Sexual & Reproductive Healthcare 46 (2025) 101168

Contents lists available at ScienceDirect

Sexual & Reproductive Healthcare

journal homepage: www.elsevier.com/locate/srhc

Expecting a child conceived by medically assisted reproduction in the context of infertility: A qualitative case study of the experience of pregnant women and their partners

Caroline René [a,*], Isabelle Landry [a,c], Francine de Montigny [a,b]

[a] Department of Nursing, Université du Québec en Outaouais, 283, boulevard Alexandre-Taché, Gatineau, Québec J9A 1L8, Canada
[b] Family and Society Research Team, Université du Québec en Outaouais, 283, boulevard Alexandre-Taché, Gatineau, Québec J9A 1L8, Canada
[c] Department of Nursing, Université du Québec à Trois-Rivières, 3351, boul. des Forges, Trois-Rivières, QC G8Z 4M3, Canada

ARTICLE INFO

Keywords:
Medically assisted reproduction
Post-infertility pregnancy
Emotions
Parenting
Relationship
Qualitative research

ABSTRACT

Background: Infertility affects around one in six people worldwide. Technological advances and changes in legislation in medically assisted reproduction (MAR) are helping more people achieve parenthood after a journey marked by infertility. Yet the unique experience of women who become pregnant after MAR, and of their partners, remains little known.
Aim: To describe the experience of pregnant women and their partners during a pregnancy resulting from infertility-related MAR by examining their emotions throughout the pregnancy, their parental identity construction, and transformations experienced in various spheres of their life.
Methods: We conducted an integrated case study using a descriptive qualitative approach. Semi-structured interviews were conducted with 21 participants from Quebec (Canada), including 13 pregnant women and eight partners (five men, three women) who had conceived by infertility-related MAR. The data were analysed abductively.
Findings: The pregnant women and their partners experienced intense emotions throughout the pregnancy, oscillating between joy, fear, and relief. Parental identity construction was marked by expectation, hope, and a transition centred on pregnancy and infertility. They also transformed their relationships, adapting as a couple, redefining family and social ties, and entering a new normal with healthcare professionals.
Conclusion: For pregnant women and their partners, pregnancy after infertility-related MAR is fraught with paradoxical emotions and marked by challenging parental identity construction. Social and family recognition of their journey influences how they navigate the transitional period of pregnancy and project themselves into their parental role. Personalised, empathetic support from healthcare professionals is essential to support them during pregnancy and facilitate their transition to parenthood.

Introduction

When a couple decides to have a child, they do not usually expect to need outside help to make it happen. Yet, according to the World Health Organization (WHO), one in six people will experience infertility in their lifetime [1,2], defined as the inability to conceive after 12 months or more of regular unprotected sexual intercourse [3,4]. These women and men face a variety of challenges and sometimes many bereavements [5,6]. The experience of infertility can cause great emotional and psychological distress, particularly in the form of stress, anxiety, and depression [7].

Medically assisted reproduction (MAR) is emerging as a solution for many couples seeking parenthood [8]. However, while MAR tends to be perceived as increasingly accessible and socially normalised [9,10],it also presents demands and challenges, on both on the individual and relational levels [11,12]. While some couples see benefits in their relationship during fertility treatments [13], others encounter difficulties, particularly regarding sexuality [5] and marital conflict [14]. Socially, women and men often experience isolation, communication problems, and increased social pressure related to infertility [5,7,14]. The cost of

* Corresponding author at: Université du Québec en Outaouais, Département des sciences infirmières, 283, boulevard Alexandre-Taché, Gatineau, Québec J9A 1L8, Canada.
E-mail address: Caroline.rene@uqo.ca (C. René).

https://doi.org/10.1016/j.srhc.2025.101168
Received 10 July 2025; Received in revised form 4 November 2025; Accepted 16 November 2025
Available online 17 November 2025

MAR is also significant, and many couples experience financial crises due to the expenses incurred [14,15].

Beyond its physical and logistical demands, MAR has profound emotional and relational repercussions, which often extend well beyond successful treatment. A recent metasynthesis highlighted the multiple challenges these couples face during pregnancy [16]. Women who have gone through infertility can experience ambivalent feelings, oscillating between the joy of being pregnant and the fear of complications, transforming what they had imagined would be a happy time into an emotionally demanding experience [17]. The transition from assisted conception to pregnancy and parenthood appears to be a particularly fragile stage for women who have undergone MAR [9].

While parenthood usually involves two persons, research into the experience of expecting a child after infertility-related MAR has mainly explored the experience of pregnant women. Similarly, the impact on family and social relationships, while sometimes mentioned, remains insufficiently studied. To fill these gaps, it is essential to examine in depth the experience of pregnant women and their partners after successful MAR, by exploring the emotional, identity, and relational dimensions of their parenthood journey. Accordingly, our aim in this study was to describe the experience of pregnant women and their partners during a pregnancy resulting from successful infertility-related MAR.

