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Pregnancy loss following miscarriage and termination of pregnancy for medical reasons during the COVID-19 pandemic: a thematic analysis of women's experiences of healthcare on the island of Ireland

Suzanne Heaney¹, Martina Galeotti^{1*} and Áine Aventin¹

Abstract

Background Losing a baby during pregnancy can be a devastating experience for expectant parents. Many report dedicated, compassionate healthcare provision as a facilitator of positive mental health outcomes, however, healthcare services have been severely impacted during the COVID-19 pandemic.

Aim To explore women's experiences of healthcare service provision for miscarriage and termination of pregnancy for medical reasons (TFMR) on the island of Ireland during the COVID-19 pandemic.

Methods Findings combine data from elements of two separate studies. Study 1 used a mixed methods approach with women who experienced miscarriage and attended a hospital in Northern Ireland. Study 2 was qualitative and examined experiences of TFMR in Northern Ireland and Ireland. Data analysed for this paper includes open-ended responses from 145 women to one survey question from Study 1, and semi-structured interview data with 12 women from Study 2. Data were analysed separately using Thematic Analysis and combined for presentation in this paper.

Results Combined analysis of results indicated three themes, (1) Lonely and anxiety-provoking experiences; (2) Waiting for inadequate healthcare; and (3) The comfort of compassionate healthcare professionals.

Conclusions Women's experiences of healthcare provision were negatively impacted by COVID-19, with the exclusion of their partner in hospital, and delayed services highlighted as particularly distressing. Limited in-person interactions with health professionals appeared to compound difficulties. The lived experience of service users will be helpful in developing policies, guidelines, and training that balance both the need to minimise the risk of infection spread, with the emotional, psychological, and physical needs and wishes of parents. Further research is needed to explore the long-term impact of pregnancy loss during a pandemic on both parents and health professionals delivering care.

*Correspondence:
Martina Galeotti
m.galeotti@qub.ac.uk

Full list of author information is available at the end of the article



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Keywords Pregnancy loss, Miscarriage, Termination of pregnancy, Abortion, Fetal anomaly, COVID-19, Experiences, Qualitative

Introduction

The loss of a baby during pregnancy is an emotional and distressing event for expectant parents [1]. Miscarriage, the most common form of pregnancy loss, is classified in many countries as the spontaneous loss of a pregnancy before the 24th week of gestation [2]. It has been estimated that 10–20% of clinical pregnancies end in miscarriage annually in the United Kingdom (UK) [3] with similar figures reported globally [4]. The experience of miscarriage is reported as a traumatic event for many parents and research has indicated that, for many women, it can result in the development of long- and short-term psychological difficulties such as depression, anxiety, and post-traumatic stress disorder [3, 5].

Another type of loss during pregnancy results from termination of pregnancy for medical reasons (TFMR), also referred to as termination of pregnancy for fetal anomaly (TOPFA). TFMR generally follows diagnosis, during pregnancy, of congenital anomalies involving severe structural and/or functional abnormalities. Legal differences across the globe regarding the definition and availability of TFMR have resulted in unreliable statistics and limited data for comparative purposes internationally [6, 7]. Nonetheless, European figures suggest a TFMR prevalence rate of 4.6 per 1,000 births [8]. In the UK, over 70% of congenital anomalies are detected during pregnancy and, of those, around 37% will result in TFMR [9]. An increasing body of literature acknowledges the complex grief experience of parents experiencing TFMR [10–12], many of whom report disenfranchised grief, limited support, and feelings of stigmatisation and shame due to negative societal attitudes and legal and clinical constraints in respect of termination of pregnancy [1, 13, 14].

In March 2020, the World Health Organisation declared a worldwide pandemic caused by the SARS-COV-2 Virus (COVID-19) [15]. This has severely affected healthcare provision, resulting in unprecedented pressure on both healthcare systems and healthcare professionals [16]. In many countries, many important features of maternity care that had previously supported women's emotional and psychological health were reduced or removed to ensure continued provision of acute clinical care [17–19]. In the UK, most hospital sites reported a reduction in scheduled antenatal appointments (by 70%), postnatal appointments (by 56%) [20], and social support and community healthcare services [21, 22]. Burgeoning research relating to COVID-19 and maternity care has highlighted the impact of the disease on maternal and neonatal morbidity and mortality [23–25] and its psychological impact on health professionals [26–28]. However,

less is known about its impact on parents experiencing pregnancy loss [20, 29].

This paper adds to the literature by reporting parents' experiences of healthcare service provision on the island of Ireland. The paper combines findings from two separate studies relating to women who have experienced miscarriage (up to 24 weeks) and TFMR. While we recognise that there are differences between these experiences of loss, our findings from the broader studies indicated similar experiences in negotiating the healthcare system during the COVID-19 pandemic. There is a substantial body of research which confirms that the loss of a baby during pregnancy can be associated with long-term grief reactions regardless of gestational age or whether the pregnancy was terminated spontaneously or intentionally [30, 31]. It is argued that the degree of parental investment in and attachment to the baby, rather than form of loss is the most relevant predictor of grief and experiences of loss [32–35]. With COVID-19 and similar viruses predicted to be a persistent part of the future [36–38], understanding parents' experiences of pregnancy loss, grief, and recovery will help to design and develop healthcare systems capable of providing optimal care.

Aim

The aim of this paper is to explore women's experiences of healthcare service provision for miscarriage and termination of pregnancy for medical reasons (TFMR) during the COVID-19 pandemic.

