Managing multiple goals during fertility treatment:
An interpretative phenomenological analysis

Elly Phillips, James Elander and Jane Montague
Centre for Psychological Research, University of Derby, UK

Correspondence: Elly Phillips, e.phillips@derby.ac.uk

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Abstract

This study investigated how men and women made sense of multiple goals during fertility treatment. Both members of three heterosexual couples participated in two or three semi-structured interviews over 6 months, producing 14 accounts, which were analysed using interpretative phenomenological analysis. The goal of biological parenthood dominates assumptions in infertility research, but its importance varied between participants, who balanced that goal with retaining emotional well-being, avoiding financial difficulties and maintaining their relationship. These themes are discussed in the context of the self-regulation model, which allows fertility treatment experiences to be conceptualised more broadly than do other models.

Keywords: fertility treatment, goals, health psychology, infertility, interpretative phenomenological analysis, in vitro fertilisation, men's health, phenomenology, self-regulation, women's health

Introduction

Parenthood is usually an essential life milestone (Van Balen and Bos, 2004), but the transition to parenthood is disrupted for 9 to 15 per cent of the population who encounter infertility (Boivin et al., 2011). Qualitative studies suggested that infertility can be the most difficult experience a couple encounters (Greil et al., 2010), but quantitative studies have found little difference in distress and adjustment between infertile groups and population norms (Lord and Robertson, 2005). One approach to understanding that discrepancy is through theoretical frameworks like Lazarus and Folkman's (1984) transactional stress and coping model (Stanton and Dunkel-Schetter, 1991) and, more recently, the self-regulation model (SRM; Leventhal et al., 1998).

The SRM describes a cyclical process of goal setting, strategy selection, coping, evaluation and re-adjustment when a health problem is encountered (Boekaerts et al., 2005). The model represents individuals as problem-solvers striving toward a desired goal with multiple illness representations influencing the self-regulatory process (Leventhal et al., 2004). The model focuses on more

processes than just coping and adjustment, with illness representations having a significant effect on adaptation, independently of coping (Benyamini et al., 2004, 2009; Lord and Robertson, 2005).

Goals are a key element of self-regulation (Lord and Robertson, 2005), and research into goals and infertility has focused on their impact on adjustment. Kraaij et al. (2010) drew on the self-regulation framework to study how goal adjustment during fertility treatment affects distress. They found that individuals who were unable to disengage from unattainable goals and re-engage with others tended to experience more depression and anxiety. Another study, of involuntarily childless people, found a negative correlation between goal disengagement and negative affect, whereas re-adjustment to attainable goals was associated with positive affect (Kraaij et al., 2009). Salmela-Aro and Suikkari (2008) measured appraisals of the attainability, importance, stress, and other aspects of goals at multiple time points during and after in vitro fertilisation (IVF). They found that goal appraisals varied with treatment results, highlighting a link between the ability to adjust unattainable goals and depressive symptoms.

Research on goals and fertility treatment have assumed that biological parenthood is the predominant goal (e.g. Benyamini et al., 2004), with other goals such as career, hobbies and relationships being disrupted, lost or de-prioritised as patients invest resources in treatment (Benyamini et al., 2008; Kraaij et al., 2010). The assumption has been that people only adjust their goals away from biological parenthood when treatment has clearly failed (Daniluk and Tench, 2007; Kraaij et al., 2009; Salmela-Aro and Suikkari, 2008).

There has been no research to our knowledge on how people manage multiple goals while experiencing infertility, despite the fact that theoretical models of self-regulation include multiple, hierarchically organised goals (Scheier and Carver, 2003). Psychological research on self-regulation and infertility has taken a quantitative approach (Benyamini et al., 2004, 2009; Kraaij et al., 2009, 2010; Lord and Robertson, 2005). To our knowledge, there are no qualitative studies of infertility and self-regulation, despite the fact that the self-regulatory model is essentially a phenomenological model, focusing on people's subjective illness experiences (Leventhal et al., 1998).

The aim of the present study was to explore how men and women manage multiple goals during treatment for infertility. We used interpretative phenomenological analysis (IPA) to investigate these experiences among both members of heterosexual couples during IVF treatment. IPA is a qualitative phenomenological approach to studying individual perspectives and experiences (Smith, 2004). It has been applied widely in health psychology (Brocki and Wearden, 2006) including with theoretical models like the SRM (Harman and Clare, 2006; Nicholls et al., 2004; Senior et al., 2002).