Methods

This descriptive qualitative study is based on a case study methodology [18] integrating two units of analysis: 1) the experience of pregnant women, and 2) that of their partners, during a pregnancy resulting from infertility-related MAR (Fig. 1). This approach is particularly useful for examining a complex phenomenon in its natural context, where it is difficult to dissociate it from its environment. We examined the case, i.e., the experience of expecting a child conceived by MAR in the context of infertility, from a post-positivist perspective. This perspective assumes the researcher is distinct from the phenomenon under study and emphasises the search for patterns and relationships among different elements of the situation to generate nuanced knowledge in a given context [19]. With this in mind, we aimed to identify tendencies and links between the experiences of pregnant women and of their partners, highlighting their mutually interactive influences within a journey marked by infertility-related MAR. To structure and present this study, we followed the Standards for Reporting Qualitative Research (SRQR) guidelines [20].

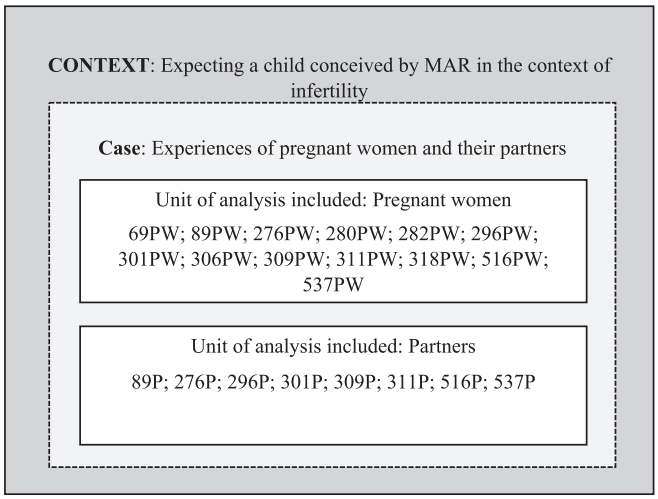

Fig. 1. The case and units of analysis.

Research questions

1) How do pregnant women and their partners describe their emotions throughout the pregnancy?
2) How do they represent the construction of their parental identity?
3) How do they describe the changes that have occurred in the different spheres of their life?

Ethics

The Research Ethics Board of the Université du Québec en Outaouais authorised this study (certificate number: 2023-2431). After participants provided consent, the principal investigator contacted them to answer questions and plan the interview. When both partners of a couple participated, their interviews were conducted separately to preserve confidentiality [21].

Setting, recruitment, and participants

This study was conducted in Canada, in the province of Quebec, where access to MAR is facilitated by a public program covering a range of services for eligible individuals. This program broadens access to MAR for those who might not otherwise have had the financial means to afford the cost of treatment [22].

Recruitment was carried out in collaboration with two Quebec fertility clinics and via social networks on the basis of convenience sampling and a snowball method. This sampling method, combined with the following selection criteria, aimed to capture a variety of experiences amongst individuals expecting a child conceived through MAR. To be eligible, women and men had to: 1) be 18 years of age or older; 2) have undergone MAR due to medical infertility in at least one of the partners; 3) be pregnant, have a pregnant partner, or have given birth in the past 12 months; 4) be able to speak, understand, and read French; and 5) have access to the Internet. Same-sex couples meeting these criteria were also eligible to participate in the study. Since the relevant analytical distinction was primarily based on whether or not the individual had carried the child, data from female partners were included within the analytical unit "partner". To meet the study's objectives, we interviewed participants during the last month of pregnancy or after the birth for an overall picture of their pregnancy experience.

Data collection

We collected data from various sources between February and November 2023. We used a Lime Survey questionnaire to collect data on infertility history, MAR treatments, and current pregnancy, as well as sociodemographic data. Subsequently, CR conducted semi-structured individual interviews lasting between 60 and 120 min ($\bar{x}$ of 89 min), which were carried out either online via various videoconferencing platforms (Zoom, Teams, FaceTime, with the camera on) or in person. We developed the interview guide based on four key themes identified in a metasynthesis [16] on the subject: the experience of infertility and MAR; reactions and emotions experienced at different moments of pregnancy; the construction of parental identity; and changes in relationships with others in various spheres of life. We tested the guide with one woman corresponding to the profile of participants sought and subsequently made adjustments. We transcribed the digital audio recordings of each interview verbatim and then anonymised them. Finally, we wrote field notes after each interview to describe the context in which they were conducted, as well as observations of participants' reactions and nonverbal cues whether perceived online or in person.