Methods

This paper combines datasets from two separate studies conducted during the COVID-19 pandemic 2020/21. Study 1 was conducted in Northern Ireland (NI) and Study 2 included participants from NI and the Republic of Ireland (IE). Methods and findings are reported using the Consolidated Criteria for Reporting Qualitative Research (COREQ) Guidelines [39]. Both studies adopt an approach aligned with the interpretivist-constructivist paradigm implying an ontological and epistemological position in which truth is viewed as being subjective and culturally based, and an individual's experiences help them to interpret the world. Research based on this paradigm focuses on exploration of the way people interpret and make sense of their experiences in the world in which they live [40].

Study design

Study 1 was a mixed methods needs assessment focusing on how to better support the emotional needs of women who experience miscarriage in hospital settings in NI. It involved an online survey of women who had experienced miscarriage and attended hospital settings in NI within the previous 5 years. The survey was developed by the research team in consultation with an Advisory Group and contained The Reversed Impact of Miscarriage Scale [41] and questions adapted from a study on maternity care previously conducted in Ireland [42]. Study 2 was a qualitative study carried out in NI and IE to explore the healthcare needs and experiences of female and male parents who have had a TFMR. For the purposes of this paper, only data from the studies related to parent's experiences of care during COVID-19 are reported.

Table 1 Participant Characteristics Study 1

Demographic Information	No. of Participants	Percentage
Age		
16–25	16	11%
26–30	36	25%
31–39	83	57%
40–49	10	7%
Total	145	100%
Number of miscarriages		
1	91	63%
2	31	21%
3	12	8%
4+	11	8%
Total	145	100%
Number of weeks when miscarriage occurred		
Between 4 and 6 weeks	17	12%
Between 7 and 12 weeks	108	75%
Between 13 and 16 weeks	7	5%
Between 17 and 20 weeks	7	5%
Between 21 and 24 weeks	5	3%
Don't know	1	1%
Total	145	100%
Living arrangements		
Alone	4	3%
With partner and other children	83	57%
With partner	58	40%
Total	145	100%
Education		
Higher Degree	16	11%
BSc Degree	36	25%
Higher/A-levels	83	57%
Standard grade/GCSE	10	7%
Total	145	100%

Settings

This study took place on the island of Ireland, which is the third largest island in Europe. Ireland is comprised of two jurisdictions, IE, which is part of the European Union, and NI, which is a part of the UK. IE constitutes approximately five-sixths of the island, while NI covers the remainder. The approximate population of IE is 5 million with 1.9 million in NI [43]. Although Northern Ireland and Ireland are independent states located on the same island, they are culturally and legally similar, with comparable maternal and child health service provision. Further, private health insurance and cross-border working on the island means that some women travel across the border to access health care.

TFMR became legal in IE following a referendum in May 2018 and abortion services commenced in January 2019 [39]. In NI, abortion was decriminalised in October 2019 following the Northern Ireland (Executive Formation etc.) Act 2019 [44, 45]. At the time of writing, abortion services, as outlined in the NI abortion regulations, have not yet been commissioned by the Department of Health Northern Ireland. However, a limited service for early medical abortion to those under 10 weeks gestation is provided in some areas [41, 45].

Participants

The study combines data from a total of 157 participants, 145 from Study 1 and 12 from Study 2. A purposive sampling strategy was used for both studies, and parents were recruited through special interest groups, organisations online, and social media platforms. For Study 2, a short animation recruitment video (<https://www.youtube.com/watch?v=dVPt4gLz9iE>) was co-designed with the study's advisory group. All participants were self-selecting and written informed consent was obtained prior to data collection.

Most of the participants included in Study 1 (n=145), were aged between 31 and 39 years old (57%), only had one miscarriage (63%), and lived with their partner and other children (57%). More detailed information can be found in Table 1.

Study 2 included the experiences of 12 women. Participants were aged 18 years and over living on the island of Ireland and had had their TFMR in 2020 or 2021. The pregnancy gestation when parents had a TFMR ranged from 13 weeks to 27 weeks, with the majority (n=7) taking place between 20 and 24 weeks gestation. This reflects the fact that most parents find out about a congenital anomaly at the routine fetal anomaly screening ultrasound scan, carried out in mid-pregnancy (18–22 weeks gestation) [42, 43, 46–48]. More information can be found in Table 2.

Table 2 Participant Characteristics Study 2

Characteristic	No. of Participants
Parents	
Women	12
Jurisdiction of Experience	
Republic of Ireland	7
Northern Ireland	5
Year of TFMR	
2020	7
2021	5
Gestation at TFMR	
<13 weeks	0
13–18 weeks	3
18–20 weeks	0
20–22 weeks	2
22–24 weeks	5
24–28 weeks	2
>28 weeks	0
Total	12

Data collection

For Study 1, Qualtrics software (Qualtrics, 2022) was used to design and administer a survey to explore women's perceived emotional support needs in hospital settings when they attended the facility due to miscarriage. A link to the survey was distributed by MG using social media platforms such as Facebook and Twitter between February and April 2021. The survey, used as part of a larger doctoral study contained an open-ended question for those women who had their miscarriage during the COVID-19 pandemic. They were asked to describe how COVID-19 had impacted on their experience of miscarriage in hospital settings.

For Study 2, two methods of data collection were offered to all participants, semi-structured interview and written narrative account. The interview schedule consisted of open-ended questions about healthcare experiences, with specific attention to engagement with healthcare professionals and care processes. Narrative account was used as a means of complementing interview data and to enable participants to share their stories in more detail [49]. It was also offered to any parent who declined or was unable to take part in an interview. Participants choosing to submit a narrative account were asked to provide a written account of any length, which detailed their experiences. Data collection took place between November 2020 and August 2021. Eleven interviews were carried out by SH on a video platform (Microsoft Teams) and one was face-to-face, conducted in line with Government and University COVID-19 Guidelines. All interviews were recorded using an audio recording device and lasted between 48 min and 3.47 h (average time – 110 min).

