breaking point”<sup>49, p152</sup>. This reflects recent literature on men’s help-seeking for depression in general, with another study concluding that long term depression alone was not enough for men to “overcome actual or perceived help-seeking barriers for depression”<sup>52, p533</sup>, and suggesting that these men may not have felt their long-term depression was sufficient to justify seeking help<sup>52</sup>.

### *Fathers as fearful of seeking help for how they may appear to others*

A further finding was that fathers felt judged about mental health difficulties so are reluctant to disclose them. Fathers fear looking weak, vulnerable, or not strong, when seeking help in the perinatal period<sup>43</sup>. Wider literature offers further insight into this. Another study found some men preferred “other men who had or were already parents as having appropriate authority”<sup>53, p50</sup> when seeking support, and is consistent with a study where participants identified peer support as a favorable form of support<sup>54</sup>.

### *Strengths and Limitations*

Across the studies, a total of 138 fathers contributed data through interviews, surveys, and through use of online forums. This was synthesized to produce six findings, which offer new insights into how fathers experience depression in the perinatal period, and increased understanding of their help-seeking during this time. However, potential implication of these studies within the context of this review included their content: despite the focus on fathers and the rich descriptions of their experiences produced across all the studies, in all the qualitative interview studies<sup>37,38,39,40,41,42,43</sup>, interviewers were women (except for one study where two researchers carried out the interviews and one was a man<sup>40</sup>). This potentially creates a dynamic whereby men are not speaking to ‘one of their own’ but rather, a female researcher. Given men’s feelings around maternity and perinatal services being female-centric, it is possible that these feelings may extend into the research, whereby men feel they must only voice answers that are acceptable to the ears of a woman. The potential implications of this on the data has not been considered in all the studies, represented by an “unclear” or “no” answer in the JBI Critical Appraisal tool<sup>33</sup>.

Additionally, some men were interviewed with their partners present<sup>37,40</sup> or as joint interviews<sup>41</sup>. In some cases, men were interviewed in their homes, risking the partner overhearing their narratives.



Despite only the father's voice being used in the review, there is pressure on the father to only reveal what is acceptable to his relationship at the time. In the data, men clearly identify gendered social expectations of them as fathers, a distance from their partners, and taking an attitude of coping alone. It is possible that they maintained this during interviews. Referring to the researchers also being women, those interviews completed with two women were likely to have co-produced data that looks different to if a father had interviewed a father.

Interviews as a method of data collection in themselves pose issues. The online studies through surveys and analyses of chat forum text<sup>34,35</sup> were more vivid in terms of their descriptions of depression. A methodological limitation that the authors already acknowledge is that the accuracy of these cannot be substantiated because of the anonymity of the forum. Yet, this also acts as a benefit in terms of richness of data and is something that offers a new approach to future research on both men's health and mental illness in the context of fatherhood.

In terms of sample characteristics, these were adequate for a qualitative review, although situating the findings within quantitative literature means that the prevalence of paternal perinatal depression cannot be confirmed or denied. However, this was never the intention of a qualitative systematic review. The samples were also limited in terms of socio-demographic characteristics, with most samples being White and all samples being from OECD nations. This is important, as it is unclear to what extent the present findings may represent the experiences of fathers from marginalized social identity groups (e.g., racial[ised] minority men and men from non-OECD countries). Indeed, more research is urgently needed to better represent the experiences of fathers from more diverse socio-demographic backgrounds, particularly those backgrounds that have been historically marginalized and/or rendered invisible in the academic literature. A further limitation is that, despite a highly specific, comprehensive search process across a range of sources, based on keywords and content of relevant literature, seven of the included papers focused on paternal mental health in general, rather than paternal perinatal depression. This highlights a need for further research into paternal depression within the perinatal period specifically.

## Conclusions

In broad outline, this review offers new knowledge when understanding fathers' experiences of depression in the perinatal period, answering the question which led to its conduct. It identified that

fathers' experiences are embedded in their emotions, their relationships, and their help-seeking practices. The PROSPERO protocol was adhered to, although inclusion and exclusion criteria for studies required amendment. Nevertheless, some gaps were left, such as the experience of racial minority fathers, and possibly different experiences between first-time and subsequent fathers.

### *Recommendations for practice*

In the UK, perinatal mental health is prioritized in numerous policies, including the National Health Service (NHS) Long Term Plan<sup>55</sup>, which considers support for both parents up to two years postnatally. However, at the point of writing, there is no UK universal care pathway for assessment or management of paternal mental health<sup>56</sup> and this includes perinatal depression. As such, we are able to make a number of recommendations for practice based on the findings of the present review.

1. It is necessary to consider the context when fathers present to services with depression. It has been acknowledged that depression is experienced differently in the perinatal period, specifically around the emotions experienced. As such, when GPs (the profession of choice for men's help seeking in this review) encounter men with depression, they should consider if patients are presenting during the perinatal period of fatherhood (Grade B).

2. Fathers are suspicious of health visitors and fear removal of their child if they disclose depression. Training of health visitors to deliver transparent, sensitive care to fathers would be beneficial in order to build relationships and encourage fathers to view them as a supportive professional, to improve the outcome of the whole family. Including support around relationships in the perinatal period would also be beneficial. The father's partner should also be considered significant in his help-seeking (Grade B).

3. The present review supports other research that identified anger and irritability as symptoms of father perinatal depression. This was most visible in an anonymous study, where graphic descriptions were given regarding wanting to harm the infant. Resentment of infants, and irritability towards partners, were also identified. This should be considered when screening for domestic abuse during pregnancy and the postpartum period by professionals working with families, as a potential risk factor. Emphasis should thus be placed on promoting paternal mental health from a safeguarding perspective, as well as a clinical one (Grade B).

4. Screening was identified as beneficial to some fathers when it came to identifying their perinatal depression. Development of a father-focused screening tool for depression has not yet been designed. It is recommended that a screening tool be developed, taking into account the emotions identified here, acknowledging that depression symptoms may not only be limited to those in diagnostic manuals (e.g., the *DSM-5* or the *ICD-11*), but can differ from how it is currently conceptualized clinically (Grade B).

### *Recommendations for research*

Despite this review producing synthesized knowledge on paternal perinatal depression, only two of the papers focused specifically on perinatal depression, and one of these was an investigation into online forum narratives [34]. Based on the findings of this review, and the lack of relevant studies, more research is required in the areas of both paternal perinatal depression and men's help-seeking in the perinatal period. Given the significance of partners in recognizing fathers' changed mood, studies with partners (the mother of the child) would offer new insights into the condition.

Suicidal feelings were outlined<sup>42</sup>, which supports findings demonstrating that suicide risk for men is increased for depressed fathers during the postpartum period<sup>7</sup>. Whilst a study identified fathers of babies as feeling suicidal<sup>49</sup>, research into paternal suicide is scarce. Given that only two studies here focus on paternal perinatal depression<sup>34,42</sup>, yet the majority of deaths by suicide in the UK are by men<sup>44</sup>, this highlights an urgent need into research focused on the relationship between suicide feelings and paternal depression, including qualitative research.

Additionally, given the disparities in care felt by men, and failure to ask men routinely about their mental health, it is also necessary to produce research from a practitioner perspective. Given that health visitors offer a universal service in the UK<sup>57</sup>, three points of interest are particularly relevant. First is the fact that men in this review viewed them with suspicion<sup>42</sup>: to inquire about health visitors' perspectives around safeguarding practices in father mental health would provide insight into the process which may or may not be instigated should a father disclose depression. Second, this review identified fathers felt health visitors did not value the father in their care<sup>35</sup>, so an insight into health visitors' attitudes towards fathers would be of interest. Third, one study highlighted that health visitors were not the professional of choice for support<sup>37</sup>. Given that men preferred the GP<sup>37</sup>,

1286 but are also noted to present with more severe symptoms <sup>40</sup>, concurrent research into GP  
 1287 perceptions of father postnatal depression would also be valuable.

## 1288 **Conflicts of interest**

1289 The authors declare no conflict of interest.

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ment%20has%20been%20designed%20primarily,of%20qualitative%20data%20should%20also%20b  
e%20consulted.39%2040](https://www.bmj.com/content/bmj/372/bmj.n71.full.pdf#:~:text=The%20PRISMA%202020%20statement%20has%20been%20designed%20primarily,of%20qualitative%20data%20should%20also%20be%20consulted.39%2040)

## 1532 Appendix I: Search strategy

### 1533 MEDLINE(EBSCO) Search conducted on August 09 2021:

Search	Query	Records retrieved
#1	(MH "Fathers")	9,738
#2	"Fathers"	24,298
#3	"Father"	31,298
#4	AB Father* OR TI Father*	43,366
#5	#1 or #2 or #3 or #4	49,391
#6	"Dad"	12,794
#7	"Dads"	6,160
#8	TX Dad*	41,148
#9	#6 or #7 or #8	45,288
#10	(MH "Male")	8,958,634
#11	"Male"	9,140,040
#12	AB Male OR TI Male	1,210,592
#13	#10 or #11 or #12	9,194,098
#14	(MH "Men")	3,473
#15	"Men"	546,712
#16	"Man"	378,574
#17	AB (Men OR Man) OR TI (Men OR Man)	835,996
#18	#14 or #15 or #16 or #17	916,817
#19	"Paternal"	27,263
#20	TX Paternal	29,010
#21	#19 or #20	29,010
#22	#5 or #9 or #13 or #18 or #21	9,464,913
#23	MH ("Depression") OR (MH "Depression, Postpartum) OR (MH Depressive Disorder+") OR (MH Depressive Disorder Major) OR MH Adjustment Disorders)	233,837
#24	Depression	451,961
#25	TX Depress*	621,216
#26	#23 or #24 or #25	623,736
#27	(MH "Psychological Distress+") OR (MH "Mental Health") OR (MH "Mentally Ill Persons") OR (MH "Mental Disorders")	212,415

#28	"Mental Distress"	2,157
#29	"Psychological Distress"	23,348
#30	(MH "Stress, Psychological")	79,500
#31	Stress	1,011,213
#32	(MH "Expressed Emotion") OR (MH "Emotional Regulation") OR (MH "Emotions+")	266,282
#33	AB (Mental OR Psychological OR Distress OR Stress OR Emotion) OR TI (Mental OR Psychological OR Distress OR Stress OR Emotion)	1,463,612
#34	#27 or #28 or #29 or #30 or #31 or #32 or #33	1,896,179
#35	(MH "Irritable Mood") OR (MH "Mood Disorders")	16,653
#36	"Low Mood"	901
#37	(MH "Sadness")	208
#38	"Sadness"	6,116
#39	(MH "Anger") OR (MH "Rage")	8,502
#40	"Anger"	20,333
#41	TX Irritable OR Mood OR Sad* OR Anger OR Rage	298,527
#42	#35 or #36 or #37 or #38 or #39 or #40 or #41	298,527
#43	#26 or #34 or #42	2,470,708
#44	#22 and #43	1,031,681
#45	(MH "Perinatal Care") OR (MH "Postpartum Period")	32,168
#46	(MH "Postnatal Care")	6,008
#47	"Perinatal"	94,633
#48	"Postpartum"	75,798
#49	"Postnatal"	147,726
#50	(MH "Pregnancy")	912,133
#51	"Pregnancy"	1,004,577
#52	"Fatherhood"	3,255
#53	AB (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood) OR TI (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood)	601,413
#54	#45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53	1,141,858
#55	#22 and #54	250,493
#56	#43 and #54	99,178
#57	#22 and #43 and #54	29,695
#58	(MH "Qualitative Research+")	65,941
#59	"Qualitative"	278,952
#60	TX Qualitative research OR Qualitative Study OR Qualitative Methods OR Interview OR Focus Group	468,814