Data analysis

We analysed the data abductively, using the descriptive qualitative analysis method of Miles, Huberman [23]. We used NVivo software [24]

to collate the anonymised interview transcripts and facilitate coding. CR initially identified 41 *a priori* codes based on the theoretical underpinnings of the interview guide [16,25]. By alternating processes of data collection and analysis, we generated new codes from the data. This iterative process allowed for refinement of the coding. It also indicated that sufficient information power [26] had been achieved to justify ending data collection, given the richness of the empirical material, its relevance to the research questions, and the diversity of participants' profiles. The different codes were sorted and grouped into themes to capture key elements in relation to the research questions and then eliminated unused *a priori* codes.

Strategies to enhance trustworthiness

CR and IL held team meetings to refine the analysis, discuss discrepancies, reach consensus, and develop final themes and subthemes, which FdM then validated. This form of researcher triangulation strengthened the accuracy and reliability of the results

The field notes served as a tool for reflection throughout the analysis. We used them to compare impressions and observations (context, reactions, non-verbal information) with interview data, in order to enrich our interpretation and validate certain key elements. Finally, we analysed the data from the online questionnaire descriptively, to draw a portrait of the sample and contextualise the results. Data triangulation made it possible to integrate the information obtained from the interviews, online questionnaires, and field notes in order to ensure the credibility of the results.

Researcher characteristics and reflexivity

The authors adopted a reflexive approach throughout the research process to strengthen results integrity and reliability [27]. Using this approach, the researchers were able to take into account their personal attributes and experiences while minimising potential biases. The authors each have two children. CR, a doctoral student in nursing, has expertise in qualitative interviewing and professional experience as a nurse working with young families. She conducted the interviews with empathy, aware of the potential influence of her own background on the data interpretation. IL, also a doctoral student, has extensive experience as a birthing unit nurse. Her clinical practice and personal experience enriched the research approach. FdM has extensive expertise in the psychosocial health of families during perinatal experiences. She played a key role in analysing results, bringing an objective and rigorous perspective. The authors held regular discussions among themselves to compare views, minimise bias, and enrich the analysis.

Results/findings

Participants' characteristics

Twenty-one people from nine regions of Quebec (Canada) participated in the study. Twenty-eight had initially expressed interest, of which six withdrew without providing a reason and one was excluded as inclusion criteria were not met. Among the participants, seven women were pregnant at the time of the interview and six had given birth in the past 12 months. Of the partners (five men, three women), four were expecting a child and four had become parents in the past 12 months. All but one were first time parents; one participant presented with secondary infertility. Participants' ages ranged from 29 to 44 years ($\bar{x}$: 35 years). Time taken to conceive ranged from 2 to 10 years ($\bar{x}$: 4.3 years), and duration of fertility follow-up ranged from 2 to 7 years ($\bar{x}$: 3.9 years). Of the participants, ten were directly affected by infertility, five had a partner affected by this condition, and six could not or did not wish to specify which member of the couple was affected. Table 1 presents the sociodemographic and clinical data.

Table 1
Participants' sociodemographic and clinical data.

	Participants = 21	
	PW = 13	P = 8
Sociodemographic data		
Age		
25–29 years	2	1
30–34 years	5	2
35–39 years	4	3
40–44 years	2	1
No response		1
Gender		
Woman	13	3
Man	–	5
Non-binary	–	–
Status at time of interview		
Pregnant or spouse pregnant	7	4
Gave birth within the past 12 months	6	4
Marital status		
Married	2	2
Cohabiting	10	6
Other	1	–
Occupation		
Student	–	–
Full-time worker	10	7
Stay-at-home parent	2	1
Other	1	1
Household income (in Canadian dollars)		
Less than $39, 999	1	1
$40, 000–$79, 999	3	–
$80, 000–$119, 999	2	3
More than $120, 000	7	1
Highest education level		
Secondary incomplete (7–10 years)	1	1
Secondary completed (11 years)	1	–
College	4	2
University certificate (14 years)	1	1
University diploma (bachelor's degree)	2	2
Graduate and post-graduate university studies	4	1
No response	–	1
Clinical data		
Person affected by infertility		
Participant only	4	1
Spouse only	2	2
Participant and spouse	4	1
Undetermined	3	1
No response		3
Years to conception		
Range	2 to 10 years	2 to 7 years
Mean	4.7 years	3.67 years
Years followed for fertility treatment		
Range	2 to 7 years	2 to 6 years
Mean	4.47 years	3.17 years
Treatment cycles		
Range	1 to 9 cycles	1 to 9cycles
Mean	4.22 cycles	3.2 cycles
Type of treatment received *		
Ovarian stimulation	8	5
Artificial insemination	10	6
In-vitro fertilisation (IVF)	12	7
Intracytoplasmic sperm injection (ICSI)	7	3
Sperm donation	4	2
Egg donation	–	–
Embryo donation	1	1
Other	1	

* **Note:** The data indicate the number of participants who received each type of assisted reproductive treatment during their fertility journey. A participant may appear in several categories (e.g. ovarian stimulation, IVF with ICSI, sperm donation), even if these procedures occurred within the same treatment cycle.