Data analysis

Study 1

Anonymised open-ended responses from the survey were downloaded from Qualtrics into NVivo 12 for analysis. Open ended questions were thematically analysed using the Braun and Clarke framework (2006), where initial codes were identified and subsequently organised in themes [50–53]. To ensure confidentiality, participants were allocated a code. Women were assigned a unique identifier code, for example 'P01-miscarriage' to represent Participant 1, Study 1.

Study 2

Audio recordings of interviews were transcribed verbatim and imported to NVivo 12. To preserve confidentiality, participants were allocated a code. Women were assigned a unique identifier code, for example, 'P01-TFMR' to represent Participant 1, Study 2. Thematic analysis was conducted on the open-ended questions following the Braun and Clarke framework. Initial codes were identified and subsequently organised in themes [50]. To help ensure trustworthiness of the data, participants were provided with a summary of their interview for member checking [54]. Of those who responded, all were satisfied that the summary was accurate. While member checking is used extensively in qualitative research, the myriad of formats or approaches it can entail, leaves it open to criticism with few researchers reporting in detail the process they used, and some argue it can often be a tokenistic gesture [55–57]. In this study a summary in the form of bullet points was provided to parents. This abbreviated approach was agreed with the study advisory group to demonstrate that the researcher had understood participants correctly while not overburdening them.

Data were analysed separately for each study by MG (Study 1) and SH (Study 2). Interview transcripts, text-based survey responses, and written narrative accounts were read several times to immerse the researchers in the data, and open inductive coding was carried out. Following initial thematic analysis, the co-authors met to critically discuss coding, compare findings, discuss theme labels and definitions, and agree representative participant quotes to illustrate themes. For Study 2 when data saturation was reached transcripts were compared to ensure that the most representative quotations were selected and presented in the results Sect. [58].

Data collection materials were developed by the PhD researchers [SH, MG] in close consultation with their primary supervisor [ÁA]. SH and MG conducted the analysis, with coding and final analysis checked by ÁA. All authors are trained to MSc level in qualitative and quantitative research methods. ÁA also has a PhD and

almost 20 years' experience in the conduct of public health research.

Findings

The majority of participants in both studies perceived COVID-19 as having a negative impact on their healthcare experiences. The analysis resulted in three main themes: (1) lonely and anxiety provoking experiences; (2) waiting for inadequate healthcare; and (3) the comfort of compassionate healthcare professionals.

Theme 1: lonely and anxiety-provoking experiences

There was unanimity among women in both studies that losing their baby was a challenging and emotional experience. COVID-19 appeared to compound what was already a painful experience with heightened feelings of anxiety and loneliness.

"COVID-19 has made it a very lonely experience. Scans to confirm baby had passed was alone, appointments, hospital stay all alone. Was awful and certainly affected me worse than any of my other losses" (P15-miscarriage).

"The hardest thing, due to COVID, was that I had to be on my own for all of this" (P16-TFMR).

Absence of partner presence at appointments and in hospital settings was mentioned by most participants. When partners were able to attend appointments, scans, investigations, or meetings despite COVID-19 restrictions, both parents expressed gratitude and valued its importance:

"All this is in COVID and (partner) was allowed to come to all of those appointments there was no question about it. You know they were like 'absolutely'; it was never a 'oh I'll need to check that,' or 'can you phone on the day' it was like 'no, you need your husband,' it was not even a question, which was massive" (P11-TFMR).

When partners were excluded from any part of the process, it resulted in distress and frustration.

"We should have been there as a couple" (P20, TFMR).

"Having to attend hospital alone while haemorrhaging was awful, I felt so unwell and if my partner could have accompanied me it would have been a lot less frightening" (P84, miscarriage).

"The pandemic made things 100 times worse as I had to attend many scans and be told I was having a miscarriage without the support of my partner" (P66, miscarriage).

"Even when they were discussing my options, I had to make all the decisions on my own. Makes the whole

experience harder to go through" (P80, miscarriage).

Similarly, some women reported that it was upsetting to have to deliver the news to their partners.

"Whilst I tried to take everything in that I was told, it was very difficult, and it was even more difficult to try and relay the info back to my partner" (P115, miscarriage).

"The news was bad enough but the thought of arriving home and having to tell the news again to my partner caused untold anxiety. How do you say the words? How do I tell him our baby may die?" (P20, TFMR).

The possible implications of contracting the virus and mandatory COVID-19 tests were also anxiety-provoking, causing some to worry about the impact a positive result would have on their access to care, care options, and processes:

"I drove to the COVID test like a woman possessed. I hadn't slept in days wondering if I would be the one who tested positive with no symptoms. What if I couldn't fly [to England for the termination] and had to isolate for 14 days – it would be too late. What if he [partner] tested positive and couldn't come with me?" (P20, TFMR).

"Never cared if I got COVID but was worried in case it harmed the unborn baby" (P140, miscarriage).

Theme 2: waiting for inadequate care

Participants commented on how COVID-19 impacted negatively on the provision, accessibility, and efficiency of the services they were navigating, and this was identified as a major contributor in parent dissatisfaction. Issues such as delayed investigative procedures and test results due to COVID-19 for participants were a major source of frustration.

"The test might take two weeks, but with COVID it could take up to eight weeks, he [doctor] said" (P20, TFMR)

"Due to COVID there was a postage delay with all the [testing] kits and there wasn't enough for my appointment" (P16, TFMR).

