**An updated and extended literature review of father and partner fears of childbirth & an IPA analysis of experiences of social isolation for first-time mothers with pre-existing anxiety during COVID-19**

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**THESIS ABSTRACT**

As part of the fulfilment of a Professional Doctorate in Clinical Psychology, the author presents this thesis investigating perinatal anxiety-related experiences at different points in the transition to parenthood. This investigation includes a literature review of father and partner experiences related to fears of childbirth (FOC), and an analysis of first-time mothers with pre-existing anxiety and their experiences related to social isolation during the COVID-19 pandemic. Paper one presents a systematically conducted review of the literature on father and partner FOC. Eighteen papers were identified and the findings were critically appraised, analysed, and synthesised. Six key themes are discussed, illustrating what is known about how fathers/partners develop, experience, and cope with FOC. Paper two presents a qualitative study of first-time mothers living in England with pre-existing anxiety, and their experiences related to social isolation in the context of COVID-19 pandemic restrictions. Purposive sampling identified six eligible participants who took part in semi-structured interviews. Interpretative Phenomenological Analysis was utilised and revealed four superordinate and twelve subordinate themes, highlighting experiences of new motherhood and social isolation, and their influence on mental health, coping, and accessing support in the context of a pandemic. Paper three is an executive summary which has been prepared as an accessible report of paper two, targeted at those who were new parents during the COVID-19 pandemic, mothers with histories of anxiety-related difficulties, mothers who are at risk of feeling socially isolated, and professionals who support new mothers. The background, aims, method, key findings, implications, recommendations and limitations of the empirical study are summarised.

**PAPER ONE: Literature Review**

Partner and father fears of childbirth: An updated and extended review of the literature.

**Author Note**

This paper has been prepared with the intention of publication in *‘*The Journal of Prenatal and Perinatal Psychology and Health’ (appendix A). Further amendments will be made before submission to the journal to ensure the report meets all submission guidelines.

Word count: 7,994

**Abstract**

This review aimed to systematically search and appraise the literature investigating father and partner fear of childbirth (FOC) published since 2008.During December 2020 electronic searches were completed. Papers were selected according to pre-defined criteria. Reference lists of selected papers were also searched. Eighteen papers were included, varying from low-good quality.This review illustrates what is known about how fathers/partners develop, experience, and cope with FOC. Little is known about lesbian, gay, bisexual, transgender, and queer (LGBTQ) partner experiences. Other birth partner experiences were not identified. Research and investment in inclusive support is needed to promote partners’ birth-related wellbeing.

Key words: father, partner, childbirth, fear, anxiety

Access to a chosen birth companion is promoted internationally (World Health Organisation [WHO], 2020) and father/partner involvement during pregnancy and childbirth is associated with physical and psychological benefits for families (Bohren et al, 2017; Redshaw & Henderson, 2013; WHO, 2007). Within developed countries, involvement of fathers in childbirth has been encouraged since the 1970’s and is now an accepted part of western (Dellmann, 2004) and many non-western cultures (Steen et al, 2012).

The supporting role during birth is part of the paternal transition to parenthood (Gage & Kirk, 2002), during which fathers may experience joy and pride, but also anxiety, helplessness, and unpreparedness (Genesoni & Tallandini, 2009). Paternal distress during this transition can impact the family’s health (O’Brien et al, 2017; Philpott et al, 2017). Tension and anxiety in birth partners may increase birthing difficulties for mothers (Jomeen, 2017; Keogh et al, 2006; Redshaw & Henderson, 2013). Even those wanting to be involved co-parents can feel pressured to attend childbirth (Dellmann, 2004; Jomeen, 2017) and maternity care systems can leave fathers feeling excluded and like ‘secondary’ parents (Steen et al, 2012; Machin, 2016).

Not only men in heterosexual/cisnormative relationships partner those giving birth. Birthing people across cultures may choose birth partners such as mothers, friends or relatives. Despite a need for inclusive research there is limited evidence reflecting the diversity of birthing and family systems (Family Equality, 2019; Machin, 2016), with perinatal wellbeing experiences of fathers and especially LGBTQ partners under-researched (Darwin & Greenfield, 2019). Diverse family formations should be understood equally and recent data from the US (Family Equality, 2019) and UK (HFEA, 2019) show significant increases in LGBTQ people considering or having children, thus understanding birth-related experiences of all birth partners warrants attention.

Fear of childbirth (FOC) reportedly affects 6.3%-14.8% of mothers (Nilsson et al, 2018) and 13% of fathers (Eriksson et al, 2005) and is thought to vary from troubling thoughts to phobic fear (Wijma & Wijma, 2007), termed ‘tokophobia’. Fears may develop in anticipation of parents’ first birth (primary FOC) or following negative/traumatic birth experiences (secondary FOC) (Sydsjö et al, 2013). FOC is better understood among women although most research reflects Western and Scandinavian populations and is limited by varied definitions and measurement of FOC (Nilsson et al, 2018; Richens et al, 2018). In women, FOC is associated with higher rates of psychiatric care, psychotropic medication (Rouhe et al, 2011), and mood and anxiety-related difficulties (Rouhe et al, 2011; Hofberg & Ward, 2004). Preference for elective caesarean section (CS) may be greater amongst women with FOC (Haines et al, 2012). Partner birth preferences can influence mothers’ preferences (Li et al, 2014; Pang et al, 2007; Serҫekuʂ et al, 2015) suggesting father/partner FOC may indirectly influence maternal requests for CS.

Understanding FOC in fathers/partners is developing, though it may be difficult to identify as fathers have reported hiding fears to prevent partners worrying (Chandler & Field, 1997; Eriksson et al, 2006). In a review of ‘paternal fears of childbirth’, Hanson et al (2009) identified themes in fears including harm to the mother and baby, mothers being in pain, needing obstetric intervention, feeling helpless, and lacking relevant knowledge. Few studies investigated how fathers coped with fears. The authors concluded further research was needed to understand paternal FOC across sociodemographic factors and cultures, and investigate interventions to support fathers with FOC.

**Rationale**

At the time of conducting searches for this review no other literature review of father or partner experiences of FOC had been conducted since that by Hanson et al (2009) (articles published between 1994-2008). The literature has since grown and this review was not conducted systematically, did not include broader partner experiences, and was based on largely qualitative or descriptive studies of white, first-time fathers. Therefore, an updated and extended, systematically conducted review of fathers’ and partners’ FOC was warranted to highlight current themes, gaps, and research quality.

Following the completed literature search for this review and whilst preparing the written report, another systematically conducted review was published based on the complete literature on the experiences of FOC in fathers only (articles published between1998-2017) (Moran et al, 2021). This review included 17 papers (four qualitative, eleven quantitative, and four mixed-methods studies) and identified themes including the focus of paternal fear related to the health and safety of the mother and baby, and professional and paternal behaviour; the impact of fears on health and wellbeing; and the paternal experience of FOC as a ‘private burden’. Identified methodological limitations included small samples, high attrition, sampling bias, restricted diversity within/across samples, and frequent exclusion of non-native speakers. The authors concluded further research is needed to understand risk factors associated with primary and secondary FOC, outcomes associated with paternal FOC, and to develop screening tools, interventions, and care pathways targeting paternal FOC.

**Aim**

To provide a systematically conducted review of the literature of father and partner (referred to as ‘partners’ throughout this paper) FOC published since 2008 to improve understanding of this phenomena and identify gaps in the literature. For this review, ‘partners’ were defined as those who partnered mothers/birthing people during pregnancy and/or birth, including fathers, life partners, and other chosen birth partners.

**Method**

**Search strategy**

Initial literature scoping determined enough papers had been published since 2008 to warrant an updated review and informed the search terms; medical/diagnostic terms were checked for synonyms.

A comprehensive electronic search was conducted between 2nd-28th December 2020 within the following databases: APA PsychArticles, APA Psych Info, CINAHL Plus with full text Education Research Complete, MEDLINE, SPORTDiscus with full text, Scopus, PubMed, and the Cochrane Database. Further searches in open access and grey literature were conducted on the CORE and Ethos libraries. A final search was conducted on Google Scholar; the first 15 pages of results were searched until no relevant papers were returned (figure 1).

**Search terms**

Papers were returned if the following terms were referenced within the title and/or abstract:

(fear of childbirth OR fear of birth OR fear of pregnancy OR pregnancy-specific anxiety OR childbirth-related fear OR childbirth anxiety OR birth anxiety OR birth fear OR pregnancy fear OR birth phobia OR pregnancy phobia OR tokophobia OR tocophobia OR parturiphobia)

AND

(father\* OR dad\* OR same sex parent OR co-parent OR partner OR birth partner OR paternal OR husband OR spouse OR man OR men OR male OR fam\*)

**Screening procedure**

The search returned 2018 papers and 415 duplicates were removed. The remaining 1603 papers were screened by title/abstract according to pre-determined inclusion/exclusion criteria (table 1). Most papers were excluded by title screening as, for example, the paper focused only on maternal or perinatal experiences not relevant to FOC. Fifteen papers were read in full, and reference lists were hand-searched for further relevant papers identifying four further papers which were read in full. Five papers were excluded during this process: three papers did not meet inclusion criteria addressing partners’ experiences of FOC, one paper was an opinion piece, and the final paper could not be accessed via the British Library or journal archives. Having completed electronic searches and whilst preparing this review, Moran et al (2021) published a systematically conducted review of paternal experiences of FOC. Titles included in this review were also searched providing a further four papers, resulting in a total of 18 papers.

**Table 1**

*Inclusion and exclusion criteria*

|  |  |
| --- | --- |
| Inclusion criteria | Exclusion criteria |
| Title and/or abstract references FOC (primary or secondary) in partners.  Papers specifically addressing partners’ experience of their own FOC, rather than their experience of their partner’s FOC.  Papers which address both mothers’ and partners’ experience of their own FOC, but partner experiences can be extracted.  Written in English.  Published between 2008-2020. | Papers which investigate mothers’ experiences of FOC and how this affects partners only.  The papers focus is on some other psychological experience surrounding birth.  The study is based on partners with other mental health diagnoses.  Fears surrounding pregnancy, labour, or birth are not explicitly referenced and/or differentiated from other perinatal psychological difficulties.  Opinion-based papers. |

**Figure 1**

*Literature search and screening flow diagram*

Articles published in English between 2008 and 28th December 2020 identified through database searches.

Papers screened by title and abstract based on pre-defined inclusion/exclusion criteria.

APA Psych articles (*n*=5)

APA Psych Info (*n*=322)

CINAHL Plus with full text (*n*=349)

Education Research Complete (*n*=29)

MEDLINE (*n*=595)

SPORTDiscus with full text (*n*=9)

Scopus (*n*=232)

PubMed (*n*=15)

Cochrane (*n*=432)

CORE (*n*=26)

Ethos Library (*n*=0)

Google Scholar – first 15 results pages searched until saturation reached (*n*=4)

**Total number of studies for screening *n*=1603**

Studies excluded based on title/abstract not meeting inclusion criteria

*n*=1588

Full text articles assessed for eligibility *n*=15

CINAHL Plus with full text (*n*=5)

MEDLINE (*n*=8)

Scopus (*n*=1)

Google Scholar (*n*=1)

Hand searching reference lists for further eligible publications (*n*=4)

Studies excluded based on full text article review and inclusion/exclusion criteria

*n*=5

CINAHL Plus with full text (*n*=5)

MEDLINE (*n*=7)

Google Scholar (hand searched) (*n*=2)

Papers identified from Moran et al (2021) (*n*=4)

**Studies included in final review *n*=18**

Duplicates removed

*n*=415

**Publication bias**

Searches of open access and grey literature, including the CORE and Ethos library databases, were conducted to address publication bias. This refers to a tendency for the publication of studies demonstrating positive findings, resulting in gaps in the knowledge base (Sutton, 2009). Searches returned no further papers meeting inclusion criteria. Included papers have therefore been published in peer reviewed journals. Whilst inclusion of only peer reviewed studies promotes quality, this enhances publication bias.

**Critical appraisal**

Critical appraisal tools facilitate assessment of research quality (Young & Solomon, 2009). The Joanna Briggs Institute (JBI) offer a range of design-specific tools (JBI, n.d.) with demonstrated user acceptability (Munn et al, 2014) and efficacy (Hannes et al, 2010), and were used to assess the quality of qualitative and quantitative studies. The Mixed Methods Appraisal Tool (MMAT) (Hong et al, 2018) was used to assess the quality of mixed-methods studies due to its demonstrated inter-rater reliability and efficiency (Pace et al, 2012) and usefulness in appraising and promoting rigour in mixed-methods research in health disciplines (Oliveira et al, 2021). These tools were selected due to the range of methodologies found in selected papers and were adapted to include a ‘partially met’ rating to facilitate nuanced quality assessment. Criteria rated ‘unclear’ or ‘not met’ scored ‘0’ to avoid overestimating quality. Criteria not relevant to included studies were rated ‘not applicable’ and excluded (table 2).

**Table 2**

*Critical appraisal scoring*

|  |  |
| --- | --- |
| Rating | Score |
| Yes – criteria met | 2 |
| Partially Met | 1 |
| Unclear | 0 |
| No – criteria not met | 0 |
| Not applicable | Exclude from total |

The use of design-specific tools meant each checklist differed in the number and type of criteria assessed. Total scores were therefore transformed into percentage scores to enable quality comparison. The MMAT stipulates overall quality of mixed-methods studies should not exceed the lowest scoring aspect. For example, if the quantitative component was high quality and the qualitative component was low quality, the overall rating would be ‘low quality’. Having quality appraised each paper, the reviewer made a pragmatic decision to rate papers which scored below 50% as ‘low’, those scoring between 50%-70% were rated ‘moderate’, and those scoring over 70% were rated ‘good’. Quality scores ranged from 30%-93.75% (appendices B-G).

**Results**

**Study Characteristics**

Seven qualitative, nine quantitative, and two mixed-methods papers were included for review. Key study characteristics were extracted (appendix H) and are summarised in Table 3. Seven studies describing quantitative/mixed-methods were based on observational research designs (Hildingsson, 2014; Hildingsson et al, 2014a; Hildingsson et al, 2014b; Johansson et al, 2012; Kannenberg et al, 2016; Schytt & Hildingsson, 2011; Serҫekuʂ et al, 2020a). Two studies were based on secondary analyses from one randomised controlled trial (RCT) (Bergstrom et al, 2013; Schytt & Bergstrom, 2014), five papers reported on findings from one longitudinal cohort study (Hildingsson, 2014; Hildingsson et al, 2014a; Hildingsson et al, 2014b; Johansson et al, 2012; Schytt & Hildingsson, 2011), and two papers reported on findings from one exploratory qualitative study (Malmquist et al, 2019; Malmquist & Nieminen, 2020). Included papers therefore originated from twelve studies.

Ten papers were based on studies conducted in Scandinavian countries (Sweden, n=9; Finland, n=1); remaining studies were conducted in Turkey (n=2), within the UK (n=2), Israel (n=1), Germany (n=1), South Africa (n=1), and the USA (n=1). Ten papers included fathers only; remaining papers included both mothers/birthing people and partners. Qualitative samples ranged from 8-19 partners, and quantitative samples ranged from 183-1105 partners. Mixed-methods studies included a small-scale intervention study (n=10 partners) and a questionnaire study including analysis of written responses (n=827 fathers).

Seven papers reported the prevalence of FOC in fathers. Consistent with past research (Eriksson et al, 2005), the prevalence of FOC in Swedish samples ranged from 5%-13.6% (Bergstrom et al, 2013; Hildingsson, 2014; Hildingsson et al, 2014a; Hildingsson et al, 2014b; Johansson et al, 2012). Serçekuş et al (2020a) found 54.3% of fathers in Turkey experienced FOC and suggested this may be due to higher rates of FOC amongst Turkish women, or limited knowledge as antenatal education in Turkey often excludes partners.

Most studies identified parity (number of births), distinguishing between nulliparous (expecting their first child) and multiparous (those with previous children) partners (Bergstrom et al, 2013; Greer et al, 2014; Hildingsson, 2014; Hildingsson et al, 2014a; Hildingsson et al, 2014b; Johansson et al, 2012; Kannenberg et al, 2016; Malmquist et al, 2019; Malmquist & Nieminen, 2020; Schytt & Hildingsson, 2011; Serçekuş et al, 2020a), whereas others investigated first-time partners only (Etheridge & Slade, 2017; Hunter et al, 2011; Ryding et al, 2018; Schytt, & Bergström, 2014; Serçekuş et al, 2020b; Shibli-Kometiani & Brown, 2012). One study did not discuss parity (Sengane, 2009). Three studies (Hunter et al, 2011; Malmquist et al, 2019; Malmquist & Nieminen, 2020) included lesbian, bisexual, transgender (LBT) parents in the final sample. Only two studies focused explicitly on experiences of LBT parents (Malmquist et al, 2019; Malmquist & Nieminen, 2020). No identified studies investigated experiences of other birthing partners (friends/relatives etc. of the mother or birthing person), indicating a gap in the literature.