#61	#58 or #59 or #60	581,015
#62	(MH "Grounded Theory")	2,097
#63	"Grounded Theory"	12,989
#64	"Ethnography"	5,859
#65	"Phenomenology"	10,199
#66	(MH "Personal Narratives as topic")	340
#67	"Narrative"	42,656
#68	(MH "Single Case Studies as topic")	83
#69	"Case Studies"	39,300
#70	"Lived Experience"	4,905
#71	AB Grounded Theory OR Phenomenol* OR Ethnograph*	50,708
#72	AB Thematic Analysis or Content Analysis or Textual Analysis	80,492
#73	AB (Experience OR Perception OR Attitude OR Views OR Opinion) OR TI (Experience OR Perception OR Attitude OR Views OR Opinion)	1,622,211
#74	#62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73	1,754,590
#75	#61 or #74	2,124,083
#76	#22 and #43 and #54 and #75	5,323
#77	Limit #76 to English Language	4,340
#78	Limit #77 to year 2000-2021	4,128
#79	Limit #78 to 'Fathers' as major heading	291

1534

1535 CINAHL(EBSCO) Search conducted on August 09 2021:

Search	Query	Records retrieved
#1	(MH "Fathers")	6,892
#2	"Fathers"	14,084
#3	"Father"	11,587
#4	AB Father* OR TI Father*	17,969
#5	#1 or #2 or #3 or #4	21,198
#6	"Dad"	4,698
#7	"Dads"	3,830
#8	TX Dad*	40,396
#9	#6 or #7 or #8	43,443
#10	(MH "Male")	1,796,935

#11	"Male"	1,840,197
#12	AB Male OR TI Male	232,773
#13	#10 or #11 or #12	1,850,839
#14	(MH "Men")	5,769
#15	"Men"	175,251
#16	"Man"	72,630
#17	AB (Men OR Man) OR TI (Men OR Man)	217,078
#18	#14 or #15 or #16 or #17	244,420
#19	"Paternal"	6,796
#20	TX Paternal	12,120
#21	#19 or #20	12,120
#22	#5 or #9 or #13 or #18 or #21	1,951,773
#23	(MH "Depression") OR (MH "Depression, Postpartum") OR (MH "Depression, Reactive")	121,265
#24	"Depression"	182,519
#25	TX Depress*	318,867
#26	23 or 24 or 25	318,867
#27	(MH "Psychological Distress") OR (MH "Adaptation, Psychological")	34,294
#28	(MH "Mental Disorders")	52,013
#29	"Mental Distress"	1,294
#30	"Psychological Distress"	13,187
#31	(MH "Stress") OR (MH "Stress, Physiological")	16,019
#32	"Stress"	220,888
#33	(MH "Emotional Regulation") OR (MH "Emotions")	38,611
#34	AB (Mental OR Psychological OR Distress OR Stress OR Emotion) OR TI (Mental OR Psychological OR Distress OR Stress OR Emotion)	449,968
#35	#27 or #28 or #29 or #30 or #31 or #32 or #33 or #34	565,735
#36	(MH "Affect")	15,313
#37	"Low Mood"	463
#38	(MH "Sadness")	253
#39	"Sadness"	3,017
#40	(MH "Anger")	5,877
#41	"Anger"	10,765
#42	TX Irritable OR Mood OR Sad* OR Anger OR Rage	99,180
#43	#36 or #37 or #38 or #39 or #40 or #41 or #42	104,044



#44	#26 or #35 or #43	820,656
#45	#22 and #44	2,457,217
#46	(MH "Perinatal Care")	4,671
#47	(MH "Postnatal Period") OR (MH "Postnatal Care")	15,543
#48	"Perinatal"	35,222
#49	"Postpartum"	30,450
#50	"Postnatal"	35,859
#51	(MH "Pregnancy")	215,340
#52	"Pregnancy"	247,434
#53	"Fatherhood"	1,738
#54	(MH "Fatherhood")	1,054
#55	AB (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood) OR TI (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood)	163,043
#56	#46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55	285,452
#57	#22 and #56	44,643
#58	#44 and #56	37,778
#59	#22 and #44 and #56	7,951
#60	(MH "Qualitative Studies+")	159,563
#61	"Qualitative"	185,756
#62	TX Qualitative research OR Qualitative Study OR Qualitative Methods OR Interview OR Focus Group	415,694
#63	#60 or #61 or #62	447,818
#64	(MH "Grounded Theory")	16,687
#65	"Grounded Theory"	19,643
#66	(MH "Ethnographic Research")	8,419
#67	"Ethnography"	3,100
#68	(MH "Phenomenological Research")	16,923
#69	"Phenomenology"	7,463
#70	(MH "Narrative")	18,863
#71	"Narrative"	31,773
#72	(MH "Case Studies")	25,129
#73	"Case Studies"	35,425
#74	"Lived Experience"	19,591
#75	AB Grounded Theory OR Phenomenol* OR Ethnograph*	50,887
#76	AB Thematic Analysis or Content Analysis or Textual Analysis	69,453

#77	AB (Experience OR Perception OR Attitude OR Views OR Opinion) OR TI (Experience OR Perception OR Attitude OR Views OR Opinion)	626,096
#78	#64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77	731,974
#79	#63 or #78	963,830
#80	#22 and #44 and #56 and #79	2,720
#81	Limit #80 to English Language	2,538
#82	Limit #81 to year 2000-2021	2,407
#83	Limit #82 to 'Fathers' as major heading	196

1536

1537 **PsycINFO(EBSCO) Search conducted August 09 2021:**

Search	Query	Records retrieved
#1	DE "Fathers"	12,530
#2	"Fathers"	<b>30,759</b>
#3	"Father"	32,341
#4	AB Father* OR TI Father*	48,564
#5	#1 or #2 or #3 or #4	51,554
#6	"Dad"	7,331
#7	"Dads"	6,897
#8	TX Dad*	5,694
#9	#6 or #7 or #8	12,120
#10	DE "Human Males"	27,751
#11	"Male"	1,098,946
#12	AB Male OR TI Male	388,824
#13	#10 or #11 or #12	1,154,816
#14	"Men"	183,730
#15	"Man"	86,483
#16	AB (Men OR Man) OR TI (Men OR Man)	223,706
#17	#14 or #15 or #16	256,247
#18	"Paternal"	12,044
#19	TX Paternal	12,075
#20	#19 or #20	12,075
#21	#5 or #9 or #13 or #17 or #20	1,320,027
#22	(DE "Major Depression" OR DE "Depression (Emotion)") OR (DE "Major	157,097

	Depression")	
#23	"Depression"	349,960
#24	TX Depress*	393,923
#25	#22 or #23 or #24	393.923
#26	((DE "Distress") OR (DE "Psychological Reactance")) OR (DE "Mental Health")	103,761
#27	"Mental Distress"	1,887
#28	"Psychological Distress"	31,694
#29	DE "Stress"	66,488
#30	"Stress"	291,095
#31	DE "Emotional Adjustment" OR DE "Emotional Health"	17,540
#32	AB (Mental OR Psychological OR Distress OR Stress OR Emotion) OR TI (Mental OR Psychological OR Distress OR Stress OR Emotion)	988,760
#33	#26 or #27 or #28 or #29 or #30 or #31 or #32 or #33	1,046,702
#34	DE "Irritability"	1,013
#35	"Low Mood"	769
#36	DE "Sadness"	2,370
#37	"Sadness"	9,988
#38	DE "Anger"	12,715
#39	"Anger"	34,324
#40	TX Irritable OR Mood OR Sad* OR Anger OR Rage	187.952
#41	#34 or #35 or #36 or #37 or #38 or #39 or #40	188,388
#42	#25 or #33 or #41	1,336,556
#43	#21 and #42	419,707
#44	(DE "Perinatal Period") OR (DE "Postnatal Period")	8,318
#45	"Perinatal"	14,744
#46	"Postpartum"	16,935
#47	"Postnatal"	26,384
#48	DE "Pregnancy"	47,662
#49	"Pregnancy"	63,270
#50	"Fatherhood"	2,694
#51	AB (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood) OR TI (Perinatal OR Postpartum OR Postnatal OR Pregnancy OR Fatherhood)	72,150
#52	#44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52	94,111
#53	#21 and #52	32,067
#54	#42 and #52	33,286

#55	#21 and #42 and #52	10,294
#56	DE "Qualitative Methods"	9,872
#57	"Qualitative"	196,169
#58	TX Qualitative research OR Qualitative Study OR Qualitative Methods OR Interview OR Focus Group	467,854
#59	#56 or #57 or #58	508,497
#60	DE "Grounded Theory"	4,404
#61	"Grounded Theory"	17,426
#62	DE "Ethnography"	9,592
#63	"Ethnography"	15,034
#64	DE "Phenomenology"	15,575
#65	"Phenomenology"	25,477
#66	DE "Narrative Analysis" OR DE "Narratives"	22,189
#67	"Narrative"	55,839
#68	"Case Studies"	33,051
#69	"Lived Experience"	8,170
#70	AB Grounded Theory OR Phenomenol* OR Ethnograph*	98,901
#71	AB Thematic Analysis or Content Analysis or Textual Analysis	55,935
#72	AB (Experience OR Perception OR Attitude OR Views OR Opinion) OR TI (Experience OR Perception OR Attitude OR Views OR Opinion)	1,159,147
#73	#60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72	1,280,346
#74	#59 or #73	1,544,408
#75	#21 and #42 and #52 and #74	3,259
#76	Limit #75 to English Language	2,702
#77	Limit #76 to year 1000-2021	2,597
#78	Limit #77 to 'Fathers' as a major heading	239

1538

1539 **SCOPUS Search conducted on August 09 2021:**

Search	Query	Records retrieved
#1	TITLE-ABS-KEY (fathers OR dad* OR male OR men OR man OR paternal)	11,100,055
#2	TITLE-ABS-KEY (depress*)	940,556
#3	TITLE-ABS-KEY (perinatal or post-partum or postnatal or pregnancy)	1,262,884
#4	Qualitative	2,107,048