Although the main focus of the present study was on goal management within an individual self-regulatory framework, the influence of being part of a couple and changes over time in treatment were also considered. The research question was 'how do men and women manage their goals during the early stages of in vitro fertilisation (IVF), and how is this influenced by being in a couple, or by changes over time'?

Methods

A longitudinal qualitative approach was taken. Participants were recruited as couples because couples usually seek treatment together and because we wished to explore both men's and women's experiences. Each individual participated in semi-structured interviews, with the first interviews occurring before any surgical IVF procedures and the second interviews around 6 months later. Two participants (one couple) were interviewed for a third time after their first treatment cycle in order to include their experiences of the outcome of that treatment cycle in the study. All resulting data were analysed using IPA.

Data collection

Interviews took place in person or by Skype™ with a webcam and were recorded. Participants were interviewed individually. Previous research suggests that individual interviews allow participants, particularly men, to express negative perspectives or distress that they may wish to conceal from their partner (Glover et al., 2009; Throsby and Gill, 2004). The interview schedule drew on the self-regulatory, stress, coping and infertility literature. Interviews began and ended with general questions, addressed positive and negative experiences, and replaced concepts like 'stress' and 'coping' with 'what bothers you' and 'what helps you', to elicit participants' understanding of these issues (Clare, 2003). Questions were opened ended, for example, 'in what ways is the fertility treatment affecting your life? They can be good things and bad things'. The interviewer encouraged participants to reflect widely on their experience using prompts such as 'what bothers you the most' and to consider the effect of 'treatment itself' 'work', 'social life' or 'emotional' or 'physical' aspects.

The study conformed to British Psychological Society (2004, 2006) and American Psychological Association (2002) ethical standards, and the protocol was approved by the University ethics committee and clinic Institutional Review Board. Participants gave written informed consent, and pseudonyms were used to protect their anonymity. They acknowledged the confidentiality of their partner's accounts and consented to recording of Skype interviews.

Participants

The participants were a homogeneous sample of heterosexual couples with primary infertility beginning IVF using their own genetic material. To be included, both partners had to read and speak English, have no other chronic health conditions and not be seeking psychological therapy. Diagnosis and treatment protocols were not employed as selection criteria because they may change over time (Greil, 1997). A nurse at a collaborating fertility clinic presented details of the study to eligible couples and connected those interested in participating with the first author (E.P.). E.P. recruited additional participants through personal networks, although no participants were previously known to the researchers.

A sample of three couples allowed individual perspectives to remain visible in the analysis (Smith et al., 2009). Natalie and Jeremy are European-Americans who had been married a few years and were both in their late 30s. During the study, they experienced one unsuccessful cycle each of

IVF and intrauterine insemination (IUI). By the second interviews, they were pursuing a second IVF cycle and were adopting a baby boy. Judy and Matt are Asian-Americans. She was in her early 30s and he was in his late 40s. They had attempted several IUIs before beginning IVF. Their first two IVF cycles failed, but Judy conceived twins during their third cycle, around the time of their second interviews. Cathy and Chris are white and British. She was in her early 30s and he was in his mid-40s. They undertook IVF to overcome Chris's vasectomy. They were interviewed three times each, with the additional interview occurring a month after their first IVF cycle. They undertook two unsuccessful cycles of IVF during the study. All couples were paying for IVF treatment themselves.

Analytic procedures

Analysis drew flexibly on the established IPA guidelines (Smith et al., 2009). Interviews were transcribed verbatim. Initial coding involved reading the transcript and making notes, drawing on observations made during the interviews and transcription. Transcripts were then coded line by line: describing, summarising and attending to linguistic elements such as pronoun and metaphor use (Smith et al., 2009) without reference to any theoretical model. Emergent themes were developed from these codes and clustered with related themes.

From this, a narrative account with extracts was written for each interview (Van Manen, 1990), focusing on producing detailed, empathic accounts, employing a hermeneutic of understanding (Larkin et al., 2006). All data were coded where possible, including contradictory extracts, producing a comprehensive analysis. As IPA is idiographic, the same process was used for each transcript in turn and in detail. 'Time' and 'the couple' were topics for study, so convergences and divergences between related accounts, that is, different time points and partners' interviews, were explored with additional coding, themes and writing.

Selection of the themes and extracts presented here was guided by Smith's (2011) standards for assessing published IPA research, particularly theme prevalence, representativeness and variation. Prevalence refers to the occurrence of themes across the data set. Representativeness means that the analysis represents all participants. Variability requires attention to the range of experiences within a theme.

