Welcoming New Life Under Lockdown: Exploring the Experiences of First- Time Mothers Who Gave Birth During the COVID-19 Pandemic.

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Abstract:
Objectives. This study aimed to explore how first-time mothers in the UK experienced new parenthood during the coronavirus (COVID-19) pandemic.
Design. This study used a cross sectional exploratory, qualitative interview design.
Methods: Semi-structured interviews were conducted with ten first-time mothers who had given birth since COVID-19 was declared as a pandemic. Verbatim transcripts were analysed using reflexive thematic analysis.
Results. Experiences of new, first-time mothers during the COVID-19 pandemic were organised around two themes. First, new mothers felt an overwhelming sense of responsibility for their baby which was heightened by the pandemic. The challenge of meeting this responsibility was heightened in the context of societal expectations to do the 'right' thing and uncertainty and distrust around official guidance about COVID-19. Secondly, the expected transition into motherhood was altered by the pandemic. Disruption to the birthing experience, an inability to connect with close friends and family, and limited healthcare support was perceived to be detrimental. However, altered social expectations and the increased presence of the partner were perceived as positives.
Conclusions. Many of the common challenges experienced by new, first-time mothers have been amplified by the COVID-19 pandemic. Public policy and scientific research must target this group in order to protect this population from the negative impact of the remaining COVID-19 pandemic and any future pandemics.
Keywords: MOTHERHOOD; PARENTHOOD; COVID-19, CORONAVIRUS, PANDEMIC
Data availability statement:
The data that support the findings of this study are available from the corresponding author upon reasonable request.

Welcoming New Life Under Lockdown: Exploring the Experiences of First-Time Mothers Who Gave Birth During the COVID-19 Pandemic.

On the 26th March 2020, in the absence of a preventative vaccine, behavioural control measures were introduced in England in order to limit the spread of COVID-19. Significant restrictions on freedom of movement were introduced, informally termed 'lockdown', which would see immediate changes to the fundamental functions of society (O'Connor et al., 2020). The nation was ordered to stay at home: unnecessary social contact was limited, non-essential shops and offices were ordered to close, schools and universities moved teaching online, and healthcare services were reorganised (Public Health, England, 2020). While restrictions initially began to ease on 13th May 2020, the continuous rise of COVID-19 cases across the nation led to many restrictions being reintroduced, including subsequent lockdowns on the 5th November 2020 (The Week, 2020), and a third in January 2021 (Lea, 2021). In December 2020, the UK approved a COVID-19 vaccine for emergency use in the hope of offering increased resistance to the disease, and to enable incremental loosening of social distancing and lockdown measures. It is now hoped that all adults in the UK will have been offered a vaccination by Autumn 2021, however there lies much uncertainty ahead while the threat of new variants and transmission remains (Baraniuk, 2021).

While the public health threat posed by COVID-19 has justified restrictions on certain civil liberties (Human Rights Watch, 2020) these have incurred economic, social and healthcare costs that have not yet been fully realised (O'Connor et al., 2020). While we do not yet know the acute or long-term consequences that COVID-19 will have on mental health and wellbeing, widespread outbreaks of infectious disease are historically associated with psychological distress and symptoms of mental illness (Bao et al., 2020). It is therefore critical to ascertain the impact of COVID-19, particularly on vulnerable populations, to put in place mitigation measures to protect those most at risk of its

negative consequence. One such population may be women having their first baby during the pandemic. As many as one in five women experience a mental health problem in the first year after having a baby (Royal College of Obstetricians & Gynaecologists, 2017).

For many women, the experience of new motherhood can be threatened by societal disapproval and scrutiny if contemporary constructions of the 'good mother' are breached (Jackson & Mannix, 2004). Social Role Theory (Wood & Eagly, 2000) suggests that the importance of conforming to these essentialist assumptions is magnified for some women as they negotiate the transition into motherhood and the accompanying shifts in identity. For instance, while the primary purpose of breastfeeding is for infant nutrition, it is also closely related with moral, cultural and social expectations (Marshall et al., 2007), which, if breached, can threaten the identity of the mother and lead to feelings of failure (Burns et al., 2010). As such, the disruption of the 'norm' and the widespread negative impact of COVID-19 may be a positive for some new mothers, who may experience fewer societal expectations as self-isolation brings decreased exposure to others and thus less potential for evaluations that may undermine confidence. Conversely, for others, the pandemic may make achieving already established expectations more challenging and increase negative self-evaluation.

A second challenge of first-time motherhood that may be amplified by COVID-19 is that of loneliness. Becoming a mother is associated with experiences of loneliness owing to scarcer opportunities for social interaction, difficulties in making meaningful connections where peers or partners may lack understanding, alongside feeling exclusively responsible for caring for the baby (Lee et al., 2019). Social support plays an important role in buffering the effects of stressful life events such as pregnancy (Collins et al., 1993), however, COVID-19 social distancing and self-isolation strictures have meant that social support outside of the immediate household is, if anywhere, located in the virtual space. Alongside this, the closure of offices and the government furlough scheme (Fisher & Harwood, 2020) may occasion an unanticipated increase in the presence

of the partner. This might have the effect of potentially challenging traditional gender-role attitudes and behaviour following the birth of a child, whereby the mother tends to take a more proactive approach (Smith, 1991). It is possible that this altered dynamic may threaten the stability of the relationship, a possible factor contributing to the increased incidents of violence against women worldwide since lockdowns were first implemented (Mlambo-Ngcuka, 2020). Of course, the unexpected or prolonged presence of the partner may also be welcomed and provide unexpected and valued support. It is therefore not yet known how the altered dynamics of social support arising during COVID-19 influence experiences of loneliness for new mothers.

The maternal transition is often characterised by a growing awareness of responsibility for the new child (Barlow & Cairns, 1997). In dealing with this, new mothers may turn to the internet as a source of support and advice (Johnson, 2014). While effective risk communication is crucial in establishing public trust and to control the spread of infection during a pandemic (Quick & Fryer, 2018), navigating online information can be challenging when many sources are not verified by expert information (Winzelberg, 1997). While initial statistics show approximately 1.7% of COVID-19 cases comprise of babies and children (CDC COVID-19 Response Team 2020), news headlines have been frequently dominated by distressing articles of babies and pregnant women with the disease (Usha, 2020). The role of sensationalised stories and ‘fake news’ has led the World Health Organisation (WHO) to describe COVID-19 as an ‘infodemic’ (Thomas, 2020). It is common that new mothers are focused on information seeking to make sense of their experiences (Song et al., 2012). Under pandemic conditions, there are new uncertainties to negotiate in a setting where scientific uncertainty is amplified by misinformation and where there is little clarity about the nature and location of trustworthy information sources (Freiling et al., 2021).