Similarly, some women indicated that COVID-19 had an impact on hospital appointments resulting in delayed, prolonged, or cancelled treatment.

"[COVID-19] resulted in extremely traumatic experience where I was sent home to let 'nature' take its

course. Then tried medical management which was unsuccessful. Four weeks later I had surgery. Longest 4 weeks of my entire life" (P08, miscarriage).

"I [was] [...] still so dizzy at this stage [...] still bleeding quite heavily. [...] And I was like, can you disconnect me from this drip, because I need to go to the toilet? And she [nurse] was like, I'm not actually allowed to come into your room because your COVID test isn't back yet" (P18, TFMR).

Some women perceived that their appointments with health professionals were rushed, and that the professionals did not want them there:

"It was a very rushed appointment, I was not given any support and it was all very abrupt. I was not given any guidance or support materials and was rushed out [of] the appointment with no understanding of what was going on or what would have happened next" (P90, miscarriage).

Some participants explained the difficulties of accessing services and booking face-to-face assessment appointments:

"I was told over the phone I was having a miscarriage and I was never medically examined to check it was not an ectopic pregnancy or a complete miscarriage" (P59, miscarriage).

Some respondents reported that they were either redirected home after attending hospital or asked not to come into hospital to be assessed and this was perceived as distressing and traumatic:

"While I felt I was miscarrying for weeks, I was told to remain at home prolonging the uncertainty of 'was I or wasn't I?' Left me afraid to go to work or doing anything for fear of bringing on a miscarriage" (P02, miscarriage).

Some women explained that they were unable to avail of their preferred treatment option because some procedures were suspended during the pandemic:

"To not offer women surgical option is barbaric. To make me repeatedly take tablets and have to beg for surgery and eventually when I got it to tell me how lucky I was, not acceptable" (P124, miscarriage).

"My miscarriage was horrific, [...] I was left for weeks on end waiting for a miscarriage to happen that was never going to happen on its own. I was denied an MVA [manual vacuum aspiration] in a timely manner due to a regional decision taken to stop surger-

ies" (P145, miscarriage).

One participant commented on the availability of services being limited due to the impact of COVID-19 on training health professionals.

"There's this sort of thing where, oh well nobody has been trained because of COVID-19. And that makes you angry" (P21, TFMR).

For patients who needed to travel from Ireland to Great Britain (GB) to access care, COVID-19 impacted significantly on that experience. Several commented on the fear of the high COVID-19 case numbers in GB at the time (P18, TFMR). One major obstacle was accessibility:

"With the pandemic traveling is a lot harder, a lot of hospitals aren't taking people anymore. It's really hard to get an appointment anywhere" (P07, TFMR). "The lady talked me through different places to contact in the UK as hospitals were no longer taking women from abroad [...] The consultant called the next day to say she did all she could but they won't take anyone in Liverpool from outside the UK and no hospital was" (P20, TFMR).

Theme 3 the comfort of compassionate healthcare professionals

Participants in both studies greatly valued when healthcare professionals provided compassionate and empathetic care during their pregnancy loss experience:

"Whilst it was hard going through it during a pandemic, the midwives who supported us made the experience a little less traumatic. Those midwives are the most amazing women, myself and my partner are eternally grateful for their support throughout the single most tragic and awful experience of our lives" (P74, miscarriage).

Similarly, the human touch from healthcare professionals was also greatly appreciated by participants.

"She just hugged me and she's like I know I'm not supposed to but I just I have to hug you and like she was just lovely" (P16, TFMR).

"She hugged us and said goodbye in COVID times" (PM03, TFMR).

Conversely, one participant noted a perceived lack of empathy and kindness from healthcare professionals impacted negatively on participants' experience:

“She [nurse] came in then, eventually, and I was really upset and I just said to her, ‘I’m so scared,’ I said, ‘I don’t want to be on my own.’ And she was just so harsh, and she said, ‘well you have to, you’ve no choice. You went to England and COVID’s really bad over there in the UK, so you have no choice, so you have to’” (P18, TFMR).

Discussion

This study highlights parents’ experiences of healthcare provision for miscarriage and TFMR during the COVID-19 pandemic. Findings of this study highlight the similarity of experiences reported by women experiencing two very different types of loss, across different jurisdictions with different healthcare systems. To our knowledge, this is the first study to include data on participants’ experiences of loss due to different pregnancy loss conditions from across the island of Ireland. Parents’ experiences were mainly negative, often perceived as lonely and characterised by delayed or unavailable treatments, cancelled hospital appointments, reduced services and a lack of support and empathy from healthcare professionals. Positive experiences were also reported, centered on examples of compassionate care from healthcare professionals. These findings reflect those of other international studies conducted on maternity services during COVID-19 [20, 29, 59–61].

Our findings indicate the primary importance of support from partners and compassionate healthcare professionals during the process of grieving pregnancy loss, support that was profoundly interrupted during the pandemic. These findings are in line with other research, conducted both during the COVID-19 pandemic [59, 60, 62, 63] and prior to it [64–66], reporting the necessity of involving partners in maternity care. Our findings highlighted the desire and need for both mothers and fathers to be involved in the loss experience, with participants finding the exclusion of partners due to COVID-19, to negatively compound their already ‘traumatic’ experience. While historically men were not involved in the pregnancy or birth experience, a shift in the pregnancy and childbirth continuum sees modern maternity services expecting the presence of the father/partner [67]. This attitude was echoed in this study, with participants seeing the parent couple as a unit that should be treated as one entity. Recently published UK bereavement guidelines for pregnancy loss in COVID-19 support and acknowledge the importance of having partners present during this experience [68]. However, this guideline appears to have been inconsistently applied in practice during the pandemic. Moving forward there is a need for clear and accountable policies regarding the exclusion of partners with consideration of the psychological impact

on both parents. Further research could explore the long-term impacts on both parents of partner exclusion during pregnancy loss.