#5	#1 and #2 and #3 and #4	884
#6	Limit #5 to dates	849
#7	Limit to 'Father' or 'Fathers' as major concepts:	156
#8	Limit #7 to English Language	151
Final search strategy: ( TITLE-ABS-KEY ( fathers OR dad* OR male OR men OR man OR paternal ) ) AND ( TITLE-ABS-KEY ( depress* ) ) AND ( TITLE-ABS-KEY ( perinatal OR post-partum OR postnatal OR pregnancy ) ) AND ( qualitative ) AND ( LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2018 ) OR LIMIT-TO ( PUBYEAR , 2017 ) OR LIMIT-TO ( PUBYEAR , 2016 ) OR LIMIT-TO ( PUBYEAR , 2015 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) OR LIMIT-TO ( PUBYEAR , 2012 ) OR LIMIT-TO ( PUBYEAR , 2011 ) OR LIMIT-TO ( PUBYEAR , 2010 ) OR LIMIT-TO ( PUBYEAR , 2009 ) OR LIMIT-TO ( PUBYEAR , 2008 ) OR LIMIT-TO ( PUBYEAR , 2007 ) OR LIMIT-TO ( PUBYEAR , 2006 ) OR LIMIT-TO ( PUBYEAR , 2005 ) OR LIMIT-TO ( PUBYEAR , 2004 ) OR LIMIT-TO ( PUBYEAR , 2003 ) OR LIMIT-TO ( PUBYEAR , 2002 ) OR LIMIT-TO ( PUBYEAR , 2001 ) OR LIMIT-TO ( PUBYEAR , 2000 ) ) AND ( LIMIT-TO ( EXACTKEYWORD , "father" ) OR LIMIT-TO ( EXACTKEYWORD , "fathers" ) )		

1540

1541 **ProQuest Sociology Search conducted on August 09 2021:**

Search	Query	Records retrieved
#1	ab(fathers OR dad* OR male OR men OR man OR paternal)	59,655
#2	ab(depress* OR distress OR mental OR psychological OR stress OR emotion OR irritable OR Anger)	81,317
#3	ab(perinatal OR post-partum OR postnatal OR pregnancy)	6,191
#4	(qualitative OR interview OR Focus group OR experience OR grounded* OR phenomenol* OR ethnograph* OR narrative OR case*)	492,909
#5	1 and 2 and 3 and 4	188
#6	Limit to English Language	186
#7	Limit to date 2020-2021	160
#8	Limit to subject 'Fathers'	37
Final search strategy: ab(fathers OR dad* OR male OR men OR man OR paternal) AND ab(depress* OR distress OR mental OR psychological OR stress OR emotion OR irritable OR Anger) AND ab(perinatal OR post-partum OR postnatal OR pregnancy) AND (qualitative OR interview OR Focus group OR experience OR grounded* OR phenomenol* OR ethnograph* OR narrative OR case*)		

1542

1543 **ProQuest Dissertations and Theses Global Search conducted on August 09 2021:**

Search	Query	Records retrieved
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#1	ab(fathers OR dad* OR paternal) AND ab(depress*) AND (perinatal OR postpartum OR postnatal OR pregnancy) AND qualitative	9
#2	Limit #1 to dates 2000-2021	9
#3	Limit #2 to English Language	9

1544

1545 **OpenGrey Search conducted on August 09 2021:**

Search	Query	Records retrieved
#1	(father OR dad* OR male OR men OR man) AND (depress* OR distress OR mental OR psychological OR stress OR emotion OR irritable OR Anger) AND (perinatal OR post-partum OR postnatal OR pregnancy) AND Qualitative Limit #1 to dates 2000-2021 Limit #2 to English Language	2

1546

## Appendix II: Studies ineligible following full text review

1. Åsenhed L, Kilstam J, Alehagen S, Baggens C. Becoming a father is an emotional roller coaster—An analysis of first-time fathers' blogs. *J Clin Nurs* [Internet]. 2014 [cited 2021 Sep 7];23(9–10):1309–17.  
*Reason for exclusion: Phenomenon not Depression (Focus is fatherhood in general).*
2. Barnard M. Fathers' emotional work deserves more attention from health professionals. *Nurs Child Young People* [Internet]. 2014 [cited 2021 Sep 7];26(5):13  
*Reason for exclusion: Ineligible Method (Research Commentary only).*
3. Bäckström C, Thorstensson S, Mårtensson LB, Grimming R, Nyblin Y, Golsäter M. "To be able to support her, I must feel calm and safe": pregnant women's partners perceptions of professional support during pregnancy. *BMC Pregnancy Childbirth* [Internet]. 2017 [cited 2021 Sep 7];17(1):234.  
*Reason for exclusion: Phenomenon not Depression (Focus is fatherhood in general).*
4. Barnes, C. What postpartum depression looks like for men: a phenomenological study. Order no 13859953. Walden University [Internet]. 2019 [cited 2021 Sep 7].  
*Reason for exclusion: Ineligible Method (Qualitative data descriptive only)*
5. Bennett, E, Cooke, D. Surviving postnatal depression: the male perspective. *Neonatal, Paediatric and Child Health Nursing* [Internet]. 2012 [cited 2021 Sep 7]; 15(3):15-20.  
*Reason for exclusion: Phenomenon not Depression (Focuses on father's perspectives of the mother).*
6. Chin R, Daiches A, Hall P. A qualitative exploration of first-time fathers' experiences of becoming a father. *Community Pract* [Internet]. 2011 [cited 2021 Sep 7]; 84(7):19–23.  
*Reason for exclusion: Phenomenon not Depression (Focus is fatherhood in general).*
7. Driesslein A. From the "Technician Thing" to the "Mental Game": Masculinity and U.S. Homebirth. *Med Anthropol Q* [Internet]. 2017 [cited 2021 Sep 7]; 31(4):464–80.  
*Reason for exclusion: Phenomenon not Depression (Focus is masculinity).*
8. Edhborg M, Carlberg M, Simon F, Lindberg L. "Waiting for Better Times": Experiences in the First Postpartum Year by Swedish Fathers With Depressive Symptoms. *Am J Mens Health* [Internet]. 2016 [cited 2021 Sep 7]; 10(5):428–39.  
*Reason for exclusion: Ineligible Population (Past perinatal loss). Also linked to an intervention.*

9. Eriksson H, Salzmänn-Erikson M. Supporting a caring fatherhood in cyberspace - an analysis of communication about caring within an online forum for fathers. *Scand J Caring Sci* [Internet]. 2013 [cited 2021 Sep 7]; 27(1):63–9.  
*Reason for exclusion: Phenomenon not Depression (Focus is Fatherhood in general).*
10. Fägerskiöld A. A change in life as experienced by first-time fathers. *Scand J Caring Sci* [Internet]. 2008 [cited 2021 Sep 7]; 22(1):64–71.  
*Reason for exclusion: Phenomenon not Depression (Focus is natural emotions of fathers)*
11. Fenton S, Joscelyne T, Higgins S. Part 1: exploring views from fathers and perinatal practitioners on the inclusion of fathers by perinatal services. *Br J Midwifery* [Internet]. 2021; 29(4):208–15.  
*Reason for exclusion: Ineligible Method (Does not discuss Qualitative Findings).*
12. Fenwick J, Bayes S, Johansson M. A qualitative investigation into the pregnancy experiences and childbirth expectations of Australian fathers-to-be. *Sex Reprod Healthc* [Internet]. 2012 [cited 2021 Sep 7]; 3(1):3–9.  
*Reason for exclusion: Ineligible Population (Past perinatal loss)*
13. Finn M, Henwood K. Exploring masculinities within men’s identificatory imaginings of first-time fatherhood. *Br J Soc Psychol* [Internet]. 2009 [cited 2021 Sep 7]; 48(3):547–62.  
*Reason for exclusion: Phenomenon not Depression (Focus is masculinity and fatherhood).*
14. Finnbogadóttir H, Svalenius E, Persson EK. Expectant first-time fathers’ experiences of pregnancy. *Midwifery* [Internet]. 2003 [cited 2021 Sep 7]; 19(2):96–105.  
*Reason for exclusion: Phenomenon not Depression (Focus is Fatherhood in general).*
15. Fletcher R, StGeorge J, Newman L, Wroe J. Male callers to an Australian perinatal depression and anxiety help line-Understanding issues and concerns. *Infant Ment Health J* [Internet]. 2020 [cited 2021 Sep 7]; 41(1):145–57.  
*Reason for exclusion: Ineligible Method (Qualitative data is descriptive only).*
16. Hambidge S, Cowell A, Arden-Close E, Mayers A. “What kind of man gets depressed after having a baby?” Fathers’ experiences of mental health during the perinatal period. *BMC Pregnancy Childbirth* [Internet]. 2021 [cited 2021 Sep 7]; 21(1):463.  
*Reason for exclusion: Ineligible Population (severe mental illness diagnoses).*
17. Henshaw EJ, Cooper MA, Jaramillo M, Lamp JM, Jones AL, Wood TL. “Trying to Figure Out If You’re Doing Things Right, and Where to Get the Info”: Parents Recall Information and Support Needed During the First 6 weeks Postpartum. *Matern Child Health J* [Internet]. 2018 [cited 2021 Sep 7]; 22(11):1668–75.



Reason for exclusion: Phenomenon not Depression (Focus is Transition to Fatherhood in general and support needs).

18. Ierardi, JA, Fantasia, HC, Mawn, B, Watson Driscoll, J. The Experience of Men Whose Partners Have Postpartum Depression. J Am Psychiatr Nurses Assoc [Internet]. 2019 [cited 2021 Sep 7]; 29(6):434-444.

Reason for exclusion: Ineligible Population (Severe mental illness diagnoses).

19. Ierardi JA. Exploring the experiences of men whose partners have postpartum depression [dissertation]. Lowell, MA: University of Massachusetts Lowell.

Reason for exclusion: Ineligible Population (Severe mental illness diagnoses).

20. Johansson M, Hildingsson I, Fenwick J. Important factors working to mediate Swedish fathers' experiences of a caesarean section. Midwifery [Internet]. 2013 [cited 2021 Sep 7]; 29(9):1041–9.

Reason for exclusion: Phenomenon not Depression (Focus on birth experiences).

21. Johansson M, Benderix Y, Svensson I. Mothers' and fathers' lived experiences of postpartum depression and parental stress after childbirth: a qualitative study. Int J Qual Stud Health Well-being [Internet]. 2020 [cited 2021 Sep 7]; 15(1):1–11.

Reason for exclusion: Ineligible Population (traumatic birth and past perinatal loss).