Another common challenge associated with first-time motherhood is the birthing experience itself, which is commonly described as one of the most significant events in a woman’s life (Nichols, 1996). However, a need to distribute limited healthcare resources (Taylor, 2009) may have

repercussions on the birthing experiences of new mothers. The slogan coined by the government, 'Stay at Home, Protect the NHS, Save Lives' (Conservatives, 2020), reflects how one of the biggest threats to life during the pandemic is overburdening the limited capacity of the NHS. The Birth Trauma Association (2020) have suggested that the increased NHS pressure bought on by the pandemic may be contributing to traumatic births, owing to issues such as delayed inductions and last-minute changes of birthing plans. Shorter hospitalisation can contribute to the possibility of a crisis in the postpartum period, though hospital stays after childbirth are also described by new mothers as unpleasant (Cronin & McCarthy, 2003). Reduced presence of birth partners during the stay in hospital and at the birth will have been largely unanticipated and likely to be perceived as negative even if minimal time in hospital is welcomed.

Ongoing support from health professionals is crucial in the early postpartum period. A lack of healthcare support is associated with greater postnatal depressive symptoms (Razurel et al., 2013). Alongside healthcare visitors, baby classes play a vital role in promoting baby-parent bonding and in developing skills and confidence in how to interact with a new child (Tredget, 2020). COVID-19 has seen the movement of non-essential healthcare provisions and support classes from in-person to online. While preliminary research suggests that live interaction classes have a positive impact on postnatal mental health (Happity, 2020), they may fall short in providing richness of interaction and support. Furthermore, parents from lower socio-economic groups are reported to be less receptive to web-based delivery owing to factors such as access issues (Hall & Bierman, 2015), suggesting that digital provision has greater potential for leaving the hardest to reach families behind. It is thus important to ascertain the experiences of new mothers during COVID-19 in order to understand how best ensure appropriate healthcare support is provided.

There is an increasing consensus that COVID-19 will see an increase in mental health problems in the general population (Galea et al., 2020). Data based on previous pandemics such as the SARS outbreak, indicate that these effects could be long-term and pervasive (Hong et al., 2009).

The impact of this may be heightened for new, first-time mothers, whereby challenges such as social pressure, loneliness, online information, and limited healthcare resources could compound the mental health vulnerabilities this population may experience. Undetected and unsupported mental health problems can affect the ability to provide sensitive and responsive maternal support, potentially jeopardising the formation of a secure parent-infant bond, with long-term implications for development and wellbeing (NSPCC, 2020). Furthermore, pandemic-related stressors may compromise the immune system, increasing the susceptibility of infection (Taylor, 2019). Quantitative research has indicated increased prevalence of maternal depression and anxiety during the pandemic (Cameron et al., 2020). A recent study in Belgium found that almost half of breastfeeding and pregnant women were experiencing symptoms of anxiety and depression compared to before the crisis (Ceulemans et al., 2020).

Given the uncertainties attending to the nature of COVID-19 itself, the attendant constraints on social interaction, there is a need for research to explore the lived experiences of women that have given birth during the pandemic. With this in mind, we aim to address the research question: 'How do first-time mothers in the UK experience new parenthood during the COVID-19 pandemic?'

Methods

Research Design

A qualitative, cross-sectional study was conducted, and data was analysed using reflexive thematic analysis (Braun and Clarke, 2020). A critical realist epistemological stance was taken. This was deemed appropriate as, while we expected the accounts of our participants to tell us something about reality, this reality was that of the world view of both the interviewer and interviewee (Scott, 2007).

A moderate sample size of ten participants was deemed to be sufficient to develop a rich and nuanced understanding how participant experiences were located in the wider socio-cultural context (Vasileiou et al, 2018). Participants provided detailed accounts of their experiences, and the analysis

was oriented to identifying themes across the data set through a focus on cases rather than on variables (Sandelowski, 1995).

Participants

With permission from moderators, participants were recruited through convenience sampling via Facebook groups dedicated to new mothers. Inclusion criteria were as follows: 1) first-time mother, 2) have given birth on or since 11th March 2020 when the WHO declared COVID-19 as a pandemic (WHO, 2020). Participants with a medical diagnosis of post-natal depression were excluded in order to avoid undue stress. The latest birth of the participants was in July 2020. Participant characteristics against their pseudonyms can be found in Table 1.

Table 1

Participant Characteristics

Participant Name	Occupation	Marital Status	Age
Briana	Nursery Practitioner	Co-habiting	26-30
Amelia	Business Manager	Married	26-30
Katherine*	Not Disclosed	Not Disclosed	21-25
Jo	Librarian	Engaged	26-30
Eleanor	Early Years Teacher	Married	31-35
Kendall	Not Disclosed	Not Disclosed	Not Disclosed
Gabi	Freelance Editor	Married	26-30
Leanne	Not Disclosed	Not Disclosed	Not Disclosed
Sophia	Physiotherapist	Married	31-35
Samantha	GP	Married	31-35

*interview was conducted via email

Procedure

Participants responded to the advertisement by contacting the researcher via email. Participants were sent an information sheet outlining further details and asked to consent to participation. Social distancing measures meant that interviews took place remotely. Nine of the interviews took place over Zoom, one was conducted via e-mail owing to participant concerns about confidentiality (Bampton and Cowton, 2002). This participant was sent an interview schedule and asked to send back their answers in as much detail as possible. The questions and responses were thus asynchronous and the resulting material briefer than for those interviews conducted remotely.

The remaining nine interviews took place at a time that suited the participants between 4th June and 12th August 2020. Participants were invited to take part in location of their choosing that was most comfortable for mother and baby. The interviewer was located in a private, quiet room. Interviews lasted between 25 to 52 minutes. Interviews may have caused distress to participants by asking them to talk about potentially unpleasant and emotional experiences. This was dealt with by emphasising to participants that they could conduct the interview at a time and place where they felt most comfortable, stop the interview at any time, and by sending follow-up information offering postnatal advice and support. The study received ethical approval[1].

Data Collection

Semi-structured interviews were conducted. Rather than adhering strictly to a pre-determined interview guide the interviewer was responsive to the participant's developing account. This approach was taken in order that interviews were driven predominantly by the narrative of the participant and any preconceived expectations by the interviewer, who had not experienced motherhood, were minimised.