Relatedly, the findings of this study reflect the important role that healthcare professionals can play in promoting positive mental health outcomes for women and how this was gravely impacted by the restrictions imposed during the pandemic. While best practice guidelines and theories on breaking bad news in healthcare settings advise a face-to-face conversation with the presence of a relative [69–73], findings from our study suggest that practice in relation to this was inconsistent and disappointing for many. Consistent with other research [69], the potential for negative impacts on the emotional well-being of parents due to a lack of such supportive conversations was reported. It is possible that this situation was a result of healthcare professionals not having adequate training and guidance to address these difficult conversations remotely, a finding echoed by other research [74]. Participants also reported a disparity between parents’ desired level of information and what was provided in practice. This was particularly the case in relation to a reported lack of information provided on available after-care, and specific details on what to expect for those having a miscarriage at home. It is unclear whether this is an entirely COVID-19 specific issue or reflective of practice outside of this pandemic. However, literature regarding pregnancy loss highlights the importance of good communication and appropriate, balanced, and multi-formatted information [75–78]. Research from the perspective of both service users and healthcare professionals would be useful to inform best practice regarding communication and information provision during a pandemic and beyond. Further, attention needs to be given to the development of evidence-informed guidelines and policies regarding compassionate care and delivering sensitive news remotely. In addition, prompt action is needed to enhance health professionals’ competence and skills in delivering care and information through non-face-to-face methods.

Another key issue raised by the findings of this study relates to the disruptions caused by COVID-19 on the timeliness and quality of services provided. Echoing findings from other research [64], we found increased anxiety, anger, and distress resulting from restrictions regarding physical attendance at hospital and limited choice in relation to miscarriage management. Such restrictions are directly opposed to guidelines from those such as the UK National Institute for Health and Care Excellence (NICE), which advocates the importance of women’s preference in choosing the treatment of miscarriage (expectant, medical or surgical) [2]. While the long-term physical and emotional impacts of the lack of choice on parents are unknown, ‘choice’ within healthcare is a

fundamental element of patient satisfaction and effective and high-quality care, supported widely by literature and best practice guidelines [79–83]. Further research is needed to examine the lived experience of parents regarding service provision during a pandemic to inform future policies that balance the need to minimise the risk of virus transmission with the emotional, psychological and physical needs and wishes of service users.

Strengths & limitations

This is a timely study, reporting in-depth the healthcare experience of parents who have lost a baby during pregnancy in the course of the current COVID-19 pandemic. The response to recruitment was extremely positive in both studies, suggesting that there is a need for further examination of these issues. This study provides the first examination of the impact of COVID-19 restrictions on experiences of healthcare provision from the perspective of women across the island of Ireland experiencing loss due to different conditions. The findings are clear that, although experiences and decision-making relating to miscarriage and TFMR are different, the need for support and responsive services are paramount.

The findings are limited by the type of loss, participants, and study setting. In addition to the recommendations noted above, further research could explore this phenomenon further from these other perspectives, by examining, for example, pregnancy loss following ectopic pregnancy and among women in other parts of the UK. Exploring this experience within the context of COVID-19 was not the primary aim of the two respective studies and a study entirely focused on this context could add further depth to the findings. The sample in both studies is limited to an ethnically homogenous population from the island of Ireland. Future research in other contexts could explore the pregnancy loss experiences of parents from other ethnic communities. Further, the authors would like to note that data from an open-ended question in the survey might not be as rich as data from in-depth interviews. However, the authors assumed that responses to the open-ended question reflected what was important to women and therefore, they were thematically analysed [52, 53].

Conclusion

This paper, through the lens of bereaved parents, has provided insight into the pregnancy loss healthcare experience during the COVID-19 pandemic. Losing a baby at any stage of pregnancy is an extremely distressing experience and parents reported that the limitations and restrictions of partner presence in maternity settings compounded this. As COVID-19 increasingly appears to be a challenge that we must grapple with in the longer term, it is imperative that healthcare professionals

establish how to provide both an effective service and compassionate care to families losing a baby that minimises the risk of infection and spread of COVID-19 but also ensures a supportive experience.

Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12884-023-05839-4>.

Supplementary Material 1

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Authors' contributions

MG and SH conducted the studies as part of their PhD research. They are co-lead-authors of this manuscript. AA conceptualised the studies and was the primary academic supervisor. MG and SH led data collection and analysis of their respective studies, with support from AA. The paper was jointly conceptualised. SH and MG drafted the manuscript and AA provided edits and comments. All authors signed off the final version of the manuscript.