**Table 3**

*Study characteristics table*

|  | Title (Country) | Author(s) (Date) | Sample | Data Collection/Analysis | Main Findings | Strengths(+)/  Limitations(-) | Quality Score (%) |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Fear of childbirth in expectant fathers, subsequent childbirth experience and impact of antenatal education: sub-analysis of results from a randomized controlled trial.  (Sweden) | Bergstrom et al. (2013) | 762 men | Questionnaires/RCT/sub-analysis of results/logistic regression | Men with antenatal FOC more often experienced childbirth as frightening. Childbirth preparation/coach training may help fearful fathers experience childbirth more positively. | (+) Efforts to follow-up non-responders.  (-) Secondary analysis from a trial designed for other purposes. Possible selection bias. | 93.75% |
| 2 | “Nothing’s actually happened to me.”: the experiences of fathers who found childbirth traumatic  (UK) | Etheridge and Slade (2017) | 11 fathers | Semi-structured interviews/Template analysis | Uncertainty, fears of death, and feeling uninformed/isolated/  abandoned contributed to fearful/traumatic birth experiences. 8 fathers reported postnatal trauma symptoms. | (+) Detailed analysis/discussion. Birth trauma screening.  (-) Most fathers’ partner’s experienced birth complications. Possible recall bias. No discussion of reflexivity/  epistemological position. | 70% |
| 3 | Fear of childbirth’ and ways of coping for pregnant women and  their partners during the birthing process: a salutogenic analysis  (Northern Ireland) | Greer et al. (2014) | 19 pregnant women and 19 fathers | Semi-structured interviews/Thematic content analysis | Partners most feared the impact of birth on mothers’ mental health. Other fears included: risks of vaginal birth, being unable to provide support. Partners were positive about CS/medical/birth interventions. | (+) Data/interpretation grounded within Salutogenesis (a health and wellbeing-focused approach). Novel findings: concerns for mothers’ mental health.  (-) Recruitment from one service. No discussion of reflexivity/  epistemological position. | 70% |
| 4 | Swedish couples’ attitudes towards birth, childbirth fear and birth preferences and relation to mode of birth: A longitudinal cohort study  (Sweden) | Hildingsson  (2014) | 1074 pregnant women and 1068 male partners | Questionnaires/Chi-square, t-tests, multinominal regression | 4.5% of partners reported FOC while the mother did not; <1% of both parents experienced FOC. Partners most feared for the mothers’ health. Birth preference and FOC were associated with birth mode. | (+) Large sample.  (-) Incomplete follow-up. No discussion of validity/reliability of FOC measure. | 62.5% |
| 5 | Childbirth fear in Swedish fathers is associated with parental stress as well as poor physical and mental health  (Sweden) | Hildingsson et al. (2014a) | 1047 expectant fathers | Questionnaires/Crude adjusted odds ratios, t-tests | 13.6% of fathers reported FOC, demonstrated poorer health/higher stress, greater difficulty with pregnancy, birth, and parenthood, and attended fewer antenatal classes. | (+) Large sample. Efforts to follow-up non-responders.  (-) High attrition. Regional setting. FOBS cut-off based on research with women. | 81.25% |
| 6 | Childbirth fear in expectant fathers: Findings from a regional Swedish cohort study.  (Sweden) | Hildingsson et al. (2014b) | 1047 expectant fathers | Questionnaire/Logistic regression | 13.6% of fathers experienced FOC, experienced pregnancy/birth negatively, and preferred CS. High FOC was associated with non-native and nulliparous fathers. | (+) Large sample. Efforts to follow-up non-responders.  (-) Study not originally designed/intended to investigate prevalence. | 61.1% |
| 7 | Satisfaction and use of a spiritually based mantram intervention for childbirth-related fears in couples  (USA) | Hunter et al. (2011) | 20 pregnant women and 10 partners (9 men) | Mixed-methods: Semi-structured interviews/Discourse Analysis/  Questionnaire pre/post intervention/t-tests, chi-square, Cramer's-V, bivariate correlations, Wilcoxon signed-ranks | Insufficient evidence to show mantram training is effective for FOC. Participants reported medium-high intervention satisfaction. | (+) Experimental design. Mixed-methods.  (-) Unequal groups at baseline. Small, biased sample. High attrition. No qualitative data for partners. | 30% (MMAT) |
| 8 | Childbirth: An emotionally demanding experience for fathers  (Sweden) | Johansson et al. (2012) | 827 fathers | Mixed-methods: Questionnaire with comments/Logistic regression, content analysis | 5% of fathers reported great/very great FOC. 26% reported negative birth experiences related to birth mode, care, and limited involvement in decision-making. | (+) High response rate. Procedures to enhance trustworthiness of analysis.    (-) Measure of FOC was not validated. Response bias. | 60% (MMAT) |
| 9 | Treatment-Associated Anxiety among Pregnant Women and their Partners: What is the influence of sex, parity, age, and education?  (Germany) | Kannenberg et al. (2016) | 259 pregnant women and 183 fathers | Questionnaire/ANOVA, t-tests, ANCOVA | Lower education was associated with higher trait anxiety. State anxiety decreased with parity. State/trait anxiety increased relative to stage of pregnancy. Fear of infant disease/malformation were the greatest anxiety triggers. | (-) Sample drawn from at-risk group from one hospital. No discussion of demographics. | 64.3% |
| 10 | Negotiating who gives birth and the influence of fear of childbirth: Lesbians, bisexual women and transgender people in parenting  Relationships  (Sweden) | Malmquist and Nieminen (2020) | 17 self-identified LBTs | Semi-structured  Interviews/Questionnaire/Thematic Analysis | FOC influenced decision-making regarding which partner would give birth. Themes included: desiring pregnancy despite FOC, letting the non-afraid partner give birth, negotiating who is least vulnerable, and trauma following partner’s birth-giving. | (+) Study adds depth/diversity to the literature. FOC screening.  (-) Unclear philosophical/  epistemological position. No discussion of reflexivity. | 70% |
| 11 | Minority stress adds an additional layer to fear of childbirth in lesbian and bisexual women, and transgender people  (Sweden) | Malmquist et al. (2019) | 17 self-identified LBTs | Semi-structured interviews/Questionnaire/Thematic Analysis | Childbirth fears were similar to others, though fear/experiences of prejudiced care adds to FOC in LBT partners/parents. | (+) Original study subject/population. FOC screening.  (-) No discussion of reflexivity. | 85% |
| 12 | Partners of nulliparous women with severe fear of childbirth: A longitudinal study of psychological well‐being.  (Finland) | Ryding et al. (2018) | 250 partners of nulliparous women with severe FOC | Questionnaire pre/post intervention/Paired t-tests, binary logistic regression | No partner scored at/above the cut-off for FOC. Emergency CS was associated with higher postnatal FOC. | (+) Experimental design/intervention study.  (-) Limited details regarding randomised methodology. | 42.3% |
| 13 | First-time fathers' expectations and experiences of childbirth in relation to age.  (Sweden) | Schytt and Bergström (2014) | 777 first-time fathers | Questionnaires/X2-tests, t-tests | Older fathers were more fearful, had negative expectations, postnatally assessed birth with more difficulty, and were more satisfied with intrapartum care. | (+) Efforts to follow-up non-responders. Large sample.  (-) After loss to follow-up sample was less representative. Low upper limit for advanced paternal age (34+). | 93.75% |
| 14 | Physical and emotional self-rated health among Swedish women and men during pregnancy and the first year of parenthood  (Sweden) | Schytt and Hildingsson (2011) | 1212 pregnant women and 1105 partners | Questionnaires/Wilcoxon signed-rank, Friedman’s tests, multivariate logistic regression | Men reported poor emotional/physical health one-year post-birth. Poor emotional health associated with FOC and negative experience of CS. | (+) Large sample.  (-) Regional sample. No details regarding ethical approval. High attrition. | 68.75% |
| 15 | The experience of black fathers concerning support for their wives/partners during labour  (South Africa) | Sengane (2009) | 10 black fathers | Retrospective interviews/Content analysis (Kerlinger, 1986) | Fathers who attended birth described excitement, delight, and negative feelings due to limited birth knowledge. Fathers who did not attend identified barriers including fear, limited information, and cultural factors. | (+) Procedures promoting ‘trustworthiness’ of the findings.  (-) Unclear representation of participant voices. | 65% |
| 16 | Fear of childbirth among pregnant women and their partners in Turkey.  (Turkey) | Serçekuş et al. (2020a) | 282 pregnant women and partners | Questionnaire/  Mann-Whitney U, Kruskal-Wallis, spearman’s correlation tests | Moderately strong relationship between women’s and partner’s FOC. 54.3% partners had FOC. Higher FOC was associated with age (25-35 years), higher income/education, past negative birth/CS, and CS preference. | (+) Investigates relationship between women’s and partner’s FOC.  (-) Sample is not representative. FOBS cut-off score based on research with women. | 71.4% |
| 17 | Why are first-time expectant fathers afraid of birth? A qualitative study  (Turkey) | Serçekuş et al. (2020b) | 16 expectant fathers | Semi-structured interviews/ phenomenological Content Analysis | Fears related to childbirth complications, labour pain, and support. Reasons for fears included lacking childbirth knowledge/confidence in health professionals, beliefs, and maternal health issues. | (+) Study adds depth/diversity to the literature.  (-) No discussion of reflexivity/epistemological position. | 80% |
| 18 | Fathers’ experiences accompanying labour and birth  (Israel) | Shibli-Kometiani and Brown (2012) | 8 fathers | Semi-structured interviews/Colaizzi framework (1978) | Fathers became less supportive as labour progressed, expressed fear/helplessness due to unrealistic expectations, insufficient antenatal education, and limited support/discussion regarding choices. | (+) Procedures promoting ‘trustworthiness’ of the findings. Culturally representative sample.  (-) No evidence of ethical approval. | 75% |

**Critical Appraisal**

***Recruitment and sampling***

Six studies (Bergstrom et al, 2013; Hildingsson, 2014; Hildingsson et al, 2014a; Schytt & Bergstrom, 2014; Schytt & Hildingsson, 2011; Serҫekuʂ et al, 2020a) demonstrated good quality across criteria regarding sampling/sample size, recruitment, similarity of comparison groups, clear inclusion/exclusion criteria, and detailed descriptions of participants and settings. The generalisability of one study investigating prevalence of FOC and associated factors was limited by the regional setting and limited participation (approximately 50%) of eligible fathers (Hildingsson et al, 2014b). Kannenberg et al (2016) did not report on demographics limiting understanding of the overall sample.

***Methodology***

Two studies utilised a randomised experimental design investigating interventions targeting parental FOC. Hunter et al (2011) utilised computerised randomisation though provided no detail regarding allocation concealment or participant/researcher blinding. Despite randomisation, groups were not comparable at baseline or regarding birth experiences, perhaps due to a small sample and high attrition. Ryding et al (2018) provided minimal details regarding RCT procedures making determination of methodological rigour unclear. Two papers reported on secondary analyses from a RCT designed for other purposes and were evaluated based on the cohort methodology described (Bergstrom et al, 2013; Schytt & Bergstrom, 2014).

Qualitative studies demonstrated congruity between methodology and research objectives, data collection, analysis, and interpretation. Studies utilised Braun and Clark’s (2006) Thematic Analysis (Malmquist et al, 2019; Malmquist & Nieminen, 2020), Content Analysis (Sengane, 2009; Serҫekuʂ et al, 2020b), Thematic Content Analysis (Greer et al, 2014), Template Analysis (Etheridge & Slade, 2017), and Colaizzi’s (1978) Phenomenological method (Shibli-Kometiani & Brown, 2012). Each study discussed subjective meanings and/or themes/counts consistent with the chosen approach. Four papers discussed a philosophical/epistemological perspective consistent with the methodology, for example, adopting a phenomenological perspective in exploring personal meanings via semi-structured/unstructured interviews (Sengane, 2009; Shibli-Kometiani & Brown, 2012; Serҫekuʂ et al, 2020b). Two papers made no clear statement of philosophical/theoretical position (Malmquist & Nieminen, 2020; Etheridge & Slade, 2017). Whilst Greer et al (2014) discussed the theory of Salutogenesis underpinning their analysis, discussion of philosophical/epistemological positioning was lacking.

***Quantitative Measures of FOC***

Quantitative and mixed-methods studies measured FOC via self-report questionnaires. Three used the Fear of Birth Scale (FOBS), a visual analogue scale measuring two items regarding the approaching birth (Hildingsson et al, 2014a; Hildingsson et al, 2014b; Serҫekuʂ et al, 2020a). Six used the Wijma Delivery Expectancy/Experience Questionnaire (W-DEQ) (Wijma et al, 1998) (Bergstrom et al, 2013; Hunter et al, 2011; Ryding et al, 2018; Schytt & Bergstrom, 2014), including two qualitative studies which screened participants following interviews (Malmquist et al, 2019; Malmquist & Nieminen, 2020). These measures were originally developed for women; cut-off points indicating FOC were based on research with women and varied between studies. The W-DEQ was often adapted by excluding irrelevant questions to partners. Whilst papers discuss efforts to address validity and reliability, these measures limit studies as they have not been designed or validated for partners.

Remaining studies measured FOC via open and closed questions (Johansson et al, 2012), Likert scales ranging from ‘no fear’ to ‘very strong fear’ (Hildingsson, 2014), and self-report questionnaires (Kannenberg et al, 2016; Schytt & Hildingsson, 2011). Two papers tested face validity of questions prior to the study (Johansson et al, 2012; Schytt & Hildingsson, 2011). Papers offered no further discussion of validity and reliability of measures limiting assessment of their suitability.

***Bias***

Hildingsson et al (2014b) investigated the prevalence of FOC in a regional study not designed as a prevalence study, with prevalence investigated within a cross-section of data gathered from a longitudinal cohort study. Assessing coverage bias in prevalence studies determines whether subgroups of the population are adequately represented (Munn et al, 2015); coverage bias is not discussed within this paper. Furthermore, approximately 50% of eligible fathers participated suggesting the sample is unlikely representative.

High quality qualitative research should discuss the researchers’ cultural and theoretical position so its influence may be considered (JBI, 2020). No paper sufficiently discussed the influence of the researcher’s role and cultural and theoretical positioning. Some referenced the researcher’s profession (Sengane, 2009; Greer et al, 2014) or research interests/experience (Malmquist et al, 2019; Malmquist & Nieminen, 2020). Etheridge and Slade (2017) provided no detail regarding the researchers, although discuss a joint coding process to promote reliability. Shibli-Kometiani and Brown (2012) considered the relationship between the researcher and participants upon the research and sought peer debriefing to reduce bias. Serҫekuʂ et al (2020b) provided the greatest detail regarding the researcher, though this too was limited.

***Confounding Variables***

Quantitative studies measured variables such as age, education, and economic status (Bergstrom et al, 2013; Hildingsson, 2014; Hildingsson et al, 2014a; Johansson et al, 2012; Ryding et al, 2018; Schytt & Bergstrom, 2014; Serҫekuʂ et al, 2020a). Some identified and controlled for issues related to difficult pregnancy and/or birth and the antenatal and/or postnatal health of the mother and baby (Hildingsson, 2014; Hildingsson et al, 2014a; Johansson et al, 2012). Kannenberg et al (2016) measured fears in expectant parents according to age, sex, education, and parity, though the sample was drawn from a population of high obstetric risk limiting generalisability. Control for confounders included randomising participants into groups (Hunter et al, 2011; Ryding et al, 2018), matching participants (Hildingsson, 2014; Serҫekuʂ et al, 2020a), and adjusting for confounders through multivariate regression analyses (Bergstrom et al, 2013; Hildingsson et al, 2014a; Johansson et al, 2012; Ryding et al, 2018; Schytt & Bergstrom, 2014).

***Response rates and follow-up***

Where relevant, follow-up times were appropriate to measure outcomes of interest, ranging from later in pregnancy to one-year post-birth (Bergstrom et al, 2013; Hildingsson, 2014; Hildingsson et al, 2014a; Schytt & Bergstrom, 2014; Schytt & Hildingsson, 2011). Indicative of well conducted studies (Moola et al, 2015), four papers discuss follow-up of non-responders to limit attrition (Bergstrom et al, 2013; Hildingsson et al, 2014a; Schytt & Bergstrom, 2014; Schytt & Hildingsson, 2011). Hildingsson et al (2014b) reported less than half the eligible sample participated, and lack of follow-up and limited discussion regarding those who opted against participation compromises study validity and reliability. Whilst some papers adequately report on issues related to follow-up (Bergstrom et al, 2013; Schytt & Bergstrom; 2014), others reported significant attrition ranging from 44-54% with limited/no discussion of addressing incomplete follow-up (Hildingsson, 2014; Hildingsson et al, 2014a; Johansson et al, 2012; Schytt & Hildingsson, 2011; Ryding et al, 2018).

***Ethical Issues***

All studies obtained informed consent prior to commencement. Some discussed ethical considerations in greater detail, including issues related to anonymity and confidentiality (Shibli-Kometiani & Brown, 2012), participants’ right to withdraw (Etheridge & Slade, 2017), and referral procedures for those reporting significant fears (Greer et al, 2014). Three papers made no statement of ethical approval (Shibli-Kometiani & Brown, 2012; Schytt & Hildingsson, 2011; Sengane, 2009).

***Analysis and Conclusions***

Quantitative studies utilised appropriate statistics. Regression analyses were common; multinominal regression analysed birth preferences and FOC in relation to birth mode (Hildingsson, 2014), factors associated with satisfaction with midwife care (Schytt & Bergstrom, 2014), and less positive birth experiences (Johansson et al, 2012). Binary logistic regression investigated variables associated with FOC in fathers with and without FOC (Bergstrom et al, 2013; Hildingsson et al, 2014a; Hildingsson et al, 2014b; Ryding et al, 2018). Most qualitative papers adequately represented participant voices, reporting discrepancies and complexities in experiences. One paper included comparatively fewer quotes evidencing themes, with poor clarity as to which quotes reflected the experience of which participant, making it difficult to determine that participants were adequately represented (Sengane, 2009). All papers made justifiable links between findings, interpretations, and conclusions. Mixed-methods studies demonstrated appropriate analysis of, and conclusions linked to quantitative and qualitative findings (Hunter et al, 2011; Johansson et al, 2012).

***Quality Appraisal Summary***

Included papers varied from low-good quality, identifying similar methodological limitations as identified by Moran et al (2021). Quantitative/mixed-methods studies were limited as no measure of FOC was developed and validated for partners. Studies assessed on response rates and follow-up criteria demonstrated poor clarity regarding follow-up, lack of follow-up, limited details of those who opted against participation, and high attrition. Dropout rates greater than 20% increase the risk of selection bias and compromise validity (Moola et al, 2015) suggesting these findings should be interpreted with caution. Qualitative studies were limited due to little/no discussion of reflexivity and epistemological positioning. Succinct summaries of these issues are necessary so quality, reliability, and potential biases may be evaluated (Dodgson, 2019). Mixed-methods studies demonstrated good quality regarding qualitative methods and lower quality regarding quantitative methods. Findings should be interpreted with some caution, particularly for studies rated low quality.

**Themes across the literature**

Findings related to partner FOC were extracted from each paper and reviewed within a table. Findings were coded, then organised within a separate table into themes (appendix I).

***The impact of one partners FOC on the other***

Studies identified relationships between mothers’ and fathers’ FOC, suggesting the fears of one partner influence fears in the other (Bergstrom et al, 2013; Serçekuş et al, 2020a; Serçekuş et al, 2020b), highlighting the importance of understanding both partners’ fears. In a multi-cultural sample, fathers became less supportive and more passive as fear and distress increased during labour (Shibli-Kometiani & Brown, 2012) demonstrating how fear can impact supporting roles. Conversely and perhaps unexpectedly, Ryding et al (2018) found fathers with partners with severe FOC reported no significant FOC themselves, and suggested this may be due to, for example, partners with FOC opting against participation. However, limited methodological detail restricted quality assessment meaning this difference could be associated with poorer quality.

In LBT couples, one partner’s FOC impacted the other, influencing decision-making around which partner would become pregnant. Some let the non-afraid partner give birth, some agreed to take turns, whilst others wanted to be genetically related to their child so decided to give birth despite FOC. These decisions were influenced by a process of ‘negotiating who was least vulnerable’ based on FOC severity, gender, race, age, and physical/mental health (Malmquist & Nieminen, 2020).

***Factors associated with FOC***

**Sociodemographic factors.** In nulliparous and multiparous fathers in Turkey (Serçekuş et al, 2020a) and Sweden (Hildingsson et al, 2014b), fathers aged 25-35 most often experienced high FOC. However, representation of age groups was unequal with larger samples in the middle age range (25-35 years) and poor representation of older fathers (35+). Findings were inconsistent as one study with more representative sample sizes across age ranges found greater FOC in older fathers aged 34+ (Schytt & Bergstrom, 2014), indicating understanding of how age interacts with FOC is unclear. It was further unclear how parity interacted with age (Hildingsson et al, 2014b), suggesting a need to investigate nulliparous and multiparous fathers separately across age ranges.

Consistent with research with first-time mothers (Rouhe et al, 2009), first-time fathers experienced higher FOC compared to multiparous fathers (Hildingsson et al, 2014b; Johansson et al, 2012) and greater childbirth-related state anxiety (Kannenberg et al, 2016) suggesting first-time partners are at particular risk of FOC. However, one study found FOC was high among all expectant fathers irrespective of parity (Kannenberg et al, 2016), though this difference may be due to the smaller sample in this study and different measures of FOC.

Greater FOC was associated with not being ‘native-born’ to where fathers lived (Hildingsson et al, 2014b), higher education levels (Kannenberg et al, 2016; Serçekuş et al, 2020a), having no financial difficulties (Serçekuş et al, 2020a), and engaging in less frequent religious practice (Hunter et al, 2011). In contrast, Bergstrom et al (2013) concluded fathers with/without FOC did not differ in sociodemographic characteristics although selection bias may have impacted this study, demonstrating further uncertainty within these findings.

**Health and wellbeing.**Paternal FOC was associated with poorer antenatal (Hildingsson et al, 2014a) and postnatal (Bergstrom et al, 2013; Schytt & Hildingsson, 2011) physical and mental health, higher parental stress one-year post-birth, and less parental competence in multiparous fathers (Hildingsson et al, 2014a; Schytt & Hildingsson, 2011) suggesting FOC may increase the risk for developing and/or exacerbate pre-existing health difficulties.

**Birth preferences, expectations, and experiences.** Anxiety increased in fathers as pregnancy developed (Kannenberg et al, 2016) and expectant fathers with FOC were twice as likely to think about birth (Hildingsson et al, 2014b). Associations were observed between fathers’ FOC and preferences for CS (Hildingsson, 2014; Hildingsson et al, 2014b) and instrumental birth (Hildingsson et al, 2014a). Fathers felt better able to support their partners following a CS than during natural birth, favouring medical interventions more than mothers (Greer et al, 2014). If partners are to be involved in decisions during birth, fearful partners may increase the likelihood of obstetric interventions. However, this could exacerbate fears and impact wellbeing as fathers reporting past negative birth experiences, including elected and emergency CS, reported greater FOC (Serçekuş et al, 2020a), poorer emotional health (Schytt & Hildingsson, 2011), and apprehension/fear regarding future pregnancies (Etheridge & Slade, 2017).

***Content of partner fears***

Partners feared complications harming the mother/birthing person or baby (Etheridge & Slade, 2017; Malmquist et al, 2019; Serçekuş et al, 2020b; Shibli-Kometiani & Brown, 2012), the mother/birthing person being unable to cope with pain (Greer et al, 2014; Malmquist et al, 2019; Malmquist & Nieminen, 2020; Serçekuş et al, 2020b), being unable to manage their fears and support the mother/birthing person (Greer et al, 2014; Malmquist et al, 2019; Sengane, 2009; Serçekuş et al, 2020b), pre-existing maternal health conditions causing complications (Malmquist & Nieminen, 2020; Serçekuş et al, 2020b), infant disease and/or foetal malformation (Kannenberg et al, 2016), and poor care (Malmquist et al, 2019; Serçekuş et al, 2020b).

Less common fears included childbirth affecting fathers’ sexual attraction towards partners (Shibli-Kometiani & Brown, 2012), causing incontinence or damaging reproductive organs (Serçekuş et al, 2020b), and the impact of traumatic birth on maternal mental health (Greer et al, 2014). LBT couples described an ‘additional layer’ to FOC, with fear of being discriminated against by professionals based on sexuality, gender/transphobia (Malmquist et al, 2019), and/or race (Malmquist & Nieminen, 2020). This may be relevant to all partners with minority/minoritised status and demonstrates the impact of discriminatory/prejudiced care.

***How fears developed***

Hearing negative birth stories, believing the mother/birthing person could not handle pain, lacking confidence in healthcare professionals, the mother/birthing person having pre-existing health conditions, uncertainty regarding foetal health (Serçekuş et al, 2020b) and of what to expect (Etheridge & Slade, 2017; Sengane, 2009; Serçekuş et al, 2020b) contributed to primary fears. Postnatally, secondary fears developed due to feeling helpless and out of control (Sengane, 2009), the rapid nature of events, lack of communication, and feeling isolated and abandoned by staff (Etheridge & Slade, 2017). Furthermore, when professionals were experienced as unsupportive, fathers more often felt helpless, unsafe, and without control (Johansson et al, 2012), indicating how healthcare systems/professionals may contribute to developing FOC. LBT partners described fears developing following a partner’s previous baby loss, and witnessing childbirth (on television, and both traumatic/medically uncomplicated births in person). Unique to LBT partners, witnessing traumatic birth increased FOC and resulted in some deciding against future pregnancy/natural birth for themselves (Malmquist & Niemenin, 2020); such experiences should be explored antenatally to identify the impact of previous births on partners.