22. Kayser JW, Semenic S. Smoking motives, quitting motives, and opinions about smoking cessation support among expectant or new fathers. J Addict Nurs [Internet]. 2013 [cited 2021 Sep 7]; 24(3):149–57.

Reason for exclusion: Phenomenon not Depression (Focus is smoking in fathers).

23. Kowlessar O, Fox JR, Wittkowski A. First-time fathers' experiences of parenting during the first year. J Reprod Infant Psychol [Internet]. 2015 [cited 2021 Sep 7]; 33(1):4–14.

Reason for exclusion: Phenomenon not Depression (Focus is Fatherhood in general).

24. Kwon J-Y, Oliffe JL, Bottorff JL, Kelly MT. Heterosexual gender relations and masculinity in fathers who smoke. Res Nurs Health [Internet]. 2014 [cited 2021 Sep 7]; 37(5):391–8.

Reason for exclusion: Phenomenon not Depression (Focus is Masculinity).

25. Letourneau N, Duffett-Leger L, Dennis C-L, Stewart M, Tryphonopoulos PD. Identifying the support needs of fathers affected by post-partum depression: a pilot study. J Psychiatr Ment Health Nurs [Internet]. 2011; 18(1):41–7.

Reason for exclusion: Ineligible Population (Past Perinatal loss).

26. Letourneau N, Tryphonopoulos PD, Duffett-Leger L, Stewart M, Benzie K, Dennis C-L, et al. Support intervention needs and preferences of fathers affected by postpartum depression. J Perinat Neonatal Nurs [Internet]. 2012 [cited 2021 Sep 7]; 26(1):69–80.

Reason for exclusion: *Ineligible Population (Includes adoptive and stepfathers)*.

27. Madsen SA. Men's mental health: Fatherhood and psychotherapy. J Mens Stud [Internet]. 2009 [cited 2021 Sep 7]; 17(1):15–30.

Reason for exclusion: *Ineligible Method (Qualitative data is descriptive only)*.

28. Mizukoshi M, Ikeda M, Kamibeppu K. The experiences of husbands of primiparas with depressive or anxiety disorders during the perinatal period. Sex Reprod Healthc [Internet]. 2016 [cited 2021 Sep 7]; 8:42–48.

Reason for exclusion: *Phenomenon not Depression (Focus on Maternal mental illness)*.

29. Muscat T, Thorpe K, Obst P. Disconfirmed expectations of infant behaviours and postnatal depressive symptoms among parents. J Reprod Infant Psychol [Internet]. 2012 [cited 2021 Sep 7]; 30(1):51–61.

Reason for exclusion: *Ineligible Method (Quantitative Study)*.

30. Newmark E. Paternal depression: Manifestations and impacts on the family [dissertation]. San Diego, CA: Alliant International University.

Reason for exclusion: *Ineligible Population (Participants are not fathers)*.

31. Oates MR, Cox JL, Neema S, Asten P, Glangeaud-Freudenthal N, Figueiredo B et al. Postnatal depression across countries and cultures: A qualitative study. Br J Psychiatry [Internet]. 2004 [cited 2021 Sep 7]; 184(46):10–16.

Reason for exclusion: *Ineligible context (not limited to OECD)*.

32. Pålsson P, Persson EK, Ekelin M, Kristensson Hallström I, Kvist LJ. First-time fathers experiences of their prenatal preparation in relation to challenges met in the early parenthood period: Implications for early parenthood preparation. Midwifery [Internet]. 2017 [cited 2021 Sep 7]; 50:86–92.

Reason for exclusion: *Ineligible Context (some study cites based in non-OECD countries)*.

33. Premberg Å, Hellström A, Berg M. Experiences of the first year as father. Scand J Caring Sci [Internet]. 2008 Mar [cited 2021 Sep 7]; 22(1):56–63.

Reason for exclusion: *Phenomenon not Depression (Focus is Fatherhood in general)*.

34. Premberg Å, Carlsson G, Hellström A-L, Berg M. First-time fathers' experiences of childbirth--a phenomenological study. Midwifery [Internet]. 2011 Dec [cited 2021 Sep 7]; 27(6):848–53.

Reason for exclusion: *Phenomenon not Depression (Focus is experiences of childbirth)*.

35. Rominov H, Giallo R, Pilkington PD, Whelan TA. "Getting help for yourself is a way of helping your baby:" Fathers' experiences of support for mental health and parenting in the perinatal period. Psychol Men Masc [Internet]. 2018 Jul [cited 2021 Sep 7]; 19(3):457–68.

*Reason for exclusion: Phenomenon not Depression (Focus on support experiences but not specifically around depression).*

36. Rowe HJ, Holton S, Fisher JRW. Postpartum emotional support: A qualitative study of women's and men's anticipated needs and preferred sources. *Aust J Prim Health* [Internet]. 2013 [cited 2021 Sep 7]; 19(1):46-52.

*Reason for Exclusion: Phenomenon not Depression (reviewers agreed that the focus on paternal emotional support needs are not specific around depression to include).*

37. Sarkar SP. 'Post-natal' depression in fathers, or Early Fatherhood Depression. *Psychoanal* [Internet]. 2018 [cited 2021 Sep 7]; 32(2):197-216.

*Reason for exclusion: Ineligible Method (Case history written from a clinical perspective).*

38. Scheibling C. Doing fatherhood online: Men's parental identities, experiences, and ideologies on social media. *Symb Interact* [Internet]. 2020 Aug [cited 2021 Sep 7];43(3):472–92.

*Reason for exclusion: Ineligible Context (Not Perinatal Period).*

39. Shezifi O. When men become fathers: A qualitative investigation of the psychodynamic aspects of the transition to fatherhood [dissertation]. San Diego, CA: Alliant International University.

*Reason for exclusion: Phenomenon not Depression (Focus on Transition to Fatherhood).*

40. Teague SJ, Shatte ABR. Peer support of fathers on Reddit: Quantifying the stressors, behaviors, and drivers. *Psychol Men Masc* [Internet]. 2021 Jun 10 [cited 2021 Sep 7].

*Reason for exclusion: Ineligible Method (Qualitative Data is descriptive).*

41. Thombs BD, Roseman M, Arthurs E. Prenatal and postpartum depression in fathers and mothers. *JAMA* [Internet]. 2010 Sep 1 [cited 2021 Sep 7]; 304(9):961.

*Reason for exclusion: Ineligible Method (Letter to Editor).*

42. Thompson SD, Crase SJ. Fathers of infants born to adolescent mothers: A comparison with non-parenting male peers and adolescent mothers. *Child Youth Serv Rev* [Internet]. 2004 May [cited 2021 Sep 7];26(5):489–505.

*Reason for exclusion: Ineligible Population (Age under 18 years).*

43. Thorstensson S, Mårtensson LB, Bäckström C, Grimming R, Nyblin Y, Golsäter M. "To be able to support her, I must feel calm and safe": pregnant women's partners perceptions of professional support during pregnancy. *BMC Pregnancy Childbirth* [Internet]. 2017 Jul 17 [cited 2021 Sep 7]; 17:1–11.

*Reason for exclusion: Phenomenon not Depression (Focus on Fatherhood in General).*

- 1706 44. Widarsson M, Kerstis B, Sundquist K, Engström G, Sarkadi A. Support Needs of Expectant  
1707 Mothers and Fathers: A Qualitative Study. J Perinat Educ [Internet]. 2012 [cited 2021 Sep 7];  
1708 21(1):36-4  
1709 *Reason for exclusion: Phenomenon not Depression (Focus on Parenthood in General).*

1710

1711 **Appendix III: Studies excluded on methodological quality**

1712 There were no studies excluded on methodological quality.

## Appendix IV: Characteristics of included studies

Study	Methodology	Method	Participants	Phenomena of interest	Author's conclusion	Setting/Country:
Allen (2010)	Qualitative	Semi-structured interviews carried out face to face or by conference call  Transcendental phenomenology	N=8  Ethnicity:4 Caucasian, 1 Vietnamese, 1 African American, 1 Pacific Islander, 1 Hispanic.  Age:28-39  Relationship: all cohabiting	Fathers' symptoms of PPD, how these interfere with family relationships and father help seeking behaviors.	Fathers feel inadequate in the case of maternal PPD. Barriers to their help-seeking/receiving include lack of psychoeducation, lack of father inclusion and lack of time. Half the fathers experienced symptoms conducive to PPD. Fathers withdraw themselves when their partner becomes unrecognizable to them, including by working more hours. Fathers feel rejected and abandoned in the case of maternal PPD and feel emotionally removed from their partners.	Community setting (researcher's office, conference call, participant homes)  USA (Pacific Southwest and Midwest)
Baldwin, Malone, Sandall & Bick (2019)	Qualitative	Semi-structured face-to-face interviews  Framework analysis	N=21  Ethnicity: 10 Indian, 7 white British, 1 Spanish, 1 black African, 1 black Caribbean, 1 Pakistani.	Men's experiences of fatherhood, mental health, and well-being needs	Men would only seek mental health support as a last option, though would usually access a GP. Men experience a 'roller-coaster' of emotions which include stress, low mood and irritability. Men	Community setting (home, health center, hotel lounge, university)  London, England UK

Study	Methodology	Method	Participants	Phenomena of interest	Author's conclusion	Setting/Country:
			Age: 20-60  Relationship: 19 cohabiting, 2 not cohabiting		feel useless, demoralized and demotivated. Some participants did not feel an instant bond to the baby.	
Beestin, Hugh-Jones & Gough (2014)	Qualitative	Narrative-based interviews  Interpretative phenomenology	N=14  Ethnicity:  2 Afro-Caribbean, 12 white British  Age: 25-50  Relationship: 8 partnership/cohabiting, 5 married, 1 recently separated	How maternal postnatal depression affects fathers and how fathers adapt in this context	Maternal PND was isolating for fathers, they felt frustrated and powerless. Resultant relationship difficulties meant some men felt psychologically absent as fathers. Some symptoms of depression are described. One participant described it as a 'dark time', another felt 'guilty'. Feeling trapped and hopeless is documented.	Community setting (home, workplace, university)  Yorkshire, England UK
Darwin, Galdas, Hinchliff, Littlewood, McMillan, McGowan & Gilbody (2017)	Qualitative	In-depth semi-structured interviews completed both face-to-face and by telephone  Thematic analysis	N=19  Ethnicity: 18 white British, 1 white Other.  Age:25-44  Relationship:16 married, 3 cohabiting	Fathers' views and experiences of their own mental health during pregnancy and the first postnatal year	Fathers use 'stress' instead of 'mental health' when talking about themselves. Fathers struggle and experience psychological distress but find it hard to legitimize their experiences. Mental health symptoms include guilt, irritability, feeling mentally drained, becoming withdrawn.	Community setting (home, university setting)  Yorkshire, England UK

Study	Methodology	Method	Participants	Phenomena of interest	Author's conclusion	Setting/Country:
					Men are reluctant to seek support and deal with things alone.	
Eddy, Poll, Whiting & Clevesy (2019)	Qualitative	Secondary sources including blogs, websites, forums, and chat rooms were analyzed using both content analysis and phenomenology	N= 27  Demographics not available	Fathers' experiences of post-partum depression	Paternal PPD is powerful and negative. Feelings arising from PPD cause fathers to distance themselves from their child. The authors created a theme that fathers repress their feelings due to gendered expectations and feel overwhelmed. Some participants resented their baby and find crying difficult. This included angry/hateful thoughts towards the baby and suicidal thoughts. Fathers experiencing PPD feel guilt/shame.	Not specified, online blogs were anonymous.
Mayers, Hambidge, Bryant & Arden-Close (2020)	Qualitative	Questionnaire with open-ended questions	N=25  Ethnicity: not recorded  Age: not recorded  Relationship: 18 married, 7 cohabiting.	Fathers' experiences of their partners' mental health and how this impacted on their own mental health	Fathers suffer low mood in the context of poor maternal mental health. Fathers experience negative feelings such as stress and anxiety and have sleeping difficulties. They describe relationship problems which include arguments, spending time	Online setting  Participants were based across the UK including England, Scotland, Wales and Northern Ireland.