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Data availability

Data cannot be shared publicly because of ethical restriction placed upon the data for the following reasons: data contains potentially identifying and sensitive information. Interview transcriptions might expose participants identity if shared publicly; researchers did not obtain consent from participants to share raw data publicly at the time of data collection. Point of contact for data enquiries - Corresponding author Martina Galeotti, MG,

Declarations

Ethics approval and consent to participate

Both studies gained ethical approval from Queen's University Belfast Faculty of Medicine, Health and Life Sciences Research Ethics Committee (Study 1 Reference: MHLS 20_99; Study 2 Reference: MHLS 20_40). All methods were performed in accordance with relevant guidelines and regulations. Participants in both studies were provided with written information about the respective studies and written informed consent was obtained from all participants. The researchers highlighted to all participants their right to withdraw at any stage, without providing a reason. For Study 2, the option to pause, stop or reschedule the interview was also indicated. Due to the nature of the research and potential emotional effect on participants, both studies had detailed distress protocols, and all participants were provided with details of relevant support organisations.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Author details

¹School of Nursing and Midwifery, Queen's University Belfast, Belfast, UK

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References

- Goldblatt Hyatt ED. Counseling Women who have terminated a pregnancy due to fetal anomaly (TOPFA): the ACCEPT Model. *Clin Social Work J* 2019. 2019;49:1.
- National Institute for Health and Care Excellence (NICE). Ectopic pregnancy and miscarriage: diagnosis and initial management | NICE guideline [NG126]. NICE guidelines. 2019; December 2012.
- Farren J, Jalmbrecht M, Ameye L, Joash K, Mitchell-Jones N, Tapp S, et al. Post-traumatic stress, anxiety and depression following miscarriage or ectopic pregnancy: a prospective cohort study. *BMJ Open*. 2016;6:e011864.
- Quenby S, Gallos ID, Dhillion-Smith RK, Podesek M, Stephenson MD, Fisher J, et al. Miscarriage matters: the epidemiological, physical, psychological, and economic costs of early pregnancy loss. *The Lancet*. 2021;397:1658–67.
- Farren J, Mitchell-Jones N, Verbakel JY, Timmerman D, Jalmbrecht M, Bourne T. The psychological impact of early pregnancy loss. *Hum Reprod Update*. 2018;24:731–49.
- Berer M. Abortion Law and Policy around the World: in search of decriminalization. *Health Hum Rights*. 2017;19:13.
- Singh S, Remez L, Sedgh G, Kwok L, Onda T. *Abortion Worldwide 2017: Uneven Progress and Unequal Access*. New York; 2018.
- Boyle B, Addor MC, Arriola L, Barisic I, Bianchi F, Csáky-Szunyogh M et al. Estimating global Burden of Disease due to congenital anomaly: an analysis of European data. *Arch Dis Child Fetal Neonatal Ed*. 2018;103.
- Health England P. NCARDRS Congenital anomaly statistics report 2018. 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1008030/NCARDRS_Congenital_anomaly_statistics_report_2018.pdf. Accessed 10 Jan 2022.
- Smith LK, Dickens J, Bender Atik R, Bevan C, Fisher J, Hinton L. Parents' experiences of care following the loss of a baby at the margins between miscarriage, stillbirth and neonatal death: a UK qualitative study. *BJOG*. 2020;127:868–74.
- Depoers-Béal C, Le Baccon FA, Le Bouar G, Proisy M, Arnaud A, Legendre G, et al. Perinatal grief following neonatal comfort care for lethal fetal condition. *J Neonatal Perinatal Med*. 2019;12:457–64.
- Kamranpour B, Noroozi M, Bahrami M. Psychological experiences of women with pregnancy termination due to fetal anomalies: a qualitative study from the perspective of women, their spouses, and healthcare providers in Iran. *Reprod Health*. 2020;17.
- Kerstin A, Wanger B. Complicated grief after perinatal loss. *Dialogues Clin Neurosci*. 2012;14:187–94.
- Hanschmidt F, Nagl M, Klingner J, Stepan H, Kersting A. Abortion after diagnosis of fetal anomaly: psychometric properties of a German version of the individual level abortion stigma scale. *PLoS ONE*. 2018;13:e0197986.
- WHO Coronavirus (COVID-19) Dashboard | WHO Coronavirus (COVID-19) Dashboard With Vaccination Data. <https://covid19.who.int/>. Accessed 8 Jan 2022.
- Tanne JH, Hayasaki E, Zastrow M, Pulla P, Smith P, Rada AG. Covid-19: how doctors and healthcare systems are tackling coronavirus worldwide. *BMJ*. 2020;368.
- Renfrew MJ, Cheyne H, Craig J, Duff E, Dykes F, Hunter B, et al. Sustaining quality midwifery care in a pandemic and beyond. *Midwifery*. 2020;88:102759.
- Poon LC, Yang H, Kapur A, Melamed N, Dao B, Divakar H, et al. Global interim guidance on coronavirus disease 2019 (COVID-19) during pregnancy and puerperium from FIGO and allied partners: information for healthcare professionals. *Int J Gynecol Obstet*. 2020;149:273–86.