The interview schedule was designed to explore the impact of COVID-19 on experiences of birth and the early days of new motherhood. The interview schedule (Table 2) was sense-checked by

[1] University of Bath, Psychology Research Ethics Committee, 20-135

a new mother to ensure questions were relevant and appropriate. Participants were asked broad questions about how their experiences of motherhood compared to their expectations, the birthing experience, navigating challenges, expectations for the future, and the accessibility of support. Follow up questions sought expansion and clarification relevant to the experiences described.

Table 2

Interview schedule

Construct	Question	Prompt/Follow up
Icebreaker	How is your baby doing?	
Thoughts and Experiences	Now we'll move on to talk more specifically about your experiences and thoughts as a first-time mother 1) I was wondering if you could tell me a little bit about your birth experience? 2) Could you tell me about what your experience during your first couple of months of new motherhood has been like? 2) How did your expectations of the experience of being a first-time mother, compare to the reality? 3) You mentioned that your experience has been X… I was wondering if you could tell me a bit more about the sort of challenges you have faced being a first-time mother during the pandemic? 4) Conversely, do you feel as though any aspects of the pandemic have made the experience of being a first-time mother any easier?	1) Do you think this was impacted by the pandemic? 2) What sort of role do you think the pandemic has had to play in this, if any? 3a) How do you deal with these challenges? b) Do you feel well equipped to deal with these challenges? c) If you do not feel equipped to deal with these challenges, have you been able to seek help? d) What could help you feel better equipped to deal with these challenges? 4a) E.g., Less fear of missing out, partner being around more? b) Do you have any concerns around things going back to 'normal?'

	5) Is there anything else you might be able to tell me about your experience as a first-time mother during the coronavirus pandemic that we haven't covered?	
Cool Down	And to finish off... What are you looking forward to most for when the pandemic is over?	

Data Analysis

Interviews were transcribed verbatim by AG. Potentially identifiable data was anonymised, and pseudonyms applied. Reflexive thematic analysis was conducted independently by the researcher as per the Braun and Clarke (2013) guidelines, which constituted six steps: data familiarisation, preliminary coding, identifying themes, reviewing themes, defining and naming themes, and producing the report. An inductive, bottom-up approach was taken to the analysis. Themes were identified based on their relevance to the experiences of new motherhood during the COVID-19 pandemic. Following analysis, themes were discussed collaboratively with JB who took an interrogative approach and challenged the characterisation and justification of the identified themes identified, holding AG accountable. AG had not experienced giving birth and JB had. In identifying and discussing themes both authors sought to be aware of how these positions may impact their interpretations of the data.

Results

Two overarching themes were identified 'The buck stops with me' and 'Disrupted motherhood' Two subthemes were identified within the latter theme: 'Destabilizing disruption' and 'Silver linings'.

The Buck Stops with Me

'The Buck Stops with Me', is a phrase originally popularised by U.S. President Harry S. Truman. It refers to the notion that as President, he was the primary decision maker, and the consequences of the decisions he made would rest on his shoulders (McCullough, 2003). The phrase captures the sentiments of new mothers during the COVID-19 pandemic, who, much like Truman, described feeling overwhelmingly responsible for the wellbeing of their child. Many women would describe in detail the formulation of their own independent risk assessments which were the basis for the precautionary measures they implemented to limit the threat of COVID-19, including Briana:

> *"And I keep telling everybody I've said, 'nobody is allowed to touch him yet until I've seen what this second wave does.' If we've been out of lockdown for 14 days and there's no, you know, increase in cases, then maybe I'll look at that. But there's not a chance of me easing up yet." (Briana)*

It is clear from Briana's expression here, that the level of restrictions she and her baby would live by were ultimately down to her, regardless of guidance, and as such she was taking it upon herself to monitor COVID-19 cases. This level of responsibility was also assumed by Amelia who describes an internal reference point for her actions, independent of the views of others:

> *"Everyone is different...What I'm doing some people might say you're crazy you're overprotected, and other people might say no you're right I totally agree with you. I think especially as a new mum it's about how you feel and what you think is right really." (Amelia)*

The case for accepting and taking responsibility was rendered as a more certain, less anxiety provoking stance when compared to distrust and confusion following changing government advice:

> *"I don't feel like the government know enough about it you know if you look at it to begin with, it was just elderly people that were at risk and then it was people with diabetes and heart conditions and then pregnant women got added… So I just I worry that they're then going to turn round and say, 'sorry, we've messed up again'." (Amelia)*

In addition to seeking official statistics and information on COVID-19, participants used social media to help guide their decision making in taking the 'right' course of action. Participants like Amelia described finding social media helpful:

> *"Social media for me has been better than any NHS midwife or any approved group, it's been amazing. Because we're all in the same boat." (Amelia)*

However, some participants described how the ability to meet their responsibilities in taking the right course of action was actually made more difficult by social media, which only added to anxieties:

> *"…the world of social media might have made this whole thing a lot harder than it needed to be. Just cos before I had him the amount of stories that came out on social media of all 'you can't do this anymore' or 'you can't do this anymore', you have to give birth on your own and your midwife won't do this, and everyone you see is going to be covered head to toe in PPE and…. It was detrimental." (Briana)*

Again, inconsistent advice was problematic and caused anxiety. Here it was related to changing restrictions and constraints that were communicated via social media. Rather than viewing this as a source of comfort from others 'in the same boat', this information undermined and cast doubt on birth plans that had been previously in place.

Disrupted Motherhood

COVID-19 had breached normality. The nature and consequences of the breach were discussed by participants. 'Destabilizing Disruption' explores the negative impact that this breach of normality had. 'Silver Linings' characterises some positive facets of this.

Destabilizing Disruption

The women in this study described how hospital restrictions owing to COVID-19 meant that they were unable to follow their original birthing plans. Expectations were thwarted and unmet. Jo describes how her birthing experience included a number of pre-determined hopes and plans that were breached by the pandemic:

> *"So I was hoping for a sort of like natural birth, birth pool things like that, that they had in the midwife centre of the hospital. But they said that was all closed due to staffing restraints. So it meant that we went to the sort of delivery suite which was also in the same hospital so that was where we had to go instead which was not what we had hoped for." (Jo)*

This breach of expectations was similarly discussed by Sophia:

> *"When you've done it and had your baby and it's meant to be all great and you can't be with anybody, you're on your own on the ward thinking 'I don't know what to do'." (Sophia)*

The achievement of giving birth allied to Sophia's expression that 'it's meant to be all great' is juxtaposed with the flatness of the disappointment associated with subsequent events - restrictions on hospital visitors and feelings of being alone and unsupported. The impact of changes in hospital visiting rules was also felt by Amelia:

> *"I desperately wanted mum there. That completely went out the window. And that was something I was so key on, that as good as my husband is, my mum has been through childbirth. She knows what it's like" (Amelia)*

Amelia described how COVID-19 restrictions had disrupted and disallowed the central core preference for her birthing experience - the presence of her mother.

