

“It shook my whole parenting plan”: Parents’ experiences of being at home with their newborn baby during the COVID-19 pandemic.

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Abstract (200)

A cross-sectional online survey was undertaken (July-August 2020) to ascertain parents' experiences during the COVID-19 pandemic of being at home with their newborn baby in the first six weeks. Participants (n=371) were **mostly biological** mothers (n=369, 99.4%), white British (n=351, 94.5%), first baby (n=186, 50%). A statistically significant positive correlation was found between maternal confidence and number of children ($\rho(369) = 0.295, p < 0.001$) and baby's age at time of participating ($\rho(369) = 0.139, p = 0.009$). **Participants** without higher educational qualifications (median = 62, SIQR = 3.5) had statistically significantly higher confidence ($U=11831.500, p < 0.001$) than **participants** with higher educational qualifications (median=58, SIQR=2). **Parents** of babies without health issues at birth (median, 61, SIQR = 3.5) had statistically significantly higher confidence ($U=13213.500, p < 0.001$) than **parents** of babies with health issues at birth (median = 58, SIQR= 5). Three qualitative themes emerged: the impact of 'no partner' restrictions; mixed emotions and lack of information and support. In conclusion, parenting during a pandemic created anxiety and fear, affected by 'no partner' restrictions, not being allowed to appointments, scans, and during labour. Some parents were more confident and indicated benefits including heightening bonding with baby and partner during social distancing.

Implications for Practice:

- The strain of the pandemic on the mental health and well-being of **parents**, could have a negative impact for future parenting.
- Healthcare professionals should not underestimate the potential consequences of declining perinatal mental health and should be vigilant to screen, enquire and refer.
- Further research of this cohort of parents and children exploring the long-term impact of the COVID-19 pandemic on their ongoing health and wellbeing, could be beneficial for future healthcare policies and guidance.

Keywords: COVID-19, parents, discharge, psychological impact, confidence

Introduction

On 12th January 2020 the World Health Organisation confirmed a severe acute respiratory syndrome (SARS-CoV-2), known as Coronavirus 19 (COVID-19). Pregnant women were considered a high risk and vulnerable group due to their increased risk of infection (Horsch, Lalor and Downe 2020) and with approximately 700,000 births recorded each year in the United Kingdom (UK) (ONS 2020), it was deemed likely that at least some of these deliveries would be affected by the SARS-CoV-2 virus (Wells et al 2020). Over 200,000 babies were born when lockdown was at its most restrictive, between 23rd March and 4th July 2020 (Parent-Infant Foundation 2020).

The Royal College of Obstetricians and Gynaecologists (RCOG) and Royal College of Midwives (RCM) rapidly produced clinical guidance for those providing care for pregnant women (RCOG and RCM, 2020). Priorities were to reduce the transmission of COVID-19 to pregnant women and to provide safe care to women with suspected or confirmed COVID-19. However, reconfigurations to maternity services in the UK, including delivery method changes for antenatal and postnatal appointments (Richens et al 2020), perinatal mental health services (Bridle et al 2022), closure of birthing centres (>20%) and homebirth services (>33%) due to midwifery shortages (Tingle 2020; Summers 2020), reduced the availability of features supporting woman and family centred care (Sanders and Blaylock 2021).

Evidence is emerging of the intense impact of COVID-19 and distress in pregnant women, influenced by the changes to maternity care, social restrictions and resultant isolation, initial lack of information, fears for their own health and transmission to their baby (Motrico et al 2020; Bridle et al 2022; Sander and Blaylock 2021; Moltrecht et al 2022; Jones et al 2022; Meaney et al 2022; Claridge et al 2021; Draganović, Bosankić and Ramic 2021). The Parent-Infant Foundation, together with Best Beginnings and Home Start UK (2020) conducted a survey of families' experiences of lockdown during their baby's first 1001 days. Almost 70% found ability to cope with their pregnancy or baby had been impacted; approximately 70% felt

that changes brought about by COVID-19 were affecting their baby and 25% reported concern about their relationship with their baby.