Synthesis and interpretation

In the data analysis, we identified three main themes, involving 11 subthemes: 1) coping with fluctuating and intense emotions; 2) journeying towards parenthood in a process marked by waiting and hope;

and 3) establishing a new balance in relationships with others. We describe each theme and subtheme below, supported by the interview data, taking care to highlight the nuances between the experiences of pregnant women (PW) and partners (P). Fig. 2 presents the themes and subthemes.

Coping with fluctuating and intense emotions

Throughout pregnancy, pregnant women and their partners experience intense and often paradoxical emotions. The shifting nature of these emotions, frequently compared to a roller-coaster ride, illustrates that this period—sometimes felt like a dream—is also tinged with persistent worries related to their fertility journey. *'It's like a rollercoaster. It's not a calm, quiet little lake.' (301P- man, 39 years old)*. The oscillation between joy and doubt, relief and guilt, was particularly evident among expectant parents in early pregnancy. *'The rollercoaster really hit at the beginning (…) moments of happiness and real lows.' (516PW- 36 years old)*.

Embarking on a new experience with conflicting emotions

After dreading the moment of the pregnancy test, the pregnant women and their partners welcomed the news of their long-awaited pregnancy with great joy. For many, the happiness and relief were accompanied by doubt and mistrust regarding the result.

On the morning of March 23 I had my first-ever positive pregnancy test; I'd never had a positive test in ten years. I'm telling you this, and I still have trouble, sometimes I feel like I've been dreaming all this, but then, finally it happened… But all through my pregnancy, I felt like I was dreaming. It was hard to believe it was finally my turn. (280PW- 39 years old).

Some pregnant women also felt guilty for not loving every moment of their pregnancy. They often lived through this situation, described as uncomfortable, in silence.

I feel like talking about it because I'm not well, but in another sense, I feel guilty because I'm lucky, that's what I wanted… It's a bit contradictory, but I haven't talked about it that much. We don't talk about these things. (301PW- 35 years old).

Living in constant fear of losing the baby

The pregnant women and their partners felt particularly vulnerable during the first weeks of pregnancy, which they described as stressful and anxiety-provoking. Their fear of losing the baby, intensified by the onerous conception process, sometimes dominated this period, which some described as a nightmare.

I think the fears are doubled, quadrupled. If something doesn't work, first of all, it's super sad. And you can't just try again the next day. You have to get back on the lists and wait again. So this idea of scarcity is there even stronger. (282PW- 35 years old).

For reassurance, some couples requested additional tests or ultrasounds, which offered them peace of mind, albeit often short-lived: *'In fact, it reassured us for 24 h' (301P- man, 39 years old)*. Some pregnant women bought a Doppler so they could listen to their baby's heartbeat regularly: *'I admit it, I bought myself a little Doppler. I listened to the heart every week' (69PW- 29 years old)*.

Fears easing as the pregnancy progresses

As weeks passed, seeing visible signs of the pregnancy's progress, feeling the baby's movements, and reaching the stage of viability in the event of premature birth all gradually allayed the near-paralysing fears experienced by many participants during the first trimester. The pregnant women and their partners also perceived ultrasound scans as milestones that reinforced their sense of progress and reduced their stress.

At 24 weeks, I told myself that if something happened, well, she now was viable. They could take her out, and there would be less risk of me really losing her. I kind of felt like I started breathing a bit again. (306PW- 40 years old).

Partners sometimes described the final weeks of pregnancy as stressful, expressing their sense of losing control over the course of events. *'That was hard for me to deal with, because you lose control, really. The baby can be born any moment… So, losing control over an event is stressful. That was the part I found hard' (311P- man, 32 years old)*.

Savouring every moment of a much-desired pregnancy

Several women confided that they had experienced a happy pregnancy, despite the difficulties, and some even expressed deep pride in being pregnant: *'It's really what I highlight. I want everyone to see I'm pregnant' (296PW- 32 years old)*. Many described this period as a magical experience and sought to enjoy every moment: *'It really gives me time to savour everything I'm experiencing, every moment, to really enjoy it' (276PW- 43 years old)*.

The pregnant women and their partners were grateful for the privilege of expecting a child. Some partners also expressed deep gratitude towards their spouses: *'I think she gave me the greatest gift of my life' (537P- woman, 44 years old)*.