The analysis was drawn from topics occurring across most accounts that best illuminated the research question. Independent auditing by IPA researchers outside the research team also took place during the analysis; the coding was then reviewed and reworked in response to comments made through that process.

A reflective journal was kept throughout the study to evaluate our roles in the research process. As well as responding to questions that arose during the course of the research, entries addressed the reflective questions posed by Ahern (1999). Responding to these questions allowed us to reflect on our own knowledge and expectations about fertility and infertility in relation to the data. Acknowledging our subjectivity in terms of our personal beliefs and values helped us to identify 'new' information more readily. In addition, reflecting on the epistemological perspective we brought to the analysis enabled a more focused and balanced approach to the research. For

example, in response to Ahern's question on new or surprising aspects arising during analysis, E.P. wrote,

> "My first two interviewees seemed highly atypical of what I expected. I was assuming I'd get the 'usual' infertility patient: worried, stressed, anxious, determined to succeed etc. They were nothing like this. I think it helped me align to my topic in a much less personal way and also look more deeply at the data to see what is happening, rather than look for obvious statements and simply to classify the data into pre-existing categories."

Recognising the contradiction of previously held expectations with data helped focus the analysis on the participants' experiences, maintaining a phenomenological perspective, as well as engaging the double hermeneutic of IPA. This recognition informed further interpretations, with discussions focusing on whether analysis was consistent with a phenomenological epistemology, particularly the participants' sense-making of their world.

Analysis

Four themes are presented, identifying goals that participants drew on: the varying importance of biological parenthood, retaining emotional well-being, avoiding financial difficulties and maintaining the relationship. Illustrative extracts are presented for at least half the participants for each theme. Extracts are labelled with the participant's pseudonym and the interview number ('1', '2' or '3').

'Being parents, not birthparents': The varying importance of biological parenthood

Biological parenthood is often considered a centrally important goal during fertility treatment, but its importance was variable for participants in this study. Some participants focused on the importance of parenthood itself:

> The premium for us was in being *parents*, not being birthparents. And that was from the beginning, that wasn't something that evolved because fertility didn't work. (Natalie 2)

Choosing non-biological parenthood was not a substitute when the goal of biological parenthood became unavailable. Natalie focused on the role of '*being parents*' rather than the biological status. Natalie and Jeremy were pursuing an adoption and an IVF cycle at this time, maintaining two sub-goals that were subsidiary to a main goal of parenthood.

All participants described considering IVF and adoption before beginning treatment. Matt explained that he and his wife, Judy, had considered bypassing IVF:

> How many times do we go through the IUI? And, you know, we've gotten to a point where it was hard for her when she had the miscarriage, and then, now going through, debating whether to do IVF or not? You know, are we, should we go that route or should we go directly into um into adoption? (Matt 1)

Presenting adoption as a viable alternative to IVF suggested that biological parenthood was not of prime importance. Matt phrased his explanation as questions, suggesting that he questioned this choice although they had begun IVF. He considered the impact of treatment failure (miscarriage) on his wife rather than focusing on biological parenthood as a supreme goal. Judy described being open to adoption but discussed why she had not pursued it:

> It's just such a long wait period and stuff, and so I think that would be hard. I think that's why I'm pushing it off, like the decision and all of that. So I think that that would actually be harder than the IVF process. I don't know if other people feel that way, but. And then just waiting for it. Because we have some friends, one friend waited like four years or something. Um, and so that would be gut wrenching, to have to face that option. (Judy 2)

Judy's perception of adoption timelines was more significant than biological connections, which she did not mention. She drew on a friend's specific story with a '*gut-wrenching*' wait. Her interviews implied that familiarity and ease of access to medical care swayed their choice, as adoption required investigation of unfamiliar options. In contrast, Cathy and Chris strove for joint biological parenthood, as they already parented Chris's children from another relationship:

> I talked about it to Cathy before we even started down this process. And she said, well, we've got your kids, and if I'm going to adopt, what's the point of adopting? I've got two children and they come round, I see them and I'm part of their lives. (Chris 3)

Existing literature assumes that biological parenthood has overwhelming importance for couples pursuing fertility treatment (Benyamini et al., 2004; Leiblum et al., 1998). Chris described that for Cathy, biological parenthood held a special place in addition to the act of parenting, which she already fulfilled. For the other participants, parenthood was the more important goal, with biological parenthood one route to that and with most considering adoption and fertility treatment when they believed that they were unlikely to conceive spontaneously. Choosing IVF over adoption seemed driven by the perceived long timelines involved in adoption and familiarity and ease of access to medical care rather than desiring biological parenthood. This contrasts with assumptions in the literature that alternative parenting paths are considered only once treatment has failed, as couples adjust their goals away from biological parenthood (Goldberg et al., 2009; Kraaij et al., 2009).