Although the first weeks of motherhood following birth are by definition unknown, there were expectations and plans, and these were disrupted when giving birth in the COVID-19 pandemic. Social isolation measures meant that women could not interact with friends or family outside of their immediate household. The impact of this was described by Sophia:

> *"I really miss the social bit. Like I'd really love to have my family round, my brother, my parents, my parents in law… I just really wanted to show her off and say look, 'here's your granddaughter' or, 'here's your niece'." (Sophia)*

In describing the absence of the expected and eagerly anticipated social interactions, Sophia expressing her sadness at not being able to introduce her new child to those standing in different relationships to her baby. This sadness and longing, was also felt by Briana:

> *"it was so heart-breaking because they were on the other side of the glass. And his mum this is her first grandchild and she's propped up against the glass like tears streaming down her eyes, because obviously the first thing you want to do is hold them... it was awful to watch them have to stay outside." (Briana)*

Briana describes the extreme emotions occasioned by the pandemic and the physically distanced introduction of her baby to her family. The thwarted desire of a grandmother to hold her first grandchild was described as visceral and overwhelming.

Alongside the unanticipated loss of opportunities for social interaction, social distancing measures were also described by participants as causing disruption to the availability and accessibility of healthcare support. Samantha spoke about the impact of reduced face-to-face support:

> *"And they were really helpful over the phone but what I really needed was to see somebody. And I kept saying I needed to see someone, and they kept skirting around it and giving me advice over the phone and not seeing me. And I know that if someone had given me the face-to-face advice that I needed that I probably could have avoided having the problems that I had." (Samantha)*

Though it was not clear what exactly what would have been different, it was self-evident to Samantha that the lack of face-to-face to online support was limited and likely to have been the cause of subsequent avoidable problems.

Silver Linings

Disruption can unexpectedly bring positive experiences. The unexpected benefits of lockdown were regularly discussed. Some participants described how they were able to devote more

of their time attending to their baby, and many felt as though this had a positive impact on breastfeeding:

> *"I think breastfeeding has gone so well because every time she cries, unless I'm on a zoom chat, there is literally no reason why, you know, I could strip off if I want to and feed her (laugh). So that's been really good. And I think there's anecdotal evidence that babies are reaching their birthweight quicker during lockdown." (Leanne)*

Here, Leanne attributes her positive breastfeeding experience to the lack of factors that might otherwise have constrained her responsiveness and hints that these are related to the absence of other people and the associated norms around expected patterns of conduct and (un)dress.

Outside the context of breastfeeding, participants described how COVID-19 occasioned reduced social pressure in other areas:

> *"…it (lockdown) gives you a very ready-made excuse to just stay at home. I think a lot of people do feel pressure when they've had a baby to either have lots of visitors or to go out and visit people or do things and so obviously it takes away any of that." (Gabi)*

In contrast to some benefits which stemmed from the absence of visitors, other benefits emerging from the 'disruption' of COVID-19 stemmed from the increased presence of the partner. Amelia describes the unexpected extra time that the father and the baby had together attributing their subsequent close connection as a consequence of the pandemic to this.

> *"I mean for us he (father) got to spend a month with her whereas before he would have only had two weeks… there's nothing like having your husband here to see her and watch them two bond as well. She absolutely adores him and I do think that is because he's spent so long with her. So that's one perk of it." (Amelia)*

Finally, social comparisons allowed some participants to attribute their positive experiences to luck and good fortune:

"We've got a lucky end of this really. Cos we've got, we've got friends who are at the beginning of pregnancy and I think they're missing out on the most."(Briana)

"I think I'm one of the lucky ones and I've got a pretty good and content baby for the most part. Like I say I feel quite lucky to have all this time with him and my husband, so just focusing on the benefits and the positives." (Eleanor)

Both Briana and Eleanor attributed their positive experience to something out of their control. Briana discussed this in the context of not having it as 'bad' as others. Equally, Eleanor's expression that she is 'one of the lucky ones', indicates that she believes that some have it worse than others by chance.

Discussion

The identified themes and subthemes highlighted how the sense of responsibility associated with having a baby was heightened by the pandemic, and the accompanying challenges of heightened uncertainty and reduced social support. The reduction in societal scrutiny and pressure that the pandemic occasioned was recognised as a benefit. Although new motherhood is expected to come with huge lifestyle changes, the nature of this transition was fundamentally amplified by the COVID-19 pandemic. These themes will now be discussed in the context of the wider literature in order to enhance understanding of how first-time mothers in the UK experienced new parenthood during the COVID-19 pandemic.

The Buck Stops with Me

A feeling of overwhelming responsibility characterises the experience of first-time mothers (Coates et al., 2014), which is consonant with traditional societal gender role expectations of the maternal role as that of the 'risk manager'. The mother is often attributed as more responsible than the father for family health and decision making (Ho et al., 2005; Thirlaway & Heggs, 2005), to the extent where managing risk has become a primary means of distinguishing 'good' and 'bad' motherhood (Perrier, 2012). Das (2021) suggests that during the COVID-19 pandemic this is

exemplified in new mothers self-imposing harsher lockdown restrictions than those set out by the government. The additional risks that COVID-19 present to health and wellbeing insert themselves in to the existing but more diffuse uncertainties of new motherhood enabling mothers to make choices to take a strong precautionary stance. The societal assumption that the child's welfare is primarily the responsibility of the mother was keenly experienced and acted upon by new mothers.

Risk communication via national government briefings have been key in managing COVID-19 by providing instructions to the public on how to behave (O'Connor et al., 2020), however it became clear that their reception was often characterised by distrust and confusion. News reports have long disproportionately focused on women as an 'at risk' group that are therefore expected to closely monitor risk information as a means of monitoring their own behaviour (Zinn, 2018). Alongside this, research has shown that risk communication is seen as having reduced credibility when it is not consistent (Gustafson & Rice, 2020**).** The perceived inconsistency of government risk communication is thus particularly challenging for first-time mothers; the formation of risk assessments to ensure protection of the new family unit cannot be made easily against a backdrop of uncertain and changing official information about pandemic risk.