Likewise, Sander and Blaylock (2021) found, through an online survey conducted in the UK between June and September 2020, that the widespread changes to services had caused unintended negative consequences including essential clinical care being missed, confusion over advice, and distress and emotional trauma for women. COVID-19 restrictions resulted in women feeling their antenatal and postnatal care was inadequate and came at great emotional cost to users. Women reported feeling isolated and sad in the postnatal period, but also frustrated and upset by a lack of staff to help them care for their new baby. **Two further online surveys conducted in 2020** (Jones et al 2022; Meaney et al 2022) **reported similar findings.** Jones et al (2022) identified five themes representing associated psychosocial stressors: *Family wellbeing; Lack of support; Mothering challenges; Loss of control due to COVID-19;* and *Work and finances*. Isolation was a common challenge as was psychological conflict between maternal expectations and the reality of pregnancy and motherhood, loss of autonomy and control, and fears surrounding family health, safety, and wellbeing. **In** Meaney et al's (2022) **survey**, women **also** reported low levels of social support, which was predicted by women's mental health and demographic factors and was related to public health and maternity service restrictions. The lack of information on COVID-19 and pregnancy meant women had greater uncertainty about pregnancy and birth. These findings are supported by Moltrecht et al (2022) who undertook interviews with young parents ($n = 21$) in the UK during February – May 2021. Parents reported specific COVID-19 related anxieties and stressors, including worries around contracting the virus and increased feelings of distress due to uncertainty created by the implications of the pandemic. Parents described feeling alone both at home and during antenatal appointments and highlighted the absence of social support as a major area of concern. These parents also felt their perinatal care had been disrupted by the pandemic and experienced difficulties accessing care online or over the phone.

At the time this study was undertaken, little was known about parents' perinatal experiences during the COVID-19 pandemic. The aim was to ascertain parents' experiences of being at home with their newborn baby in the first six weeks after birth during the COVID-19 pandemic, reflecting the geographical midwifery placement areas for the School of Nursing and Midwifery. We hoped that understanding parents' experiences of having a newborn baby during the COVID-19 Pandemic could guide health care provision, whilst ensuring the needs of parents and infants were met.

Methods

Design: A cross-sectional survey design obtaining quantitative and qualitative data, using JISC Online Surveys to increase ease of access, flexibility in participation, whilst saving time and costs of data collection. The survey was open from 7th July to 31st August 2020. Ethical approval was obtained from the Health, Life and Environmental Sciences research ethics panel at the University of Worcester.

Setting: The study was conducted in a rural English county, where there were N=4525 births during the months March – June in the previous year (2019).

Participants and Sample: Participants were parents of newborn babies that had been discharged from a maternity unit or had a home birth during the COVID-19 pandemic (from 23rd March 2020). As the questionnaire was dominantly qualitative, our aim was to recruit 30 participants.

Recruitment: Recruitment was undertaken through social media, including X (formerly Twitter) and Facebook. The study lead posted an invitation to participate with the url link to the survey, using organisational accounts; these posts were shared/re-tweeted by the study team using their personal accounts and the local maternity and neonatal voices partnership (MNVP) groups, and further shared by other social media users. Although the invitation indicated the employing organisation of the study team and, therefore, the study location, we recognised that participation may not necessarily be limited to this geographical area due to the spread of sharing posts via social media. No incentives were available.

The first page of the survey provided participant information about the study. As this was an anonymous survey, we informed participants that if any potentially serious problems were reported we would be unable to contact them or provide information to their hospital teams; instead, participants were advised to contact the patient advisory and liaison service at the hospital. We recognised that participants may have been distressed and, therefore, we provided links to relevant websites for the local maternity services, and details of various organisations and support groups that participants could contact for support. The first two questions asked for confirmation that they voluntarily agreed to participate and confirmation that they were over 18 years of age, these were mandatory to be able to move on to the remaining questions 3-28.

