

Antenatal needs of couples following fertility treatment:

a qualitative study in primary care

Abstract

Background

It is known that couples may experience emotional distress while undergoing infertility treatment, but less is known about their experience of pregnancy following successful conception. Typically, couples are discharged from the fertility clinic to receive standard antenatal care. Recent research has raised questions about whether this care adequately meets their needs.

Aim

To explore the antenatal experiences of females and males who have successfully conceived through infertility treatment.

Design and setting

An exploratory qualitative approach was undertaken, using individual, in-depth interviews with females and males who had successfully undergone infertility treatment in one of three fertility clinics in the south of England.

Method

Twenty participants were interviewed (12 females and eight male partners) when their pregnancy had reached 28 weeks' gestation. Participants were asked about their experiences of infertility treatment, pregnancy, and antenatal care. Interviews were audiorecorded, transcribed, and analysed thematically.

Results

Analysis of the interviews suggested females and males experienced a 'gap' in their care, in terms of time and intensity, when discharged from the fertility clinic to standard antenatal care. This gap, combined with their previous experience of infertility treatment, heightened their fear of pregnancy loss and increased their need for support from their health professionals. Participants' previous experience of infertility treatment also appeared to deter them from preparing for the birth and parenthood, and disclosing negative feelings to others about the pregnancy.

Conclusion

Females and males who have successfully undergone infertility treatment may require additional support in primary care to address anxiety during pregnancy, enable disclosure of negative feelings, and to help them prepare for childbirth and parenthood.

Keywords

infertility; mental health; prenatal care; primary health care.

INTRODUCTION

An estimated one in six couples in the UK have difficulty conceiving, equating to roughly 3.5 million males and females at any one time. Although the majority of these couples will become pregnant naturally given time, a significant minority will not.¹ Consequently, in 2011, 2% of all births in the UK resulted from assisted reproductive treatments; considerably more resulted from other surgical and medical treatments.¹

Despite these figures, a number of studies have highlighted the lack of research into females' experiences of pregnancy following conception through fertility treatment;²⁻⁴ these individuals have been termed the 'forgotten women'.⁵ Even less research considers the experiences of males. Two systematic reviews of this research (on both sexes), have described it as 'emergent'⁶ and confounded by methodological concerns.⁷ A possible reason for this is the tendency for couples who have conceived through fertility treatment to 'blend in' with the larger population of parents-to-be who have conceived naturally.⁸ Following fertility treatment, females are typically discharged from the fertility clinic that treated them, back to their GP to receive standard antenatal care.

What little research has been done suggests that couples who have had fertility treatment, experience pregnancy differently from couples who have conceived naturally.⁸⁻¹¹ Qualitative research

suggests that females who were previously infertile may:

- struggle to adjust to being pregnant;^{8,12-16}
- experience anxiety relating to the pregnancy;¹⁷
- be reluctant to prepare for parenthood;¹⁴⁻¹⁸ and
- be at increased risk of depression.¹⁰

Researchers have also argued that, when females who have conceived through fertility treatment encounter difficulties in pregnancy, they may feel little entitlement to complain as a consequence of the medical success they are deemed to be by health practitioners;^{10,19} this could result in them being overlooked for antenatal and postnatal depression.^{10,20} This is of concern as recent quantitative research comparing the antenatal mental wellbeing of females who have conceived through in vitro fertilisation (IVF) with that of females who have conceived naturally has suggested that IVF may be a risk factor for poor antenatal mental wellbeing.^{21,22} However, it should be noted that the reverse has also been found.²⁰⁻²³

Most of the research conducted to date on the experiences of primary care for couples who are infertile has only considered their experiences before, or at the time of, their fertility treatment. To date, no research has considered couples' experiences of antenatal care following successful conception as a result of fertility treatment.

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How this fits in

We know very little about the antenatal needs and experiences of couples who successfully undergo infertility treatment. Currently these couples are referred early on in pregnancy from the fertility clinic to receive standard antenatal care. This study suggests that the experience of fertility treatment is not forgotten once conception is achieved and that couples may require more support from primary care practitioners to address the anxiety they may experience during pregnancy, allow them to express any negative feelings, and to assist in their preparations for birth and parenthood.