Social media was an information source that amplified anxiety and uncertainty for some new mothers. The possible impacts of this on mental health led WHO to recommend minimising reading news about COVID-19 and to only seek information to take practical steps to protect oneself (WHO, 2020). For others, social media was a source of comfort in allowing them to connect with others undergoing similar experiences and gain confidence that their strategies for taking responsibility chimed with those of others. Peer-led sites are documented to be useful in forging a sense of connectedness and belonging as those providing the information can be related to more easily (Brigden et al., 2018). The uncertainty surrounding official guidance for COVID-19 compounded by the constraints on seeking in person support may help to explain the role that social media had in brokering supportive connections with others in similar situations.

The theme, 'The buck stops with me' provides an insight into how the burden of responsibility that new, first-time mothers experience was heightened by the uncertainties inherent in the COVID-19 pandemic. Gleaning information from social media about the experiences of others, enabled them to enact the societally and self-assigned role as the key decision maker, albeit often accompanied by heightened concern and anxiety.

Disrupted Motherhood

Destabilizing Disruption

Participants described their distress around a disrupted hospital experience, particularly in regard to changed birthing plans, resulting from COVID-19. Research into non-pandemic birthing experiences by Hauck et al. (2007), found that women's expectations of birth included the importance of support, and the importance of choices. Detailed birthing plans and support arrangements in place were common. Whilst the 'reward' of a healthy baby was paramount, choice and control during the birthing process were preeminent. The COVID-induced disruption of these expectations was thus unsurprisingly met with disappointment and even anger. Giving birth is a life event of deep significance, both medical and social, to the extent where a negative birthing experience can impact a woman's sense of self as a mother and may manifest in post-partum anxiety disorders (White et al., 2006).

Outside of the birth experience, the ongoing lack of the physical presence of others required by COVID-19 restrictions was experienced as challenging. This is consistent with research that has found new mothers rely heavily on their parents and extended family for emotional and practical support (Cronin & McCarthy, 2003). The attendance and presence of others after the birth commonly signifies new motherhood and was all but absent during the pandemic. The focus of women's accounts of this experience focused on the absence of strongly desired interactions in the context of acclaiming and sharing the new arrival. Previous research has indicated that new motherhood can be

associated with feelings of loneliness, expressed by feelings of missing out, or friends and family not being as present (Lee et al., 2019), yet the experiences of these new mothers in the context of COVID-19 was rather linked to a sharper focus around missing out on the long established, anticipated and previously taken for granted rituals of friends and relatives coming to celebrate and welcome the arrival of the baby. The removal of this significant marker of the transition to motherhood was a key regret.

The lack of face-to-face support from health professionals was also challenging. Compounding the absence of immediate support from family and friends, this further undermined new mothers' desired point of reference used to decide whether their feelings and experiences were normal (Coates et al., 2014). The importance of receiving support as a new mother is well documented in the literature: lower postnatal support contributes to depressive symptomology (Razurel et al., 2013). Where women's expectations of both informal and formal support that routinely accompany the birth of a child have been breached this has been associated with regret and anxiety. It remains to be seen whether these heightened experiences associated with the COVID-19 pandemic translate into longer term vulnerability to postnatal mental health problems.

Silver Linings

Our participants described a positive aspect of being unable to socialise, insofar as it freed them from certain social pressures. The presence of social pressure as a new mother has been well documented in the literature and is closely linked with a need to achieve societal expectations of being the 'perfect mother' (Jackson & Mannix, 2004). The recognition and appreciation of this as a benefit of COVID-19 may have been heightened by the intensified pressures they felt in other aspects of their early experiences of motherhood and may also be a reason as to why women in the early stages of motherhood did not identify experiences of loneliness as might have been expected. One of the ways in which decreased social pressure was exemplified as a silver lining, was its impact on breastfeeding. Several women discussed a benefit of the pandemic being greater breastfeeding

success, which they attributed to an increased amount of time spent with their baby, in conjunction with fewer visitors. Research exploring women's experiences of breastfeeding during the COVID-19 pandemic has identified a similar trend, whereby women attributed their ability to establish breastfeeding successfully to an increase in promoting factors such as fewer interruptions, more time and support from the partner. Difficulties in breastfeeding were not a clear focus of discussion though other research has identified the challenges that new mothers, notably those from less privileged backgrounds, experience (Brown & Shenker, 2020).

Participants also described the increased presence of the partner as being an unexpected positive to arise from the pandemic. Limited paternity leave in the UK is a one factor that may contribute to new mothers feeling exclusively responsible for caring for the baby (Lee et al., 2019). These findings suggest that COVID-19 was felt to be beneficial for women in allowing both parents to have increased involvement in the first months of their baby's life.

The unexpected 'perks' of the pandemic may reflect a common coping mechanism in response to stressful events as outlined by Folkman (2008), which is that of 'benefit finding'. Benefit finding occurs whereby an individual seeks out the positives to arise from a stressful event, as a means of finding appreciation and value. The references from our participants to feeling 'lucky', might reflect this coping mechanism in that they sought solace in the idea that their experiences were in some ways more positive than others in similar situations. Discussions around 'silver linings', may therefore reflect both changed perceptions as a means of coping during a stressful time as well as experiences of the pandemic.

The theme 'Disrupted Motherhood' explores how COVID-19 has interfered with the expected experience of new, first-time mothers. The impact of this disruption is described as negative; through changed birthing plans, and a lack of social and healthcare support. However, this disruption came with silver linings including a decrease in social pressure, more positive experiences of breastfeeding, and the increased presence of the partner.

Limitations

This study only interviewed women with partners. Approximately 14.9% of families in the UK are lone parent families (ONS, 2019). Single first-time mothers who have given birth during the pandemic are likely to be experiencing unique challenges that warrant particular attention from research, policy and practice.

The women in this research were recruited via a Facebook page for UK women who had given birth during the pandemic. The fact that these women were members of a dedicated online group may account for factors such as their preference for social media and distrust of government guidance. Furthermore, the societal expectations experienced by these women are likely to be specific to the UK.

This research did not collect data on the ethnicity of its participants. This is a significant absence as research has shown that the COVID-19 pandemic has placed disproportionate burden among ethnic minorities (Meer et al., 2020). Research on new mothers during the COVID-19 pandemic found that ethnic minority participants experienced exhaustion and isolation in dealing with perinatal challenges amidst concerns that the virus would disproportionally impact them (Das, 2021). It is therefore likely that new, first time mothers from ethnic minorities experience impacts from the pandemic which are not reflected in the current research and should be addressed in future work.