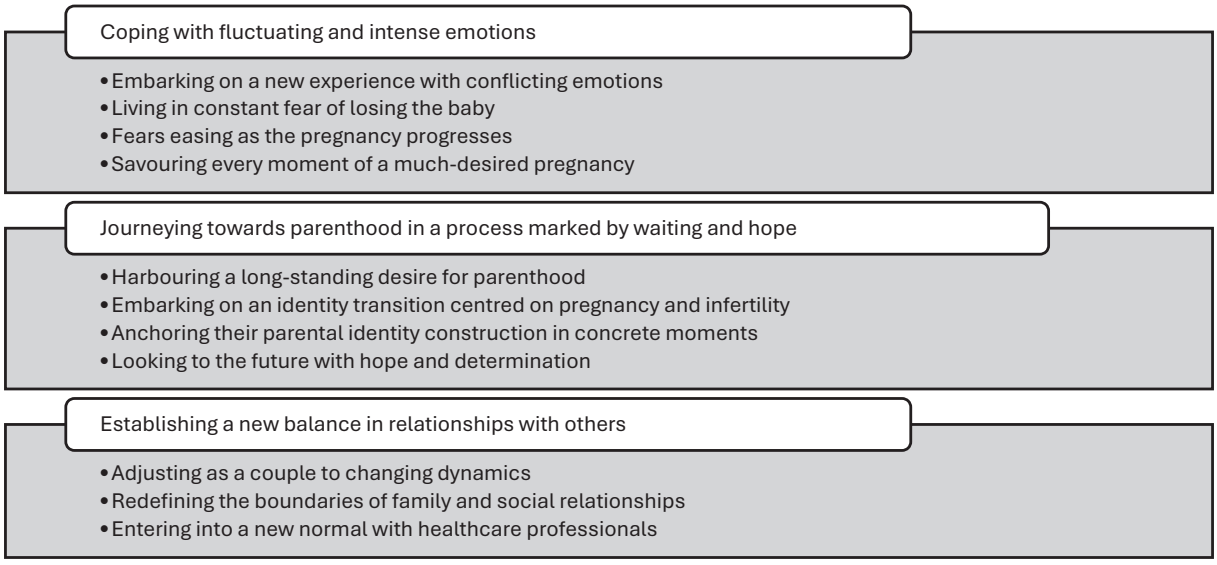

Fig. 2. The experience of pregnant women and their partners during a pregnancy after infertility-related MAR.

Journeying towards parenthood in a process marked by waiting and hope

While the first theme captured the variation in emotions experienced by pregnant women and their partners following infertility-related ART, this second theme describes how they perceived the construction of their parental identity. This transition takes place within a unique conception journey, often long and demanding, both physically and emotionally. *'It colours everything (…) it's an extremely difficult and completely invisible journey.' (537PW – 30 years old)*. The expectant parents described how the marks left by the experience of infertility shaped the way they perceived their identity and engaged in this transition.

We've been working towards this for so long, and wanting it to happen so badly, that now we're just going to live it [parenthood], and that's it. (276P-man, 31 years old).

It's something I wanted for such a long time that when it finally happened, it kind of became my identity. It was my main activity. I was carrying life. (296PW- 32 years old).

Harbouring a long-standing desire for parenthood

For some pregnant women and their partners, becoming parents was the culmination of a long journey, fuelled by a deep-seated desire for a child.

I couldn't imagine my life without children. It was as if everything in my life had been temporary. I felt that my real life was finally about to begin. (296PW-32 years old).

Some women reported that, before becoming pregnant, they felt excluded from the "select club of parents", which was sometimes hard to bear. While some participants felt they were parents from the moment the pregnancy was announced, a few women said the emotional and physical investment required by the fertility treatments had already shaped their perception of themselves as mothers.

I felt like a mother on day 0… on the day of the injections… I was in [ovarian] stimulation for 13 days, four injections a day. I was doing it to become a mother. I was doing it because I wanted a child, and wanted to become a mother. (280PW-39 years old).

Embarking on an identity transition centred on pregnancy and infertility

In the MAR context, the pregnant women and their partners described pregnancy as a period of complex identity transition, often marked by the persistent weight of infertility. Even though a baby was conceived, several experienced this transition with a mixture of pride and acrimony. While the long-awaited pregnancy was a milestone—*'it's a small miracle' (276P-man, 31 years old)*—they also recalled that outside help had been needed: *'it worked, but not on my own' (89PW-29 years old)*. This bittersweet feeling towards what they nevertheless considered a privilege was sometimes accompanied by a sense of injustice: *'It's as if we had to work harder to get to the same place as everyone else'* (*516PW- 36 years old)*.