Study	Methodology	Method	Participants	Phenomena of interest	Author's conclusion	Setting/Country:
					apart and decline in supporting each other.	
Pedersen, Maindal & Ryom (2021)	Qualitative	Semi-structured interviews based on ten themes  Interpretative Phenomenological Analysis	N=8  Ethnicity: not recorded  Age: 29-37.  Relationship: all cohabiting (does not specify if married or not)	Fathers' lived experiences of PPD and their help seeking behaviors	Fathers experience feeling overwhelmed, inadequate. They feel powerless and struggle with their crying babies. Half the fathers felt regret. Two had thoughts about suicide and harming their child. Stressors included work problems and breastfeeding. Regarding help seeking all fathers accessed their GP or HV. They all recognized mood disturbances but did not all perceive these as depression. Most fathers had not heard of paternal PPD. Men feel pressures due to masculine expectations. Partners are acknowledged as having great influence on men in help seeking.	Setting not specified.  Denmark.
Schuppan, Roberts & Powrie (2019)	Qualitative	Semi-structured interviews conducted face-to-face  Thematic Analysis	N=8  Ethnicity: 5 Australian, 1 New Zealander, 1 European	At-risk (of paternal perinatal mental health problems) fathers' perceptions of help seeking and screening	Men feel help seeking for paternal mental health is stigmatized and do not want to appear weak or vulnerable They are aware of early	Community setting, location of interview selected by participants  Australia.

Study	Methodology	Method	Participants	Phenomena of interest	Author's conclusion	Setting/Country:
			Age:24-64  Relationship: All partnered		symptoms of mental health problems but avoid seeking help to avoid difficult feelings. They wait for crisis, or notable impact on the partner/child before seeking help. They are pressured by a need to be strong and supportive to the family. They are unable to seek help when others, particularly partners, are suffering.	
Webster (2002)	Qualitative	Semi-structured interviews conducted face to face  Phenomenology	N=8  Ethnicity: not recorded  Age: 25-40  Relationship: all cohabiting (does not specify if married or not)	The effects of maternal PND on fathers	In terms of their mental health, fathers experience feelings similar to mothers with PND. One participant describes regretting becoming a parent, another acknowledged he may have had PND and struggled with feelings that parenting was not what he expected.	Community setting, the author suggests the interviews were conducted at home visits.  NHS Trust area within the UK which has been anonymized in publication.

## Appendix V: Study findings and illustrations

Allen [39]	
Finding 1 (U)	Some of the fathers internalized their partner's symptoms and felt they were to blame
Illustration	"When my wife was very down and depressed and especially when she was angry, it kind of came over on me and then made some frustrations in our relationship. We seem to argue a lot more because of it. I would notice when we were around each other and she was down like that, I would get more down. Or, when she was more irritated, I would be more irritated" [39](p46).
Finding 2 (U)	The fathers expressed feelings of inadequacy around not being able to "fix" things for their significant other
Illustration	"I kind of get defensive when she starts crying and I tend to think that it's something I did or make it about me or try to fix it. But it's not about me; it was just the way I was affected" [39](p48). 'Well like I said, I didn't really have a huge instinct as to how to care for a newborn baby or how to parent, I never spent time with a baby so when my wife didn't want to do it anymore or wasn't sure what to do it made things more helpless. You know being a guy you want to fix it and if you can't fix it and you feel helpless" [39](p49).
Finding 3 (U)	The lack of time the fathers felt were available to them given the new responsibilities in their lives
Illustration	"who has time to lick your own wounds when you're trying to tend to so many others' 'I think I felt more isolated than perhaps I really probably was or I felt like there were fewer resources that there probably were. I just didn't have, I mean part of it is that you don't have any time and you're so out of energy, you don't have time to wade through the Yellow Pages or do a big long Internet search on where can I go for help with this" [39](p57).
Finding 4 (C)	If he is working more, he is staying out of her way and successfully providing for the family that he is responsible for
Illustration	"The message for me at least, sort of the implicit in that is the assumption that the behavior that you're seeing may look unsupportive and has the intent of being unsupportive. I don't think it always does, but sometimes I think a husband for example may start working a lot more. They may feel like o my gosh I need to make more money, so it can be really easy to label them as sort of the withdrawn, deadbeat opportunistic husband. As anything moving forward, I think what husband isn't going to walk towards something that's labeling him in that way" [39](p60).
Finding 5 (U)	They found focus on the work outside of the home to be a way to better cope with what was going on inside of the home
Illustration	"Pretty much the way I take care of myself was to keep on moving, keep on walking like I do everything else in my life it's not like I have time to sit around and think about it. I have three mouths to feed so I had to get to it and I had to get to work and that was that" [39](p60). 'Now I have to support even more people, maybe not have to support because you know you're getting into it, but the reality strikes because they're sitting there in front of you and the room is filled now and so you're like okay. The depression was kind of the same thing for me I think in a lot of ways, but no attention was really to pay to it because you know there isn't any. So, I just went on about my work, trying to work, work, work" [39](p60).
Finding 6 (U)	The fathers want the information to be explicitly from the male perspective
Illustration	"You know sometimes the women get that stuff about postpartum depression. I mean it says postpartum depression so who are they talking about, the mother's right? So you know women may get those brochures and whatnot but not for the dads. Maybe if some of that says, for the dad. I think if you want to reach the dad, then it has to be for the dads" [39](p61).

Finding 7 (U)	In getting help, the fathers agree that support groups are not something that would work well with fathers
Illustration	<p>"I would like it if it was for the father and it helped me know how to react. I would really be open to that, but like I said the last thing I want to do, is be in a room full men when I could be at home with my kids and wife" [39](p62).</p> <p>"In theory [a group] it's a good idea, but I think when you look at the psyche of man, they aren't really going to sit around and talk to each other and open their feelings. Maybe an online forum where things could be shared, I think that would maybe be more advantageous for someone like me to use. Also finding the time to go to a meeting might not, that would be pretty difficult" [39] (p62).</p>
Finding 8 (C)	Fathers want therapists who understand what the father goes through
Illustration	"I guess just take the father into consideration and make it seem like you can see, I mean everything falls on top of him. I think the main priority, I think, is to take care of the mother first because she's the one home with the kids and they are the main priority too. As far as the fathers, well you know, it's just as long as they are given at least acknowledgment" [39](p63-4).
Finding 9 (C)	They want their partners to understand that they are also afraid and that even though they do things differently, it doesn't mean that it's wrong
Illustration	"I think men have received a lot more messages in terms of what not to do than what to do. I guess just some societal validation for being a good dad, they're just isn't much of it. You never hear anything like you know he's a really good dad, you just don't hear that much. The idea that moms think that dad is incompetent and so they keep them away from, you know, "well you didn't clean this right, you are holding her wrong" or all of these things. Instead of viewing it is different, is viewed as right or wrong and so they keep the amount and then blame them for being withdrawn. It's a systemic thing. I mean it's normal for mom to feel you know protective of their new baby and all of that stuff, but I think that is an important dialogue for a couple to have. We are going to be doing things different. I may clean a little differently than you, but ultimately the baby will be clean—and for the partners to each be open to that" [39](p66).
Baldwin et al. [37]	
Finding 10 (U)	Feelings of apprehension and nervousness appeared to be related to the 'unknown' about becoming a father
Illustration	<p>"Excitement was probably the first thing that I felt...it was a little bit of, kind of, apprehension, as in how-what will I need to, kind of, do in terms of being a dad" [37](p5).</p> <p>"Pretty scary, overwhelming, life-changing" [37](p5).</p>
Finding 11 (C)	Stress in the antenatal period
Illustration	"a rollercoaster ride...we've got a long way to go yet until the baby arrives in this world and having that mixed emotions, really, so there's been stressful times" [37](p5).
Finding 12 (U)	For many men their baby did not seem 'real' during their partner's pregnancy
Illustration	<p>"Even though the baby was there, you can see the bump, you can see, you know, the baby moving around inside, to me, it wasn't there. Yeah, it wasn't real. It's only until she was born" [37](p5).</p> <p>"it was something that I couldn't quite process until it [the birth] actually happened" [37] (p5).</p>
Finding 13 (U)	Changed priorities and an altered mindset
Illustration	<p>"Your own needs really go out of the window" [37](p5).</p> <p>"I will compromise all the things for my baby and my family, to be honest" [37](p6).</p>
Finding 14 (C)	A lack of sleep, missing meals and having to balance work commitments with family life were commonly reported triggers for tiredness and stress
Illustration	"It's tough 'cause you've got - you're not sleeping, you're missing meals and like, I think those - that, for me, just missing the sleep and missing the meals, makes me more cranky and you just become a bit more snappier" [37](p6).