Implications

Although the aims of this study were exploratory, the experiences identified by the women in this research have several implications for policy and practice for the remainder of the current pandemic and any future pandemics. These pertain to three key areas: risk communication, birthing plans, and postnatal support.

Risk communication: The requirement for accredited information from trustworthy sources regarding the risks of the pandemic and the behaviours that are required to manage those risks is

increasingly commonplace (Cherubini & Graves, 2016) and fact checking and myth busting initiatives are evident in mainstream news and social media sites. Strategies that have already been implemented during the pandemic to prevent the spread of fake news include Twitter who required people to remove tweets denying global or local health authority recommendations (Vijaya & Derella, 2020). The impact of misinformation correction has been demonstrated by Wang et al., 2020, who found that exposure to corrections of misinformation in China was positively associated with protective behaviours such as hand washing.

Risk communication is more effective when it is specific, relevant and tailored to populations and their mental models (Glik, 2007). Thus, in the light of the increased burden of responsibility and anxiety faced by first-time mothers and the circumstances giving birth entails, there is clear value in providing and promoting clear population-relevant information by trusted local sources as well as accredited national sources. Areas of anxiety and uncertainly that surrounding disrupted birth experiences and the loss of anticipated social support in the days that follow will be key foci of supportive communications. The provision of population specific information will require the identification of trusted media - including social media - to convey this information.

Birthing plans: Given the focus on women being active in the choices they make about how who with, and where they give birth and the evident impact of these plans being disrupted, it seems clear that all efforts should be made for women to achieve their birthing preferences during future health crises. Where this is not possible clear communication is vital. Confusion and inconsistencies around birthing partners and preferences were partly down to the fact that each trust within the NHS was allowed to issue their own policy (Aydin et al., 2021). This in part suggests the value of more consistent practice across trusts. It also suggests the value of anti-natal classes building in a greater appreciation of the requirements for flexibility in birth plans and greater preparedness for adjustments that may be required not simply on individual clinical grounds but in response to health service constraints.

Postnatal support: The pandemic has seen the exponential acceleration of use of the digital in healthcare and it is likely that these practices have provided important learning which will be more routinely incorporated going forward. There has been a significant increase in the use of virtual consultations during COVID-19 including maternity services (Jardine et al., 2021). Given that increased uncertainty and anxiety was often attributed to a lack of supportive presence of both family, peers and healthcare professionals, ensuring the established option of virtual support is more routinely available would seem to be an important building block in ensuring continuity of anti- and post-natal care going forward. Relatedly, Myers and Emmot (2021) found that mothers during the COVID-19 pandemic who engaged in remote communication with a higher proportion of their social network experienced fewer depressive symptoms. However, they also found that mothers described virtual support as lacking the ability to respond to unanticipated problems. Such provision could be planned for in the form of virtual 'drop-in clinics', to ensure that women have opportunities to ask their questions and, if appropriate and desired, to connect with other women in similar positions thus enabling both informational and social support.

Conclusion

The aim of this study was to explore how first-time mothers have experienced new parenthood during the COVID-19 pandemic by conducting interviews with ten new, first-time mothers in the UK. Experiences of having their first child at this time amplified women's strong sense of being responsible for the wellbeing of the child in the context of disrupted expectations relating to formal and informal systems of support as well as unexpected silver linings. In a world expected to see an increase in the frequency of pandemics, it is crucial that society evolves to attend to the needs of its population, particularly its most vulnerable. Understanding the ways in which COVID-19 both attenuated and intensified experiences of new motherhood is a first step in informing considerations of how best to support women in this, and similar situations.

References

Almqvist-Tangen, G., Bergman, S., Dahlgren, J., Roswall, J., & Alm, B. (2012). Factors associated with discontinuation of breastfeeding before 1 month of age. *Acta Paediatrica, 101*(1), 55-60. https://doi.org/10.1111/j.1651-2227.2011.02405.x

Aydin, E., Glasgow, K. A., Weiss, S. M., Khan, Z., Austin, T., Johnson, M. H., ... & Lloyd-Fox, S. (2021). Giving birth in a pandemic: Women's birth experiences in England during COVID-19. *medRxiv*. https://doi.org/10.1101/2021.07.05.21260022

Bampton, R., & Cowton, C. J. (2002, May). The e-interview. In Forum Qualitative Sozialforschung/Forum: Qualitative Social Research (Vol. 3, No. 2).

Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: address mental health care to empower society. *The Lancet, 395*(10224), 37-38. https://doi.org/10.1016/S0140-6736(20)30309-3

Baraniuk, C. (2021). Covid-19: How the UK vaccine rollout delivered success, so far. *BMJ*, 372. https://doi.org/10.1136/bmj.n421

Barlow, C., & Cairns, K. (1997). Mothering as a psychological experience. *Canadian Journal of Counseling, 31*(3), 232-237.

Beck, C. T. (2008). State of the science on postpartum depression: What nurse researchers have contributed - part 2. *MCN: The American Journal of Maternal/Child Nursing, 33*(3), 151-156.

Birth Trauma Association. (2020, May 20). Written evidence submitted by the Birth Trauma Association (GRC0012). *The Government's Response to Coronavirus.* https://committees.parliament.uk/writtenevidence/5347/html/

Braun, V., & Clarke, V. (2013). *Successful qualitative research, a practical guide for beginners.* Sage Publications Ltd.

Brown, A., & Shenker, N. (2021). Experiences of breastfeeding during COVID-19: Lessons for future practical and emotional support. *Maternal & child nutrition, 17*(1), e13088. https://doi.org/10.1111/mcn.13088

Burns, E., Schmied, V., Sheehan, A., & Fenwick, J. (2010). A meta-ethnographic synthesis of women's experience of breastfeeding. *Maternal & Child Nutrition, 6*(3), 201-219. https://doi.org/10.1111/j.1740-8709.2009.00209.x

Cameron, E., Joyce, K., Delaquis, C., Reynolds, K., Protudjer, J., & Roos, L. E. (2020). Maternal psychological distress & mental health services use during the COVID-19 pandemic. *Psyarxiv.* https://psyarxiv.com/a53zb/download?format=pdf

CDC COVID-19 Response Team (2020). Coronavirus disease 2019 in children - United States, February 12-April 2, 2020. MMWR. *Morbidity and Mortality Weekly Report, 69*(14), 422–426. https://doi.org/10.15585/mmwr.mm6914e4