- Diamond RM, Colaïanni A. The impact of perinatal healthcare changes on birth trauma during COVID-19. *Women Birth*. 2021. <https://doi.org/10.1016/j.wombi.2021.12.003>.
- Silverio SA, De Backer K, Easter A, von Dadelszen P, Magee LA, Sandall J. Women's experiences of maternity service reconfiguration during the COVID-19 pandemic: a qualitative investigation. *Midwifery*. 2021;102.
- Meaney S, Corcoran P, Spillane N. Experience of miscarriage: an interpretative phenomenological analysis setting: a large tertiary-level maternity hospital in. *BMJ Open*. 2017;7:11382.
- Zhou J, Havens KL, Starnes CP, Pickering TA, Brito NH, Hendrix CL, et al. Changes in social support of pregnant and postnatal mothers during the COVID-19 pandemic. *Midwifery*. 2021;103:103162.
- Villar J, Ariff S, Gunier RB, Thiruvengadam R, Rauch S, Kholin A, et al. Maternal and neonatal morbidity and mortality among pregnant women with and without COVID-19 infection: the INTERCOVID multinational cohort study. *JAMA Pediatr*. 2021;175:817–26.
- Li N, Han L, Peng M, Lv Y, Ouyang Y, Liu K, et al. Maternal and neonatal outcomes of pregnant women with Coronavirus Disease 2019 (COVID-19) pneumonia: a case-control study. *Clin Infect Dis*. 2020;71:2035–41.
- Smith V, Seo D, Warty R, Payne O, Salih M, Chin KL et al. Maternal and neonatal outcomes associated with COVID-19 infection: a systematic review. *PLoS ONE*. 2020;15.
- Giusti EM, Pedrolì E, D'Aniello GE, Stramba Badiale C, Pietrabissa G, Manna C et al. The psychological impact of the COVID-19 outbreak on Health Professionals: a cross-sectional study. *Front Psychol*. 2020;11.
- Sethi BA, Sethi A, Ali S, Aamir HS. Impact of coronavirus disease (COVID-19) pandemic on health professionals: Pak J Med Sci. 2020;36.
- Lamprey E. Psychological impacts of COVID-19 on health professionals: a cross-sectional survey of 1000 nurses across ECOWAS countries. *Res J Med Health Sci*. 2020;1:343–54.
- Pollock D, Murphy MM, O'Leary J, Warland J. Pregnancy after loss during the COVID-19 pandemic. *Women Birth*. 2020;33:540–3.
- Toedter LJ, Lasker JN, Janssen HJ. International comparison of studies using the perinatal grief scale: a decade of research on pregnancy loss. *Death Stud*. 2001;25:205–28.
- Tseng YF, Cheng HR, Chen YP, Yang SF, Cheng PT. Grief reactions of couples to perinatal loss: a one-year prospective follow-up. *J Clin Nurs*. 2017;26:5133–42.
- McCreight BS. Perinatal loss: a qualitative study in Northern Ireland. *Omega (Westport)*. 2008;57:1–19.
- Lang A, Fleiszler A, Duhamel F, Sword W, Gilbert K, Corsini-Munt S. Perinatal loss and parental grief: the challenge of ambiguity and disenfranchised grief. *Omega (Westport)*. 2011;63:183–96.
- Gensch BK, Midland D. When a Baby Dies: A Standard of Care: <http://dx.doi.org/10.1177/105413730000800305>. 2000;8:286–95.
- Abi-Hashem N. Grief, Bereavement, and traumatic stress as natural results of Reproductive losses." | Naji Abi-Hashem - Academia.edu. *Issues Law Med*. 2017;8:286–95.
- Telenti A, Arvin A, Corey L, Corti D, Diamond MS, García-Sastre A, et al. After the pandemic: perspectives on the future trajectory of COVID-19. *Nat*. 2021;596:7873.
- Hunter P. The spread of the COVID-19 coronavirus. *EMBO Rep*. 2020;21:e50334.
- Coccia M. An index to quantify environmental risk of exposure to future epidemics of the COVID-19 and similar viral agents: theory and practice. *Environ Res*. 2020;191:110155.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care*. 2007;19:349–57.
- Grbich C. *Qualitative data analysis*. SAGE Publications Ltd; 2012.
- Huffman CS, Swanson K, Lynn MR. Measuring the meaning of miscarriage: revision of the impact of miscarriage scale. *J Nurs Meas*. 2014;22:29–45.
- AIMS Ireland. CARE AT A TIME OF LOSS: AIMS I PREGNANCY LOSS SURVEY. 2009.
- NISRA. Statistical Bulletin 2020 Mid-year Population Estimates for Northern Ireland. 2021.
- Northern Ireland (Executive Formation etc) Act. 2019. <https://www.legislation.gov.uk/ukpga/2019/22/contents/enacted>. Accessed 10 Jan 2022.
- Kirk S, Morgan L, McDermott S, McLaughlin L, Hunter C, Farrington T. Introduction of the National Health Service early medical abortion service in Northern Ireland – an emergency response to the COVID-19 pandemic. *BMJ Sex Reprod Health*. 2021;47:293–5.
- Aiken AR, Johnson DM, Broussard K. Abortion in Ireland and Northern Ireland. *Obstet Gynaecol Reprod Med*. 2019;29:326–7.
- Public Health England. 20-week screening scan pathway requirements specification - GOV.UK. <https://www.gov.uk/government/publications/20-week-screening-scan-pathway-requirements-specification/20-week-screening-scan-pathway-requirements-specification>. Accessed 3 Feb 2022.
- Hayes-Ryan D, Mcnamara K, Russell N, Kenny L, Donoghue K. Maternity ultrasound in the Republic of Ireland 2016: a review. *Maternity Ultrasound in the Republic of Ireland*. 2017;110:598.