***Coping with FOC***

Fathers who experienced birth complications (Etheridge & Slade, 2017) and those with FOC (Bergstrom et al, 2013) often felt unprepared and frightened during birth. Hildingsson et al (2014a) found fearful first-time fathers attended fewer antenatal classes compared to non-fearful fathers, and suggested this may be due to the use of avoidance to cope with fear, or perhaps antenatal appointments being less inclusive of partners. Avoidance may alleviate fears antenatally but heighten fears during birth as feeling unprepared was associated with greater distress (Johansson et al, 2012), with fathers later describing classes as necessary (Shibli-Kometiani & Brown, 2012). Consistent with this, fearful multiparous fathers attended more antenatal midwife appointments (Hildingsson et al, 2014a) indicating professional support was a coping resource for subsequent births. Partners who feel unable to use coping strategies may take more of an ‘observer’ role during birth (Etheridge & Slade, 2017; Shibli-Kometiani & Brown, 2012), limiting support to their partner. Greer et al (2014) suggested a ‘medically managed’ birth better met partners’ coping needs as fathers felt clearer on their role in providing support following a CS, indicating the importance of role clarity for partners.

Partners believed they did not have the right to say how they felt following traumatic births (Etheridge & Slade, 2017; Malmquist & Niemenin, 2020). Etheridge and Slade (2017) found fathers used coping strategies influenced by masculine gender roles including ‘bottling’ it up. Asking a trusted other to attend birth (Malmquist et al, 2019), being in a trusting relationship, and hearing positive birth stories supported LBT partners to cope and, for some, consider pregnancy themselves (Malmquist & Niemenin, 2020). Partners rarely identified not attending birth to cope suggesting they may not feel they have a choice in attending.

Psychoprophylaxis partner coaching may support partners to feel prepared and less often experience birth as frightening (Bergstrom et al, 2013). Mantram repetition was not sufficiently demonstrated to be effective in reducing couples’ FOC, though participants reported medium/high intervention satisfaction (Hunter et al, 2011). A group psychoeducation programme with relaxation and guided mindfulness for couples did not influence FOC as no partners’ demonstrated significant FOC at baseline (Ryding et al, 2018). It therefore remains unclear what supports partners to cope with FOC.

***Partner care and support needs***

Following traumatic birth, fathers identified more communication during birth, having someone to process the experience with postnatally, and validation that birth was frightening would have better supported them (Etheridge & Slade, 2017). Experiencing professionals as supportive and ‘expert’ may enhance confidence, reduce FOC (Serçekuş et al, 2020b), and improve satisfaction, particularly in younger fathers who experienced more negative care experiences (Schytt & Bergstrom, 2014).

Even in medically uncomplicated circumstances, birth may be traumatic and all partners’ experiences should be addressed postnatally, particularly in LBT couples as partners may be considering pregnancy themselves (Malmquist & Nieminen, 2020). LBT partners’ experiences of deficient, transphobic, homophobic and hetero/cis-normative health treatment resulted in distrust of professionals (Malmquist et al, 2019). Culturally sensitive, inclusive antenatal education and intrapartum care is needed to enhance birth-related knowledge, empower partners (Shibli-Kometiani & Brown, 2012), correct misinformation (Serçekuş et al, 2020b), and prepare partners for risks and emergency/surgical births (Etheridge & Slade, 2017; Hildingsson, 2014) whilst reducing fears and increasing midwifery resources (Greer et al, 2014). Partners who have experienced negative/traumatic births should receive additional antenatal support during subsequent pregnancies (Serçekuş et al, 2020a). LBT people with FOC who are unsure whether to become pregnant need access to specialised education and counselling (Malmquist & Niemenin, 2020).

**Discussion**

Consistent with previous research (Hanson et al, 2009) most studies reflect white, western/Scandinavian fathers’ experiences. There was some representation of black South African fathers, fathers with diverse religious/cultural backgrounds, those in Middle Eastern countries, and LBT partners, though these were limited largely to small qualitative studies. Furthermore, most included papers were based on observational and qualitative research; this adds experiential knowledge and understanding of FOC in partners although limits generalisability. Consistent with Moran et al (2021), many studies included native speakers only. Migrants have greater difficulties accessing healthcare, in part due to language barriers (Piacenti, 2016); the finding that FOC was higher among non-native fathers (Hildingsson et al, 2014b) suggests exclusion of non-native speakers omits important experiences from the literature.

Consistent with maternal experiences (Mazúchová et al, 2017; Nilsson et al, 2010) associations were observed between negative/traumatic births, preferences for CS, and FOC. Understanding partners’ past birth experiences and birth preferences is therefore important, particularly in countries with high rates of elective CS (Serçekuş et al, 2020a). The association between FOC and poorer health is of particular concern, given associations between poor parental health and poorer child developmental outcomes (Burstein et al, 2010; Sweeney & MacBeth, 2016). Whilst several studies investigated factors associated with FOC, observational research designs, inconsistent findings, and poorer representation of certain groups make it difficult to conclude which factors increase the risk of partner FOC and further investigation is required.

The content of partner fears corroborate and expand on previous research (Hanson et al, 2009; Vehviläinen-Julkunen & Liukkonen, 1998) with fear of harm to mothers/infants and mothers being in pain most frequently cited; common fears should inform antenatal intervention. Newly identified fears included concerns for maternal mental health and the impact of this on the new family (Greer et al, 2014) and, particularly for LBT partners, whether couples would receive adequate healthcare. Social injustice is widespread for the LGBTQ community (Family Equality, 2019) and experiences of prejudiced healthcare added to FOC for LBT parents. Feminine/cisgender norms in motherhood and maternity care contexts can add to FOC for those who do not identify with female gender expressions/identities (Malmquist et al, 2021), further emphasising the need for inclusive, non-discriminatory maternity/perinatal care. Professionals should endeavour to understand parents’ past healthcare experiences, to develop trust and address FOC (Malmquist et al, 2019).

Cultural expectations that partners attend birth (Dellmann, 2004; Redshaw & Henderson, 2013) may prevent partners questioning attendance despite FOC. The presence of highly fearful partners during birth may negatively impact the mother/birthing person (Jomeen, 2017). Normalising the option of non-attendance during antenatal discussions may better support parents to make informed decisions meeting their needs (Etheridge & Slade, 2017). For those wishing to attend, partners’ needs should be addressed via tailored partner-focused antenatal support. Role uncertainty during labour and fear of being unable to support their partner contributes to FOC (Greer et al, 2014; Malmquist et al, 2019; Sengane, 2009; Serçekuş et al, 2020b), so antenatal support should enhance partner confidence in maternity care and supporting role tasks. Antenatal education may be avoided to cope with FOC (Hildingsson et al, 2014a), suggesting clinicians should seek to understand the reasons for non-attendance as this could help to identify and alleviate fear/anxiety.

Limited communication with partners by professionals during birth was associated with poorer coping and greater distress (Etheridge & Slade, 2017; Shibli-Kometiani & Brown, 2012). To limit healthcare factors contributing to secondary FOC, maternity/perinatal services should aim to address the separate needs of mothers/birthing people and partners, and the collective needs of the family (Ganapathy, 2018). Ensuring partners are informed, involved in birth-related decisions, and supported by professionals may mitigate the impact of fear during birth (Etheridge & Slade, 2017; Johansson et al, 2012). Partners may feel unable to share their distress or seek support following negative/traumatic birth experiences (Chandler & Field, 1997; Eriksson et al, 2006) which can exacerbate FOC, impact postnatal mental health and future birth experiences. This is a particularly important consideration when both partners have child-bearing capacity and partners may be considering pregnancy for themselves (Malmquist & Niemenin, 2020).

**Limitations**

Although searches were comprehensive and systematic, papers not written in English were excluded meaning relevant papers may have been missed. Furthermore, just one researcher conducted the search, selection and appraisal of papers, and a second reviewer would have improved reliability. Dependent on methodological design, the selected appraisal tools arguably had missing aspects, such as addressing recruitment in qualitative studies, and ethical considerations in quantitative studies, which would have improved quality assessment. Additionally, appraisal tools were minimally adapted meaning tools were not used exactly as intended.

Further limitations associated with using a single score in quality reviews leads some to argue such methods should not be used (Wells & Littell, 2009). Different appraisal tools/criteria make it difficult to weight items appropriately and different approaches to scoring can produce different conclusions regarding quality (Whiting et al, 2005). Despite these criticisms, quality scores are still widely used, and this procedure was selected to facilitate comparison. Given the variable quality of included papers, caution should be applied in the interpretation and application of findings.

**Research recommendations**

Further research is needed to investigate the fears, needs, roles, and characteristics of fearful partners across cultures (Greer et al, 2014; Serçekuş et al, 2020b; Sengane, 2009; Schytt & Bergstrom, 2014; Shibli-Kometiani & Brown, 2012) and better understand potential risk factors associated with primary and secondary FOC. Notably, investigation of the long-term effects of FOC on partners and family systems, as well as investigation of other ‘birthing partners’ (such as maternal friends, relatives etc.) are missing from the literature and warrant attention. To limit elective CS motivated by FOC, studies investigating how partner FOC influences mothers’ birth-related decision-making are also required (Hildingsson et al, 2014b).

More LGBTQ people are having children than ever before (Family Equality, 2019) and these groups are at risk of FOC related to minority stress (Malmquist et al, 2019). Just two qualitative papers based on the same sample explored LBT partner experiences. Further studies exploring how FOC, personal vulnerabilities, and prejudiced treatment influence birth experiences are needed (Malmquist & Nieminen, 2020). Valid, reliable measures of FOC for fathers and LBT partners are needed to facilitate identification of fearful partners and investigate the prevalence of FOC. Furthermore, intervention studies addressing partner FOC are limited in number and quality. Research investigating the acceptability and utility of interventions to reduce FOC in partners is required.

**Conclusion**

The literature on partner FOC since 2008 ranged from low-good quality. Limitations such as lack of valid, reliable measures of FOC, high levels of attrition, and limited consideration of reflexivity need to be considered when interpreting findings and considering recommendations. There is a need for active, tailored, culturally sensitive, and LGBTQ and trauma-informed support by professionals, to target antenatal FOC, facilitate coping, and mitigate the impact of difficult/traumatic birth experiences for partners. Services supporting perinatal populations must receive adequate funding and support to achieve this. Further research is needed to expand on understanding of FOC in diverse partner populations and the longer-term impacts of FOC. Studies investigating models of care and interventions to reduce FOC are also required, alongside the development of appropriate measures of FOC for partners.

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**Appendix A. Author guidelines for *‘*The Journal of Prenatal and Perinatal Psychology and Health’**

<https://birthpsychology.com/3lp-apppahs-journal/>

Key points from author guidelines:

* The paper should be between 2000 and 8000 words
* The paper should include a 100 word abstract and at least three key words
* Formatting and referencing must follow APA style (7th Edition)
* All cited material should be included on the reference list
* \*American spelling should be used
* \*Illustrations, figures and tables should be included separately from the manuscript (in a separate document) and should be clearly identified in Arabic numerals.

\*Guidelines to be addressed prior to journal submission.

**Appendix B. JBI Checklist for Qualitative Research Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  Congruity: Philosophical perspective & methodology | 2 Congruity: Methodology & research question/objectives | 3 Congruity: Methodology & data collection methods | 4 Congruity: Methodology & analysis/representation of data | 5 Congruity: Methodology & interpretation | 6 Location of researcher theoretically/culturally | 7 Influence of research/research | 8 Adequate representation of participant voices | 9 Ethics & ethical approval | 10 Conclusions | Quality Score (%) |
| Etheridge & Slade (2017) | U (0) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | N (0) | Y (2) | Y (2) | Y (2) | 70% |
| Greer et al (2014) | N (0) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | N (0) | Y (2) | Y (2) | Y (2) | 70% |
| Malmquist et al (2019) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) | 1 (PM) | N (0) | Y (2) | Y (2) | Y (2) | 85% |
| Malmquist & Nieminen (2020) | U (0) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | N (0) | Y (2) | Y (2) | Y (2) | 70% |
| Sengane (2009) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | N (0) | PM (1) | N (0) | Y (2) | 65% |
| Serҫekuʂ et al (2020b) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | N (0) | Y (2) | Y (2) | Y (2) | 80% |
| Shibli-Kometiani & Brown (2012) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | PM (1) | Y (2) | N (0) | Y (2) | 75% |

**Appendix C. JBI Checklist for Cohort Study Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  Recruitment:  Similar groups & same population | 2 Exposure measurement: Similar in exposed/unexposed groups | 3 Exposure measurement: Valid & reliable | 4 Confounding factors | 5 Strategies to deal with confounding factors | 6 Groups/participant free of outcome at start of study | 7 Outcomes measured in reliable and valid way | 8 Follow-up time reported & sufficient | 9  Follow-up complete? Loss to follow-up explored? | 10  Addressing incomplete follow-up | 11  Appropriate statistical analysis | Quality Score (%) |
| Bergstrom et al (2013) | Y (2) | N/A | N/A | Y (2) | Y (2) | N/A | PM (1) | Y (2) | Y (2) | Y (2) | Y (2) | 93.75% |
| Hildingsson (2014) | Y (2) | N/A | N/A | Y (2) | Y (2) | N/A | U (0) | Y (2) | U (0) | N (0) | Y (2) | 62.5% |
| Hildingsson et al (2014a) | Y (2) | N/A | N/A | Y (2) | Y (2) | N/A | PM (1) | Y (2) | Y (2) | N (0) | Y (2) | 81.25% |
| Schytt & Bergstrom (2014) | Y (2) | N/A | N/A | Y (2) | Y (2) | N/A | PM (1) | Y (2) | Y (2) | Y (2) | Y (2) | 93.75% |
| Schytt & Hildingsson (2011) | Y (2) | N/A | N/A | Y (2) | Y (2) | N/A | U (0) | Y (2) | PM (1) | U (0) | Y (2) | 68.75% |

**Appendix D. JBI Checklist for Analytical Cross-Sectional Study Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  Clearly defined inclusion criteria | 2  Detailed description of participants & setting | 3  Exposure measurement: Valid & reliable | 4  Use of objective/  Standard criteria for measuring condition | 5 Confounding factors | 6 Strategies to deal with confounding factors | 7 Outcomes measures in reliable and valid way | 8 Appropriate statistical analysis | Quality Score (%) |
| Kannenberg et al (2016) | Y (2) | PM (1) | N/A | Y (2) | N (0) | Y (2) | U (0) | Y (2) | 64.3% |
| Serҫekuʂ et al (2020a) | Y (2) | Y (2) | N/A | Y (2) | Y (2) | Y (2) | PM (1) | Y (2) | 71.4% |

**Appendix E. JBI Checklist for Randomised Controlled Trial Study Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  Use of true randomisation | 2  Allocation to treatment groups concealed | 3  Treatment groups similar at the baseline | 4 Participant’s blind to treatment assignment | 5 Those delivering treatment blind to treatment assignment | 6 Outcome assessors blind to treatment assignment | 7 Treatment groups treated identically | 8 Follow-up complete? Group differences re follow-up explored? | 9  Participants analyzed in the groups to which they were randomized | 10 Outcomes measured the same way for treatment groups | 11 Outcomes measures in reliable and valid way | 12 Appropriate statistical analysis | 13  Was the trial design appropriate | Quality Score (%) |
| Ryding et al (2018) | U (0) | U (0) | Y (2) | U (0) | U (0) | U (0) | Y (2) | N (0) | U (0) | Y (2) | PM (1) | Y (2) | Y (2) | 42.3% |

**Appendix F. JBI Checklist for Prevalence Study Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1  Appropriate sample | 2  Appropriate recruitment | 3  Adequate sample size | 4 Detailed description of participants & setting | 5 Coverage bias | 6 Valid measurement of the condition | 7 Standard, reliable measurement of the condition | 8 Appropriate statistical analysis | 9  Adequate response rate/  management of response rate | Quality Score (%) |
| Hildingsson et al (2014b) | N (0) | Y (2) | Y (2) | Y (2) | U (0) | PM (1) | Y (2) | Y (2) | N (0) | 61.1% |

**Appendix G. Mixed Methods Appraisal Tool (MMAT) Scoring and Analysis Table.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Qualitative Criteria | | | | | Quantitative Randomised Controlled Trial Criteria | | | | |
|  | 1  Appropriate approach | 2  Adequate data collection methods | 3  Findings derived from data | 4  Interpretation substantiated by data | 5  Coherence between data collection, analysis & interpretation | 1  Appropriate randomisation | 2  Comparable groups at baseline | 3  Complete outcome data | 4  Blinded outcome assessors | 5  Adherence to intervention assignment |
| Hunter et al  (2016) | Y (2) | Y (2) | Y (2) | PM (1) | PM (1) | U (0) | PM (1) | N (0) | U (0) | Y (2) |
| Johansson et al (2012) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Quantitative Descriptive Criteria | | | | | Mixed Methods Criteria | | | | |  |
|  | 1  Relevant sampling strategy | 2  Representative sample | 3  Appropriate measures | 4  Low risk for nonresponse bias | 5  Appropriate statistical analysis | 1  Adequate rationale | 2  Effective integration of study components | 3  Integration of components adequately interpreted | 4  Divergences/  inconsistencies adequately addressed | 5  Different components adhere to quality criteria | Quality Score %  (MMAT quality interpretation) |
| Hunter et al  (2016)  Cont. |  |  |  |  |  | Y (2) | Y (2) | Y (2) | N (0) | N (0) | 30%  (Low overall quality) |
| Johansson et al (2012) | Y (2) | Y (2) | N (0) | N (0) | Y (2) | Y (2) | Y (2) | Y (2) | Y (2) | N (0) | 60%  (Moderate overall quality) |

**Appendix H. Study characteristics data extraction template.**

|  |  |
| --- | --- |
| 1. Study title and date of publication |  |
| 1. Study authors |  |
| 1. Country in which the study was conducted |  |
| 1. Sample size (n=) |  |
| 1. Sample characteristics (fathers/partners/mothers etc.) |  |
| 1. Study design/methodology for appraisal |  |
| 1. Method of data collection |  |
| 1. Method of analysis |  |
| 1. Key/relevant study findings |  |
| 1. Study strengths |  |
| 1. Study limitations |  |
| 1. Database in which the study was identified |  |

**Appendix I. Process of results analysis and theme generation.**

**PAPER TWO: Empirical Paper**

**Experiences of Social Isolation for First-time Mothers with Pre-existing Anxiety during the COVID-19 Pandemic: An Interpretative Phenomenological Approach**

**Author Note**

This paper has been prepared with the intention of publication in *‘*The Journal of Prenatal and Perinatal Psychology and Health’ (appendix A). Further amendments will be made before submission to the journal to ensure the report meets all submission guidelines.

Word count: 8000

**Abstract**

This study aimed to explore experiences of social isolation for first-time UK mothers with pre-existing anxiety during the COVID-19 pandemic. Six interviews were completed between July-November 2021. Interpretative Phenomenological Analysis revealed four superordinate and twelve subordinate themes reflecting experiences of new motherhood and social isolation during the COVID-19 pandemic, and their influence on mental health, coping and accessing support. Findings contribute understanding of the experiences of this population during/beyond pandemic restrictions, with implications for how mothers are supported in the aftermath of the pandemic and similar future crises.

Key words: mother, social isolation, COVID-19, anxiety, mental health

COVID-19 reached pandemic status in March 2020 (World Health Organisation [WHO], 2020). On 26th March 2020 the first UK lockdown was implemented, and people were required to remain at home except for essential purposes. Preventative measures including social distancing, bans/limits on social gatherings and travel restrictions were adopted to reduce viral transmission (UK Parliament, 2021). Social restrictions varied over time across the UK and continued until the roll-out of the COVID-19 vaccination programme. UK citizens faced greater social isolation under these restrictions. Social isolation defined as “an objective lack of interactions with others or the wider community”, has been associated with higher levels of depression, suicidality, mortality and long-term physical health conditions (Leigh-Hunt et al, 2017, p.158). A review investigating viral epidemics demonstrated associations between quarantine measures and poor mental health, prompting warnings that the impact of social restrictions could be far-reaching and long-lasting (Brooks et al, 2020a), particularly for vulnerable populations.

The perinatal period is a vulnerable time with one in five mothers experiencing mental health difficulties (Mental Health Taskforce, 2016). First-time motherhood has been described as “unfamiliar territory” requiring mentorship and support (Darvill et al, 2010, p.360) and risks to mental health may be greater for first-time mothers (Martínez-Galiano et al, 2019). Anxiety-related difficulties have demonstrated the highest prevalence of lifetime mental health difficulties (28.8%) (Kessler et al, 2005). In perinatal samples literature reviews show 2.6-39% of mothers demonstrate an ‘anxiety disorder’, with those experiencing socioeconomic, relationship, and historical mental health difficulties at greater risk (Leach et al, 2017). Social support is protective against the impact of stressors, perinatal distress, and in managing the maternal transition (Glazier et al, 2004; Cree, 2015). However, during COVID-19 restrictions UK women were unable to access support systems in person. The impact of such on new mothers was therefore highlighted as an area of concern (Brooks et al, 2020b; Halvorsen et al, 2020; Thapa et al, 2020; Topalidou et al, 2020), prompting clinical and epidemiological research worldwide.