This is important as research that has explored the experiences of antenatal care in the normal birth population suggests that, although couples value a strong relationship with their GP where concern and interest is shown in their physical and mental health,^{24,25} they commonly complain of feeling unable to communicate with their GP or midwife^{26–29} and often feel their GP has little knowledge, or interest, in antenatal care services.²⁷

Current guidelines from the National Institute for Health and Care Excellence for the delivery of antenatal and postnatal care give no consideration to the specific needs of couples who have conceived through fertility treatment.^{29,30,31} As a result, there is currently no guidance for healthcare practitioners who, themselves, have raised concerns regarding the absence of information in caring for these couples.² This study, therefore, was designed to conduct interviews with females and their partners (with males only being interviewed if their female partner was present), who had conceived through fertility treatment, to explore their antenatal experiences with the aim of assessing whether they have specific needs that are not met during the antenatal period.

METHOD

Sampling and recruitment

Participants were sampled for interview from a larger, mixed-method study where 20 participants were approached to take part in interviews and all agreed to be interviewed (LRM French, unpublished data, 2013). This aimed to explore participants' mental wellbeing, along with their adjustment to pregnancy and early parenthood following fertility treatment. This larger study recruited primiparous females and their male partners from three

fertility clinics in the south of England when their pregnancy had reached 6–8 weeks' gestation. Exclusion criteria included those who had:

- insufficient English to give informed consent;
- previously had children; or
- conceived through donor gametes.

Research has suggested that the experience of parenthood the second or third time around is qualitatively different and, for couples conceiving through donor gametes, potentially more complex.⁸

Interviewees were purposively sampled from the larger study according to the:

- type of treatment they received (medical, surgical, or assisted);
- reason for their infertility (male, female, both, not known); and
- length of time they had been trying to conceive.

Maximum variation³² was aimed for in terms of the participant's age, the clinic where they received fertility treatment, and whether they had used NHS or private funding. When consenting to take part in the larger study, all participants were asked to indicate whether they would be happy to be contacted at a later date to take part in an interview. All participants indicated that they would be. One of the researchers contacted all potential interviewees to invite them to interview. Informed, signed consent was taken at the time of interview.

Participants were interviewed when their pregnancy had reached 28 weeks' gestation, as it was felt that, by this stage, they would have experienced the transition to primary care, along with various midwife appointments, and this would give them sufficient experience of antenatal care.

Data collection

The interviews took place between November 2009 and December 2010, were conducted in participants' own homes, and lasted 1–3 hours. All participants were interviewed individually. They were conducted by one of the researchers as part of her doctoral thesis. Data collection continued until data saturation had been reached.

A topic guide was used to ensure consistency across the interviews. Topic areas were ordered chronologically to encourage interviewees to recount their experiences in a narrative style. Topic areas explored were:

- interviewees' views and experiences of infertility;
- visiting the GP;
- visiting the fertility clinic for the first time;
- fertility treatment and subsequent clinic visits until the point of conception;
- conception and finding out about the pregnancy;
- leaving the clinic;
- antenatal care in primary care;
- pregnancy; and
- expectations of giving birth and parenthood.

All the interviews were audiotaped and transcribed verbatim.

Analysis

Interview transcripts were analysed thematically by one of the researchers using the constant comparison method.³³ This researcher developed the themes using an inductive approach³⁴ that allowed for the analysis to be driven by what interviewees said rather than any pre-existing theory. A constructivist epistemology was taken,³⁵ which meant understanding interviewee's experiences as socially and culturally produced and reproduced.³⁵ Notes were made in the margins of the transcript and noteworthy comments highlighted.

Codes were identified by looking horizontally across all of the interview transcripts to compare and contrast views, and vertically within each transcript to provide insight into interviewees' own experiences that had influenced their later experiences. This process led to a coding frame being developed. This coding frame was then refined and tested.