Data collection instrument:

There was no existing validated tool to explore all areas of interest, therefore, a questionnaire was developed by the study team in collaboration with two local MNVP groups, which included categorical and continuous data to generate a descriptive picture of parents' experiences. The questionnaire was piloted with three service users to test the ease of use and suitability of the questions in terms of their order, structure and layout. Pilot answers were not used in subsequent data analysis.

Section one began by asking participants to indicate their relationship to the baby as a free text question. Additional demographic data was collected including, parents' ages, ethnicity, education, employment, living arrangement, parity; medical information including length of pregnancy, type of birth, neonatal care, birth weight, medical conditions. Section two used the validated Maternal Confidence Scale (MCS, Parker and Zahr 1985 as quoted in Parker et al 1992). The scale consists of 14 items each answered on a score of 1-5 (never to a great deal). The scale measures maternal confidence in parenting skills and the ability to recognise the infant's needs. After reversing the two negatively worded items the scores range from 14 (lower confidence) to 70 (higher confidence). The scale has three sub-scales of confidence

regarding maternal knowledge, tasks, and feelings. The MCS is uni-dimensional with a higher score indicating a higher perceived confidence (Badr 2005). Face and content validity have been evidenced (Zahr 1991) where measures for internal consistency (alpha coefficient) for total items ranged between 0.89-0.93. The total mean score alpha coefficient was 0.89; reliability coefficients above 0.70 are considered acceptable. The scale has been used in over 40 studies establishing reliability and validity; and it has been translated into 9 languages (Badr 2005). Correlation coefficients of $r=0.66-0.69$ have been reported (Zahr 1991) demonstrating a positive linear relationship between the variables.

Section three included eleven open ended questions, which asked participants about the birth experience and experience of going home, provision of discharge information related to COVID-19 and other sources of information (table 1). This paper presents the findings from section one, two and from four of the eleven free text items in section three about parents' experiences: (18) 'Please tell us about anything that affected your (or your partner's) pregnancy or birthing experience during the COVID-19 Pandemic' (21) 'How did you feel about going home from hospital or being at home with your newborn baby during the COVID-19 Lockdown?' (22) 'How did you adapt to this new situation, whilst social distancing?' (27) 'How do you feel now about parenting your new baby?'

Data analysis: The responses were downloaded as a Microsoft Excel file from JISC Online Surveys by the study lead and shared with the team via the University OneDrive. Descriptive statistical analysis was undertaken of the quantitative data in Excel, including frequency, mean, median, mode and standard deviations and correlational tests Spearman's rho correlation and Mann-Whitney U test. The original qualitative data analysis strategy, based on the aim of achieving 30 responses, was to use thematic analysis (Braun and Clarke 2006) within NVivo 11 (QSR International). Thematic analysis of the responses to each of the 11 questions in section three began with familiarisation of data, then generation of codes within NVivo, followed by combining codes into themes, reviewing the themes, determining the

significance of themes. However, this procedure proved challenging due to the number of responses, the huge amount of qualitative data and the time available for analysis. We decided to be pragmatic and combine this approach with summative content analysis (Hsieh and Shannon 2005) within Microsoft Excel, which involved identifying and quantifying certain words and content within the qualitative responses to understand the contextual use. The quantification explored usage combined with thematic analysis, we subsequently aimed to interpret the content and meaning of the responses.

Results

There were 373 responses to the survey, however two participants had not answered any of the questions so the total active participants $N=371$. Table 2 presents the participant and infant demographics. Participants indicated that their relationship to the baby was mother ($n=369$, 99.4%) second mother ($n=1$, 0.3%), father ($n=1$, 0.3%), they were aged between 25-34 ($n=252$, 67.8%), fit and healthy ($n=314$, 85%), white British ($n=351$, 94.5%) on maternity leave ($n=252$, 67.9%) and for half of the participants this was their first baby ($n=186$, 50.1%).