This pregnancy, described as precious, was sometimes difficult to integrate fully for some of the pregnant women, who saw themselves as imposters. Many said they were unable to project themselves beyond the pregnancy and had difficulty imagining a child.

I have a hard time even thinking of this child as a real person, and I have the sense that it's still a matter of self-protection. I'm protecting myself a lot. I can't name it, I can't bring myself to name it. (301PW- 35 years old).

Several participants spoke of challenges related to the intangible side of pregnancy. Some women confided that they didn't feel truly pregnant for several weeks, especially in the absence of any noticeable symptoms. The partners experienced this period as theoretical and especially long: *'Waiting is long… I found it long, 9 months' (89P- man, age not provided)*.

Among lesbian couples, the scrutiny of others during this waiting period was sometimes an obstacle to the construction of the partner's parental identity. This barrier was not limited to the experience of infertility, but also encompassed the social dynamics surrounding parental recognition.

When you see a pregnant woman, you don't automatically assume the other [woman] will be the other parent. People often talk to my partner and ask her questions about the baby, and I know that, on that subject, I'm non-existent. And I didn't anticipate this would happen… But yes, it's an obstacle. (516P- woman, 35 years old).

Anchoring their parental identity construction in concrete moments

Many partners stressed the importance of being present for their pregnant partner and taking care of her. They described their investment in concrete actions, such as preparing the baby's room or managing the logistics of daily life: *'I plan everything in advance' (301P- man, 39 years old)*. For some of the pregnant women and their partners, preparing for parenthood also included attending prenatal classes and reading.

My whole vision, my whole life converged on this child's arrival. Shopping, getting things ready, reading, starting to think about what kind of education we wanted to give him… I wanted to make it as concrete as possible. I couldn't just wait for his arrival. (296PW- 25 years old).

For some, the baby's presence became tangible when they felt the first movements, as one pregnant woman described: *'When I started to feel her move, that's when it happened—ah, that's my baby' (89PW- 29 years old)*. Several others, however, reported that they did not perceive themselves as mother or father before the birth.

During the pregnancy yes, you are [a father], but it's not concrete, it takes a little longer, maybe, for us to realise it, but when she came out, and she took her first breath—there I said okay, she's mine, she belongs to me. (89P- man, age not provided).

Looking to the future with hope and determination

The pregnant women and partners said that imagining themselves in the future with their baby had helped them see themselves as gradually becoming a family. This anticipation of parenthood, charged with excitement and impatience, had led them to imagine the kind of parents they wanted to be, often inspired by those around them. They felt ready to take on the challenges of the first few weeks, seeing this transition period as a change they had actively chosen.

I had chosen to have a child so all these changes, I had chosen them, and I was looking forward to them. (296PW- 32 years old).

The participants also stressed that, while their fertility journey had been difficult, it also had positive spin-offs, enabling them to learn and grow. They saw the ordeal as an integral part of their unique and precious family history.

It's our story, you know. That's how we experienced it, and it's a beautiful story, too. Every family, every couple has their story, and this is ours. We're proud of our story, too. (276P- man, 31 years old).

Establishing a new balance in relationships with others

The participants described various changes that occurred in their relationships with others during pregnancy. Pregnant women and their partners had to adjust to a new couple dynamic following the demanding period of fertility treatments. They also had to renegotiate relationships with those around them and to adapt to a new normality in their relationships with healthcare professionals as they transitioned from fertility treatment to regular antenatal care.

There are other people who haven't gone through this who think they understand, but they don't. There's a lot of sympathy, but unfortunately, if you haven't been through it, you can't really know. (89P- man, age not provided).

Adjusting as a couple to changing dynamics

From the start of the pregnancy, the pregnant women and their partners had to contend with their sometimes divergent emotional reactions. While some went through a period of tension in their relationship, most said they had managed to maintain good communication as a couple. Several stressed that the ordeals of the MAR had strengthened the partnership that enabled them to go through the pregnancy together. The pregnant women especially spoke of mutual support and described

how beneficial their partner's support had been to them: *'My partner is really supportive. I'm really lucky' (309PW- 32 years old)*.

The pregnant women and their partners also described a gradual transformation in the pace of their lives as they took on new responsibilities. Several also spoke of changes in their conjugal intimacy. Some noted an improvement in their sexual relations, freed from the constraints imposed by MAR, while others adapted their moments of intimacy: *'It's a little different, but we manage' (69PW- 29 years old)*. However, several mentioned having put their sex life on pause during the pregnancy, due to the physical and emotional adjustments they were experiencing.

During the pregnancy the sexual side was put on hold, it was difficult for her at that time. Both emotionally and even just in terms of desire. (311P-man, 32 years old).