The three researchers independently coded transcripts and then met to discuss their coding. Discrepancies were resolved through discussion and refinement of the coding frame, which entailed new codes being developed and existing codes being defined more clearly or deleted. Once the coding frame had been agreed, the transcripts were then all fully coded and comparisons made across and within the interviews to identify key themes and deviant cases.

RESULTS

Twenty participants (12 females and eight male partners) were interviewed in total (from a pool of 143 participants). Most were recruited from one clinic ($n = 14$), were aged between 35 and 39 years, received NHS funding, and conceived through assisted

treatment (Table 1).

All the participants described the experience of fertility treatment as emotionally, physically, and mentally demanding. They described times of uncertainty over the whole decision to undertake treatment, fear over treatment decisions, anxiety waiting for treatment outcomes, and moments of deep despair when treatment attempts failed.

Analysis of the data led to four broad themes being identified that raise issues relevant for antenatal care following fertility treatment:

- fear of pregnancy loss;
- difficulty adjusting to pregnancy and planning for parenthood;
- gaps in care; and
- self-silencing.

Quotations have been tagged using pseudonyms.

Fear of pregnancy loss

All the interviewees described the experience of early pregnancy as a very anxious time. When reflecting on the experience of fertility treatment, they described coping with treatment by preparing for it to fail in order to avoid the trauma of loss:

'... you don't dare to think how you might feel if it actually works because it's too much to risk to get your hopes up like that, so it's safer to imagine it not working and prepare for that.' (Helen, aged 38 years)

Once pregnant, this fear of loss seemed to be transferred onto the viability of the pregnancy. Interviewees described expecting to lose their pregnancy and of the strong feelings of anxiety this brought:

'The first couple of weeks when you're kind of, um, just waiting, that's all you're doing, you're just kind of waiting. As soon as we've found out [wife's name] is pregnant you go from waiting to kind of an underlying sense of panic, that's how I feel because you're kind of going, "oh God, no, please work, please work, please work" and that's you're kind of doing in your head, "please, please, please" you know, this time, because everything that's gone on in the past just makes it harder, every single time, all you're doing is hoping, willing it as much as you can to just be right, you know, just work.' (Paddy, aged 36 years)

Interviewees reported that these strong feelings of anxiety attenuated when they

Table 1. Participant characteristics ($n = 20$)

Characteristic	<i>n</i>
Sex	
Male	8
Female	12
Age, years	
30–34	4
35–39	14
>40	2
Clinic	
1	3
2	14
3	3
Funding	
Private	2
NHS	18
Cause of infertility	
Male	7
Female	6
Male and female	2
Unknown	5
Treatment received	
Medical	3
Assisted	17
Previous failed treatment attempts	
0	5
1–3	12
≥4	3
Duration of treatment from GP referral to current conception, years	
<1	5
1–3	9
>3	6
Duration of infertility from first attempt to conceive to current conception, years	
>2	3
2–3	6
>3	11

received medical reassurance from healthcare practitioners, underwent scans confirming the pregnancy, experienced strong symptoms of pregnancy, or reached the key gestation dates of 12 and 28 weeks; that is, the stages at which the risk of miscarriage decreases and the foetus was viable outside the womb. As one female participant said:

'Erm to be honest, the first few months that bothered me because you read the books and it says obviously you'll be suffering from morning sickness and if it's twins it will be worse. So I just wanted every, every sign that I was pregnant to come through. I wanted to be sick in the mornings. I wanted to feel tired. I wanted something to constantly remind me I was pregnant.' (Emma, aged 35 years)

Females also described how they worried that they would lose the pregnancy because their body would fail them. This was particularly so for those who had conceived through assisted reproductive treatments; they spoke of not trusting their body to do what it should, of having fertility treatment to 'take control' of their body in order to conceive, and worrying that there was no treatment that could 'take over' their body to ensure the safety of the pregnancy:

'... to be honest I just stopped trusting my body, it never behaves at it should do, if you expect it to do something, it will do something else.' (Helen, aged 38 years)

'Without medical, um, control, help, I truly believed I would lose this baby, that my body would let me down.' (Sally, aged 32 years)

Difficulty adjusting to pregnancy and planning for parenthood

Although many of the males mentioned feelings of anxiety about the pregnancy, they spoke predominantly about their feelings of joy and elation at finding out about it. In contrast, for females, the prolonged experience of fertility treatment appeared to give rise to their having difficulty adjusting to their newly pregnant state.