Participants were asked about their confidence using the Maternal Confidence Scale (Table 3). The lowest total MCS was 29 ($n=1$), highest score 70 ($n=4$), mean score 59 (SD 6.5). On the confidence subscales: knowledge scores were the lowest ranging from 11 ($n=1$) to 30 ($n=21$) (mean 24.7, SD 3.4); task scores were the highest ranging from 6 ($n=3$) to 15 ($n=272$) (mean 14.4, SD 1.3); feelings scores ranged from 9 ($n=2$) to 25 ($n=20$) (mean 19.9, SD 3.3).

Spearman's rho correlation and Mann-Whitney U test were used to examine correlations and comparisons between the total maternal confidence score and parental and infant demographic data (table 2). A statistically significant positive correlation was found between maternal confidence and the number of other children they had ($\rho(369) = 0.295$, $p < 0.001$) and the age of their baby at the time of completing the survey ($\rho(369) = 0.139$, $p = 0.009$). Participants for whom the child was not their firstborn (median=61, SIQR=3.5) were found to score statistically significantly higher ($U=11693.000$, $p < 0.001$) than participants for whom the

child was their first born (median =58, SIQR=4.5). **Participants** without higher educational qualifications (median = 62, SIQR = 3.5) were found to score statistically significantly higher ($U=11831.500$, $p < 0.001$) than **participants** with higher educational qualifications (median=58, SIQR=2). **Participants** of babies without health issues at birth (median, 61, SIQR = 3.5) were found to score statistically significantly higher ($U=13213.500$, $p < 0.001$) than **participants** of babies with health issues at birth (median = 58, SIQR= 5). These results suggest that **participants** with other children have higher confidence scores than those **participants** where this was their first baby.

Initial familiarisation with the considerable amount of qualitative data, subsequent coding and reviewing themes identified three main patterns of experience: 1. the impact of 'no partner' restrictions; 2. mixed emotions and 3. lack of information and support. 1 and 2 are presented in this paper, supported with quotes which identify the question number (table 1) and participant identification number in brackets, for example: (Q18, p10); quantification of words and terms resulting from content analysis are also provided.

Impact of 'no partner' restrictions

The most common factor affecting **participants** (or their partner's) pregnancy and birth experience during the pandemic related to the impact of restrictions employed by maternity services (changes to service delivery from face to face to online/telephone, mask wearing, visitor restrictions). Many respondents wrote about how their partners and husbands were not allowed to accompany them for prenatal appointments, scans, during the induction of labour, during active labour or during postnatal care. For example, in response to Q18 '*please tell us anything that affected your (or your partner's) pregnancy or birthing experience during the COVID19 Pandemic*' this father responded "*Couldn't stay in hospital day baby was born*" (Q18, p163) and this mother wrote "*I spent two weeks in hospital unable to see my partner, a week before delivery and a week after delivery due to my baby needing to be in transitional care. Due to having a very quick delivery and baby needing to go to the ward soon after birth, my partner was only with me for a couple of hours on the day of delivery. The experience of not*

having your partner by your side during the whole time is awful and then them not being able to see their new baby for the first week of their life is heart-breaking. I feel like this has had a very negative effect on my feelings around the end of my pregnancy and the birth which were already what I've feelings anyway due to being unwell" (Q18, p21).

Respondents described their pregnancy and birthing experience as scary and unsettling, that they were nervous and anxious and that not having their partner with them resulted in making decisions or receiving news alone, isolation and loneliness. *For example, this mother responded: "My partner wasn't able to come to some of the scans I had a lot of reduced movements with my baby and had to get her checked on my own which was very scary" (Q18, p127).*

Stories of partners sitting in their cars for hours not knowing what was happening, were common in the responses, *for example: "Dad was only allowed to attend delivery so didn't see baby for the time we were in hospital. Dad had to wait in the car when visited hospital with reduced movements, he had no information about what was happening which was very worrying for him" (Q18, p36).*