Cherubini, F., & Graves, L. (2016). The rise of fact-checking sites in Europe. *Reuters Institute for the Study of Journalism, University of Oxford.*

Coates, R., Ayers, S., & de Visser, R. (2014). Women's experiences of postnatal distress: a qualitative study. *BMC Pregnancy and Childbirth, 14*(1), 359. https://doi.org/10.1186/1471-2393-14-359

Collins, N. L., Dunkel-Schetter, C., Lobel, M., & Scrimshaw, S. C. (1993). Social support in pregnancy: Psychosocial correlates of birth outcomes and postpartum depression. *Journal of Personality and Social Psychology, 65*(6), 1243-1258. http://dx.doi.org/10.1037/0022-3514.65.6.1243

Conservatives. (2020, March 23). *Stay at home, protect the NHS, save lives*. Conservatives. https://www.conservatives.com/news/stay-at-home-protect-the-nhs-save-lives

Cronin, C., & McCarthy, G. (2003). First-time mothers-identifying their needs, perceptions and experiences. *Journal of Clinical Nursing, 12*(2), 260-267.

Das, R. (2021). Women's experiences of maternity and perinatal mental health services during the first Covid-19 lockdown. *Journal of Health Visiting, 9*(7), 297-303. https://doi.org/10.12968/johv.2021.9.7.297

Aydin, E., Glasgow, K. A., Weiss, S. M., Khan, Z., Austin, T., Johnson, M. H., ... & Lloyd-Fox, S. (2021). Giving birth in a Pandemic: Women's Birth Experiences in England during COVID-19. *medRxiv*. https://doi.org/10.1101/2021.07.05.21260022

Folkman, S. (2008). The case for positive emotions in the stress process. *Anxiety, Stress, and Coping*, *21*(1), 3-14. https://doi.org/10.1080/10615800701740457

Freiling, I., Krause, N. M., Scheufele, D. A., & Brossard, D. (2021). Believing and sharing misinformation, fact-checks, and accurate information on social media: *The role of anxiety during COVID-19. New Media & Society*, 14614448211011451. https://doi.org/10.1177/14614448211011451

Gadde, V., Derella, M. (2020, March 16). An update on our continuity strategy during Covid-19. [Twitter blog]. Retrieved from https://blog.twitter.com/en_us/topics/company/2020/An-update-on-our-continuity-strategy-during-COVID-19.html

Galea, S., Merchant, R. M., Lurie. N. (2020). The mental health consequences of COVID-19 and physical distancing: the need for prevention and early intervention. *JAMA Internal Medicine, 180*(6), 817–818.

Glik, D. C. (2007). Risk communication for public health emergencies. *Annual Review of Public Health, 28*, 33-54. https://doi.org/10.1146/annurev.publhealth.28.021406.144123

Gustafson, A., & Rice, R. E. (2020). A review of the effects of uncertainty in public science communication. *Public Understanding of Science, 29*(6), 614–633. https://doi.org/10.1177/0963662520942122

Haga, S. M., Lynne, A., Slinning, K., & Kraft, P. (2012). A qualitative study of depressive symptoms and well-being among first-time mothers. *Scandinavian Journal of Caring Sciences, 26*(3), 458-466. https://doi.org/10.1111/j.1471-6712.2011.00950.x

Hall, C. M., & Bierman, K. L. (2015). Technology-assisted interventions for parents of young children: Emerging practices, current research, and future directions. *Early Childhood Research Quarterly, 33*, 21-32. https://doi.org/10.1016/j.ecresq.2015.05.003

Hauck, Y., Fenwick, J., Downie, J., & Butt, J. (2007). The influence of childbirth expectations on Western Australian women's perceptions of their birth experience. *Midwifery, 23(*3), 235-247. https://doi.org/10.1016/j.midw.2006.02.002

Ho, R., Davidson, G., & Ghea, V. (2005). Motives for the adoption of protective health behaviours for men and women: An evaluation of the psychosocial-appraisal health Model. *Journal of Health Psychology, 10(*3), 373–395. https://doi.org/10.1177/1359105305051424

Hong, X., Currier, G. W., Zhao, X., Jiang, Y., Zhou, W., & Wei, J. (2009). Posttraumatic stress disorder in convalescent severe acute respiratory syndrome patients: a 4-year follow-up study. *General Hospital Psychiatry, 31*(6), 546-554. https://doi.org/10.1016/j.genhosppsych.2009.06.008

Human Rights Watch. (2020, March 19). *Human Rights Dimensions of COVID-19 Response*. HRW. Retrieved from: https://www.hrw.org/news/2020/03/19/human-rights-dimensions-covid-19-response

Jackson, D., & Mannix, J. (2004). Giving voice to the burden of blame: A feminist study of mothers' experiences of mother blaming. *International Journal of Nursing Practice, 10*(4), 150-158. https://doi.org/10.1111/j.1440-172X.2004.00474.x

Jardine, J., Relph, S., Magee, L. A., von Dadelszen, P., Morris, E., Ross-Davie, M., ... & Khalil, A. (2021). Maternity services in the UK during the coronavirus disease 2019 pandemic: a national survey of modifications to standard care. *BJOG: An International Journal of Obstetrics & Gynaecology, 128*(5), 880-889. https://doi.org/10.1111/1471-0528.16547

Johnson, S. A. (2014). "Maternal devices", social media and the self-management of pregnancy, mothering and child health. *Societies, 4*(2), 330-350. https://doi.org/10.3390/soc4020330

Lea, R. (2021). Another lockdown and more Government support. *Arbuthnot Banking Group,* 11. Chicago.

Lee, K., Vasileiou, K., & Barnett, J. (2019). 'Lonely within the mother': An exploratory study of first-time mothers' experiences of loneliness. *Journal of Health Psychology, 24*(10), 1334–1344. https://doi.org/10.1177/1359105317723451

Marshall, J. L., Godfrey, M., & Renfrew, M. J. (2007). Being a 'good mother': managing breastfeeding and merging identities. *Social Science & Medicine, 65(10),* 2147-2159. https://doi.org/10.1016/j.socscimed.2007.06.015

Matias, T., Dominski, F. H., & Marks, D. F. (2020). Human needs in COVID-19 isolation. *Journal of Health Psychology*, *25*(7), 871–882. https://doi.org/10.1177/1359105320925149

McCullough, D. (2003). *Truman.* Simon and Schuster.