When describing their feelings about conception, many females tended to focus on how unprepared they felt for it:

'I mean I know what the pregnancy test read and I had the scans, but actually believing I was pregnant was very different, I think really because I'd never really been prepared to be pregnant, you know, thought

it would happen.' (Becky, aged 31 years)

Many women also described feeling 'rushed' into pregnancy with little time to integrate the previous emotional experiences of infertility and fertility treatment:

'But the rest just hasn't gone away [the fertility treatment]. What it's taken to get here, what it's taken out of me to get here, I can't just suddenly forget about and everything become wonderful. Because I didn't feel like that.' (Lucinda, aged 35 years)

Indeed many described feelings of numbness and low mood in the early weeks of pregnancy:

'I think it was not long after that [first scan at 6 weeks] ... a couple of days after that, I had a very, very peculiar day where ... it was almost kind of an anti-climax, a really significant anti-climax erm ... because I'd been trying for 5 years and ... Well was it ... was it a ... was it a teary, was it an emptiness.' (Mel, aged 35 years)

Stemming from a fear of losing the baby, both females and males described trying to avoid focusing too much on birth and parenthood for fear of 'jinxing' it.

This often meant interviewees had not performed tasks that expectant parents usually undertake, such as attending antenatal classes, reading about pregnancy, birth, and parenthood, and purchasing items for the nursery or baby:

'You know, people keep saying, "Have you decorated the nursery?" and I can't think of anything worse than coming home to a decorated nursery, you know, if, if things go wrong you know. I mean I know there, there are 4000 cot deaths a year in this country. I know that. Not cot deaths, still births.' (Sally, aged 32 years)

Others reported a belief that antenatal classes, particularly those run by the National Childbirth Trust (NCT), were only for females who had conceived naturally:

'I, umm, never really felt that the NCT was for me. I think it's great but I also think it's for people with uncomplicated pregnancies, who've not been through treatment, I [am] not sure. Perhaps I should have joined, I think when you had to sign up for it, I was too nervous [about the pregnancy] and when I wasn't so nervous it was a bit too late, 30 weeks or something I think.' (Lucinda, aged 35 years)

Gaps in care

When the pregnancy reached 8 weeks' gestation, all the participants interviewed had been referred from the fertility clinic back to their GP for standard antenatal care. They all reported some relief at returning to a 'normal' system of care and of wanting to be treated like everyone else:

'... we just want to be treated like everyone else, we always have done and just driving up to our GP surgery on Tuesday to see our midwife like everyone else is exactly where we want to be, so no, no we really don't want, or expect to be treated differently, we're grateful not to be.' (Mel, aged 35 years)

However, this was nearly always contradicted later on in the interview, with many reporting this transition of care as a difficult time. Many interviewees described experiencing a 'gap' in care. They described positively the intensive — sometimes daily — investigations, follow-up care and scans they received from the fertility clinic, and the benefit of seeing the same clinician who was aware of their history. In contrast, they spoke of:

- not seeing their GP;
- waiting many weeks or months to see their midwife for their first 'booking' appointment;
- their midwife being unaware of their conception history;
- wanting the pregnancy to be scanned or checked; and
- not seeing the same midwife each time.

As one participant described:

'I think the hardest bit was the gap between going to clinic and having the scan showing everything was fine and then waiting for what seemed forever, and when we got there [to the GP surgery] the midwife was like, "yeah, here you go, everything is fine, here's what we're going to do but we'll not do anything now, just go home." We wanted them to scan us, check the pregnancy was ok... we thought it would take time, I'd taken the day off work. And we were in and out in 5 minutes. I don't think the midwife knew anything about what we'd been through to get to that first visit.' (Sarah, aged 36 years)

As a consequence, interviewees reported looking for medical reassurance, support, and care privately or from other NHS services; for example, requesting and paying for private dating scans and faking

symptoms of miscarriage, such as vaginal bleeding, in order to be seen in early pregnancy units:

'We didn't really know who to turn to, we hadn't seen our midwife yet and we needed to know everything was okay with the pregnancy so we paid for a private dating scan.' (Dugald, aged 36 years)

'I know if you say you've had a bleed they have to check you, I'm [sic] don't think it was a bleed but I was worried and I needed them to check that everything was okay, I know it was naughty really but ...' (Suzie, aged 37 years)

Participants also spoke of the lack of understanding they felt their midwives had about their previous fertility treatment. Both males and females reported feeling that if they raised any concerns with their midwife, they might be deemed to be 'flapping' and viewing their baby as more special than any other because they had had fertility treatment.

In defence against this, a number of participants were keen to point out that they did not view their baby as any more special than any other, but that the pregnancy was perhaps more special because they had not conceived naturally.

When speaking of the care they valued most from their GP or midwife, participants spoke of the value of personal skills, such as understanding, reassurance, trustworthiness, time, organisation, having a genuine interest in the patient, and knowing about their previous fertility history.

Self-silencing

Many of the females who experienced feelings of low mood and ambivalence in pregnancy described struggling to express these feelings to others for fear of not appearing grateful for the fact that they were finally pregnant:

'I shouldn't [have] been feeling like this, I had no right ... And if they said, "Do you know what, probably," you know, "50 maybe more per cent of women that have IVF that have, that haven't got pregnant on the first attempt ... you know. They're not over the moon either. It's normal." If somebody had said to me it's normal to feel like that maybe I wouldn't have felt so guilty ... I don't think you dare admit to how you're actually feeling because people will think you're being ungrateful.' (Sally, aged 32 years)

Notably a number of participants spoke

of feeling unable to speak to their midwife about such feelings, for the same reason:

'I felt I had no right to go back and say how I felt to my midwife because I don't think she would understand. I think she would expect me to be grateful and after all she's probably right. I don't know why I'm so focused on it, but it upsets me and I don't really know who to talk to about it.' (Mel, aged 35 years)

This was concerning, as it was evident that females who were able to talk to others could then receive more support and realise that such feelings were understandable:

'It wasn't easy but I was glad I had said something to my midwife because I think from that moment on she was on the lookout for me, she popped round a bit more often and just made me feel that how I was feeling was totally normal. Just knowing some days that she was coming was actually quite nice because it gave me some structure to my day.' (Lucy, aged 37 years)

Other reasons, usually given by males for not being able to express their feelings, appeared to stem from feeling different to other friends and family, who had conceived naturally:

'Well they [friends] knew we had been through infertility treatment but until you've been through it you can't really understand. It's was hard enough understanding why I was feeling like I was, I think trying to explain it someone else was very difficult because they just wouldn't have really got it.' (Rupert, aged 50 years)

DISCUSSION

Summary

These study findings suggest early pregnancy may be an anxious time for couples after conception through fertility treatment.

Interviewees detailed how the transition from the fertility clinic to primary care had been stressful due to a time gap between being discharged and presenting for a midwifery 'booking' appointment, and gaps in terms of the intensity of monitoring and knowledge of the couple's infertility history.

The combination of early pregnancy, few pregnancy symptoms, anxiety over possible loss of the pregnancy, and females' lack of trust in their body to maintain the pregnancy, in some cases, had led to couples presenting at early pregnancy

clinics or paying for private scans. It was also evident that both male and female participants found it difficult to prepare for childbirth and parenthood because they feared losing the pregnancy. This, combined with feeling different to the normal birth population, made some couples reluctant to join antenatal classes.

Strengths and limitations

A particular strength of the study is that all 20 participants approached to take part and invited to an interview were interviewed.

Previous qualitative studies have been criticised because they often sampled participants by convenience, from non-clinical populations, often years after fertility treatment.³⁶ The participants in this study, however, were recruited from three fertility clinics, having recently undergone fertility treatment.

All participants were interviewed at approximately 28 weeks' gestation and were receiving antenatal care in primary care; they may not have started antenatal classes, however, which are run for couples to prepare them for birth and parenthood. This potentially undermines the significance of the finding that many participants had not attended antenatal classes.