Using summative content analysis, we identified and quantified the terms 'being alone' (n=92, 24.8%), 'isolated' (n=22, 5.9%) and 'lonely time' (n=15, 4%). Participants referred to the psychological impact of not having their partner with them, how hard it was, the sadness they both felt, how being separated was stressful, and the stress of the unknown. *For example, one mother wrote: "Felt lonely in the house. Fell out a lot with my partner" (Q18, p348).* Some described how not having their partner with them had exacerbated the feelings of loneliness, *for example: "My birth experience was traumatic, and something I am still trying to understand. I needed an unplanned caesarean following 45 hours in labour after my waters had broken. The majority of which I was alone on a ward. I then picked up an infection (treated for pneumonia) and required an additional 10 days in hospital with my newborn. During this time, my partner was only able to see his daughter once after her arrival, while I was in a high dependency room on oxygen" (Q18, p130).* *This quote indicates how isolation also impacted*

their partner: *"Father felt isolated not being able to support me while not on delivery suite due to restrictions at the hospital. Also, he was unable to attend consultant appointments often leaving me distressed having difficult conversations alone"* (Q18, p119).

Mixed Emotions

Respondents had mixed emotional experiences (from terrified to excited) of going into hospital, going home and parenting, some of which overlapped with not having their partner with them as described in the first theme above. In relation to question 21 'how did they feel about going home with their baby during the lockdown' and question 27 'how do you feel now about parenting your new baby?' mixed emotions were described, with sub-themes: feeling fearful, a sense of loss or grief, feeling positive, and surprising benefits of the COVID-19 pandemic.

Feeling fearful

Some participants wrote about how terrified and scared they were, as demonstrated in these two mothers' quotes: *"Pretty terrifying. Such a tiny little human being so much more vulnerable to a big disease. Not knowing how to move forward and wanting to stay safe at home and never open the door"* (Q21, p70) and *"Scared, terrified baby might catch something and immunity yet. Still haven't been to shops since he was born"* (Q21, p69). There was also fear of catching COVID-19, a fear of having to go into hospital and of everyone wearing masks, fear of loneliness with no sign of support. Responses to question 27 demonstrated fears about reintegrating into 'normal' life, as this mother's response demonstrates: *"I feel like the first 4 months of my baby's life have been filled with fear and loneliness. Whilst pubs and shops have been reopened, no mention of when support will begin. My life has been turned upside down having a baby and while other people's lives are returning to normal. I still don't see my life beginning to begin. I am too worried to let my mum hold my baby or give me a hug"* (Q27, p294).

Using content analysis of the whole dataset, we identified and quantified similar words and terms that represented the theme 'feeling fearful', the most common were 'scared, nervous, worried, anxious (n=130, 35%), followed by lonely, alone, isolated (n=48, 13%), sad, low, emotional, upset (n=23, 6.2%), low confidence (n=10, 2.7%), terrified (n=7, 1.9%) and depressed (n=4, 1.1%).

Within the qualitative responses n=18 (4.8%) descriptions were identified that were interpreted as being indicative of postnatal depression, acute stress disorder and post-traumatic stress disorder that were perceived as being related specifically to the COVID-19 pandemic. The next three quotes demonstrate a breadth of psychological functioning identified amongst the responses: *"I found that lockdown impacted my mood and I have found it difficult to decide if my low mood was due to lockdown or post-natal depression. (Q21, p98). This mother described how she felt now, question 27: "up until week 6 I was extremely nervous, anxious and worried. I felt I wasn't doing anything right and on the verge of a breakdown. I had insomnia too. I kept having thoughts about my time alone in hospital and waves of crying. If my partner was with me in those first 3 days, I feel I would have had a completely different experience" (Q27, p162). This response indicates a mother with underlying psychological dysfunction who probably needed mental health support earlier than it was received: "Honestly really bad. I'm sad. I feel like I've missed out. And it's confusing because I know I haven't, my baby is here and safe and I'm grateful but none of it went to plan and I'm traumatised basically with very minimal support. Mental health support has been arranged but only just last week. My baby is 3 months old. I'm so down in the dumps, I already suffer with depression, had a massive risk of getting PND which i did. At one point I was convinced it was psychosis. I was so paranoid and scared everyone wanted to harm me and my 2 kids. Especially the baby. She was born after losses so was my son, they are extra special to me and i would do anything for them. They make me want to carry on. But right now, I am struggling a lot. My partner is too. He is autistic, so is my son and I just found out my mum is too so I might also be. It's a long*