Recent literature reviews have demonstrated increased anxiety and depression in perinatal women during the pandemic (Hessami et al, 2020; Iyengar et al, 2021; Shorey et al, 2021; Suwalska et al, 2021); notably, most studies investigated symptom prevalence and pre- and post-pandemic symptom change in pregnant women, with few studies conducted in the UK. Risk factors associated with anxiety and mood-related difficulties were being a younger and/or single mother, experiencing financial strain, social isolation, changes to perinatal care, family/relationship conflict, and mental health difficulties which pre-existed the pandemic (Iyengar et al, 2021; Suwalska et al, 2021). A recent US study found perinatal women with pre-existing mental health diagnoses were 1.6-3.7 times more likely than those without to report significant symptoms of anxiety, depression, and PTSD (Liu et al, 2021). Similarly, a cross-sectional UK study investigating postnatal women during the first lockdown found significant increases in anxiety (61%) and depression (43%) when compared to self-reported diagnoses (anxiety18.4%; depression11.4%) and pre-pandemic levels (anxiety13.7%; depression16%) (Fallon et al, 2021).

Such findings suggest perinatal women with pre-existing mental health difficulties were particularly vulnerable during the pandemic. However, qualitative studies exploring perceptions of, and meaning attributed to these experiences are limited. Recent qualitative and mixed-methods studies investigating community samples of perinatal women demonstrated ‘blessings’ and ‘curses’ associated with the pandemic (Joy et al, 2020), increased anxiety and psychological distress (Chivers et al, 2020; Güner & Oztürk, 2021; Kumari et al, 2021; Rice et al, 2021), isolation and needing social support (Güner & Oztürk, 2021; Kumari et al, 2021; Sweet et al, 2021), negative postnatal hospital experiences, breastfeeding difficulties, breaking restrictions to seek support (Rice et al, 2021), concerns about a lack of maternal/infant socialisation (Ollivier et al, 2021), varied coping experiences (Güner & Oztürk, 2021; Kumari et al, 2021), and multiple barriers to healthcare (Güner & Oztürk, 2021; Karavadra et al, 2020).

Qualitative investigation of perinatal women with pre-existing mental health difficulties is limited. Anderson et al (2022) used mixed-methods to examine perinatal women with histories of depression in the US and found 76.6% reported a worsening of existing difficulties, often attributed to disrupted coping resources. In a sample of perinatal women in Pakistan, Rauf et al (2021) found pre-existing anxiety increased with themes linking anxiety to greater financial difficulties, reduced access to healthcare, reduced trust in health professionals, and fear for their own/their baby’s safety. These studies largely captured early pandemic experiences and the impact of prolonged socially restrictive measures on new UK mothers with pre-existing mental health difficulties is not clear.

**Rationale and Aims**

Perinatal distress can significantly impact maternal and family wellbeing (Royal College of General Practitioners, 2016) and child outcomes (Glasheen et al, 2010; Rees et al, 2019). Exposure to crises such as COVID-19 threatens child development and maternal mental health (Venta et al, 2021) with evidence suggesting outcomes may be worse for children with highly distressed caregivers (Köhler-Dauner et al, 2021; Russell et al, 2020). Research investigating perinatal experiences during COVID-19 has emerged at rapid pace. However, acute and delayed effects on mental health are likely (Iyengar et al, 2021), which will vary between groups and over time (Kumari et al, 2021). The changing situation globally emphasises the continued need to understand how COVID-19 affected mothers. Given the context described above, along with the dearth of qualitative research investigating new mothers with pre-existing anxiety, there is a need for further research to better understand maternal experiences. Therefore, this study aims to qualitatively explore experiences of social isolation and early motherhood during the COVID-19 pandemic for perinatal first-time UK mothers (specifically within the first 12 months post-partum; Public Health England, 2019) with pre-existing anxiety.

**Research Question**

*How did first-time UK mothers with pre-existing anxiety experience greater social isolation during the COVID-19 pandemic?*

**Method**

**Ethics**

Approval was granted by Staffordshire University Ethics Committee (appendix B). Issues of informed consent, confidentiality and safeguarding/risk management were considered throughout. Participants were informed of the potential for distress and reminded of their right to pause interviews, decline to answer and/or withdraw. Some participants became tearful during interviews while sharing emotional experiences. Participants were supported and all were happy to proceed. No negative effects were reported. Participants were debriefed and signposted to support agencies. Participants and family members were assigned pseudonyms to ensure anonymity.

**Design**

Due to the under-researched, exploratory nature of the research question a qualitative design was justified to gather detailed experiential accounts. Interpretative Phenomenological Analysis (IPA) seeks to explore how individuals make sense of and develop meaning from experiences (Smith et al, 2009), and draws upon theoretical principles of ‘phenomenology’ (the study of lived experience), ‘hermeneutics’ (a theory of interpretation), and ‘ideography’ (in-depth examination of the particular) (Pietkiewicz & Smith, 2014). IPA was selected over other phenomenological approaches, such as Thematic Analysis, due to its focus on investigating individual lived experience first, before looking at similarities, differences, and producing more general claims.

**Recruitment**

Recruitment took place from June-December 2021. All interviews were completed after 19th July 2021 when most UK restrictions had been lifted (Cabinet Office, 2021). Due to COVID-19 restrictions, participants were largely recruited via an advert (appendix C) placed on parenting and maternal mental health websites, forums, and social media platforms (appendix D). An advert was also shared in a mother and baby group and snowball sampling was employed. Mothers registered their interest via email, were provided with the participant information sheet (appendix E) and encouraged to ask questions. Eligible participants signed and returned a consent form (appendix F) and demographics questionnaire (appendix G) via email. Three mothers with young children were consulted on these materials.

**Sampling and Participants**

Based on guidelines for doctoral research, a sample between four-ten participants/interviews was appropriate (Smith et al, 2009; Turpin et al, 1997, as cited in Pietkiewicz & Smith, 2014). Mothers were eligible if they met pre-defined criteria (table 1). Approximately half of perinatal anxiety cases go undetected (Bauer et al, 2014) suggesting many women would be missed by limiting inclusion criteria to those with a diagnosed ‘anxiety disorder’. This study therefore focused on first-time mothers with self-identified anxiety prior to the COVID-19 pandemic, which would be considered ‘clinically relevant’ due to its impact on distress or functioning. ‘Self-identified anxiety’ was operationalised based on DSM-V (American Psychiatric Association, 2013) and ICD-11 (WHO, 2018) criteria for ‘anxiety disorders’ (appendix H). Due to global variations in COVID-19, this study sought to investigate UK mothers only. Participants were excluded if they could not speak English due to a lack of interpreter funds, were aged under 18 due to ethical considerations, did not have access to a phone or device/the internet due to the need for remote interviews, required ‘shielding’ due to greater restrictions on shielding populations, or were experiencing a mental health crisis/accessing mental health services due to the potential for increased distress.

**Table 1**

*Eligibility criteria*

|  |  |
| --- | --- |
| Inclusion criteria | Exclusion criteria |
| First-time mother (aged 18 years+)  First child born between 01/09/2019-20/02/2020  Self-identified anxiety prior to the COVID-19 pandemic (appendix I)  UK resident during the COVID-19 pandemic  Access to a phone/video device | In mental health crisis and/or accessing mental health services  ‘Shielding’ during the COVID-19 pandemic  Non-English speaking |

Fourteen mothers across the UK enquired about participation. Four did not meet inclusion criteria. Three met inclusion criteria although did not return a consent form or respond to follow-up emails. Seven completed and returned consent forms. Due to a change of personal circumstances one participant opted out of participation prior to interview. Six mothers aged 28-36 years participated, with children aged 18-25 months. All participants identified as White British and lived across England. Four participants were in work. Participants’ educational levels ranged from A-Level/NVQ to Post-graduate degree. Participants described varied living circumstances though most lived with their partner and baby for the majority pandemic restrictions (table 2). All participants commented during interviews that they had previously accessed mental health services/therapies.

**Table 2**

*Participant demographics*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pseudonym | Age | Ethnicity | Education level | Working | Country/Region | Age of child | Relationship status | Household support |
| Anna | 34 | White British | Post-graduate Diploma | Yes | England/North West | 18 months | Married | Lived with family and relatives until June 2020. From June 2020 lived with husband and baby. |
| Becky | 29 | White British | Bachelor’s Degree | No | England/South East | 18 months | Married | Lived with husband and baby for duration of pandemic restrictions. |
| Caroline | 35 | White British | PhD | Yes | England/South East | 19 months | Married | Lived with husband and baby for duration of pandemic restrictions. |
| Danielle | 28 | White British | A-Level/NVQ | Yes | England/Midlands | 19 months | In a relationship | Lived with partner and baby during most pandemic restrictions. Lived alone with baby from January 2021. |
| Emma | 36 | White British | Master’s Degree | Yes | England/Midlands | 24 months | Married | Lived with husband and baby for duration of pandemic restrictions. |
| Faye | 35 | White British | Bachelor’s Degree (partially completed) | No | England/Midlands | 25 months | Single | Lived with parents and baby for duration of pandemic restrictions. |

**Procedure**

A semi-structured interview schedule was developed based on IPA guidelines (Smith et al, 2009) (appendix I). One mother was consulted on the interview schedule to promote accessibility. Due to pandemic-related working practices interviews were conducted via video call. A flexible interview style and person-centred approach allowed the exploration of unexpected ideas brought by participants. Interviews lasted on average 91 minutes, and were recorded and transcribed. A verbal and written debrief was provided to each participant (appendix J).

**Analysis**

Analysis was conducted based on IPA guidance (Smith et al, 2009). Multiple transcript readings facilitated becoming ‘immersed’ in the data. Descriptive, linguistic and conceptual comments were completed for each transcript and emergent themes were developed (appendix K). A mapping process to search for connections across emergent themes was conducted and superordinate themes were identified for each participant (appendix L). Figures representing superordinate themes facilitated searching for patterns across cases (appendix M) and recurrent superordinate themes were identified at a group level. During this process higher order ‘superordinate themes’ were developed to reflect main themes across cases, and group level superordinate themes were relabelled ‘subordinate themes’. Final superordinate and subordinate themes were compiled into tables including quotes (appendix N).

**Reflexivity and Epistemology**

The researcher was guided by social constructivism which seeks to understand the subjective meanings individuals develop towards specific objects/experiences (Creswell & Poth, 2016). This position argues that knowledge and meaning is specific to personal, historical and cultural contexts and develops through interactions between individuals, objects and their environments (Kim, 2014; Taylor, 2018). Consistent with IPA and the double hermeneutic process, social constructivism emphasises knowledge acquired from research is constructed by all those involved, meaning the researcher cannot be independent of research findings (Mertens, 2014).

Reflexivity is important to consider as research findings are a product of the researcher’s sense-making of the participants’ sense-making. The researcher is a White British female who shared personal characteristics with participants, had existing clinical knowledge of anxiety presentations and parenting experiences, and lived through COVID-19. Although not a parent, the researcher knew mothers with young children and was therefore aware of possible challenges of the target population. Notably, this influenced the researchers’ focus when designing this study, which meant that other parents were inadvertently excluded. These factors increase the likelihood of assumptions being made during interviews and analysis, and a reflexive process was required to maintain awareness of personal biases (Smith et al, 2009). For example, the researcher was aware of their own experiences related to pandemic isolation and attempted to bracket initial thoughts via a research diary and supervision. This facilitated reflection on the researcher’s thoughts and emotional experiences prior to/during data collection and analysis, and was important to refer back to when interpreting participants’ sense-making.

**Results**

Analysis revealed four superordinate and twelve subordinate themes at a group level (table 3) reflecting experiences of early motherhood and social isolation during the COVID-19 pandemic, and their influence on mental health, coping and accessing support.

**Table 3**

*Superordinate and subordinate themes*

|  |  |
| --- | --- |
| Superordinate themes | Subordinate themes |
| The transition to motherhood: “It takes a village to raise a child” | *“Bonding was difficult”*  *“No one knew or understood what I was* |
|  | *going through”* |
|  | *“I missed the boat”* |
| Physical proximity matters: “We were left on our own” | *“I'm just much better with face-to-face interactions”* |
|  | *“I just felt kind of abandoned”* |
| More than the usual emotional experience: “Mentally I was worse off than I would have been” | *“A whole layer of other things to worry about”*  *“There will always be part of me that kind of grieves for that first year”* |
|  | *“I feel very stuck in everything that was”* |
|  | *“I shouldn’t have the right to feel isolated”* |
|  | *“It’s taking a bit longer to adjust to a non-pandemic world”* |
| Coping counts: “I tried to cope” | *An “illusion of coping”* |
|  | *“If I hadn’t been proactive…”* |

**Theme 1: The transition to motherhood: “It takes a village to raise a child”–Anna**

Prior to COVID-19 new motherhood was expected to be a busy, sociable time. The lost opportunity to form a “village”, from whom participants could access support, understanding, and bond with their baby suggested an impacted/delayed social-emotional transition to a ‘mother self’, and meant participants continued to feel isolated beyond social restrictions.

***“Bonding was difficult”–Faye***

Participants reported that a loss of support from personal/professional networks led to difficulties such as reduced tolerance, low mood, difficulties breastfeeding, feeling “burnt out” (Danielle, line 1212) and constantly busy, which impacted bonding experiences and feelings towards baby: “It's impacted on my feelings towards Benji … I think I just like lost tolerance … my tolerance and patience for him was in my boots” (Anna, line 1287-1293). For some, these difficulties added to existing bonding difficulties (for example, associated with complex/traumatic births) and may have disrupted attachment processes: “I was already challenged to begin with. So bonding was difficult” (Faye, line 879-880).

Several participants referred to missed opportunities to bond with their baby with and via others in contexts associated with early motherhood, where mothers could interact and receive feedback and reassurance: “From a social perspective, I feel like I've missed out on kind of bonding with Fern through doing that kind of thing [mother and baby groups/activities]” (Emma, line 45-46). Bonding and attachment development was discussed in part as a social process, not only between mother-baby but between mother-baby-other: “I felt more connected to him and more like a mum when I was able to put him in the settings that mums put them in” (Danielle, line 1304-1305).

Becky and Emma described positive perceptions of partner support which appeared to protect bonding/attachment processes, suggesting supportive partners fulfilled the role of ‘other’. In contrast, Anna described a less supportive partner relationship and discussed greater difficulties: “I was stuck at home. Didn't have anywhere to go with an angry baby. Didn't really feel supported or understood by my husband” (Anna, line 189-190). Since restrictions were lifted, mother-baby relationships were generally described positively, further suggesting the importance of maternal social connection in the bonding/attachment process.

***“No one knew or understood what I was going through”–Anna***

Most participants described an unmet need for others who understood their experiences of being a new mother, experiencing anxiety, and feeling isolated: “My husband has been absolutely wonderful. But he's not a first-time mum … my mum at one point was a first-time mum, so she understands some of some of it, obviously, not from the point of view of a pandemic” (Emma, line 553-557). A belief that only other pandemic mothers/parents could understand was common although access to other mothers was limited, maintaining a sense of psychological and emotional isolation: “It takes a village to raise a child, I feel like this is unprecedented, like no one else had to raise babies like this before” (Anna, line 254-256).

This lack of understanding triggered tension within participants’ relationships, in turn maintaining emotional difficulties. Those who did access other parents via support groups prior to/during the pandemic described “solace” (Danielle, line 1377) and emotional understanding from these encounters, and difficulties when support was lost: “Because that all stopped [face-to-face parent mental health group] I didn't have anyone else to talk to that understood … that had quite a big impact on me” (Faye, line 621-626).

***“I missed the boat”–Caroline***

Four participants described feeling continually isolated despite the removal of most social restrictions, associated with beliefs that missed opportunities to form connections with other mothers maintained feelings of isolation/loneliness: “To this day I still feel a bit lonely … I don't have any sort of groups of mum friends or anything that I've met through any activities” (Emma, line 38-43). For Danielle these feelings were surprising as this was counter to her expectation that feelings of isolation would resolve once restrictions had lifted: “I built it up in my head that, oh at least when restrictions are lifted things would be different” (Danielle, line 117-118).Many discussed feeling unsure of how to form support networks at this later stage of motherhood, due to having returned to work or anticipating difficulties socialising with a toddler compared to a young baby: “They’ve got little tiny babies like six months old and I've got a rampaging toddler and that's not–necessarily going to fit in. So I kind of feel like I missed the boat on that” (Caroline, line 947-949). This suggests the development of a belief that a key social-developmental task (forming connections with other mothers) as a new mother was “missed” and maintained isolation.

**Theme 2: Physical proximity matters: “We were left on our own”–Caroline**

A lack of physical proximity to a ‘village’ was challenging and remote contact did not meet needs sufficiently. Physical separation from professional support triggered feelings of abandonment.

***“I'm just much better with face-to-face interactions”–Anna***

All participants described an unmet need for physical proximity to others, not only to access practical support, but to form meaningful relationships, feel comforted, and contribute to an internal sense of security: “The inability to see people in person … you could never feel like 100% comfortable with things as, as you would have done” (Emma, line 773-779). A lack of physical proximity increased anxiety for many due to a lack of comfort and reassurance. Caroline discussed this in the context of developing confidence as a new mother, suggesting that proximity to knowledgeable and trusted others was important to developing maternal self-efficacy.

“You know you have like microaggressions? It's sort of the opposite. Sort of micropositives. Like just being told at various times. Little things like oh no, he looks fine. Oh no, you're doing it right-like just lots of little like reassurances that will build your confidence” (Caroline, line 212-216).

In the absence of physical proximity, all participants accessed personal/professional support remotely (video/phone call and instant messaging), though this was often described as not meeting needs in the same way as face-to-face contact, and for some led to increased anxiety and distress. For example, Faye described concerns regarding privacy due to not knowing who might read messages or overhear conversations within her home, which meant that she withheld emotional experiences or felt anxious when sharing: “Because I didn't talk to anyone about it, and I didn't feel comfortable putting it in Messenger. I just overreacted with everything” (Faye, line 546-548). Anna described herself as “not great with technology” (line 519) and experienced greater anxiety when accessing support online, meaning she struggled to access some of the main sources of support open to her: “[I] don't like social media–it's not good for me. … It becomes a bit overwhelming … I knew that there was support online, but it wasn't really working for me” (Anna, line 87-92).

***“I just felt kind of abandoned”–Caroline***

Whilst acknowledging the strains upon health services, five participants described feeling first-time parents were not a priority to policy makers and/or healthcare professionals: “I had all the common warning signs without a pandemic that I probably would struggle, like anxiety during pregnancy, traumatic awful labour, not a huge support network and like there wasn’t–no one seemed to care” (Becky, line 1565-1569). This triggered a sense of abandonment, often associated with limited access to, and a lack of confidence in virtual health appointments.

Notably, for some this resulted in unconscious disengagement from professional support, due to developing beliefs that professionals were unable to offer new mothers the kind of support they needed, or that they should be able to cope alone.

“I almost kind of felt like I was on my own. I mean, I know that if I really, really struggled and was really, really in need of support, the support was there. But it was never, it was never in person” (Emma, line 314-317).

This perception of abandoning healthcare may have increased the vulnerability of an already vulnerable group of mothers, maintaining isolation from support and exacerbating distress. For Danielle this continued to impact her in the present: “It kinda has created this idea in my head that–it's my problem. Uhm, that I need to suck it up … it all has probably made me less open for help” (Danielle, line 968-974). This indicates a rupture in her relationship to help-seeking, leaving her feeling “let down” (line 1391) and as though “mums fell through the cracks during that year” (line 183-184).

**Theme 3: More than the usual emotional experience: “Mentally I was worse off than I would have been”–Faye**

Participants discussed difficulties with their mental health beyond pre-existing anxiety during and since social restrictions, expressing beliefs that their mental health had worsened due to increased isolation. A process of comparing experiences with what had been expected from motherhood was associated with many of these difficulties: “I think that's kind of why I got that–kind of really bad mental state because I couldn't manage my expectations” (Danielle, line 300-301).

***“A whole layer of other things to worry about”–Emma***

Four participants discussed significant anxiety during pregnancy, often associated with fears of causing unintentional harm to their baby. For Becky, this meant she engaged in protective behaviours to reduce the risk of illness well before COVID-19: “I was living almost like how … they were telling you to live, like before the pandemic started” (Becky, line 1016-1017). Four participants described difficulties tolerating uncertainty related to COVID-19 and their new mother role. For some, isolation from experienced, reassuring others exacerbated uncertainty and anxiety, and impacted maternal confidence due to underlying fears of getting things ‘wrong’ or causing unintentional harm to their baby: “that [anxiety/fear of harm] was exacerbated in lockdown because I was on my own so I didn't even have someone that could come in and save the day if I made the wrong call” (Danielle, line 806-808).

During their first year of motherhood, all participants expressed beliefs that the pandemic brought many additional worries, describing significantly heightened anxiety characterised by worry and/or panic related to themselves or their baby catching COVID-19: “worrying about COVID, worrying about Fern getting COVID or getting ill generally … that was what was causing me to feel panicky and overwhelmed” (Emma, line 1077-1079). The strongest theme within participants’ worries focused on if/how social isolation would impact baby’s social skills and development. Ruminating on uncertainty regarding ‘normal’ development or the future impact of isolation on children was common: “Anxiety wise I was thinking my child's gonna end up being a recluse … Like, she's gonna be scared of people” (Faye, line 191-194). Half of participants believed social isolation had impacted/was continuing to impact their child, with children described as more wary, fearful, and anxious in new situations or with new people. Remaining participants expressed worry about delayed/future impacts of isolation on their children they feared were yet to manifest: “I worry that in a few years’ time you will be able to really tell that that's impacted him” (Danielle, line 1135-1136).

Additionally, Anna, Becky and Emma discussed worrying about the impact that their anxiety and/or low mood was having on their child, which in turn increased anxiety.

“The lack of socialisation for, for myself, would have on her–as well as the lack of socialisation for her because I was worried that my anxiety, that she'd pick up on my anxiety as well. So that kind of made me more anxious” (Emma, line 88-91).