Further interviews with the participants conducted at 6 months postpartum (LRM French, unpublished data, 2013), but not included in this study, looked more widely at participants' experiences of pregnancy and childbirth following fertility treatment. These interviews showed that between the time the first interview at 28 weeks' gestation and the birth, many participants continued to feel unable to attend antenatal or parenting classes as a result of feeling too nervous to plan and prepare for the baby in case they should lose the pregnancy.

The main limitations of this study relate to the fact that the sample was from a larger study that had excluded couples with previous children or a history of conception through donor gametes. Furthermore, although the three clinics were all based in the south of England and attracted a population of patients demographically very similar, participants were purposefully sampled and the majority of them had conceived through assisted treatments at one clinic. All of these points may limit the extent to which findings can be generalised to other couples who have undergone fertility treatment.

It should also be noted that although the age of the study sample appropriately reflects the demographic of females who conceive through fertility treatment, it is

older than the average age for primiparous females who conceive naturally in the UK which is 27.9 years according to the census.³⁷ This may have implications for comparing the findings of this study with studies that have considered the antenatal experiences of women who conceive naturally.

Comparison with existing literature

To the authors' knowledge, this study is the first in the UK to consider the antenatal needs of females and males in primary care following conception through fertility treatment. It responds to the request from healthcare practitioners for further research into the needs and experiences of couples following successful fertility treatment,^{3,4} and provides synthesis and explanation to the few isolated findings that have considered the mental wellbeing of females following fertility treatment.

This study did not set out to compare and contrast the experience of pregnancy for couples who have conceived through fertility treatment with couples who have conceived naturally and the researchers acknowledge that some of the findings presented here may be relevant for all couples. However, these findings do support previous research that suggests pregnancy may be a different experience for those who have conceived through fertility treatment compared with those who have conceived naturally; they provide possible explanations for why previous studies have found that females who have conceived through fertility treatment experience more pregnancy-related anxiety than those who have conceived naturally,^{8-11,38-40} and why couples may find preparing for birth and parenthood difficult.¹⁸

When findings of this study are compared with those from a national survey of females' experiences of maternity care,²⁶ it is noteworthy that most couples in this study did not attend antenatal classes and that the main reason given for that was a nervousness around pregnancy loss. In the normal birth population, most primiparous women will attend classes unless it is inconvenient or they are not offered.²⁶

Regarding self-silencing, the findings support previously unsubstantiated suggestions that couples may feel little entitlement to complain about their pregnancy when difficulties are encountered, due to a pressure to feel grateful for treatment they have received.^{10,20} This is particularly relevant as the only research to look at self-silencing in pregnancy, in the normal birth population, has found it to be associated with poor mental wellbeing.⁴⁰

Implications for practice

Although the Nursing and Midwifery Council's rules and standards⁴¹ stipulate that midwives must make the needs of the mother and her baby the primary focus of practice, the needs of couples who conceive through fertility treatment is not addressed at a policy level.³ There is little research that considers their experiences,³ providing little evidence for healthcare professionals on which to base appropriate antenatal care.⁴ These individuals have become the 'forgotten women',⁵ and to transfer their care to a health professional who has no knowledge of their conception history can lead to them feeling abandoned.⁴² This research underlines this, highlighting the need for GPs and midwives providing antenatal care to be aware of couples' previous infertility history, and suggests that these couples should receive an early booking appointment soon after being discharged from the fertility clinic.

This research also suggests that healthcare practitioners may need to encourage couples who have conceived through fertility treatment to attend antenatal classes, and to talk about their experiences in order to let go of their previous infertility status and focus on becoming parents.

Findings regarding couples' tendency to silence negative or ambivalent feelings in pregnancy should also be a concern for health practitioners; health professionals need to be careful not to encourage sentiments of gratitude in couples for pregnancy or parenthood that may inhibit them from expressing negative feelings.

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Ethical approval

The study was submitted to, and approved by, the National Research Ethics Service's Southmead Research Ethics Committee (08/H0102/37).

Provenance

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Competing interests

The authors have declared no competing interests.

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