story. But Covid and lockdown being introduced when it did, how it did, really just shook my whole parenting plan basically. And I'm still feeling the effects of it drastically" (Q27, p322).

A sense of loss and grief

This sub-theme related to the sense of loss or grief about the expected birth experience and going home. The unanticipated changes to maternity services caused by the COVID-19 pandemic impacted on the experience, which was not as had been expected or planned. Many responses inferred that the participant did not get the birthing experience that they had expected or planned. This left some parents feeling that they had been robbed of what they perceived to be 'normal' and with a sense of disbelief that it was happening to them, for example: *"I was denied the maternity leave I thought I was going to have, which left me feeling a sense of grief and loss"* (Q21, p219).

Some parents indicated that their expectations for a happy experience of pregnancy and parenthood had been ruined or overshadowed, for example **this mother responded:** *"a really happy time in my life was ruined and overshadowed by the virus"* (Q21, p184).

Feeling Positive

Using content analysis of the whole dataset, we identified and quantified words and terms that related to the sub-theme 'feeling positive', which included: glad to be home and safe (n=122, 32.9%), fine, relaxed (n=48, 12.9%), happy, excited, confident (n=31, 8.4%), feeling relieved (n=15, 4%).

Responses indicated that parents were excited to be going home and felt safer being at home than in hospital. Some parents also responded that whilst feeling excited, at the same time they were feeling anxious about daily activities, for example **this mother responded:** *"I was extremely excited to finally get her home obviously, but I was very anxious about everything."*

Could I take her out? Could my partner go food shopping? So many things that you shouldn't have to worry about were such big worries" (Q21, p299). Conversely some parents were relaxed and pragmatic about going home, as this mother's quote demonstrates: "I felt quite relaxed about going home from hospital. I was aware that the service I'd receive from midwifery would be limited due to the pandemic, however I was also aware I could contact the midwifery team should I need any support or information beyond what they would be able to offer me" (Q21, p164).

Surprising benefits

For some participants, the lockdown, social distancing restrictions and partners being furloughed brought positive and unanticipated experiences and helped them to bond **with their new baby**, as a family and improve parenting confidence, particularly for first time parents, as this mother's quotes suggests: *"My partner was able to spend more time with us at home than his original planned 2 weeks paternity due to being furloughed. We were able to enjoy those early days just with each other. It was a big adjustment being first time parents, but it helped that we knew that we wouldn't be bombarded with lots of visitors due to the restrictions. My partner has since returned to work, but I feel confident in caring for my baby and am enjoying every exhausting moment of it" (Q27, p159).*

Families adapted in a variety of ways to the situation and social distancing (Q22) and this also brought benefits, for example: "We actually ended up enjoying not having lots of visitors in the early days. This gave us the opportunity to get to know each other without the pressure of lots of people coming to the house and also allowed us to rest" (Q22, p38).

A surprising benefit for this second mother, was being forced to figure everything out: "I absolutely love it. I am glad I haven't had help because I have been forced to figure out everything for myself. I feel extremely confident looking after my baby and know she is comforted by me. If we had been passing her round lots of people, I don't think our bond would have been as strong" (Q27, p278)

Discussion

Our study aimed to ascertain parents' experiences of being at home during the COVID-19 pandemic with their newborn baby in the first six weeks after birth, **in a rural area of England**. The study identified several key findings that contribute to the increasing body of research evidence relating to the COVID-19 pandemic around **peri-natal** care.