For Becky, whilst anxiety had subsided with the lifting of social gathering restrictions, she anticipated a need for future therapeutic/emotional support following her experience of isolation: “there will be points in the future where I probably do seek help again or, you know how I was planning another baby, it would be something I would be very forthcoming with to like my midwives” (Becky, line 1292-1295).

***“There will always be part of me that kind of grieves for that first year”–Danielle***

All participants experienced relational and experiential losses, for themselves, their baby, and wider support networks. Themes within these losses related to a loss of time, making memories with friends and family, developing new/existing relationships, attending mother and baby groups, and experiential firsts (for example, taking baby swimming). While most participants acknowledged the reality of motherhood was unlikely to meet their expectations, participants conveyed emotions which surpassed sadness and disappointment. Becky, Caroline, and Danielle directly likened their experience to “grief” or “mourning”: “There will always be part of me that kind of grieves for that first year-I know it would never be what you would think it will be like anyway, but I really feel like I missed out” (Danielle, line 1182-1185). Participants discussed emotional and cognitive processes including anger, sadness, rumination, and acceptance of/difficulty accepting losses, highlighting the impact of these losses: “I was really like angry and resentful that I didn't get to have the experience that I thought I would” (Emma, line 123-124).

***“I feel very stuck in everything that was”–Anna***

All participants described low mood associated with isolation; some participants had been diagnosed with postnatal depression during the pandemic. A loss of coping strategies, relational/experiential losses, high levels of anxiety, and sleep difficulties were some of the factors directly linked to low mood: “It [anxiety/panic] was only really kind of exacerbated and got into these quite low, intense feelings when it was lockdown with Ethan” (Danielle, line 859-861).

Cognitive processes associated with anxiety and depression were apparent for all participants and appeared to be exacerbated by social isolation. Self-attacking thoughts and self-blame often followed the loss of developmental/experiential opportunities for their children, or difficulties in coping with isolated parenting: “I was kind of beating myself up and thinking I wasn't coping, people should be able to do this.” (Danielle, line 336-343). These were reflected in perceptions of parenting failure, feelings of guilt, and low mood. This suggests that mothers placed the same/similar expectations on themselves as they would have done in non-pandemic times, and the inability to meet these expectations prompted self-blame and self-attack: “I blame myself a little bit for it. But it wasn't my fault. It wasn't my blame to carry because I couldn't have taken her swimming” (Faye, line 811-813).

For some, difficulties extended beyond social restrictions; participants engaged in ruminative thinking during/since pandemic restrictions, often focused on comparing their motherhood experience with how they imagined things might have been in “normal times” (Anna, line 515), suggesting that grief associated with social isolation may be maintaining low mood.

“I feel very stuck in everything that was and the isolation stuff, I feel very stuck in it and I need to just kind of shake out of it and just find a different way for me and Benji” (Anna, line 1077-1079).

***“I shouldn’t have the right to feel isolated”–Faye***

Associated with feelings of guilt and self-attack, five participants minimised feelings during interviews suggesting certain feelings/experiences were believed to be disallowed and were internally invalidated; this was perhaps associated with beliefs of not being worthy enough of voicing such difficulties.

“I kind of felt quite selfish for feeling so isolated when I felt like I shouldn't have the right to feel isolated … I was lucky with the fact that I did have like other people around to help me. But then at the same time, I did feel very isolated. And then I felt guilty for feeling isolated” (Faye, line 419-424).

For Anna it seemed this process prevented her from accessing professional support, indicating a maintaining factor for her difficulties: “Any support that they were giving I felt that maybe should be given to those you know, were really in need” (Anna, line 868-870).

***“It’s taking a bit longer to adjust to a non-pandemic world”–Becky***

All participants experienced fluctuations in their mental health associated with changes in social restrictions. Whilst removal of social restrictions meant greater access to support, it did not mean a steady improvement in mental health, as participants described a difficult adjustment “to a non-pandemic world” (Becky, line 102). Anna, Becky, Caroline and Emma described a social-emotional dilemma associated with easing restrictions, whereby their need to be around others conflicted with heightened anxiety in social situations, related to fears of being judged as a mother, of others breaking social restrictions, and of catching COVID-19. This posed challenges, maintaining isolation and distress:“You were in a lose situation–you were either doing something dangerous or illegal, or you were doing something that might cause more anxiety” (Becky, line 348-350).

Furthermore, developmental tasks as a new mother were delayed by social restrictions, such as going out and socialising with a baby and attempting to resume personal interests. The lifting of restrictions meant having to learn and navigate these processes at a later stage with an older child, which increased anxiety and impacted confidence: “Everything stopped and I never took my baby out very far and then suddenly everything was on again and I just was scrambling around saying I physically can't do this” (Caroline, line 758-760). For Anna, maternal social skills were felt to be impacted beyond social restrictions, further suggesting isolation may have impacted/delayed parental self-efficacy and feeling secure within a ‘mother self’: “The restrictions still very much are having an impact … I didn't know and still don't really know how to socialise with Benji by my side” (Anna, line 762-763).

**Theme 4: Coping counts: “I tried to cope”–Caroline**

All participants discussed making active efforts to cope with challenges associated with isolation, though they encountered difficulties in coping.

***An “illusion of coping”–Danielle***

Five participants expressed not coping well with anxiety/distress associated with social isolation. This conflicted with narratives highlighting varied coping strategies, perhaps suggesting participants lacked coping self-efficacy. Problem-focused coping methods were most commonly reported, including active efforts to keep busy, problem-solve, establish social connection remotely, seek advice, communicate needs with partners, and “bending the rules” (Faye, line 777-778) to maintain proximity to support: “I was really concerned about my mental health. So I was trying to actively take steps to make sure that I was engaged and I was getting feedback” (Caroline, line 115-117). As all participants experienced historical difficulties with anxiety, many discussed previously learned emotion-focused coping strategies they utilised (Mindfulness, accessing the outdoors, exercise etc.) which may in turn have reduced their vulnerability to social isolation: “There was a point where I was starting to feel it [anxiety/panic] coming in … at that point I went through about a month of just like, walking Benji for every nap” (Anna, line 954-958).

Anna, Danielle and Caroline engaged in coping strategies (emotional avoidance/denial and overfilling schedules) with unintended consequences. Danielle described her emotional denial building to the point she began self-harming and experiencing suicidal thoughts which led her to seek help.

“This kind of illusion of coping that I was kind of creating to convince myself that I was OK. So I think the impact it had was that it took a lot longer for me to realise that I needed help” (Danielle, line 571-574).

As suggested by Danielle, conflicting narratives including perceptions of not coping well whilst discussing a range of coping behaviours may suggest that for some, difficulties coping may have outwardly presented like effective coping, leading to suicidal ideation in this case.

***“If I hadn’t been proactive…”–Becky***

Becky, Caroline, Danielle and Faye accessed psychological support/therapies during pandemic restrictions which facilitated coping, including CBT, EMDR, and “talking therapy” (Becky, line 1265) via perinatal mental health teams, crisis teams and privately funded therapy: “It was a massive help to be able to speak to someone, like a professional that understood” (Faye, line 1221-1222).

Although therapy was helpful once completed, Becky and Danielle described having to be highly proactive at times of distress to access support and navigate self-referral procedures: “If I hadn’t been proactive, even like I did seek mental health support like during the pandemic and I had to self-refer myself and I had to-I had to do everything myself” (Becky, line 772-775). Further difficulties impacted the perceived helpfulness of therapy due to approaches not being tailored to new mothers in the context of pandemic isolation, therapy provision not accommodating working mothers, and heightened anxiety accessing online therapy associated with privacy concerns and use of technology: “It would give me anxiety, the thought of having to do the video call. So I'd kind of I'd send myself spiralling before I even got to talking” (Faye, line 521-522).

**Discussion**

Expectations of the first maternal year being a busy, sociable time were prominent, reflecting unmet hopes to form a ‘village’ (Babetin, 2020). Although expectations of ‘normal’ early motherhood varied for all involved (the researcher and participants), comparisons of maternal experiences to ‘normal’ motherhood ran through participant narratives. In contrast to Jackson et al (2021b), who identified improved wellbeing with easing restrictions in a UK perinatal community sample, participants described difficulties adjusting out of social restrictions, associated with increased anxiety and unpractised parental skills. Continued isolation beyond social restrictions suggests some participants continued to lack a psychologically supportive environment within their ‘mother self’ (Babetin, 2020), in turn impacting maternal self-efficacy, indicating an impacted or perhaps delayed maternal transition. This further suggests participants held expectations of what they ‘should’ be able to do at certain stages of motherhood, and when it is acceptable and possible to form connections with other mothers/parents.

As recently indicated (Güner & Oztürk, 2021; Jackson et al, 2021a) positive perceptions of partner support protected bonding experiences and maternal wellbeing. Consistent with research linking greater perceptions of social support to improved maternal responsiveness (Burchinal et al, 1996) and mother-child interactions (Green et al, 2007), participants described isolation from support as impacting on mood, tolerance and ability to manage household and parenting demands, which in turn contributed to bonding difficulties. These findings may be understood from an evolutionary perspective which theorises that humans have evolved to depend on others for survival. Heightened anxiety, vigilance to threat, and proximity to others was necessary to promote internal and external conditions of safety to enable mother-infant bonding (Cree, 2015). From an anthropological perspective, mothers across cultures sharing their baby with others serves adaptive functions: signalling to the support network that she and her baby will need help, and bonding others to her baby to secure support and safety, meaning maternal resources can be focused on nourishing/bonding with baby (Blaffer-Hrdy, 2009).

Consistent with these ideas and social constructivism, this helps to understand why bonding in this context was challenging as participants described an unmet need for bonding (mother-baby) to be achieved in completion with and via others (mother-baby-others) in settings associated with early motherhood. Despite challenges, participants demonstrated resilience and overall described experiencing improved mother-baby relationships with greater access to support. However, challenges to bonding and maternal mental health suggest that children of mothers with pre-existing anxiety during pandemic isolation may be at greater risk long-term of poorer emotional/developmental outcomes (Winston & Chicot, 2016), particularly where mothers continued to feel isolated or were less well-resourced (Singh et al, 2021).

In anticipation of difficulties associated with new motherhood and reflective of the protective effects of postnatal support groups (Seymour-Smith et al, 2017; Sikorski et al, 2018), some participants discussed planning to participate in mother-baby/parent groups prior to the pandemic to support their mental health. Consistent with recent qualitative research investigating perinatal women’s pandemic-related experiences (Jackson et al, 2021b; Chivers et al, 2020), feelings of grief for the loss of opportunities to engage in mother-baby groups, activities to promote bonding/development, and to form memories with family and hoped-for friends were prominent.

Consistent with a recent study of minority ethnic mothers in London (Pilav et al, 2022), participants expressed preferences for face-to-face contact with personal/professional support systems. In the absence of face-to-face contact, remote contact was maintained to varying degrees which often reduced the perceived quality of support, or even prevented seeking support due to heightened anxiety. Interestingly, a national UK study highlighted that women who had babies before the first lockdown reported significantly less contact with health professionals and support groups than ‘during lockdown’ mothers (Vazquez-Vazquez et al, 2021), suggesting that women who became mothers during the pandemic were prioritised by professionals. In line with this finding, a sense of abandonment by health professionals was described by mothers in the present study, corroborating research in community samples of perinatal women (Jackson et al, 2021b; Ollivier et al, 2021), where loss of GP (Janjua et al, 2021) and feeding support (Vazquez-Vazquez et al, 2021) were particularly challenging. These findings can be understood using Attachment Theory, which posits that a ‘secure base’ from a caregiver via proximity and consistent responsivity is required to develop an internal sense of security, without which insecurity, anxiety, and fearful behaviour can manifest (Bowlby, 2012; Cree, 2015). Isolation from professional support therefore may have triggered an attachment response in mothers during this vulnerable period, further impacting maternal confidence and anxiety.

Consistent with quantitative literature (Fallon et al, 2021; Liu et al, 2021) participants described significantly heightened anxiety, often followed by low mood/depression associated with social isolation and losses/grief. Self-attacking thoughts were reflected in perceptions of maternal failure and poor coping, which in turn impacted maternal self-efficacy. In practical terms participants described many forms of coping, suggesting the gap between perceptions of not coping and active coping behaviour is where self-attack, followed by increased anxiety and low mood may have developed. In Italian parents, greater parental self-efficacy during pandemic restrictions was associated with greater wellbeing and effective emotional regulation in their children (Morelli et al, 2020). These findings suggest that the experience of self-attacking thoughts, thoughts of failure, and impacted parental self-efficacy may be risk factors, increasing the vulnerability of mothers and their children.

These findings are consistent with recent research which found repetitive negative thinking (rumination and worry) in postnatal mothers during UK lockdown was significantly associated with anxiety and depression (Harrison et al, 2021). This research also demonstrated that perceived social support from friends, partners, and family moderated depression symptoms, whereas only social support from friends (with parent friends rated most important) moderated anxiety symptoms. Beyond social losses and associated grief, this facilitates understanding of the need of participants in this study to access other parents who could understand their experiences, and moderate their anxiety via peer support.

Beyond pandemic restrictions, worries remained for all participants focused on the impact of isolation on children’s development. This demonstrates how maternal worries may have changed over time as earlier in the pandemic an international study of perinatal women identified worries (not related to pregnancy/delivery) focussing on issues such as separation from family, baby catching COVID-19, and childcare issues (Basu et al, 2021), suggesting a need to continually understand maternal worries. Such worries reflect the fact that COVID-19 brought with it significant uncertainty, both during and since pandemic isolation. Intolerance of uncertainty (IU) reflects a tendency to find it intolerable that a negative event may occur (Einstein, 2014) and is a central feature of generalised anxiety presentations. More recently IU has been understood as a common feature across many emotional difficulties (Boswell et al, 2013). Anxiety experiences shared within this study indicate difficulties tolerating uncertainty; IU has been found to increase in populations with comorbid anxiety and depression (Mahoney & McEvoy, 2012), further suggesting investigation of IU in the context of remaining worry may be warranted.

Perhaps consistent with research associating worry and poor problem-solving confidence (Davey et al, 1994), participants expressed perceptions of poor coping although actively engaged in a range of coping behaviours. Consistent with a study of pregnant women in which greater social isolation was associated with problem-focused and ‘dysfunctional’ coping (Khoury et al, 2021), participants discussed engaging mostly in problem-focused coping with a particular focus on seeking social and therapeutic support. Such coping may in part reflect difficulties tolerating uncertainty observed within this sample (Rettie & Daniels, 2021). Findings may also reflect sample demographics, as during the first UK lockdown seeking social support, problem-focused, and emotion-focused coping were frequently observed in women and those with higher educational attainment (Fluharty & Fancourt, 2020). Whilst reassurance seeking has the potential to maintain anxiety as postulated in Cognitive-behavioural models of anxiety (Dugas et al, 1998; Salkovskis et al, 2003) and transdiagnostic models of IU (Einstein, 2014), in the context of social isolation during the maternal transition, reassurance seeking and attempts to maintain proximity were important and adaptive.

**Clinical Implications**

Women who were first-time mothers with pre-existing anxiety during pandemic isolation and their children may be more likely to require services in the future. The range of difficulties disclosed suggests the need for transdiagnostic approaches to support, whilst targeting methods of coping in intervention (Khoury et al, 2021). Peer support groups which accommodate working mothers may be particularly valued given missed opportunities for peer support and potential lasting isolation. In the event of similar crises, as well as for mothers at greater risk of social isolation such as migrant mothers, these findings demonstrate the importance of protecting and promoting professional and peer-support opportunities.

Accessing health services and support remotely were widely utilised during the pandemic (Fisk et al, 2020; Hardoon et al, 2021), although many participants described difficulties with remote support. This has important implications as services may maintain/increase telehealth provision (BPS, 2021; Fazal et al, 2020; Fisk et al, 2020), emphasising the need for flexible, individualised support, and options for face-to-face provision (Pilav et al, 2022).

Mothers may have demonstrated varied coping behaviours during pandemic restrictions, whilst privately struggling. They may minimise feelings associated with the pandemic/isolation to professionals, particularly those who may be perceived as having a greater “right” to have struggled having worked through the pandemic. It is therefore important for professionals to normalise difficulties in the context of pandemic isolation for this population, to facilitate disclosure and acceptance of support. Furthermore, mothers feeling abandoned by professionals suggests the need for professionals to repair potentially ruptured relationships to help-seeking and understand lasting support needs.

**Strengths and Limitations**

This study provides insight into experiences of a population who were at greater risk due to pre-existing anxiety, during and since pandemic restrictions. To enhance robustness, extracts of analysis at each stage were cross-referenced by a researcher experienced in IPA. Care was taken not to impose a third person’s interpretation, thereby compromising the double hermeneutic procedure. To check the credibility of themes, participants were invited to comment on a summary of finalised themes. One participant responded and confirmed themes felt consistent with her lived experience.

While online recruitment facilitated a greater reach to potential participants and was necessary due to COVID-19 restrictions, the need to access a phone/device and the internet excluded those without such resources. Parents who did not identify as a mother were also excluded, and findings can therefore only be applied to mothers. Most participants were highly educated, and the final sample lacks mothers from younger age groups, and BAME communities. These mothers may have been inadvertently excluded due to recruitment via websites and social media groups/platforms which may be less frequently accessed by these groups. Advertising via influencers from BAME communities or recruitment of mothers via community groups serving diverse populations may have helped to give voice to those who were disproportionately, negatively affected by COVID-19, and therefore may have experienced even greater difficulties. For example, a UK survey found that Asian/Asian British parents self-reported their coping ability was significantly more impacted than other groups early on in the pandemic (Best Beginnings, Home-Start UK, and the Parent-Infant Foundation, 2020).

**Future Research**

Continued investigation of the impacts of social isolation on this population and their family systems is warranted as the implications of COVID-19 continue to unfold. Further research is required to develop understanding of the experiences of UK mothers with pre-existing vulnerabilities during pandemic isolation related to mental health, physical health, socio-economic factors, and racial and cultural identity as such women are disproportionately affected in their perinatal physical/mental health (Womersley et al, 2021). Concentrated efforts to reach these mothers are necessary if missing voices are to be represented in future research.

**Conclusion**

This study aimed to explore experiences of social isolation for first-time mothers with pre-existing anxiety during the COVID-19 pandemic, and understand the longer term impacts of associated restrictions via semi-structured interviews and IPA. This was important due to the increased vulnerability of this already vulnerable group, and the potential consequences for families in the aftermath of the pandemic. Findings reflect difficulties in the transition to motherhood, unmet needs for face-to-face support, and negatively impacted mental health and coping. Increased distress suggests this cohort of mothers and children may be more likely to require mental health support in the future. Peer support may be particularly beneficial as these opportunities were lost during the pandemic. Findings highlight considerations for clinical practice, both in the aftermath of COVID-19 and the way in which professionals engage mothers, and in any similar crises. Mothers from diverse communities and other UK countries are missing from this study which should be considered when interpreting the findings and planning future research.

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**Appendix A. Author guidelines for *‘*The Journal of Prenatal and Perinatal Psychology and Health’**

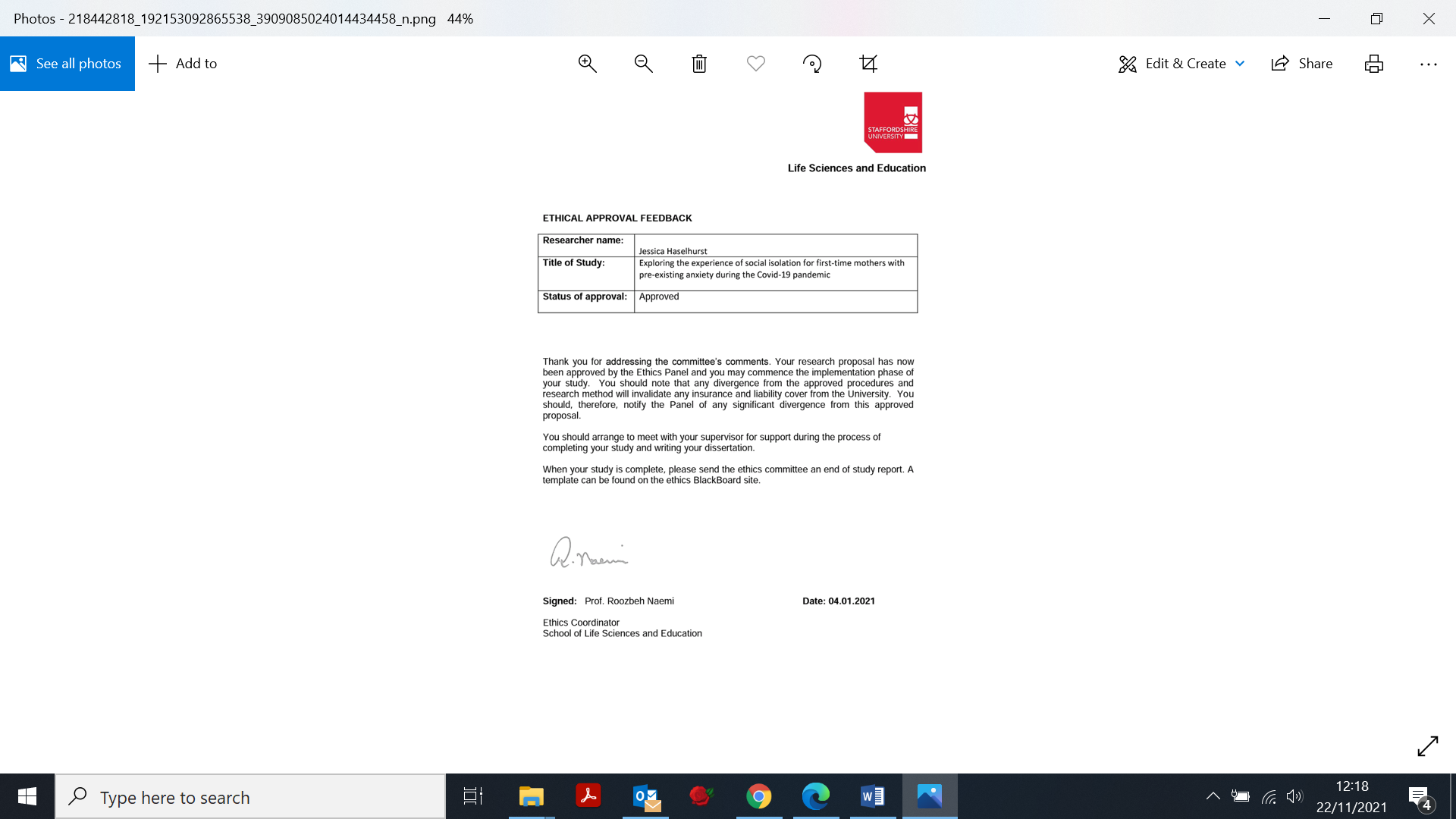
<https://birthpsychology.com/3lp-apppahs-journal/>

Key points from author guidelines:

* The paper should be between 2000 and 8000 words
* The paper should include a 100 word abstract and at least three key words
* Formatting and referencing must follow APA style (7th Edition)
* All cited material should be included on the reference list
* \*American spelling should be used
* \*Illustrations, figures and tables should be included separately from the manuscript (in a separate document) and should be clearly identified in Arabic numerals.