Redefining the boundaries of family and social relationships

Several pregnant women and partners said pregnancy had brought them closer to those around them, especially family and friends with children. Some women explained that being pregnant had enabled them to reconnect with friends, now that they were free of the distress associated with infertility.

When I got pregnant, I got closer to people, my friends, and things improved. Before, I found it difficult, [interacting with] all those who were pregnant. So it really improved my relationships. (318PW- 30 years old).

While most pregnant women and partners reported receiving significant support from their families and loved ones during the pregnancy, several also noted a lack of understanding of their experience during this period as one of the most difficult challenges. For some, the pregnancy rekindled old family tensions, leading them to redefine relationship boundaries. In stepping back from certain people, they created new connections, establishing deep bonds with people who shared a similar journey, while distancing themselves from relationships less aligned with their new reality.

Sure, everyone was happy for us, but most of those around us haven't experienced it, so yes, they're happy, but they can't know how uncool it can be… if you haven't been through it, you don't know what it is, so don't tell me things will work out or that everything will be fine. Especially if you don't know. (89P- man, age not provided).

Entering into a new normal with healthcare professionals

After a long period of dealing with the close medical supervision and strict requirements of MAR, most of the pregnant women received regular follow-up care during their pregnancies. Some of them, and several partners, felt relieved by this new-found normality, now that they were being treated like everyone else.

Seeing it as a pregnancy made it more normal. It removed the medical aspect somewhat… At that point, you were a pregnant woman, it didn't matter how you go there, you were pregnant. (311P- man, 32 years old).

Paradoxically, pregnant women and partners also felt the need for healthcare professionals to recognise the complexity of their journey, emphasising how it coloured their experience during pregnancy: *'Their sensitivity to our situation makes all the difference' (516PW- 36 years old)*. Some women expressed a desire to distance themselves from the medical approach during pregnancy and at the birth, to mark a break with the medicalisation of their conception journey: *'I've had so many medications to create this child, that I don't want any to give birth' (69PW- 29 years old)*.

The pregnant women and partners also stressed their constant need for reassurance from professionals about the progress of their pregnancy.

I needed lots of reassurance. I think I was so afraid there would be a complication, and then having to start all over again with a process that's heavy on medical treatments and time, you just don't feel like going through that again. (311PW- 31 years old).

Others found it difficult to deal with conflicting messages from healthcare professionals about risks associated with conception by MAR for the woman's health and her pregnancy. They expressed the need for more coherent and detailed information.

The doctors wouldn't talk with me about it, but I'd raise it, and I'd get so many different answers it made me dizzy. Some said I should be worried. For some it was, like, who cares? You could see how little medical consensus there is on the subject… but yeah, it affected my experience negatively because it stressed me out. (537PW- 30 years old).

Discussion

This study underscores the complexity of emotions experienced by pregnant women and their partners following MAR for infertility, as well as the challenges in negotiating their parental identity. Recognition of their journey by both their social network and healthcare professionals is pivotal to the integration of this new identity. Pregnant women who conceived by MAR reported living both a dream and a nightmare, a paradoxical experience also identified by other authors [28,29]. For instance, in a qualitative study grounded in a phenomenological approach, Hadavibavili, Hamlaci [28] described how women undergo emotional rollercoasters, where the joy of pregnancy can swiftly give way to anxiety and uncertainty. Our study sheds new light by showing that these intense and conflicting emotions are not exclusive to pregnant women, but are also experienced by partners, who take on a certain responsibility for their spouse's well-being. While many pregnant women gradually manage to enjoy their pregnancy, the fear of losing the baby, shared by both partners, leads them to adopt a cautious posture and engage in the pregnancy with restraint. Our results showed that fear of losing the baby tends to diminish as the weeks go by, but that for some pregnant women, this fear persists throughout the pregnancy. Previous studies [28,30] also found that fears around losing the baby were often less apparent in the partners [31]. These findings underscore the importance for healthcare professionals of considering the couple's emotional experience together, to support both parents during this vulnerable period.

For pregnant women and their partners, their long wait to become parents shapes the construction of their parental identity. Many expressed a sense of injustice towards couples who were able to conceive without difficulty. Consistent with other studies [32–34], our results showed that the transition to parenthood after infertility can be transformative, but is often marked by unresolved losses and latent grief, which can affect self-image. Women who become pregnant after MAR may maintain a negative self-image linked to infertility or question their identity and abilities as future mothers [32]. However, our results showed that, for some women, the sacrifices required to become pregnant instead consolidated their identity as mothers from the start of treatment. Partners, on the other hand, referred more often to the intangible aspect of pregnancy to explain their difficulties in self-identifying as parents at this stage. Our results did not allow us to determine to what extent infertility influences their transition to parenthood, an ambiguity also raised in previous studies on fatherhood after infertility [34]. Some data suggest that men who have gone through infertility experience similar parenting transitions to those who conceived spontaneously [35], while others indicate they may experience a persistent identity of infertility, with their transition to parenthood becoming more concrete after birth, as they begin to share parenting responsibilities with the mother [9]. However, those studies only involved male partners [9,34,35], whereas our study included partners of different genders, thereby shedding new light on partners' transition to parenthood after MAR. These findings highlight the importance of recognising and supporting the specific needs of pregnant women and their partners, to facilitate a smoother transition and strengthen their ability to perceive themselves as parents after an infertility experience.