We believe our study was the first to measure maternal confidence in parenting a new baby during the COVID-19 pandemic, **however, recognise that one participant was a father**. We found that **participants or parents** of babies without health issues at birth, without higher educational qualifications and for whom the child was not their firstborn, were statistically significantly more confident in their parenting. On the MCS confidence subscales knowledge scores were the lowest, perhaps reflecting the impact of a lack of COVID-19 specific information and professional support, which resulted in women having greater uncertainty about their pregnancy and birth (Sander and Blaylock 2021; Meaney et al 2022; Moltrecht et al 2022; Jones et al 2022).

Another key finding related to the impact of 'no partner' restrictions; the psychological impact and implications for both parents throughout the antenatal period and during labour, negatively affected the pregnancy and/or birth experience for two thirds of participants in our survey. Similarly, the Babies in Lockdown report (Parent-Infant Foundation 2020), Basu et al (2021), Sander and Blaylock (2021) and Moltrecht et al (2022) all described how 'attending alone' was distressing, and particularly challenging for mothers who experienced complications during the pregnancy. Taking sole responsibility for medical decisions during appointments and communicating medical information to their partners was particularly difficult. Feelings of guilt about the father missing out on key moments were also described, as was the feeling of being 'pushed out' and the concern that their partners may be less engaged with the pregnancy and the longer-term impact on the baby. Fathers described the situation as being highly stressful

and suggested that appointments could have been recorded or delivered virtually, although this was not reported as having happened (Moltrecht et al 2022).

Thirdly, parents in our study described mixed emotions. For some participants this time was unexpectedly positive, a time to spend quietly with their partner getting to know their new baby. In our study, some participants reported that they were glad to be home and safe with some stating that they were happy excited and confident about being at home with their partner. This was also described by Sander and Blaylock (2021), their results showed that almost 80% enjoyed being home with their partner and it being a quiet time with no visitors, whilst two thirds considered it to be 'peaceful without visitors'.

However, physical, emotional, and logistical challenges during the first lockdown of the pandemic had an impact on psychological functioning, including heightened anxiety, nervousness, sadness, depression, shock, loneliness, isolation, frustration, and a sense of loss. For some of our parents, going home was a mixed blessing; being able to be with their partner but not receiving the care and support that they expected from the healthcare professionals led to isolation fear and anxiety. Draganović, Bosankić and Ramic (2021) also reported on the theme of being 'trapped in the fear of the unknown', being exposed to severe stress and negative feelings that were persisting long after childbirth due in part due to the inconsistent health care and information and the restricted access to health and support services following delivery.

During a huge traumatic event, such as the COVID-19 pandemic and associated lockdowns, anxiety, depression, shock, and dissociation are symptoms of acute stress disorder (Shalev 2002). Exposure to a traumatic event, resulting in threat of death or physical integrity, can result in post-traumatic stress disorder (PTSD) and a response of fear, helplessness, or horror (American Psychiatry Association (APA) 1994). In our study, fourteen participants indicated they had been diagnosed with post-natal depression and three described a diagnosis of PTSD, relating to the traumatic experiences during birth, the lack of support and not being able to have their partner with them at critical moments of their care.

This finding was also reported by Meaney et al (2021), whilst 'no partner' restrictions did not affect overall postnatal mental health for their sample, those women that reported other changes to their birth experience such as inconsistent support by professional staff during delivery and not having visitors post-delivery, subsequently reported more symptoms of PTSD. Furthermore, those women who experienced unexpected changes at the time of birth were left feeling powerless and uninformed and went on to self-report symptoms of PTSD (Meaney et al 2021).