\*Guidelines to be addressed prior to journal submission.

**Appendix B. Ethics approval - Staffordshire University Ethics Committee.**



**Appendix C. Research advert.**



**Appendix D. Parenting websites/forums, support groups, and social media accounts used for advertising and recruitment.**

* Maternal Mental Health Alliance

https://maternalmentalhealthalliance.org/

* Mumsnet

https://www.mumsnet.com/

* Netmums

https://www.netmums.com/

* Dr Rebecca Moore, Perinatal Psychiatrist

https://www.instagram.com/drrebeccamoore/

* The Make Birth Better Project

https://www.instagram.com/birthbetter/

* Dr Emma Svanberg – The Mumologist and The Village - Parenting Community Group accounts.

<https://www.instagram.com/mumologist/>

<https://www.facebook.com/groups/406618019527763>

* The Mental Health Midwife

https://www.instagram.com/mentalhealth\_midwife/

* Parenthood in Mind

https://www.instagram.com/parenthoodinmind/

* Sussex COVID-19 expectant and new parent support group (Facebook support group)

https://www.facebook.com/groups/542562073323154

* Gentle Parenting Group (Facebook support group)

https://www.facebook.com/groups/1636099393345688

* Covid Cuties (Facebook support group)

https://www.facebook.com/groups/462473158200309

* Manchester Mum’s group (Facebook support group)

https://www.facebook.com/groups/153918697982663

* Thanet Baby and Toddler Group (Facebook support group)

https://www.facebook.com/groups/2955954221293165

* COVID-19 Baby Parents Group (Facebook support group)

https://www.facebook.com/groups/1452199904941525

* Hull and East Riding Covid Pregnancy Community Group (Facebook support group)

https://www.facebook.com/groups/896434060810788

**Appendix E. Participant Information Sheet.**

**INFORMATION SHEET FOR PARTICIPANTS**

**Title of study**

Exploring the experience of social isolation for first-time mothers with pre-existing anxiety during the COVID-19 pandemic

**Invitation Paragraph**

I would like to invite you to participate in this research project which forms part of my Doctorate in Clinical Psychology (DClinPsy). Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please feel free to ask me if there is anything that is not clear or if you would like more information. I am very happy to provide further details or answer any questions you may have.

**What is the purpose of the study?**

COVID-19 is a novel disease which reached pandemic levels at rapid pace, causing the greatest public health crisis observed in recent times. The impact of the pandemic has had a significant social impact in the UK as ‘social isolation’ and ‘social distancing’ were adopted as primary preventive measures against COVID-19.

It is anticipated that these restrictive social measures will impact the wellbeing of many people, particularly those who may be at greater risk of mental health difficulties, such as first-time mums during the perinatal period (the first 12 months after baby is born) and those with a history of anxiety-related difficulties. It is therefore important to understand the experience of social isolation and anxiety for first-time mums during this time, so that health professionals may understand women’s experiences and better equip themselves to support women and their families in the aftermath of the pandemic. It is hoped that this research will also add to a growing body of research that will better support first-time mums and their babies in the event of any future infectious disease outbreaks.

This study therefore aims to explore the experience of social isolation and anxiety during the COVID-19 pandemic for first-time mums in the UK during the perinatal period through conducting interviews with mums online.

It is hoped that this will help parents and professionals to understand:

* How social isolation has impacted first-time mum’s experiences of early motherhood and early bonding with their baby.
* How social isolation has impacted first-time mum’s experiences of anxiety and how this may have changed over time during the pandemic.

And

* First-time mum’s experiences of coping in the context of social isolation, anxiety, and early motherhood.

**Why have I been invited to take part?**

You have been invited to take part in this study because you have indicated that your experiences during the COVID-19 pandemic may help us to explore the research question. To ensure your suitability for this study, please check that your experiences meet the following criteria:

* You were a new first-time mum (aged 18 years or over) during the COVID-19 pandemic (i.e. your first baby was born between 1st September 2019 and 20th March 2020).
* You were living in the UK during the COVID-19 pandemic.
* You are not currently experiencing a mental health crisis and/or currently accessing support from mental health services (this is due to the sensitive nature of this research project and the potential risk for increased distress in discussing personal experiences related to motherhood, anxiety, and/or the COVID-19 pandemic).
* You do not have a severe physical health condition which required ‘shielding’ during the COVID-19 pandemic.
* You have access to a device with video capability (smartphone, tablet, laptop etc.) to enable you to take part in this study.
* You speak English fluently (this is due to the use of interviews and the limited resources associated with student research meaning that, unfortunately, there is not adequate funding to employ interpreters).
* You have experienced past difficulties with anxiety which took place prior to the COVID-19 pandemic based on the following criteria:

*You have experienced any of the following difficulties, for at least one month, at some time before the COVID-19 pandemic:*

* *Psychological difficulties associated with anxiety e.g. excessive worries about the past/future/everyday activities/health, excessive fears about acting in a way that would be embarrassing, feeling a sense of dread, feeling ‘on edge’, feeling irritable or restless, feeling as though things are not real or you are not really here, experiencing panic attacks, experiencing flashbacks/nightmares, difficulty concentrating*
* *Physical difficulties associated with anxiety\* e.g. dizziness, tiredness, racing heart/heart palpitations, muscle ache/tension, trembling, excessive sweating, headaches, shortness of breath, nausea, difficulty sleeping, hot flushes/chills*

*\*Physical difficulties are not better explained by a medical condition or medication use*

* *Behavioural difficulties associated with anxiety e.g. avoiding situations/experiences associated with a traumatic event or anxiety, engaging in repetitive behaviours/mental acts such as checking, counting or hand washing, excessively looking out for danger*

*AND*

*These difficulties caused significant distress and/or significantly impacted on daily living in any of the following areas:*

* *Ability to attend work or education e.g. taking time off sick due to finding work or education difficult or stressful*
* *Ability to engage in/enjoy a social life*
* *Relationships with family/friends/colleagues e.g. due to withdrawing from social contact or responsibilities*

Please do not hesitate to let me know if you feel you **do not** meet any of the above criteria or if you have any questions about any criteria.

**What will happen if I take part?**

If you decide to take part in this study, you will be asked to complete a brief questionnaire collecting key demographic information and invited to participate in an online interview conducted over a convenient platform with myself (Jessica Haselhurst). The interview will involve open-ended, exploratory questions to understand your unique experiences during the pandemic. There are no right or wrong answers and you are free to decline to answer any questions which you do not feel comfortable answering, without having to provide an explanation. The interview will involve some set questions to guide the interview process, although it is intended to be flexible and to feel friendly and conversational, so the interview may be led as much or as little by you and the experiences you feel were most important for you. Some examples of the types of questions you may be asked include:

*Can you tell me about your experience of social isolation whilst caring for a new baby during the COVID-19 pandemic?*

*What has your experience of anxiety been like since the COVID-19 pandemic began?*

*Can you tell me about your experience of coping with social isolation as a new mum during the pandemic?*

It is anticipated that the interview will last approximately 1 to 1.5 hours, but interviews may be shorter depending on how much of your experience you would like to share. As interviews are conducted online, they can be arranged at a date and time convenient for you. There is no requirement to travel or to have face-to-face contact with the researcher for this study.

With your consent prior to the interview taking place, your interview will be video recorded using the recording feature on the chosen video calling platform, so that following the interview your spoken words may be written out into a verbatim script (transcribed) which can then be analysed. You will be notified of the start and end of recording, so you are aware at all times when you are being recorded. Once your interview has been transcribed, your recording will be permanently deleted and will no longer be accessible. This kind of data is needed for this study due to the exploratory nature of the research question and the aims of the study (discussed above). It is hoped that by using this method, this will privilege the unique voices of first-time mums and provide rich and detailed accounts of experiences related to social isolation during the COVID-19 pandemic.

If you would like to assist during the analysis stage of this project, you can give your consent on the consent form to be contacted following your interview. This would involve discussing the themes which emerge from the data and the language used to describe these themes with the researcher, to offer your thoughts as an expert by experience and to check that the themes make sense and fit with your lived experience. Please note that this is completely optional and there will be no adverse outcome for you associated with not assisting at this stage in the project.

**Data handling and confidentiality**

Your data will be processed in accordance with the data protection law and will comply with the General Data Protection Regulation 2016 (GDPR).

In order to ensure your anonymity and confidentiality of your data, you will be allocated a participant number and any materials associated with your interview data will be saved under your participant number. Only with your consent, interview data may be shared with third parties for analysis purposes, such as secure and GDPR compliant transcription services and/or analysis software. Should you discuss any details that could compromise your anonymity once your interview has been transcribed, these details will be deleted and not included in the final analysis or reporting of results.

Research data will be stored via an encrypted electronic storage system. Following the completion of the written report and dissemination of the findings, data will be stored for a further 10 years from the end of the project, in line with Staffordshire University policy. The data will then be destroyed by a secure and appropriate means. Only the research team (named below) will have access to your transcript data for the purpose of analysis. Only I (Jessica Haselhurst) will have access to participants’ personal data. Staffordshire University also conduct audits of research and so it may be that anonymised participant data is accessed for audit purposes only.

**Please Note:** *The* *researchers have a professional duty to protect participants and others from harm. There are therefore some limits to confidentiality, for example, if you disclosed incidents that caused harm to yourself or others, or thoughts of harming yourself or others, or if there was any cause of concern for the welfare of your child. Please note that confidentiality would not be broken if you discussed difficulties you have experienced in adjusting to becoming a parent. If any concerns regarding your safety or wellbeing, or that of others should arise during the course of this study, steps must be taken by the researchers to safeguard those at risk by informing the appropriate safeguarding authorities.*

**Data Protection Statement**

The data controller for this project will be Staffordshire University. The University will process your personal data for the purpose of the research outlined above. The legal basis for processing your personal data for research purposes under the data protection law is a ‘task in the public interest’. You can provide your consent for the use of your personal data in this study by completing the consent form that has been provided to you.

**Do I have to take part?**

Participation is completely voluntary. You should only take part if you want to and choosing not to take part will not disadvantage you in any way. Once you have read the information sheet, please feel free to contact me or my supervisor (contact details below) if you have any questions that will help you make an informed decision about taking part. If you decide to take part, we will ask you to sign a consent form and you will be given a copy of this consent form to keep.

**What are the possible risks of taking part?**

A risk assessment has been completed in order to identify and reduce any potential risks posed to participants during this study.

This assessment identified that there are potential risks to psychological wellbeing for participants who choose to take part in this study. For example, taking part in this study may involve thinking about and reflecting on personally difficult circumstances or memories associated with the COVID-19 pandemic, or thinking about and describing difficult thoughts and feelings experienced during or since this time. There is therefore the potential for emotional distress associated with taking part in this study due to the sensitive nature of the subject matter.

In the event of any distress, the interview would be paused and support will be offered to you. Whether you would like to leave out the topic or issue causing distress, pause the interview and resume it at a later time, or withdraw from the interview altogether is completely up to you. You will be supported to make the decision which best meets your needs and there will be no adverse circumstances associated with any decision you make. Under such circumstances, I (Jessica Haselhurst) will discuss whether any options for ongoing support for you by a suitable service provider would feel helpful.

If you feel that personal support would be helpful for you following your participation in this study, you can speak to your GP for advice. Alternatively, please note the following charities who you can contact for free, for support and advice:

Mind – A charity who offers support and advice to anyone experiencing a mental health difficulty

Phone: [0300 123 3393](tel:+44-300-123-3393) (Monday – Friday 9am-6pm)

Website: [www.mind.org.uk](http://www.mind.org.uk)

PANDAS Foundation – A charity who offers support for families and their networks who may be struggling with perinatal mental health difficulties

Phone: 0808 1961 776 (Everyday 11am-10pm)

Website: pandasfoundation.org.uk

Samaritans – Confidential support for people experiencing feelings of distress or despair or those in need of urgent support

Phone: 116 123 (free 24-hour helpline)

Website: [www.samaritans.org.uk](http://www.samaritans.org/)

This assessment identified that potential risks to your physical safety or wellbeing associated with taking part in this study were considered to be controlled and minimal.

**What if I change my mind about taking part?**

You are free to withdraw at any point during the study without having to give a reason. Withdrawing from the study will not affect you in any way. You are able to withdraw your data from the study up until **30th September 2021,** after which withdrawal of your data will no longer be possible due to data being transcribed/anonymised/analysed.

If you have taken part in this study and you later decide that would like to withdraw your data from the study before the withdrawal cut-off date (30th September 2021), you can do so by **sending an email including your full name stating that you would like to “withdraw my data from the study titled *‘Exploring the experience of social isolation for first-time mothers with pre-existing anxiety during the COVID-19 pandemic’*”** to:

Name: Jessica Haselhurst (Principal Investigator)

Email: [j.haselhurst@student.staffs.ac.uk](mailto:j.haselhurst@student.staffs.ac.uk)

Or:

Name: Dr Jo Heyes (Chief Investigator)

Email: [joanna.heyes@staffs.ac.uk](mailto:joanna.heyes@staffs.ac.uk)

Please note that after you withdraw from the study all your data will be removed and we will not retain any information that you have provided as a part of this study.

**What will happen to the results of the study?**

This research is being conducted as part of my (Jessica Haselhurst) doctoral thesis for the Doctorate in Clinical Psychology (DClinPsy). As discussed above, no personal/identifiable details will be included within any written work, although consistent with written reports for qualitative research, relevant quotes will be inserted into written reports as part of the discussion on the results and analysis. It is hoped that following the completion of the thesis, a written report will be submitted for publication in peer-reviewed journals. It is also hoped that, once published, the findings from this study will be shared across appropriate parent support groups/networks/charities, as well as professional/health care networks. If you would like to receive a copy of the executive summary (written summary of the findings of this study) once it is complete, you can provide your consent on the consent form to be contacted with a copy by email.

**Who should I contact for further information?**

If you have any questions or require more information about this study, please contact me using the following contact details:

Name: Jessica Haselhurst (Principal Investigator)

Email: [j.haselhurst@student.staffs.ac.uk](mailto:j.haselhurst@student.staffs.ac.uk)

Alternatively, you can contact my academic supervisor:

Name: Dr Jo Heyes (Chief Investigator)

Email: [joanna.heyes@staffs.ac.uk](mailto:joanna.heyes@staffs.ac.uk)

**What if I have further questions, or if something goes wrong?**

If this study has harmed you in any way or if you wish to make a complaint about the conduct of the study you can contact the study supervisor or the Chair of the Staffordshire University Ethics Committee for further advice and information:

Academic supervisor and Chief Investigator for this study:

Name: Dr Jo Heyes

Email: [joanna.heyes@staffs.ac.uk](mailto:joanna.heyes@staffs.ac.uk)

Chair of the Staffordshire University Ethics Committee:

Name: Dr Tim Horne

Email: [Tim.horne@staffs.ac.uk](mailto:Tim.horne@staffs.ac.uk)