Finding 15 (C)	Many new fathers found it very difficult to balance work and home life
Illustration	"You give her a feed and you put her to bed and then you unwind, if you can or you don't, and then you go to sleep. And then you'll know like at 12 o'clock or 3 o'clock she'll wake up and you'll have to feed her. And that's the really difficult time. ... 'cause you're exhausted from work, and then like, during that period you know something's going to happen. So, you have to care for her then and then, you have to wake up again at 6 o'clock to get ready for work again. And then, you're doing your eight or nine hours at work and you come back and it's - you're doing that same cycle" [37](p6).
Finding 16 (U)	The additional stress resulting from the tiredness and pressure to provide for their family impacted negatively on several fathers
Illustration	"...it can bring you down very, very fast. Very difficult situation sometimes and yeah, an element of you can go into some form of a depressive state where, you know, you start to get frustrated at each other, because you're both unaware what to do and your children are crying and it's like, what do we do?" [37](p6).
Finding 17 (C)	Some fathers also expected an instant bond with their baby and when this didn't happen they found the experience quite challenging
Illustration	"...particularly in the first week when the baby doesn't recognise you, of just not feeling like they- you can make them feel better. I would say that's probably a challenge" [37](p7).
Finding 18 (U)	Changes they noticed in their relationship with their partner
Illustration	"I probably argue a bit more and that's probably just due to my tiredness" [37](p7). "What possibly has suffered is that in some way, sexually, we haven't been as intimate" [37](p7).
Finding 19 (U)	The need to cope alone
Illustration	"I tend to keep it in myself so, you know, I battle it myself, in terms of being - so, you know, lack of sleep, you know, that - my first week back at work and I'm there falling asleep on my desk. But yeah, I don't show it, I just, kind of - oh, he's crying - but I just, kind of, battle in continually.....I won't share my, kind of, worries and thoughts. I tend to fight it inside me and think, okay, you know, okay, I'm - you know, I've got this, what - you know, whilst, you know, keep it in my head ...I won't show it to, you know, my wife ...I won't show her that I'm feeling that way. I just, kind of, put a smile face on, but then tackle it behind the scenes" [37](p7).
Finding 20 (C)	Most fathers said they would only approach health professionals as their last port of call and the GP would be their professional of choice
Illustration	"I'd consider seeing a GP for a referral, but I wouldn't approach the Maternity Services for that stuff. I wouldn't ask the Health visitors or other people we see at the GP" [37](p8).
Finding 21 (U)	A lack of appropriate support and information for new fathers
Illustration	"You don't really know it's accessible to you" [37](p8). "I don't know where you'd actually go for that kind of support, necessarily" [37](p8).
Finding 22 (C)	Men feared taking up health professionals' time with their own mental health worries and avoided seeking help
Illustration	"I feel like you really are aware - with that in mind, you really are aware that you're taking up somebody else's time if you are to be in that position, and it's like, you know, I don't want to bore you with my troubles" [37](p8).
Finding 23 (C)	Not asked about their mental health
Illustration	"...no one really asks you how the father is doing, it's all about the baby and the mum. So, yeah, it's just a foreign concept, I think" [37](p9).
Finding 24 (C)	Fear of being perceived negatively by work colleagues, friends and family if a mental health problem was identified
Illustration	"I guess, it's that fear of worrying about well, if you went and then seek help, how would your

	company see that? How would your friends and family see that? Is that something you want to disclose? ... I think that sometimes can be the making or breaking point for someone where, if you do need to seek the advice, but you don't because of other fears, it then means that you're learning to cope with it in different ways" [37](p9).
Beestin et al. [38]	
Finding 25 (C)	An unshared parenting load rendered fathering an unexpectedly solitary experience
Illustration	'And then you start questioning yourself 'are you doing the right thing?' cos when there's two of you, you can talk 'oh I tried winding her that way earlier and it was brilliant, she threw up all over my shoulder and ', but when [wife] goes off to bed and you're like 'should she be throwing up that much?' you question yourself, but you've just got to keep going' [38](p723).
Finding 26 (C)	Becoming preoccupied by the difficulties within the adult relationship meant that some men felt they were psychologically and physically absent as fathers
Illustration	"George explained that it was his wife's emotional rejection of him, rather than her absence from mothering, which preoccupied him, leading to 'darker' times and 'switching off my feelings (...) to make like your own, kind of like your own postnatal depression pills" [38](p724).
Finding 27 (U)	Mundane manifestation
Illustration	"I have been really fed up and I just don't want anyone around me (...) I just don't wanna be around anyone and the kids will be like, saying like 'daddy's in a really bad mood, what's wrong with you daddy?' and I'm mumbling and being grumpy and whatever, but it's a case of it's just too much" [38](p725).
Finding 28 (C)	Fathering was thwarted by the constraints generated by their partner's mental health
Illustration	"It's like (...) having a picnic, on a meadow, in the sunshine, blue sky, birds flying by, birds singing, and, and I would say [...] stuck, stuck in a tunnel on a wet, cold, rainy, miserable, dark day, big contrast (...) Where at the other stage you're just as free as a bird (...) on the other hand you're like wading through, wading through thick mud, just to see if I can make it through the day, to go on to the next day. Surviving, you're not living, you're not enjoying your family, you're just surviving day after day, after day, after day. There's no enjoyment, no fun, there's no [sigh], you can't see a way out and all you can do is pitch in and try to stick it out and survive (...) no fun, no happiness, no smiles" [38](p725).
Darwin et al. [40]	
Finding 29 (C)	Stress' rather than mental health
Illustration	"I think for me it's just-the never having any time to relax, it's just not possible. I've got a stressful job then I come home and I tend to get...the tired, stressed baby...I think the stress for me is just the non-stopness of it" [40](p5).
Finding 30 (C)	Questioning the legitimacy of their own mental health needs
Illustration	"I'm always conscious that [partner]'s got it a lot worse so I just sort of get on with it" [40](p5).
Finding 31 (U)	Guilt about being unable to support partner due to being at work
Illustration	"I felt guilty actually, guilty going back to work and leaving [partner] with everything. ...I was like, I've left them all day on their own. I don't think that's how she felt but that's how I felt"[40](p5).
Finding 32 (C)	Minimising feelings and becoming more irritable with their partner were common reactions to stress, particularly in the early postnatal period
Illustration	"I tend to do the typical man thing of hiding it until I can do so no longer. ...I'm not the sort to wail and shout and whatever...I probably just get grumpy and a bit snappy about stuff. That's pretty much it really"[40](p5).
Finding 33 (C)	Physical and behavioural signs, including difficulty concentrating at work and suffering with headaches
Illustration	"...something physically is going on, on top of the mental stress...I felt mentally drained as well

	and tired, but once the physical aspect came into the whole situation as well, that's when I went to the GP" [40](p5).
Finding 34 (U)	Disclosures about the psychological and emotional challenges men had experienced were prompted by discussions between partners
Illustration	"Partner of Father 6: 'You went into yourself, I feel' Father 6: 'Yes, I could feel myself withdraw, so I wouldn't communicate as much and I would get snappy when sometimes I wouldn't do'" [40](p6).
Finding 35 (U)	Men who reported having consulted their GP in relation to their mental health described more marked symptoms
Illustration	"In the end I just couldn't function...I wasn't myself. I couldn't even make simple decisions" [40](p6) 'I felt so ill, I just wanted to die. I just thought this is awful' [40](p6).
Finding 36 (C)	Feelings of conflict about wanting to be more involved
Illustration	"I would be thinking are there going to be the finds to like assist (.) even if I wanted some assistance, how are they actually going to be able to-? There is a shortage of [GPs] nationally so therefore me then going to the GP and saying, you know, if it was affecting me mentally, I'd feel almost like bad about it, I think I'm wasting their time right here, they've got people to see who are in more immediate need or something and you know, so I probably just like hold it in a bit more" (p6).
Finding 37 (U)	The loss of a previous 'closeness'
Illustration	"I think trying to juggle all of that and this child and you know, your relationship is the thing that takes the biggest hit. So I think it's finding the time...and I think on the surface you probably think you're OK, because you have a chat when you get in, but..before you know it you've not spent any time with each other or spoke to each other...we were probably just not really talking or not interacting with each other, we were just kind of existing...we sort of just never really reconnected...It's really just facing it, just talk and be honest with them. But you need time to do it and also you need to both be in the same receptive mood" [40](p7).
Finding 38 (U)	Struggling to understand their partner's perspectives, both physical and emotional, which could be a source of strain in the relationship
Illustration	"I struggled at times because whilst I could see of the physical effects on [partner], I couldn't understand the emotional and mental effects it was having on her, so I struggled with that, and I probably did become a bit more snappy, definitely low mood at times and struggling to sort of sleep properly, and you have a lot to think about as well so you're trying to do everything, trying to make sure that we're ready but also ready with the house and you've got so much to sort of think about" [40](p7).
Finding 39 (C)	Parenting only became 'real' once they were 'doing' it
Illustration	"As we approached due date, I was getting less sleep due to worrying about it, but once it was there, we just got on with it" [40](p8).
Finding 40 (U)	Feeling powerless
Illustration	"I'm probably the sort of bloke who actually just says 'oh I'm quite forgetful, so I can forget I've had the worst night ever'. I just try and forget it. So that's probably my coping mechanism. It's just, trying to forget it and I generally do. And then, I guess, I've found in some ways, work quite helpful in that respect, because you can have a crazy night where you have no idea what's going on with [son's name], but I can go to work and I feel fine. I'm in control here" [40](p8).
Finding 41 (U)	Using work as a distraction
Illustration	"I like my work because it's technical stuff, I know I can bury myself in it and that will take my mind off it" [40](p9).
Finding 42 (U)	Taking a self-reliant and stoical attitude when deemed necessary

Illustration	<p>"I'd just get on with it. I would just deal with it myself. That's what I've always done. I think it tends to be a male reaction for most people" [40](p9);</p> <p>"And I think generally, that's my approach. It's just a case of head down, battle on through" [40](p9).</p>
Finding 43 (U)	Perceived expectations of masculinity as well as negative attitudes towards depression
Illustration	<p>"...there's always the fear, if you open yourself up and you explain how you are feeling emotionally, like blokes will, sort of, ridicule you, don't be so airy fairy, you know, that, sort of thing...just because blokes try and act all macho and stuff";</p> <p>'I am a depressive, I'm depressed right now, have been for a few days...I don't think, in any stretch of the imagination, I'm the image of the stereotypical man, and yet I'm never going to be able to breakout of the, man up, get on with it thing. And I don't know where that comes from, just it's there" [40](p9).</p>
Finding 44 (C)	Men's coping capacity was often strengthened through their positive and rewarding experiences of fatherhood; something that grew with the child's development and his/her increasing ability to interact
Illustration	<p>"I mean you cope through him as well, as he gets older. I mean just smiling to himself and being able to come back and he recognises your face, that kind of stuff is a huge coping strategy";</p> <p>'The sleepless nights do take their toll on you, but I don't know if it's just the way that I think...but I tend to look at the bigger picture. I just think I'm happy because she's healthy, she's smiling..." (p9).</p>
Finding 45 (C)	Feelings of rejection or being 'pushed out' by the closeness between their baby and partner
Illustration	<p>"[For women] it becomes about me and bump, and then me and baby. Whereas fathers, it's about them, you know, them two over there and me. You feel part of that unit but nonetheless, you're always separated slightly...that's just how it is" [40](p9).</p>
Finding 46 (C)	Existing relationships that offered ways to 'casually explore concerns and gain reassurance'
Illustration	<p>"We didn't know what was wrong [when baby was teething], and I think neither of us was able to reassure the other. But, in those situations, we've had other people that have been able to add a bit of perspective" [40](p10).</p>
Finding 47 (C)	Lack of equivalent groups for fathers
Illustration	<p>"I think in some ways it would be helpful before and after to make sure that dads are prepared and that they're coping and maybe even if it was just away from the mums for some people maybe, because I think some dads might find it a bit embarrassing to say I don't know what I'm doing" [40](p10).</p>
Finding 48 (U)	Feeling conflicted about wanting or needing emotional support
Illustration	<p>"I'd feel like I maybe shouldn't want to want some support, and that I should be find and I should just get by, and actually I have so did I need it? Probably not. Would it would be nice? Yes, maybe. Would I have gone? Different question again, maybe not" [40](p11);</p> <p>"If I'm there and I say you know, I'm feeling down or whatever they'll more than likely punch me in the arm and get me a beer and tell me to shut up, which is what I need I think" [40](p11).</p>
Finding 49 (C)	A preference for information that was geared towards fathers
Illustration	<p>"I wouldn't have a clue how to go about [accessing groups for fathers]...with [partner], she can go online and find 28 different chat rooms...I don't know if those things even exist [for fathers] and I wouldn't know where to look" [40](p11);</p> <p>"Yes, what I'm saying is I need pointing in the right direction of going onto MUMbler or whatever" [40](p11).</p>
Finding 50 (U)	Written materials may be more acceptable to some men, offering a route to further information and support
Illustration	<p>"I really enjoyed reading [the Dad's handbook]...because a lot of it was based on other people's experiences so you realise you're not in the boat by yourself, that there are other people that</p>