Poor parental mental health is recognised as having an impact on parenting and can lead to poor health outcomes for the child throughout their lifespan (Bauer, Knapp and Parsonage 2016; Jones et al 2022). Prior to the pandemic, approximately 1 in 4 mothers experienced some form of perinatal mental health issue, such as anxiety or depression during pregnancy and the two years after birth (Howard et al 2018; Bailey and Gaskin 2021). This rose to nearly 50% within the UK (Jones et al 2022) with the ongoing effects recognised for this cohort of infants and children (Jones et al 2022). In 2019, the NHS Long Term Plan indicated that the cost to the NHS and social care of patients not accessing high quality perinatal mental health care was as high as £1.2 billion per year. This plan pledged to expand perinatal mental health services for mother, partners, and families from 12 months to 24 months in line with the 1001 Critical Days (NHSE, 2019, p. 45; HM Government 2021). The high levels of reported perinatal anxiety during the pandemic further demonstrate the need for services to focus future research, screening, and support on this psychological aspect of the perinatal period (Jones et al 2022). Furthermore, perinatal services such as midwives and specialist public health nurses (health visitors), need to remain vigilant to the distress caused and experienced by parents during the pandemic. We agree that the perinatal cohort of 2020/21 may need extra preventative support to mitigate further psychological distress and anxiety, with the aim of preventing long term physical and mental health issues for the children born during this period (Jones et al 2022).

Limitations of study

One of the strengths of this study was the use of an online survey, as this allowed participants flexibility and time to respond whilst respecting respondents' anonymity. It was a cost-effective technique, and data was collated over a shorter time (Ball, 2019). However, the study team had no way of knowing how many people saw or shared the invitation to take part in the survey. A snowball sampling strategy could have been used more effectively, had each researcher committed to reposting, retweeting and sharing their own and others' posts on a planned bi- or tri-weekly basis during the recruitment phase of the study (Leighton et al, 2021). In hindsight the researchers could also have tracked social media data (postings, views, shares, reactions, comments) and Twitter data (tweets, impressions, engagements, retweets, replies, likes, URL clicks and detail expands) to better understand the reach of the posts (Leighton et al, 2021).

We did not collect data regarding the location of each participant due to ethics committee requirements. This would have helped the researchers to compare parents' experiences within the differing geographical areas and to extrapolate whether the issues raised were addressed differently according to the region in which the family was based. Another limitation was that due to anonymity we were unable to follow up with participants to clarify responses or probe further (Safdar et al 2017). The responses also reflected what parents perceived happened, and inaccurate recall is a recognised limitation of surveys (Safdar et al 2017).

There was no existing validated tool to explore the phenomenon of interest (Latour and Tume, 2021), therefore this was developed by the study team in collaboration with the local MNVP to represent the parent voice. Whilst the MNVP were involved in the questionnaire development, there was a risk of bias due to the questionnaire being developed by professionals for non-professionals to answer. Additionally, most of the questionnaire, other than the MCS questions, was not validated. Design and layout of the questionnaire could have been improved, which would have made the analysis of the data collected easier to undertake. This limitation was highlighted further by the large amount of qualitative data that the study

generated, and the time required to analyse it fully. The research team were all in teaching, managerial or clinical roles during the pandemic and as such, availability of all team members was severely restricted immediately after the data was collected.

Conclusion

Parenting during a pandemic created mixed emotions: anxiety, fear and a sense of loss and grief for some parents, and excitement to be going home for others. The most common factors affecting participants' experiences of pregnancy, birth and the post-natal period were the impact of 'no partner' restrictions during appointments, scans, and in some cases during labour and the lack of social and professional support. Some parents, multiparous women with healthy babies and no higher educational qualifications, were more confident than others and some indicated surprising benefits such as heightening bonding with their baby and partner during social distancing. These findings indicate that follow up of this cohort is necessary to enable longitudinal evaluation of the impact of parenting in a pandemic on parents and their children.

Implications for practice

- The strain of the pandemic on the mental health and well-being of **parents**, could have a negative impact for future parenting which health professionals need to be aware of and vigilant to the signs.
- Healthcare professionals should not underestimate the potential consequences of declining PMH and should be vigilant to screen, enquire and refer.
- Further research of this cohort of parents and children is required to explore the long-term impact of COVID-19 on health and wellbeing

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