Tel: +441782295722

Address: Research, Innovation and Impact Services

Cadman Building,

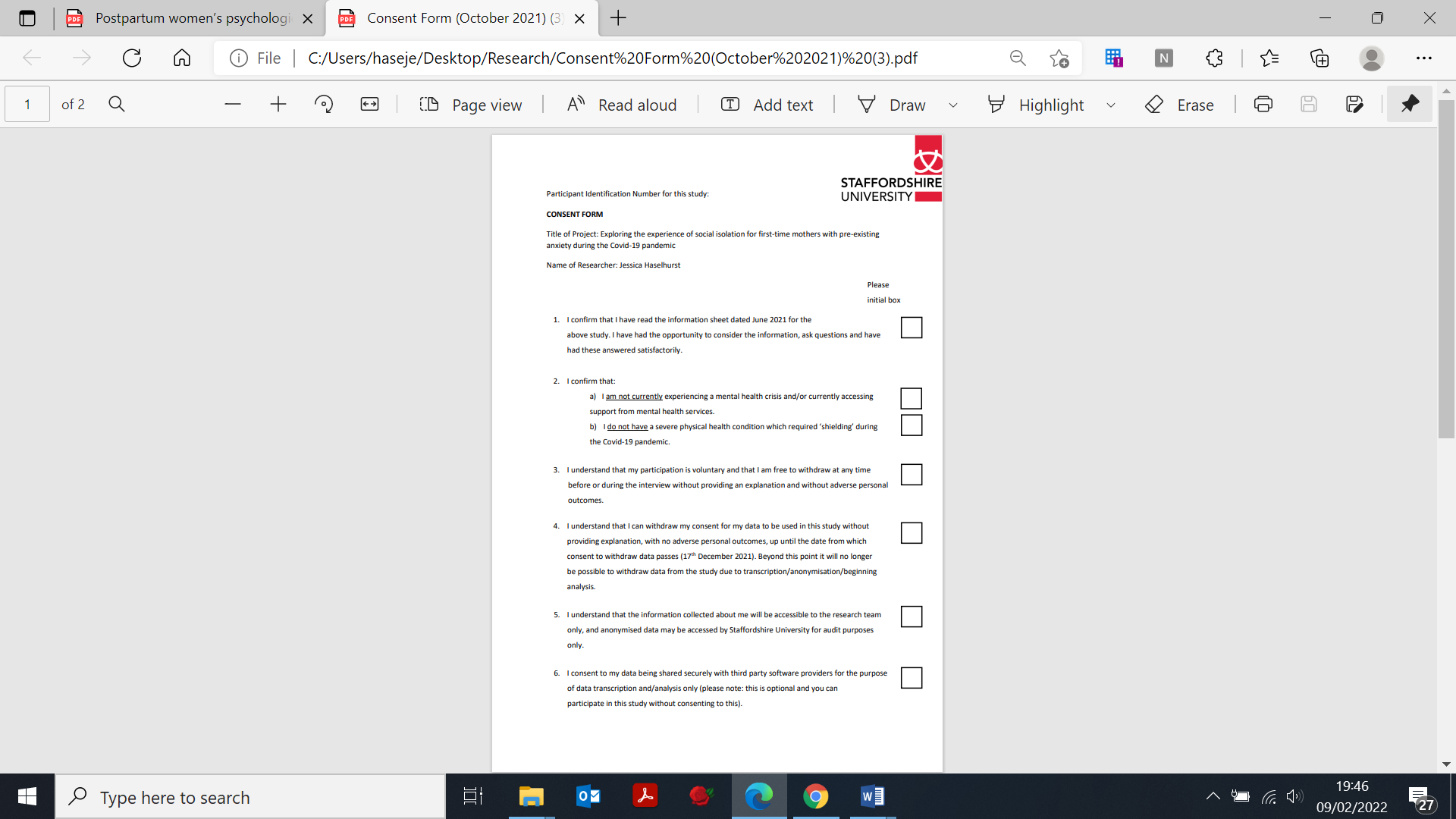
Staffordshire University,

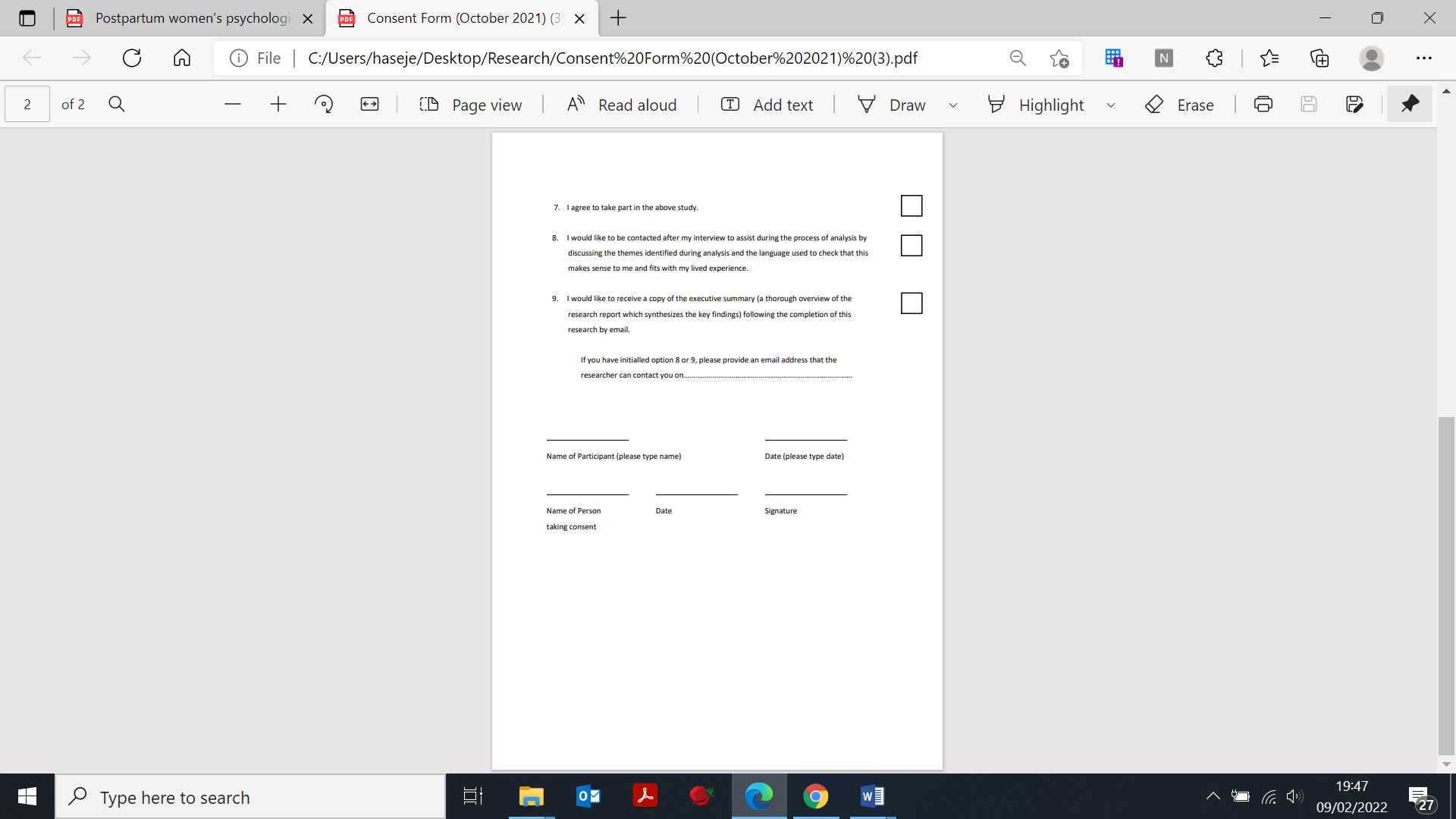
College Road

Stoke-on-Trent

ST4 2DF

**Thank you for reading this information sheet and for considering taking part in this research.**

**Appendix F. Consent Form.**



**Appendix G. Demographic Questionnaire.**

**Demographic Questions**

These are basic questions about you which are relevant to the current study. The questions are asked to ensure that we are exploring the unique experiences of the population in question and will help us to better understand the range of experiences of the first-time mums who take part in this study. Please leave blank any questions you do not wish to answer.

|  |  |
| --- | --- |
|  | Answer (Please Type) |
| Name |  |
| Age |  |
| Ethnicity |  |
| Educational Level |  |
| Occupation |  |
| Town of Residence |  |
| Marital/Relationship Status |  |
| Were you living with other people during the COVID-19 pandemic?  (If yes, please specify the number of other people in your household and your relationship) |  |
| Your baby’s date of birth DD/MM/YYYY |  |

**Confidentiality Statement**

**Please note:** The details you have provided within this document will be held securely by the research team and remain confidential. **However** the researchers have a professional duty to protect participants and others from harm. There are therefore some limits to confidentiality, for example, if you disclosed incidents that caused harm to yourself or others, or thoughts of harming yourself or others, or if there was any cause of concern for the welfare of your child. Please note that confidentiality would not be broken if you discussed difficulties you have experienced in adjusting to becoming a parent. If any concerns regarding your safety or wellbeing, or that of others should arise during the course of this study, steps must be taken by the researchers to safeguard those at risk by informing the appropriate safeguarding authorities.

1. Can you speak English fluently? (Please delete as appropriate)

YES/NO

1. Can you confirm that your first baby was born between 1st September 2019 and 20th March 2020? (Please delete as appropriate)

YES/NO

1. Can you confirm that you have experienced past difficulties with anxiety, before the COVID-19 pandemic occurred, based on the criteria in the box below? (Please delete as appropriate)

YES/NO

*Mothers who have experienced any of the following difficulties, for at least one month, at some time before the COVID-19 pandemic:*

* *Psychological difficulties associated with anxiety e.g. excessive worries about the past/future/everyday activities/health, excessive fears about acting in a way that would be embarrassing, feeling a sense of dread, feeling ‘on edge’, feeling irritable or restless, feeling as though things are not real or you are not really here, experiencing panic attacks, experiencing flashbacks/nightmares, difficulty concentrating*
* *Physical difficulties associated with anxiety\* e.g. dizziness, tiredness, racing heart/heart palpitations, muscle ache/tension, trembling, excessive sweating, headaches, shortness of breath, nausea, difficulty sleeping, hot flushes/chills*

*\*Physical difficulties are not better explained by a medical condition or medication use*

* *Behavioural difficulties associated with anxiety e.g. avoiding situations/experiences associated with a traumatic event or anxiety, engaging in repetitive behaviours/mental acts such as checking, counting or hand washing, excessively looking out for danger*

*AND*

*These difficulties caused significant distress and/or significantly impacted on daily living in any of the following areas:*

* *Ability to attend work or education e.g. taking time off sick due to finding work or education difficult or stressful*
* *Ability to engage in/enjoy a social life*
* *Relationships with family/friends/colleagues e.g. due to withdrawing from social contact or responsibilities*

1. Are you currently experiencing a mental health crisis?

YES/NO

1. Are you currently accessing support from mental health services?

YES/NO

1. Do you have any heath care needs which required you to ‘shield’ during the COVID-19 pandemic? (i.e. you were advised by your doctor to remain at home and have no contact with others not living in your household for 12 weeks) (Please delete as appropriate)

YES/NO

1. Do you have access to a device which has video capability? (smart phone, iPad/tablet, laptop etc.)

YES/NO

**Appendix H. Anxiety inclusion criteria**

Participants were eligible to participate if they had experienced past difficulties with anxiety prior to the COVID-19 pandemic based on the following criteria:

*You have experienced any of the following difficulties, for at least one month, at some time before the COVID-19 pandemic:*

* *Psychological difficulties associated with anxiety e.g. excessive worries about the past/future/everyday activities/health, excessive fears about acting in a way that would be embarrassing, feeling a sense of dread, feeling ‘on edge’, feeling irritable or restless, feeling as though things are not real or you are not really here, experiencing panic attacks, experiencing flashbacks/nightmares, difficulty concentrating*
* *Physical difficulties associated with anxiety\* e.g. dizziness, tiredness, racing heart/heart palpitations, muscle ache/tension, trembling, excessive sweating, headaches, shortness of breath, nausea, difficulty sleeping, hot flushes/chills*

*\*Physical difficulties are not better explained by a medical condition or medication use*

* *Behavioural difficulties associated with anxiety e.g. avoiding situations/experiences associated with a traumatic event or anxiety, engaging in repetitive behaviours/mental acts such as checking, counting or hand washing, excessively looking out for danger*

*AND*

*These difficulties caused significant distress and/or significantly impacted on daily living in any of the following areas:*

* *Ability to attend work or education e.g. taking time off sick due to finding work or education difficult or stressful*
* *Ability to engage in/enjoy a social life*
* *Relationships with family/friends/colleagues e.g. due to withdrawing from social contact or responsibilities*

**Appendix I. Interview Schedule.**

Introduction: ***“****I am going to ask you some questions now about your experiences during the COVID-19 pandemic of being a first-time mum within the first year of your baby’s life. There are no right or wrong answers as I am just interested to learn about your personal experiences. The interview is likely to last around 60-90 minutes depending on how much of your experience you would like to share. There is no rush to answer any questions so please take your time. If there are any questions that don’t make sense to you, or you are unsure of a particular word or phrase, feel free to ask and I will clarify it as best I can. If there are any questions that you prefer not to answer or think about, it’s ok to come back to it later or skip it altogether. If at any point you feel distressed during the interview, we can take a break, postpone the interview, or you can withdraw altogether.*

*I would like to remind you of the confidentiality statement before we begin: The researchers have a professional duty to protect participants and others from harm. There are therefore some limits to confidentiality, for example, if you disclosed incidents that caused harm to yourself or others, or thoughts of harming yourself or others, or if there was any cause of concern for the welfare of your child. Please note that confidentiality would not be broken if you discussed difficulties you have experienced in adjusting to becoming a parent. If any concerns regarding your safety or wellbeing, or that of others should arise during the course of this study, steps must be taken by the researchers to safeguard those at risk by informing the appropriate safeguarding authorities.*

*Do you have any questions before we begin? I will begin recording when you are ready.”*

[State when recording has begun]

1. Can you tell me what it was like to be a first-time mum caring for a new baby during the Covid-19 pandemic?

* Prompt: How did it feel? What did you think?
* Prompt: Did this change as restrictions changed?

1. Were your expectations for the first year of your baby’s life affected by the pandemic?

* Prompt: Did you have ideas and plans for how you would like to spend the first year of your baby’s life?
* Prompt: What did that mean to you?
* Prompt: How did that feel?

1. Could you tell me what your support network looks like?

* Prompt: Who is important in your support network?

(friends/family/professionals/services etc)

1. In what ways did the pandemic change how you were able to access your support network?

* Prompt: What did that mean to you?
* Prompt: How did that feel?

1. Tell me about your experience of the impact of restrictive social measures?

* Prompt: Were any changes to your support network particularly challenging/positive?
* How did that feel?
* What did that mean to you?

1. What does social isolation mean to you?

* What feelings do you associate with isolation?
* What does your mind tell you at that time?

1. Tell me about your experience of anxiety since the pandemic began?

* Has your experience of anxiety changed during the pandemic? Is it better/worse?
* What does anxiety mean to you?

1. Has the experience of greater social isolation changed any worries you have for yourself or your baby?

* Prompt: Have you felt any new worries due to social isolation, for yourself or your baby?

1. Tell me about your experience of bonding with your baby during this time?

* Did restrictions/greater social isolation affect your bonding/relationship with your baby?
* Prompt: How did this feel?
* Prompt: What did you think?

1. Can you tell me about your experience of coping during the pandemic?

* Prompt: What was the impact of limited physical contact on your coping?
* Prompt: How did you cope with anxiety?

Ending:

Are there any other important experiences that we haven’t talked about that you would like to discuss or reflect on?

Debrief:

* Offer thanks to the participant.
* “Thank you for taking the time to talk to me today about your experiences.”
* Offer time and space for the participant to reflect on interview experience.
* “How did you find the interview?”
* “How are you feeling now?”
* “Do you have any questions for me?”
* Explain what will happen next regarding transcription, analysis, and the final write up of the findings.
* Confirm whether the participant would still like to be contacted to assist with agreeing and labelling the themes and whether they would like to receive a copy of the executive summary if indicated on the consent form.
* Remind the participant of the information provided in the Participant Information Sheet, with specific reference to their right to withdraw before the cut-off date (30th September 2021), how to access support should they need it, and the research teams contact details should they wish to contact anyone with any additional questions or concerns.
* Provide participant with debrief sheet.

**Appendix J. Debrief Sheet.**

***Exploring the experience of social isolation for first-time mothers with pre-existing anxiety during the COVID-19 pandemic***

**Participant Debrief Sheet**

Thank you for taking the time to share your experiences as part of this research project. Should you experience any difficulty or distress after taking part in this study, or you would like to access support for your mental health, please note the following sources of support that are available to you:

**Your GP**

Your GP can offer you support for your mental health and emotional wellbeing and offer you advice regarding any other support options available to you in your local area.

**Support Organisations**

Alternatively, various charities are available who you can contact for free support and advice:

Mind – A charity who offers support and advice to anyone experiencing a mental health difficulty

Phone: [0300 123 3393](tel:+44-300-123-3393) (Monday – Friday 9am-6pm)

Website: [www.mind.org.uk](http://www.mind.org.uk)

PANDAS Foundation – A charity who offers support for families and their networks who may be struggling with perinatal mental health difficulties

Phone: 0808 1961 776 (Everyday 11am-10pm)

Website: pandasfoundation.org.uk

Samaritans – Confidential support for people experiencing feelings of distress or despair or those in need of urgent support

Phone: 116 123 (free 24-hour helpline)

Website: [www.samaritans.org.uk](http://www.samaritans.org/)

**The Research Team**

If you have any further questions, would like any further information, or you would like to discuss your involvement with this study further, please contact:

Name: Jessica Haselhurst (Principal Investigator)

Email: [j.haselhurst@student.staffs.ac.uk](mailto:j.haselhurst@student.staffs.ac.uk)

Alternatively, you can contact:

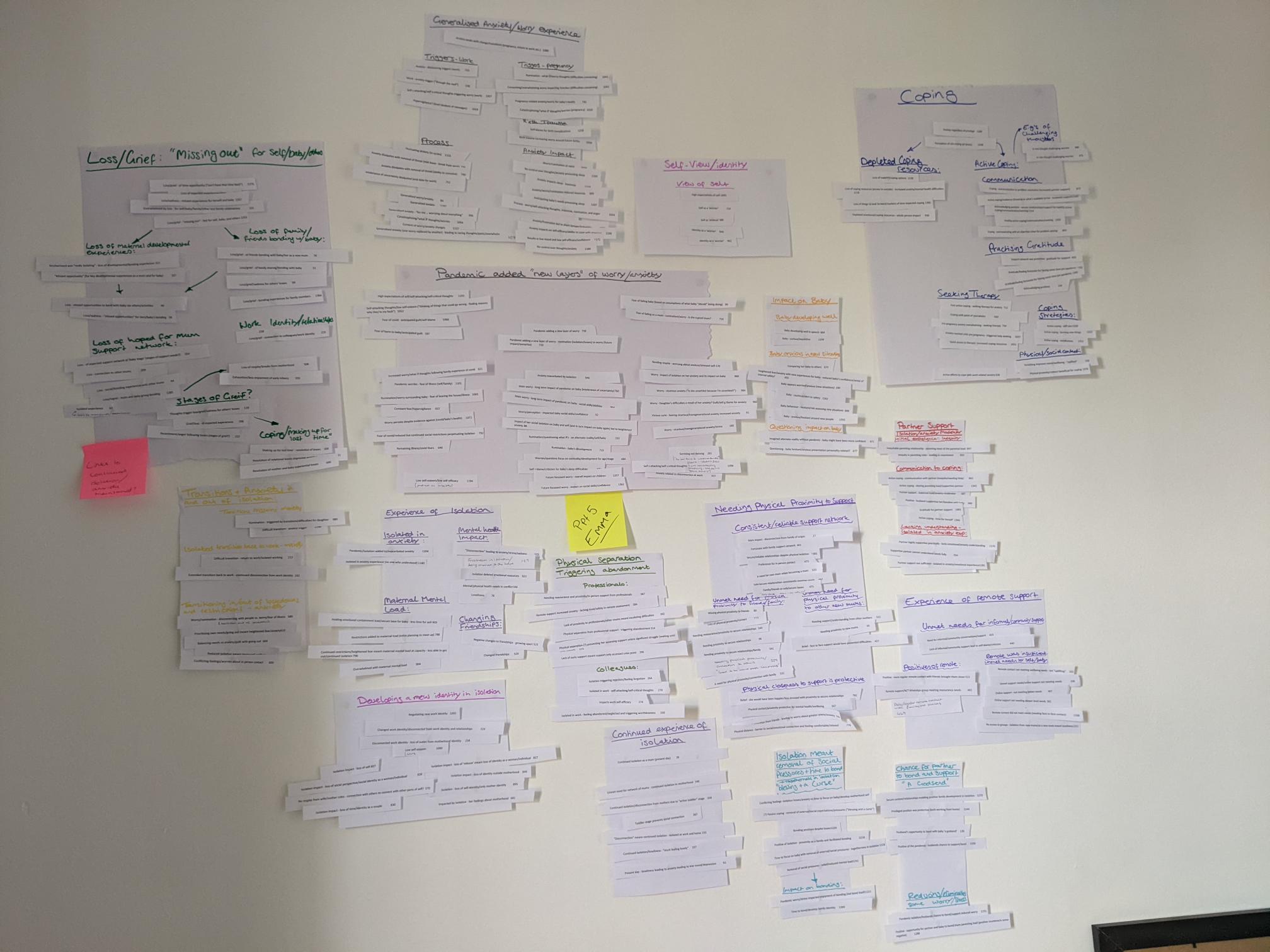
Name: Dr Jo Heyes (Chief Investigator)

Email: [joanna.heyes@staffs.ac.uk](mailto:joanna.heyes@staffs.ac.uk)

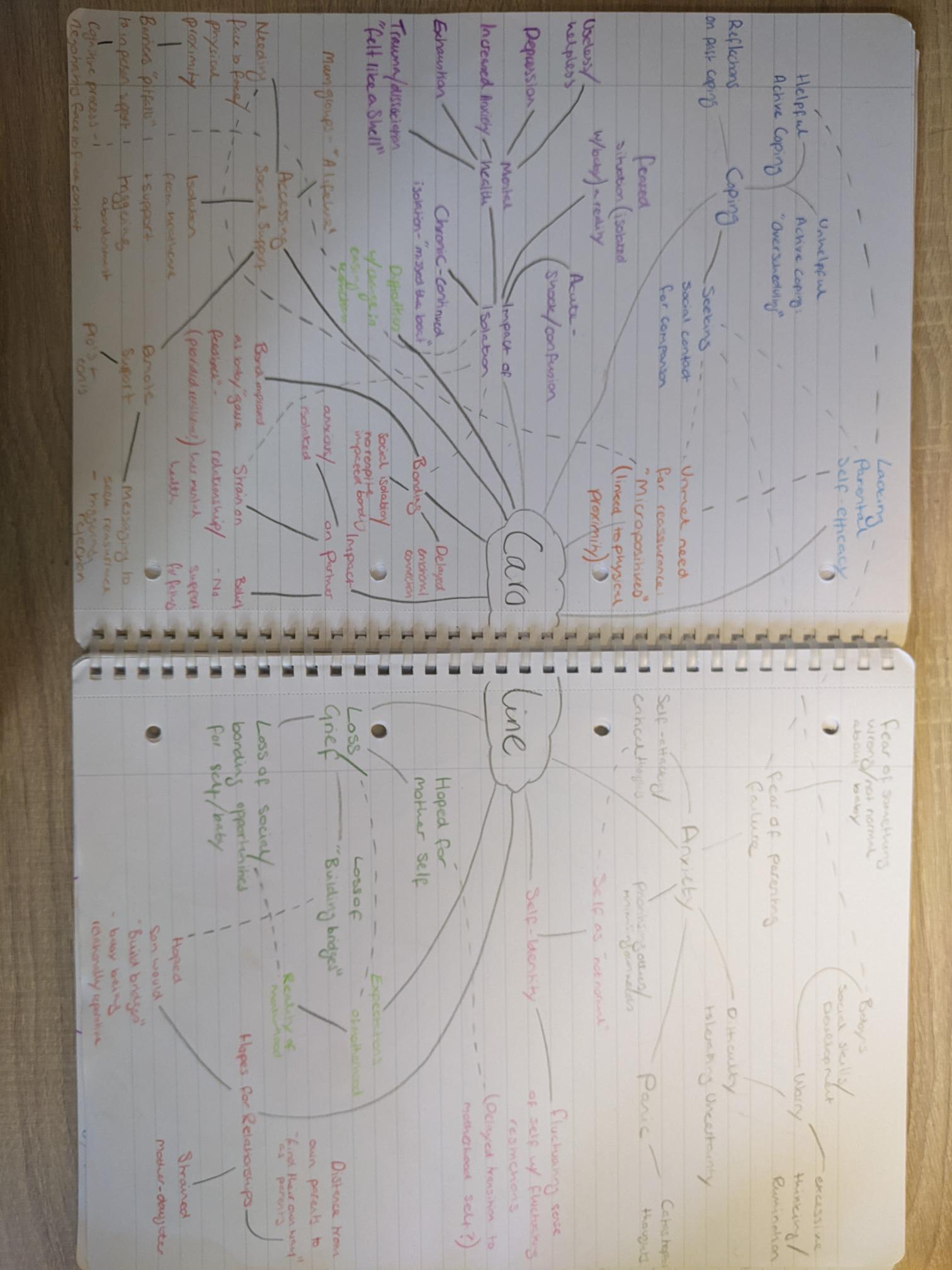
**Appendix K. Transcript including initial noting and emergent themes (extract from ‘Anna’)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Emergent Themes** | **Transcript line** | **Transcript** | **Exploratory Coding** |
| Feeling alone despite partners presence - triggering guilt | 731 | So yeah, that that just like added to the sense of kind of isolation to | Adds to continuing feelings of isolation. |
|  | 732 | the feeling just very very alone in it doing it all yourself. And I I. You know, I | *repetition/emphasis on "very"* |
|  | 733 | feel like I shouldn't say that because obviously I had Callum and thank - | *"I feel like I shouldn't say that"* - Feel guilty for saying that because she had her husband? Is this an effort to manage my perception due to fear of judgement/that I would think her ungrateful? |
| Disallowed/minimising feelings of isolation | 734 | you know I can't even imagine how hard it must have been for single mums | Comparing self to imagined less fortunate others. Believes it would have been much worse being a single parent. |
|  | 735 | during this – I’m so very lucky I had Callum and he is very good with | *Pattern of stating why she was fortune before allowing self to express difficulty ("I was lucky … but …")* |
|  | 736 | Benji. Erm but I think because he didn't understand how I was finding it |  |
| Lack of partner understanding maintaining "alone" parent experience | 737 | and he didn't understand how hard the days were - I still felt very alone | But he didn’t understand how hard she was finding things – she still felt very alone in it – ‘*it’ referring to parenting during a pandemic?* Even though she isn’t a single parent it felt like she was often parenting alone/isolated in her parenting experience? |
|  | 738 | in it. So you know, of course, if those restrictions weren’t in place for |  |
|  | 739 | a start, I wouldn't have been feeling that way, I don't think. But you | Belief if restrictions weren’t in place she felt she wouldn’t be feeling this way now. Belief that mental health/wellbeing was directly impacted by restrictions/increased isolation. |
|  | 740 | know, there just would have been more people to call upon and I think just |  |
|  | 741 | erm so now for example, you know I can't even imagine it just seems |  |
| Socialising as a mother - an unpracticed maternal role/skill | 742 | completely bizarre that I could. For example. I do have one local kind of | *"completely bizarre".* The thought of being able to socialise with other mothers is almost incomprehensible? Unpractised social skills/roles as a new mum? |
|  | 743 | university friend who had a baby in August, so kind of six months after me |  |
|  | 744 | and that that that idea that like I could just we could just hang out at |  |
|  | 745 | each others houses and just have a cup of tea together and just let the |  |
|  | 746 | babies you know, crawl and walk around and just have a chat. It just feels |  |
| Continued isolation and difficulty readjusting to social changes/easing restrictions | 747 | completely foreign. And, like realistically. Now we could do that but it | *It feels completely foreign – emphasising the unusual nature to her of being able to access other mums now.* As a result this doesn’t occur to her or her friend now they’re allowed to see each other. |
|  | 748 | just doesn't occur to us to. So those restrictions that were in place and |  |
|  | 749 | now no longer are they're still having an impact. You know it's. it's. | Those restrictions that were in place and now no longer are – they're still having an impact. Continued isolation. |
| Increased questioning (second guessing) and relief with eased restrictions | 750 | You still kind of second guess like should I really be doing that? Is that | Second guess whether she should be doing it, is it allowed? *More questioning.* Anxiety about going back out? |
|  | 751 | allowed? Like and on the odd occasion, it's happened like I haven't really |  |
|  | 752 | done it very much, but like if I have gone round to my mum's house. Just |  |
|  | 753 | it just feels so amazing to be able to like sit on the sofa and know that | Knowing someone else has their eyes on the baby. Finally a sense of respite in conjunction with second guessing anxiety? |
|  | 754 | somebody else has actually got their eyes on Benji for a moment. |  |