	have been through it and obviously a natural thing that everyone does every day2 [40](p11); "Perhaps if there was some sort of dads thing, like a bounty pack which is just for dads" [40](p11).
Eddy et al. [34]	
Finding 51 (U)	Not knowing men could suffer from postpartum depression
Illustration	"Learning about postpartum depression was a good thing because I saw myself in what I was reading and that means I'm not alone"[34](p1006); "After becoming more aware of paternal postpartum depression I began having discussions with fathers and many could identify. Then I had discussions with women and they could see the signs of depression in their husbands. It became clear that although they may not have known what to call it, many of them were living with paternal PPD" [34](p1006).
Finding 52 (U)	Not receiving information from doctors or therapists
Illustration	"I'm currently seeing a therapist but instead of helping me cope with my stress, anxiety and anger she's angling for a neuroses or psychosis" [34](p1007); 'None of our reading and none of the medical professionals we talked to ever mentioned anything significant about fathers getting PPD. By the time I realized I had depression, our family had nearly broken apart' [34](p1007).
Finding 53 (C)	Confusion of what they were experiencing and although some sought information, they were usually unable to find it
Illustration	"The book gives surprisingly minimal attention to what a post-partum husband might do to take care of his own wellbeing" [34](p1007).
Finding 54 (U)	The expectations society gives to men of what they are supposed to be
Illustration	"I had the occasional thought that I could either leave or eat a bullet but I didn't because personal honor and macho shit" [34](p1007); "I wanted to cry and give up being a father.. But I was afraid to acknowledge those thoughts and feelings in myself-it wasn't becoming of a man and father to feel those things. I pushed them down so deep that I couldn't feel anymore. I pulled away from my family and started to spend more time outside my home, socializing and looking for companionship. It nearly destroyed my family" [34](p1007).
Finding 55 (U)	The reluctance of men to share their thoughts and feelings
Illustration	"I don't feel I can tell my wife about these feelings. It will make me look weak or it will sound ridiculous because she is with the kids more than me" [34](p1008); "I felt the same way about not being able to tell my wife about it. She's with the kids every day all day and I'm home to help for 6 hours and can't handle it?" [34](p1008) "I don't feel comfortable speaking with them" [34](p1008) "I found myself huddled in my home office, secretly and somewhat reluctantly shedding a tear in the dark" [34](p1008).
Finding 56 (U)	Feelings of being overwhelmed that were difficult to express
Illustration	"I was so ready to be a dad but all I can think about is how miserable I am" [34](p1008); "I have the feeling that I'm constantly on the edge of bursting into tears. My work, which I used to be able to cope with well, seems extremely stressful now. I'm easily irritable, I can't stand my 7-month baby's cry over more than a few minutes without becoming angry" [34](p1008).
Finding 57 (C)	Emotions of confusion, exhaustion, helplessness, feeling alone, and trapped
Illustration	"I'm always exhausted, even the rare nights where I get 7 or 8 hours of (albeit interrupted because of baby) sleep. I'm very frequently depressed, in a sour mood or very irritable" [34](p1008); "I can't wait till he's older and his cries are no longer his default option for communication" [34](p1008).
Finding 58 (U)	Resented their baby's constant needs and attention

Illustration	<p>"to my eyes, an oozy bundle of constant need" [34](p1008);</p> <p>"Baby cries can unearth some darkness in me, I've found" [34](p1008);</p> <p>"When I'm personally caring for our son I'm overwhelmed with hate. I hate this baby. I thought my dislike for him would go away and I'd start to bond but it's gotten worse. I hate him. I hate his crying, his needs, his endless discontent. I'm suppressing violent thoughts of ending his life and ending my own" [34](p1008-9);</p> <p>"angrily typed into google, 'I hate my baby'" [34](p1009);</p> <p>"I always think back to that with a variety of mixed emotions. Of course, I feel guilty that it was even an issue. What kind of dad has to worry about hurting his kid" [34](p1009).</p>
Finding 59 (U)	A sense of feeling lost or forgotten during this time of their lives
Illustration	<p>!After reading the questions (EPDS) I started uncomfortably laughing a bit because as she was answering them I began to feel like someone should be asking me the same questions! [34](p1009);</p> <p>"Many men I've spoken to share a similar story of struggling with depression when their children were first born, but they do so secretly, quietly, away from the dinner table. They understand that there's no truly acceptable place or context for men to publicly reveal being challenged" [34](p1009).</p>
Finding 60 (C)	Fathers felt neglected by their wives
Illustration	"I blamed both her [wife] and my son for my feelings of loss and insignificance. I took on every parental responsibility with sucked up reluctance on the outside and contempt on the inside. My wife seemed to consider me selfish and irresponsible. Even when the bickering ended, the wounds never healed. Our marriage took a fatal hit" [34](p1009).
Mayers et al. [35]	
Finding 61 (U)	Heightened physical changes and emotional responses
Illustration	<p>"I was scared. I could not sleep. My memory lapsed and I cried too often" [35](p6);</p> <p>'Made me feel like I couldn't be as supporting to my son' [35](p6).</p>
Finding 62 (C)	Negative impact on their relationship with their partner
Illustration	"Things became very difficult and pushed us apart" [35](p6).
Finding 63 (C)	Needed to be seen to remain emotionally and mentally strong to support their partner and baby, despite coping with their own mental health.
Illustration	"It was challenging supporting my partner and baby and managing with my own mental health, but I coped" [35](p6).
Finding 64 (C)	Lack of support from healthcare professionals led to fathers experiencing feelings of isolation and confusion
Illustration	"My wellbeing was of little interest to midwives, health visitors ... [I] had not given birth so had no cause for sympathy. A leaflet for my wife and a page for the fathers to read which wasn't enough" [35](p6).
Finding 65 (U)	Not enough information (and reassurance) on father-child bonding activities
Illustration	"There was no information... ..how to understand that it could take a while for your child to bond as it does with the mothers" [35](p6).
Finding 66 (U)	An extreme imbalance between the level of support fathers receive from healthcare professionals compared to mothers
Illustration	"Mothers have support from midwives and health visitors, but dads get nothing" [35](p6).
Finding 67 (C)	The focus should primarily be on the woman, as she carries the baby and gives birth to their child
Illustration	"I understand the focus was and should be on my partner, but a bit of concern ... would have

	been most welcomed" [35](p6).
Pedersen et al. [42]	
Finding 68 (U)	Fathers' great expectations were later replaced by a very different reality of fatherhood
Illustration	"It's a radical change that you just can't imagine" [42](p4); "Nobody tells you how hard it really is, and thank God for that, because then there wouldn't be born any more children into this world" [42](p4); "All of these false fantasies, which are set up by other parents, society, everything. It's not what you think" [42](p4).
Finding 69 (C)	Unmet expectations often left them with a feeling of being inadequate
Illustration	"There are a few things a father needs to handle [ . . . ] He needs to have a job, and he needs to have a garage [ . . . ] and I didn't have any of those things" [42](p4); "I felt like everything had to be perfect. [I wanted] my family to thrive, and in the end, it backfired" [42](p4).
Finding 70 (C)	Expectations as an explanation for their own depression
Illustration	"It is these thoughts that stress me out a lot [ . . . ] it's an expectation pressure" [42](p4).
Finding 71 (C)	Expectations of fatherhood were replaced by feelings of unfulfillment and inadequacy
Illustration	"[ . . . ] the strength as I imagined. The magic, if you can call it that, I never felt it" [42](p4).
Finding 72 (C)	The participants did not feel they had enough energy and mental strength to become the kind of fathers they wanted to be
Illustration	"There was this pressure [ . . . ] I wanted to be there as a father, but I couldn't. I wanted to be with my son [ . . . ] but I couldn't" [42](p4).
Finding 73 (C)	Perceived inability to comfort and meet the basic needs of their child
Illustration	"When [my daughter] became upset [ . . . ] I felt the frustrations building up inside, and then I gave up [ . . . ] I simply couldn't do it [ . . . ] and then I felt guilty [ . . . ] I'm not even good at that" [42](p4-5).
Finding 74 (U)	Strong emotional distress when they needed to comfort their crying child
Illustration	"It's when he cries. I simply can't have it" [42](p5). "It is during the night [ . . . ] he just screams. Imagine a child who just screams, and you cannot do anything. You don't know what to do about it" [42](p5).
Finding 75 (C)	A feeling of neglect and powerlessness
Illustration	"I feel totally unimportant [ . . . ] what is it, that my role is then? [ . . . ] I hoped [ . . . ] that we would be equal" [42](p5); "I'm just a service organ. And, that is what you are as a father [ . . . ] it is mom who has the breast and that's it [ . . . ] I really found it difficult to get used to [ . . . ] that this is not a 50/50 baby. This is actually a 95/5 baby" [42](p5).
Finding 76 (C)	Home suddenly had many negative associations and became a place in which they tried to avoid
Illustration	"I mostly used work to escape [ . . . ] because I knew that I would come back home to a screaming kid and a moody wife" [42](p5). "The only place I actually feel good is when I am at work" [42](p5).
Finding 77 (U)	Trapped and unable to escape from the reality of fatherhood
Illustration	"I didn't feel frustrated, I felt [ . . . ] a hate, almost [ . . . ] my life was so good before I met [my wife]. Why in hell did I agree to this? [ . . . ] This child [went] from being something fantastic to be a drag, a major source of irritation in my everyday life" [42](p5); "It is this anxiety, the feeling of not being able to escape from the situation [ . . . ] especially during the hard periods when we were tired and exhausted" [42](p5).
Finding 78 (C)	Painful thoughts of suicide and harming their own child