For the pregnant women and their partners, relational adjustments were needed in different areas of life to achieve balance after successful MAR. On the marital level, some data suggest that pregnant women after

MAR feel less able to provide support to their partner and in return perceive more limited support from them [36], but our results revealed, on the contrary, strong mutual support and solid partnership construction. Several studies have also highlighted the importance of partner support in women's adjustment to a MAR pregnancy [28,37]. Regarding family and social dimensions, our results are in line with other studies showing that relationships with family and close friends can be a source of both support and concern during a MAR pregnancy [16]. Our study participants did, however, express the need to establish new boundaries with those around them, highlighting a little-explored aspect of the psychosocial adjustments associated with pregnancy after an infertility experience.

In the healthcare sphere, pregnant women and their partners appreciated an apparent return to normality, while expressing a constant need for reassurance and recognition of their journey. Although the European Society of Human Reproduction and Embryology (ESHRE) considers the needs of pregnant women after fertility treatment to be similar to those of women who conceived spontaneously, adapting support to the specific concerns of both partners is advisable [38]. This paradox, also highlighted in other studies [39,40], underscores the need for prenatal care that is better adapted to the realities of couples who have undergone MAR.

Strengths and limitations

This study has several strengths. The sample size and diversity offer varied perspectives on the experience of expecting a child after infertility-related MAR. The inclusion of pregnant women and their partners (men and women) as two distinct units of analysis in this case study is a notable strength, enabling in-depth exploration of the emotional, identity, and relational dimensions that shape their parenthood journey in this singular context. Data collection, carried out by a researcher (CR) with no prior link to the participants, continued until sufficient information power was reached, to strengthen results reliability [26]. Finally, adopting a reflexive approach and involving co-authors in data analysis and theme validation reinforced methodological rigour and minimised bias [41].

Nevertheless, this study presents certain limitations. The recruitment via social networks and infertility groups encouraged female participation. Despite various strategies adopted to encourage the recruitment of men [42], their low participation rate may limit the diversity of male perspectives in the study. That interviews were conducted online is another potential limitation of our study. While this made it possible to include participants from different geographical regions, it may have made it more difficult for the interviewer, with reduced immersion in their environment, to perceive non-verbal cues, such as tone of voice, posture, and body language [43]. Finally, the lack of information regarding the reasons for participant dropout during the study also constitutes a limitation, as it precludes identifying what might have been done differently to reduce attrition. Moreover, as with any qualitative research, the findings should be interpreted in light of the specific context in which they were generated, in order to assess the extent to which they are transferable to other settings.

Conclusion

Our findings reveal the complexity of emotions experienced by pregnant women and their partners following a MAR journey, as well as the difficulty some encounter in projecting themselves beyond pregnancy and imagining the arrival of a child. By including partners' perspectives, our study provides novel insights, showing that they too navigate paradoxical emotions, often accompanied by a sense of responsibility for their pregnant partner's wellbeing. For many couples, this long-awaited pregnancy does not automatically dispel the concerns associated with their experience of infertility. As the results indicated, expectant parents frequently feel vulnerable, particularly during the first weeks following pregnancy confirmation. These findings highlight the need for tailored support by healthcare professionals throughout pregnancy. Nurses, physicians, and midwives can support these expectant parents by adopting a caring approach centred on their unique experiences and attentive to the complex challenges they face during pregnancy.

Declaration of Generative AI and AI-assisted technologies in the writing process

Nothing to declare.

CRediT authorship contribution statement

Caroline René: Writing – review & editing, Writing – original draft, Visualization, Validation, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Isabelle Landry:** Writing – review & editing, Visualization, Validation, Formal analysis. **Francine de Montigny:** Writing – review & editing, Visualization, Validation, Supervision, Resources, Funding acquisition.

Funding

This work was supported by the Social Sciences and Humanities Research Council of Canada (SSHRC), the MES-Universités doctoral fellowship program, the Réseau de recherche en interventions en sciences infirmières du Québec (RRISIQ), and the Fonds de recherche du Québec – Société et culture, which funds the Paternity, Family, and Society research team.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgement

The authors wish to acknowledge Mrs Donna Riley, editor and translator, for her assistance in translating the manuscript into English.

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