**Appendix L. Searching for connections across emergent themes (example from ‘Emma’)**



**Appendix M. Figure to represent superordinate themes to facilitate searching for patterns across cases (example from ‘Caroline’)**



**Appendix N. Extract of table with data from the subordinate theme “I just felt kind of abandoned”, from the superordinate theme “We were left on our own”.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Participant pseudonym** | **Superordinate theme** | **Emergent theme** | **Quote** | **Transcript lines** |
| Anna | Feeling a loss of/neglected by professional support | Loss of professional/community support leading to giving up on seeking support. | Maybe I could have phoned the health visitors and told them I was struggling. But I think I just didn't. I didn't feel that they’d have any answers for me because it's not like they could say, oh, well we're having a baby group running on duhduhduh come and join us, you know, it’ll be really good for you -because that just wasn't happening. | 872-877 |
|  |  | Loss of healthcare support/reassurance and feeling neglected. | And also you know, like I didn't get any support from – no normal support from health visitors. You know you couldn't just go to a - there was no weigh in clinic and just, you know, ask a quick by the by question like oo Benji’s doing this. Is this normal? Erm yeah, you didn't go to any weigh in clinics. We didn't have his what should have been his six week GP Checkup didn't happen till he was about 18 weeks old. So you know any concerns that I might have had, you know, just just weren’t attended to. | 630-638 |
|  |  | Feeling let down by health visitors | Other mums I've spoken to have - kind of, you know, said what what, are they [health visitors] all about, what are they there for? | 890-893 |
|  |  |  |  |  |
| Becky | Professional/  healthcare support - “No one seemed to care” | Abandoned by/lacking confidence in healthcare | In terms of like, I guess like medical support. It just became non-existent, really [laughs] I’d say, I don't think they really put anything in place, that like by the time he had his one year review they were doing zoom calls. Which was good, but obviously I don't. I mean, I don't think you can really check that much about a child on a zoom call. | 810-814 |
|  |  | Feeling unsupported/abandoned by professionals | The health visitors were pretty useless to be honest like you’d call them for advice and you’d get no help and it was almost like. You know the obviously the bigger issue was the fact that COVID was killing people and we like  understood that, but it just felt very much like, no one actually cared about like first-time parents or thought they needed help, or that there was an issue. So it was, yeah quite I guess. I really felt the impact of isolation. | 238-245 |
|  |  | Lack of professional support triggering abandonment ("no one seemed to care") | It just worries me generally how little support there is really for people that - I had, I had all the common warning signs without a pandemic that I probably would struggle like anxiety during pregnancy, traumatic awful labor like. Not a huge support network and like there wasn't, there wasn't - no one seemed to care. I mean like professionally. | 1564-1596 |
|  |  | Perception of abandoning healthcare ("you’re not a priority") | We had appointments I booked in and then they all just got cancelled. It wasn't even like we're going to, you know, call you to check or drop scales at the doorstep or things that started happening later. It was just like you're not a priority. | 762-765 |
|  |  | Perceived lack of consideration in decision making to feeling neglected | Yeah, I just think like it's just not what you expect and you feel like. Very forgotten about, like during the pandemic. Like Whenever they were mentioning who can meet up and what people could do, you know babies and children were never mentioned. | 1537-1540 |
|  |  | Loss of trust/feeling abandoned by professionals | Yeah, sorry, everyone knows that first-time mums and people that have had babies are at higher risk of developing mental health issues and like you would think that that would therefore be a group of people that, like especially midwives and health visitors at the time, would really want to check in on and make sure they were OK. And but they just didn't. | 1552-1558 |
| Caroline | Professional support - “Just felt kind of abandoned” | Lacking confidence in available professional support | So the isolation, the sort of never being able to get any help to come in, and the help that is there like – Dylan had his one year sort of check up from the health visitor online. And like one of the questions you asked was how is he eating? And I'm like oh he's eating fine - he eats the same as what we eat and she's like oh that's good. He's eating well and I’m like but you don't know what we eat. We could - you're not in our house you don't know we're not having McDonald's for every meal… | 1442-1448 |
|  |  | Feeling “left”/abandoned and doing their best | I just kind of felt like we were both being left and this wasn't a great situation. Now we're both trying to do our best in this situation. | 1433-1435 |
|  |  | Feeling abandoned/without support despite remote mental health input | Yeah, I just felt kind of abandoned. Although I was caught by the mental health team, I don't feel like - I've just felt like everything crumbled – all support networks, everything crumbled and we were left on our own. | 1452-1457 |
|  |  |  |  |  |
| Danielle | Feeling abandoned by healthcare professionals | "No one seemed to care" - feeling unimportant to/  abandoned by healthcare | Erm so it felt-almost like any child born in that year just didn't seem to be important, erm it's kind of like. Even now, we've gone back to it and we're talking about all these things that are really brilliant for development and really important for your child. But for the first year, it's like they just didn't care. No one seemed to care. The the doctors didn't care. The midwives didn't care. | 145-151 |
|  |  | Loss of "face to face" support - triggering abandonment, self-blame, feeling unimportant | I think just being able to talk to you GP face-to-face about health issues and concerns about your child. All of those things kind of stopping made you just suddenly feel like. It’s not important or the issues you have aren't significant enough in the grand scheme of things that it got to a point where you felt like, erm you don't need help, you just need to learn to cope better. | 989-996 |
|  |  | Experience/perception of neglectful healthcare | Erm I was bleeding for about 16 weeks after I had Ethan, and I kept being told that was normal and I spoke recently to my friend, she's a midwife - she said that that absolutely wasn't normal and they should have checked it and they didn't – so it feels like it kind of soured in a lot of ways. | 151-155 |
|  |  | Feeling neglected/abandoned by healthcare ("fell through the cracks") | And I think I also feel let down - and I can completely understand why everything happened the way it did, that Iike I understand that COVID was such a. Crazy situation that the NHS and everyone did what they could do, but it still feels like somewhat that mums fell through the cracks during that year. And I still do to an extent – there’s there’s still things not really been addressed or sorted even now that I think really need to be looked at. | 180-186 |
|  |  | Perception of shared experience of isolation/abandonment for pandemic parents. | But at the same time, then it's very sad to know that there was such a huge amount of people that felt that way and nothing was done about it, erm so even you doing the research on this feels like a really lovely positive thing because it's people taking an interest in this kind of shared experience from people that felt. Very lonely, very isolated and let down by it all. | 1387-1391 |
|  |  | Unavailable care/support when needed. | Erm but when those feelings [postnatal mental health difficulties] came about there wasn't the care there. | 1450-1451 |
|  |  | Experience/perception of rejecting/abandoning healthcare triggering self-attacking thoughts and low mood | I actually had quite a good idea of what my pain threshold was like, but I still just got to a point where I was convincing myself it must be in my head this pain. Because the doctors aren't even interested in finding out what it is. Uhm, so yeah, I started to get quite low. | 327-336 |
|  |  | Isolation to feeling abandoned/alone in coping – impact continued isolated coping | Uhm. I think I think when I was younger I very much. Erm I reached out to people a lot more – I was a lot more asking of help, whereas I think because we've - very much got left to kind of cope by ourselves. Erm mums in that first year, it kinda has created this idea in my head that-it's  my problem. Uhm that I need to suck it up…Uhm, so I think yeah, it it. The experience of it all has probably made me less open for help. Because I feel like we were, we were made to feel that we don't need it. | 965-975 |
|  |  |  |  |  |
| Emma | Physical separation from professionals | Physical separation from professional support - triggering sense of aloneness/unconscious disengagement from support | So, it it's been [pause] I almost kind of felt like I was on my own. I mean, I know that if I really if I really, really struggled and was really, really in need of support, the support was there. But it was never it was never in person. And it just it just wasn't, wasn't what I was expecting at all, you know? | 313-319 |
|  |  |  |  |  |
| Faye | - | - | - | - |

**PAPER THREE: Executive Summary**

**Experiences of Social Isolation for First-time Mothers with Pre-existing Anxiety during the COVID-19 Pandemic: An Interpretative Phenomenological Approach**

With special thanks to the Parent Consultant who reviewed a draft of this Executive Summary and provided their feedback to produce the finalised version of the report (appendix A).

**Author Note**

The version of the Executive Summary to be shared with participants and members of the target audience has been prepared as PDF file and images of the report are therefore shared in appendix A. A duplicate version is presented below in a Word document format for ease of marking/assessment.

Word count: 1953

**TARGET AUDIENCE:** *Who is this summary written for?*

This research summary may be of interest to mothers who were new first-time parents during the COVID-19 pandemic, new first-time parents at risk of feeling socially isolated outside of a pandemic context, and healthcare professionals who support new mothers.

New mothers were consulted on the initial idea and plan for this research, and those who participated in the study were invited to give feedback on the final themes. Special thanks are offered to all the mothers who gave their time to this project.

**BACKGROUND:** *Why was it important to complete this research?*

New motherhood is a vulnerable time as one in five mothers experience mental health difficulties during pregnancy or within the first year following childbirth (referred to as the ‘perinatal period’) (Mental Health Taskforce, 2016). Distress during the perinatal period not only affects mothers’ wellbeing, but can impact children’s wellbeing, and the development of healthy mother-infant relationships (Behrendt et al, 2016; Rees et al, 2019).

Anxiety-related difficulties have been identified as the most common mental health conditions (Kessler et al, 2005), with estimates suggesting up to 39% of new mothers may be affected (Leach et al, 2017). First-time mothers may be at greater risk compared to mothers with other children (Martínez-Galiano et al, 2019) as these women navigate the “unfamiliar territory” of motherhood, during which mothers need support and guidance (Darvill et al, 2010, p.360). Adequate social support can protect new mothers against mental health difficulties (Darvill et al, 2010; Glazier et al, 2004). However, during the COVID-19 pandemic women were prevented from accessing their support systems in person.

Research therefore suggests that first-time mothers with pre-existing anxiety-related difficulties might be particularly vulnerable to increased social isolation during the COVID-19 pandemic. Recent survey research has shown that rates of anxiety and depression in perinatal women increased during the pandemic (Shorey et al, 2021; Suwalska et al, 2021). However, at the time of completing this study the experiences of first-time UK mothers with pre-existing anxiety were yet to be explored qualitatively (via interviews). Such research is needed to understand the personal meanings of these experiences to these women. Furthermore, it was important to capture these experiences during this time so that healthcare providers may better understand the experiences and needs of these women in the aftermath of the pandemic and in the event of similar, future crises.

|  |
| --- |
| **AIM:** *What did this research aim to achieve?* |
| *To explore experiences of social isolation and early motherhood, during the COVID-19 pandemic in the UK for first-time mothers with pre-existing anxiety.* |

**METHOD:** *How was this research completed?*

* Step 1: A plan and justification for this research was reviewed by the Staffordshire University Ethics Committee who confirmed the study was safe and ethical.
* Step 2: Research adverts were shared in a mother and baby group and on websites, forums, and social media platforms which support new mothers.
* Step 3: Mothers who were eligible to participate in the study read an information sheet about what would be involved and completed a consent form and a questionnaire to gather relevant personal information.
* Step 4: Interviews took place over video call, were recorded, and later transcribed.
* Step 5: Transcripts were analysed using ‘Interpretative Phenomenological Analysis’ (IPA). During analysis the researcher became very familiar with each participant’s interview before making detailed notes on what was said, how it was said, and possible meanings. The researcher interpreted meaning from each participant’s data and identified themes within each interview, and then across participants.

**KEY FINDINGS:** *What did this research find?*

Four main themes were identified, each with sub-themes. Key quotes are provided to show examples of what was captured within each theme.

***“It takes a village to raise a child”***

Before the COVID-19 pandemic participants had expectations of new motherhood being a busy and sociable time, during which they could develop new and existing support networks i.e. form “a village”. The loss of the opportunity to access understanding, support, and to bond with their babies with and via others during early motherhood led to difficulties for participants in their roles as mothers. The loss of the early opportunity to form “a village” also meant that most participants continued to feel isolated as mothers after social restrictions had been lifted, associated with beliefs that their chance to form “a village” had been missed.

***My husband has been absolutely wonderful. But he's not a first-time mum…my mum at one point was a first-time mum, so she understands some of some of it, obviously, not from the point of view of a pandemic*–Emma**

***“***

***They’ve got little tiny babies like six months old and I've got a rampaging toddler and that's not–necessarily going to fit in. So I kind of feel like I missed the boat on that*–Caroline**

***”***

**“We were left on our own”**

The lack of physical closeness to “a village” was challenging for all participants. Many described increased anxiety associated with physical separation from others, as physical closeness to knowledgeable and trusted others was important to feeling reassured and confident in their mother role. Whilst all accessed support remotely, remote support did not meet individual needs in the same way. For some, speaking with others over the phone or via video calls increased anxiety and led to avoiding remote contact, which in turn increased a sense of isolation. Physical separation from healthcare professionals and the loss of usual methods of accessing professional support triggered feelings of abandonment.

***I’m just terrible at like phone calls…I'm just much better with face-to-face interactions*–Anna**

***“***

***It kinda has created this idea in my head that. It's my problem. Uhm that I need to suck it up…it all has probably made me less open for help*–Danielle**

***”***

**“Mentally I was worse off than I would have been”**

All participant’s described mental health difficulties associated with social isolation which included and extended beyond heightened anxiety. Many of these difficulties remained in the aftermath of social restrictions. A process of comparing their experiences of isolated parenting with what they had expected from early motherhood was associated with many of the mental health difficulties described. Participants discussed fears associated with COVID-19 related illness for themselves/their baby, worries which largely focused on the potential impact of social isolation on baby’s social skills and development, grief associated with the loss of social and hoped for experiences, and low mood/depression and associated self-attacking thoughts and ruminative thinking (repetitive negative thoughts often focused on past experiences). Participants minimised feelings associated with social isolation, suggesting that certain participants believed they were not worthy of voicing such difficulties. Participants also described a difficult adjustment out of social restrictions, characterised by wanting to access family and friends, but experiencing increased anxiety when going out and meeting others. This increased anxiety was associated with fear of catching COVID-19, fear of judgement as a mother, and struggling with unpractised maternal skills which impacted confidence in social situations.

***“***

***I think that's kind of why I got that...kind of really bad mental state because I couldn't manage my expectations*–Danielle**

***Anxiety wise I was thinking my child's gonna end up being a recluse*–Faye**

***”***

***There will always be part of me that kind of grieves for that first year*–Danielle**

**“I tried to cope”**

All participants described actively trying to cope with distress and challenges associated with social isolation. Despite these active efforts, five participants expressed beliefs that they did not cope well.

Participants described a range of coping behaviours:

* Most frequently, participants engaged in ‘problem-focused coping’ (doing something to try and alleviate or resolve stressors which lead to difficulties), and to a lesser degree ‘emotion-focused coping’ (doing something to regulate emotional distress).
* Some participants engaged in coping strategies (such as emotional avoidance/denial or overfilling schedules) which led to unintended, negative consequences (such as feeling overwhelmed or engaging in self-harm).
* Perceptions of not coping well whilst engaging a range of coping behaviours may suggest that difficulties coping sometimes outwardly looked like effective coping.
* Four participants accessed psychological therapies during pandemic restrictions which improved coping. However, due to pandemic restrictions, some had to be highly proactive to access support at times of significant distress. Accessing therapy/support remotely was in some cases associated with increased anxiety.

***“***

***I was trying to actively take steps to make sure that I was engaged and I was getting feedback*–Caroline**

***It would give me anxiety, the thought of having to do the video call. So I'd kind of I'd send myself spiralling before I even got to talking*–Faye**

***”***

**IMPLICATIONS:** *What do these findings mean?*

This study offers insight into the experiences of social isolation for first-time mothers with pre-existing anxiety during the COVID-19 pandemic. For these mothers, pandemic restrictions and social isolation meant the chance to form a *“village”*, engage in hoped for maternal experiences, and access personal and professional support systems as expected were lost. These losses impacted upon mother-baby bonding and feeling supported and understood in their maternal role. Participants described feeling abandoned by healthcare professionals and continued to feel isolated in their role as a mother beyond pandemic restrictions. These difficulties suggest that participants may have encountered an impacted or delayed transition to motherhood, affecting maternal confidence and wellbeing.

Participants believed their mental health overall was directly affected by socially isolated motherhood. Interestingly, the removal of social restrictions and greater access to support systems did not mean a steady improvement in wellbeing and participants described difficulties adjusting to a *“non-pandemic world”*. The greater vulnerability of mothers with histories of anxiety-related difficulties, combined with increased distress experienced during and since pandemic restrictions, suggests that such women and their children may be more likely to need the support of mental health services in the future.

|  |
| --- |
| **RECOMMENDATIONS:** *What does this mean for professionals supporting mothers?* |
| * The range of distress suggests the need for ‘transdiagnostic approaches’ (not diagnosis specific and apply across emotional difficulties) to support mothers. * Specific interventions such as peer support groups which promote social inclusion and accommodate working mothers may be particularly beneficial. * As services maintain remote appointment formats, collaborative decision-making with service users regarding online vs. face-to-face appointments is necessary. * Mothers may minimise or withhold the extent of their difficulties. Professionals should therefore normalise and validate the experience of mental health difficulties in isolation for mothers, to support and encourage disclosure. * Professionals need to make active efforts to repair potentially damaged relationships between this group of mothers and professional help-seeking. |

**LIMITATIONS:** *What are the limits of this research?*

* Despite efforts to recruit from across the UK, the final sample included all White-British, mostly highly educated mothers who lived in regions across England only. The experiences of mothers from diverse social, cultural, and ethnic backgrounds are therefore not reflected in this study.
* Mothers who were experiencing mental health crises or accessing mental health services at the time of interviews were excluded from this study. Mothers with severe or enduring mental health difficulties are likely to have had different experiences.
* Future research is needed to understand experiences of social isolation for mothers with other pre-existing vulnerabilities, such as those living with other mental and physical health conditions, and those from diverse social, cultural, and ethnic backgrounds from across the UK.

**DISSEMINATION:** *How will this research be shared?*

The complete written report will be submitted for publication in a peer-reviewed journal to reach a wider academic audience. This ‘Executive Summary’ will also be shared with study participants, and across the parent groups and professional organisations who supported recruitment for this study.

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**Appendix A. Final format of the Executive Summary to be shared with participants’ and members of the target audience. All written details are the same as those presented above.**