Meer, N., Qureshi, K., Kasstan, B., & Hill, S. (30 April 2020). *The social determinants of Covid 19 and BAME disproportionality.* Discover Society. https://archive.discoversociety.org/2020/04/30/the-social-determinants-of-covid-19-and-bame-disproportionality/

Mlambo-Ngcuka, P. (2020, April 6). Violence against women and girls: the shadow pandemic. *UN Women.* https://www.unwomen.org/en/news/stories/2020/4/statement-ed-phumzile-violence-against-women-during-pandemic

Myers, S., & Emmott, E. H. (2021). Communication across maternal social networks during England's first national lockdown and its association with postnatal depressive symptoms. *Frontiers in Psychology, 12*, 1583. https://doi.org/10.3389/fpsyg.2021.648002

NSPCC. (2020, May 20). Written evidence submitted by the NSPCC (GRC0012). *The Government's Response to Coronavirus.* https://committees.parliament.uk/writtenevidence/5348/html/

O'Connor, D. B., Aggleton, J. P., Chakrabarti, B., Cooper, C. L., Creswell, C., Dunsmuir, S., Fiske, S. T., Gathercole, S., Gough, B., Ireland, J. L., Jones, M. V., Jowett, A., Kagan, C., Karanika-Murray, M., Kaye, L. K., Jumari, V., Lewandowsky, S., Lightman, S., Malpass, D., …Armitage, C. (2020). Research priorities for the COVID-19 pandemic and beyond: A call to action for psychological science. *British Journal of Psychology, e12468.* https://doi.org/10.1111/bjop.12468

Office for National Statistics. (2019, November 15). *Families and households in the UK: 2019.* ONS. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2019

Office for National Statistics. (2020, July 22). *Parenting in lockdown: Coronavirus and the effects on work-life balance.* ONS. https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/parentinginlockdowncoronavirusandtheeffectsonworklifebalance/2020-07-22

Perrier, M. (2012). A discursive analysis of offline and online responses to the oldest British mother-to-be. *Mediating moms: Mothers in popular culture, 204.*

Public Health, England. (2020, March 26). *The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020.* Legislation.gov.uk. https://www.legislation.gov.uk/uksi/2020/350/introduction/made

Quick, J. D., & Fryer, B. (2018). *The end of epidemics: The looming threat to humanity and how to stop it.* St. Martin's Press.

Razurel, C., Kaiser, B., Sellenet, C., & Epiney, M. (2013). Relation between perceived stress, social support, and coping strategies and maternal well-being: a review of the literature. *Women & Health, 53*(1), 74-99. https://doi.org/10.1080/03630242.2012.732681

Royal College of Obstetricians & Gynaecologists. (2017, February). *Maternal mental health – women's voices*. RCOG. https://www.rcog.org.uk/globalassets/documents/patients/information/maternalmental-healthwomens-voices.pdf

Sandelowski, M. (1995). Sample size in qualitative research. *Research in Nursing & Health, 18*(2), 179-183. https://doi.org/10.1002/nur.4770180211

Sandford, A. (2020, April 3). *Coronavirus: Half of humanity now on lockdown as 90 countries call for confinement.* Euronews. https://www.euronews.com/2020/04/02/coronavirus-in-europe-spain-s-death-toll-hits-10-000-after-record-950-new-deaths-in-24-hou

Scott, D. (2007). Resolving the quantitative–qualitative dilemma: a critical realist approach. *International Journal of Research & Method in Education, 30*(1), 3-17. https://doi.org/10.1080/17437270701207694

Smith, H. (1991). Caring for everyone? The implications for women of the changes in community care services. *Feminism & Psychology, 1*(2), 279-292.

Song, F. W., West, J. E., Lundy, L., & Smith Dahmen, N. (2012). Women, pregnancy, and health information online: the making of informed patients and ideal mothers. *Gender & Society, 26*(5), 773-798.

Taylor, S. (2019). *The psychology of pandemics: Preparing for the next global outbreak of infectious disease*. Cambridge Scholars Publishing.

The Week. (2020, November 12). The UK coronavirus timeline. *The Week.* https://www.theweek.co.uk/107044/UK-coronavirus-timeline

Thirlaway, K. J., & Heggs, D. A. (2005). Interpreting risk messages: Women's responses to a health story. *Health, Risk & Society, 7*(2), 107-121. https://doi.org/10.1080/13698570500108677

Thomas, Z. (2020, February 13). WHO says fake coronavirus claims causing 'infodemic'. BBC. https://www.bbc.co.uk/news/technology-51497800

Tredget, E. (2020, June 4). Written evidence submitted by Emily Tredget, co-founder, Happity (follow-up) (GRC0021). *The Government's Response to Coronavirus.* https://committees.parliament.uk/writtenevidence/6175/html/

Usha, S. (2020, March 30). *Images of baby with birth defect falsely linked to coronavirus.* Boomlive. https://www.boomlive.in/fake-news/images-of-baby-with-birth-defect-falsely-linked-to-coronavirus-7449

Wang, X., Lin, L., Xuan, Z., Xu, J., Wan, Y., & Zhou, X. (2020). Risk communication on behavioral responses during COVID-19 among general population in China: a rapid national study. *Journal of Infection, 81*(6), 911-922. doi: 10.1016/j.jinf.2020.10.031

White, T., Matthey, S., Boyd, K., & Barnett, B. (2006). Postnatal depression and post-traumatic stress after childbirth: Prevalence, course and co-occurrence. *Journal of Reproductive and Infant Psychology, 24*(02), 107-120. https://doi.org/10.1080/02646830600643874

Winzelberg, A. (1997). The analysis of an electronic support group for individuals with eating disorders. *Computers in Human Behavior, 13*(3), 393-407.

Wood, W., & Eagly, A. H. (2000). A call to recognize the breadth of evolutionary perspectives: Sociocultural theories and evolutionary psychology. *Psychological Inquiry, 11*(1), 52-55.

World Health Organization. (2011, January 15). *Exclusive breastfeeding for six months best for babies everywhere.* WHO. https://www.who.int/mediacentre/news/statements/2011/breastfeeding_20110115/en/

World Health Organization. (n.d.). *Timeline of WHO's response to COVID-19.* WHO. Retrieved July 14 2020, from: https://www.who.int/news-room/detail/29-06-2020-covidtimeline

World Health Organization (n. d.). *1st WHO infodemiology conference*. WHO. Retrieved August 6 2020, from: https://www.who.int/news-room/events/detail/2020/06/30/default-calendar/1st-who-infodemiology-conference

Zinn, J. O. (2018). The proliferation of 'at risk' in The Times: A corpus approach to historical social change, 1785-2009. *Historical Social Research, 43*(164), 313-364.

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