49. Andrews, Molly, Squire Corinne, Tamboukou Maria. *Doing Narrative Research*. SAGE Publications; 2013.
50. Braun V, Clarke V. Qualitative research in psychology using thematic analysis in psychology. *Qual Res Psychol*. 2006;3:77–101.
51. McLemore MR, Desai S, Freedman L, James EA, Taylor D. Women know best—findings from a thematic analysis of 5,214 surveys of Abortion Care Experience. *Women's Health Issues*. 2014;24:594–9.
52. Chen CX, Draucker CB, Carpenter JS. What women say about their dysmenorrhea: a qualitative thematic analysis. <https://doi.org/10.1186/s12905-018-0538-8>.
53. Bryman A. *Social Research Methods*, 4th Edition-Oxford University Press (2012).pdf. Online resource centre; 2012.
54. NICE. Quality statement 10: Screening – national fetal anomaly screening programmes | Antenatal care | Quality standards | NICE. 2021. Accessed 3 Feb 2022.
55. Silverio SA, Wilkinson C, Wilkinson S. *Academic ventriloquism*. Cham: Springer; 2021.
56. Brear M. Process and outcomes of a recursive, Dialogic Member checking Approach: A Project Ethnography. *Qual Health Res*. 2019;29:944–57.
57. Birt L, Scott S, Cavers D, Campbell C, Walter F. Member checking: a Tool to enhance trustworthiness or merely a nod to Validation? *Qual Health Res*. 2016;26:1802–11.
58. King N, Brooks JM. *Template analysis for business and management students*. SAGE Publications Ltd; 2018.
59. Stacey T, Darwin Z, Keely A, Smith A, Farmer D, Heighway K. Experiences of maternity care during the COVID-19 pandemic in the North of England. *Br J Midwifery*. 2021;29:516–23.
60. Panda S, O'Malley D, Barry P, Vallejo N, Smith V. Women's views and experiences of maternity care during COVID-19 in Ireland: a qualitative descriptive study. *Midwifery*. 2021;103.
61. Sanders J, Blaylock R. "Anxious and traumatised": users' experiences of maternity care in the UK during the COVID-19 pandemic. *Midwifery*. 2021;102.
62. Wilson AN, Sweet L, Vasilevski V, Hauck Y, Wynter K, Kuliukas L, et al. Australian women's experiences of receiving maternity care during the COVID-19 pandemic: a cross-sectional national survey. *Birth*. 2021. <https://doi.org/10.1111/birt.12569>.
63. Thomson G, Balaam M-C, Nowland R, Crossland N, Moncrieff G, Heys S et al. Companionship for women using English maternity services during COVID-19: National and organisational perspectives. *medRxiv*. 2021;2021.04.08.21254762.
64. Price C. Fatherhood and maternity care. <http://dx.doi.org/1012968/bjom20122012910>. 2013;20:910.
65. Wynter K, Di Manno L, Watkins V, Rasmussen B, Macdonald JA. Midwives' experiences of father participation in maternity care at a large metropolitan health service in Australia. *Midwifery*. 2021;101.
66. Wöckel A, Schäfer E, Beggel A, Abou-Dakn M. Getting ready for birth: impending fatherhood. <http://dx.doi.org/1012968/bjom200715623673>. 2013;15:344–8.
67. Redshaw M, Henderson J. Fathers' engagement in pregnancy and childbirth: evidence from a national survey. *BMC Pregnancy Childbirth*. 2013;13:1–15.
68. National Bereavement Care Pathway for pregnancy and baby loss. Bereavement Care during the COVID-19 Outbreak | National Bereavement Care Pathway (NBCP). 2020. <https://nbcpathway.org.uk/about-nbcpathway-care-during-covid-19-outbreak>. Accessed 10 Jan 2022.
69. Hauk H, Bernhard J, Mcconnell M, Wohlfarth B. Breaking bad news to cancer patients in times of COVID-19. <https://doi.org/10.1007/s00520-021-06167-z/Published>.
70. Buckman R, Kason Y. *How to Break Bad News: a guide for Health Care Professionals*. Toronto: University of Toronto Press; 1992.
71. Monden KR, Gentry L, Cox TR. Delivering Bad News to Patients. *Baylor University Medical Center Proceedings*. 2016;29:101–2.
72. Brann M, Bute JJ, Scott SF. Qualitative Assessment of Bad News Delivery Practices during Miscarriage diagnosis. *Qual Health Res*. 2020;30:258–67.
73. A I. MOTHERS EXPERIENCES ON HOW CARE GIVERS MS, BREAK BAD NEWS ABOUT THEIR PERINATAL MORTALITY. *J Urmia Nurs Midwifery Fac*. 2013;11:545–55.
74. Collini A, Parker H, Oliver A. Training for difficult conversations and breaking bad news over the phone in the emergency department. *Emerg Med J*. 2021;38:151–4.
75. Henley A, Schott J. The death of a baby before, during or shortly after birth: good practice from the parents' perspective. *Semin Fetal Neonatal Med*. 2008;13:325–8.
76. Asplin N, Wessel H, Marions L, Georgsson Öhman S. Pregnancy termination due to fetal anomaly: women's reactions, satisfaction and experiences of care. *Midwifery*. 2014;30:620–7.
77. Nuzum D, Meaney S, O'Donoghue K. The impact of stillbirth on bereaved parents: a qualitative study. *PLoS ONE*. 2018;13:e0191635.
78. Due C, Obst K, Riggs DW, Collins C. Australian heterosexual women's experiences of healthcare provision following a pregnancy loss. *Women Birth*. 2018;31:331–8.
79. APPG. COVID-19 and its impact on pregnancy and baby loss. A briefing from the All-Party Parliamentary Group on Baby Loss.
80. Overview. | Intrapartum care for healthy women and babies | Guidance | NICE. <https://www.nice.org.uk/guidance/cg190>. Accessed 14 Jan 2022.
81. Gabe J, Harley K, Calnan M. Healthcare choice: Discourses, perceptions, experiences and practices: <http://dx.doi.org/101177/0011392115590061>. 2015;63:623–35.
82. Aalto AM, Elovainio M, Tynkkynen LK, Reissell E, Vehko T, Chydenius M, et al. What patients think about choice in healthcare? A study on primary care services in Finland. *Scand J Public Health*. 2018;46:463–70.
83. Victor A, Delnoij DM, Friele RD, Rademakers JJ. Determinants of patient choice of healthcare providers: a scoping review. *BMC Health Serv Res*. 2012;12:1–16.

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