Illustration	"I was cooking in the kitchen and I thought [. . .] I wonder what would happen if I cut [my son's] throat" [42](p5).
Finding 79 (U)	Felt very ashamed
Illustration	"When you have these thoughts inside your head, you become completely broken inside. Because it is so shameful" [42](p5).
Finding 80 (U)	Breastfeeding was a subject of concern
Illustration	"[my daughter] wouldn't eat because she was so weak [. . .] on the seventh day [after delivery] we had a child who looked like a skeleton. [She] was completely weakened" [42](p5); "what can I do, really? [. . .] No matter how many times I run up and down the stairs, she won't necessarily put on weight" [42](p5).
Finding 81 (C)	Uncertainty related to sick-leaves and dissatisfaction with work might have contributed to some distress
Illustration	"I felt, that [my job situation] was where it all originated from" [42](p5); "I got a work-related injury [. . .] which puts additional pressure on us" [42](p6).
Finding 82 (C)	All the fathers recognized different changes in their mood and behavior but many of them did not perceive these changes as signs of depression
Illustration	"You know that something is wrong, but you don't know what it is" [42](p6).
Finding 83 (U)	Tried to normalise their emotions
Illustration	"I kept saying to myself that [my feelings] were normal [...] Somehow, [I] kept challenging the narrative [regarding PPD]" [42](p6); "At that time, I did not think 'I have post-partum depression'. I just thought 'This is normal', because it is so damn hard" [42](p6).
Finding 84 (U)	Believing that PPD is a gender specific condition
Illustration	"I had [heard about PPD], but it was primarily about women" [42](p6); "Why should a man have PPD? He is not the one giving birth" [42](p6); "[My girlfriend and I] took the screening, but I thought that it was the girlfriend [who would show signs of PPD]. I never thought that the father [...] would go down with PPD (P4) [42](p6).
Finding 85 (U)	Paternal PPD as taboo
Illustration	"it is taboo" [42](p6); "[...] people are afraid to say something [about their experiences with PPD]" [42](p6); "They won't open up because they are afraid that they get stigmatized [. . .] as someone [. . .] weak or inadequate" [42](p7).
Finding 86 (U)	Normative masculine expectations as a barrier in seeking help
Illustration	"I think [. . .] that it is hard, as a man, to ask for help. There is no doubt that [men] are supposed to be big and strong and take care of everything. And suddenly, you can't" [42](p7); "Men don't consult a doctor when their toe is a little red, they consult a doctor when the toe is red, blue and black [. . .] So, for men to admit [. . .] 'I have PPD. I need [anti-depressives]'. I think that [. . .] many men would see that as a giant failure" [42](p7).
Finding 87 (U)	Their partner or other family members could have had a great influence on the father's help-seeking behaviour
Illustration	"Maybe the mothers need to be better at saying something [. . .] because, we don't say anything in the beginning. It takes a long time before we say anything" [42](p7); "I don't think [fathers] know that they have [PPD]. I think someone needs to grab [the fathers] and say, 'you need help' [...] just like [my wife] said to me" [42](p7).
Finding 88 (C)	Screening was an important part of the help seeking process
Illustration	"When the health visitor told me that men also could get [PPD] [I thought] 'Oh! You can?'" [42](p7);

	<p>"It is one thing that [my partner and I] have talked about me having a problem, and that I have a short fuse [...] But now we have [...] scientific evidence that I'm not all right" [42](p7);</p> <p>"[My general practitioner] tested me, [and] it was only then that I actually started to believe that I had [PPD]" [42](p7).</p>
Finding 89 (C)	Feared that speaking openly about suicidal thoughts and thoughts about harming their own child would be used against them
Illustration	"[The health visitor] is a public authority [...] She has to go forward with the [information], if it is [necessary] [...] If I say too much about something, will they take [my son]?" [42](p7).
Finding 90 (C)	Conception of the perinatal healthcare services being geared towards women
Illustration	"If a woman gets PPD today [...] then there is lots of help to get [...] There is just no such things [for men]. So, I got the help there was, and that was nothing, unfortunately" [42](p7).
Finding 91 (U)	Negative expectations about current treatment options
Illustration	<p>"[Anti-depressives] is not an option for me" [42](p7);</p> <p>"I'm not one to believe in psychologist. They just read from a book. That I have always told myself" [42](p7).</p>
Schuppan et al [43]	
Finding 92 (U)	Help-seeking as an issue of personal responsibility
Illustration	<p>"It certainly is up to the individual to do that" [43](p315);</p> <p>"I would be thinking if I'm ticking yes sometimes [...] when doing a survey then maybe there's an issue there that I should probably have acted on at some point and time in the past" (p315).</p>
Finding 93 (U)	Screening process as raising their awareness of their own symptomatology
Illustration	<p>"It does kind of twig you a little bit as well [mm] so yea so I did kind of think ooh actually I have felt a bit like that" [43](p315);</p> <p>"[it] helps [...] someone identify [...] I remember when I did that survey and it asked me this question and now I do feel like this [yea] maybe I do need to go back and get help" (p315).</p>
Finding 94 (U)	Fathers' fears of judgment
Illustration	<p>"I guess people maybe [laughing] might have that fear of shit what's it going to reveal about me" [43](p316);</p> <p>"what are they going to what are they going to think of me if my [...] you know my struggling is to get out in the open [yea] what consequences does that have [yep] you know I'm supposed to be the strong [...] person [yea] particularly at this time of my life [...] so I don't want weakness to show [yea] it's a very [...] I don't know it's a macho masculine thing [yea] that's not really necessary in this day and age but I understand where it all comes from" [43](p316).</p>
Finding 95 (C)	Underrate their symptoms when feeling uncomfortable
Illustration	"There may be some questions oh no I better not answer that this way because that might mean this this this or [mm] you know they they're judging me for how I'm going to be as a father and therefore [...] like I'll just not [yep] tell the truth on this" (p317).
Finding 96 (C)	Stigma was a barrier to help seeking
Illustration	<p>"I think [...] it's more a there's a slow burn until it becomes less stigmatised [yea] because the reality is we're unfortunately men it does have a stigma attached to it [mm] and it'll be just a timing thing before that starts to break down and I think is I think as it starts to break down [...] these sorts of issues become more probably more socially accepted [yea] you know like I wasn't I didn't manage my wife's pregnancy very well so I went and sought professional help it was really great dadadadada whereas I think that stigma at the moment you know [...] would probably prevent that conversation from occurring probably between close friends" (p317).</p>
Finding 97 (U)	Stigma around seeking help as being driven by a reluctance to feel or be seen as weak or vulnerable

Illustration	<p>"There is a stigma about I don't know showing your sensitive side and [yea] and feeling weak [43](p317).</p> <p>"it's partially a weakness [...] of of being apprehension because you::: you don't want to you don't want to feel vulnerable in some moments [mm] that you're having to express [...] things that people might identify you as not not as strong" (p318).</p>
Finding 98 (U)	Unlikely to seek help out of a desire to avoid difficult feelings or a sense it was not the done thing
Illustration	<p>"That might be why guys have trouble opening up anyway anytime is because we wonder in ourselves how does this make me feel or I don't want to feel this way" [43](p318);</p> <p>"men talk it's not normally expressing things that are that are difficult in their lives and how they they work through that particularly [laughing] which particularly in in their marriages is is not it's not popular to [. . .] yea express things that are hard" [43](p318).</p>
Finding 99 (C)	Crisis point
Illustration	<p>"Personally I think I [...] quite often end up seeking help when its when something's reached breaking point [mm] and there's no [...] okay well I want to get you know get help to prevent breaking point [yea] and I probably imagine that that would be a common scenario" [43](p318).</p>
Finding 100 (U)	Visible impact of their mental state on their partner or child would be a strong prompt to seek help
Illustration	<p>"I think if at any stage I recognise in myself that I was yea putting myself ahead of those two then that to me wouldn't that wouldn't sit well with me [yea] internally not to say it's not right but then that's when I'd be looking for services to help try and combat that" [43](p318).</p>
Finding 101 (U)	Support and Protection
Illustration	<p>"You gotta be the bloke and hold the family up" [43](p318);</p> <p>"I think that the guy you're always kind of think you've got to support your partner so to show weakness or to show that [mm] you're not dealing with it well might [. . .] you'd be worried that that would pass on to your partner" [43](p318).</p>
Finding 102 (U)	Need to be Strong
Illustration	<p>"I think that especially if they're trying to maintain this you know strong position [...] you know especially trying to support the the female [...] they might not want to show any kind of weakness or or show any you know show that something is wrong especially if if the woman especially if the woman is you know [...] you know quite stressed out and quite anxious then you know they don't want to make the problem worse [laughing] [mm] by by them by them saying or expressing their concerns as well" [43](p318-9).</p>
Finding 103 (C)	Feeling of being a spare part
Illustration	<p>"Obviously partners can attend to all your prenatal classes and that sort of stuff but generally [...] generally speaking [...] most blokes are just like oh yea they sort of shrug it off and they don't well they do listen but they don't ask questions because they feel it's not really their place" [43](p320).</p>
Finding 104 (C)	Unable to seek help when there were others, particularly their partners, who were having a more difficult time
Illustration	<p>"There is that well you're not allowed to struggle because look what mums been going through" [43](p320).</p>
Finding 105 (C)	An overwhelming sense of despair at the lack of support
Illustration	<p>"I was calling out for more help so if there was more help available I would have [yea] would have jumped at the chance" [43](p321);</p> <p>"I didn't really feel that I didn't really you know come across any services that were directly offered for me" [43](p321).</p>
Finding 106 (U)	Feared that seeking support would be met with a psychopharmacological response

Illustration	"I didn't want to [...] all of a sudden go to the doctor and walk out with a prescription for antidepressants and be on them for the next twenty years I had a fear of [yea] becoming [...] you know [...] medicated" [43](p321).
Webster [41]	
Finding 107 (C)	PND in men
Illustration	"When you have had no sleep, you are pulling your hair out and you have bags under your eyes and you think, why have I bothered, why are we having a family, I don't want to feel like this... is that depression? Could be, I don't know" [41](p392).
Finding 108 (C)	Emotive feelings
Illustration	"She had the PND but it was our family, it involved all of us, it wasn't just her problem it was us that went through it. I think I struggled with how I felt it wasn't what I expected... I never thought of it being PND but maybe it was" [41](p392).
Finding 109 (C)	General feeling
Illustration	"It is something that people tend to keep to themselves and don't want to admit to. If they do admit, then there are no resources there to actually help you" [41](p392).