'We try to keep sane': Retaining emotional well-being

Participants attempted to achieve what they identified as the desirable emotional goals of staying positive and retaining emotional good health. Emotional goals often appeared to be chosen by observing others' undesirable attitudes and behaviours. The female participants drew on comparisons with other fertility patients to select their more emotionally healthy goals. Judy assessed herself favourably against others, describing her good emotional health through downward comparisons:

> I don't feel like there's something wrong with me, you know. Like 'how come I'm like this and they're like that?' Cos I feel like that's what a lot of other people that I've talked to have gone through as far as emotions, you know, they're like why me? (Judy 2)

During her interviews, Judy mentioned seeing others being obsessed with treatment, avoiding babies and pregnant women, lacking social support and self-blame, which are prevalent concepts in the literature. Natalie also referred to other patients' '*tremendous anxiety*' with treatment being '*all-consuming'.* Through these comparisons, both women set negative goals by establishing what they wished to avoid.

Remaining emotionally healthy and positive required work and effort, with participants describing that they were '*trying*'. Chris wanted '*to try and stay positive*' (3). Judy chose '*things I've been trying to use as coping mechanisms*' (1). Jeremy described how '*we try to keep sane*' (1). All these illustrate the desired goal, along with the effort required and actively working to achieve it. Jeremy described *'balancing'* his depression and Natalie's emotional responses to the fertility medications:

> I fight depression, so when Natalie has a bad day and gets upset with me, and then sometimes that makes for a long days for me. But, I mean, it's just the balancing act, everything, so … ahhh, so and she's very aware of it and she works very hard to make sure, I mean, she tries not to dump everything on me. (Jeremy 1)

He set desired goals alongside the actions to achieve them: he '*fights depression*', whereas she tried '*not to dump everything*' on him. Although negative emotional responses were expressed, both made an effort to overcome them, by awareness and with the assumption that they can be monitored and managed, as Natalie '*works hard*' and he '*fights*'. Natalie explained differences in agency between her ability to manage her emotions and the medical process:

> I can't control the process but I can control my attitude so I might as well just focus my energies on that. (Natalie 1)

Her '*attitude*' is a choice, requiring work to '*focus my energies*'. Her separation of '*process*' and '*attitude*' placed her emotional situation alongside, rather than as a response to, medical treatment. Her focus on controlling her emotions differs from the focus of control over the process or outcome of treatment in most infertility literature (Glover et al., 2009; Verhaak et al., 2007).

Being emotionally healthy appeared an ongoing goal but achieving it changed over time. Chris drew on specific positive signs rather than general optimism by his third interview:

> We had seven eggs this morning; that was very positive! And my little sperm were very, were up for the job as well, very good, very positive. That's two positive things today! And also, mine and Cathy's relationship every time, you know, much as I said all that before, when we come to times like this I just realise what a cool relationship we've got … So that's a really positive thing at the moment. (Chris 3)

Experiences encountered during treatment introduced new factors that participants incorporated into their sense-making. When Cathy encountered an unexpected negative reaction to the medication during her second cycle, effort was required:

> I think it's hard to keep positive. It was so great last time. I mean the procedure; it was so eventless and hitch-free that it was so easy to keep positive. It's a bit harder this time. (Cathy 3)

The smooth process and low impact of her first treatment cycle, even though it failed, reinforced her positive attitude when approaching the second, creating expectations for her second cycle. The unforeseen difficulties she experienced challenged those favourable expectations.

Much infertility research assesses emotional outcomes, which are often easier to assess than emotional representations (Benyamini et al., 2004). Here, participants developed a goal of 'retaining emotional well-being' and attempted to manage their emotions to achieve that goal. This way, emotional responses were a choice and controllable, although control became more demanding when participants encountered obstacles. Remaining emotionally healthy and well-adjusted was a desired goal rather than a response to their experiences, reflecting the SRM concept of management towards goals, as well as separate emotional representations of a health situation (Leventhal et al., 2003).

'We're not willing to create a financial crisis': Avoiding financial difficulties

Previous research has viewed finances as a means of obtaining and continuing fertility treatment, with researchers attempting to explain why couples end treatment before exhausting their financial resources (Olivius, 2004). For participants in the present study, financial considerations were a concern in their own right. The participants, who were all funding their own treatment, wished to maximise the return from their investment, and to retain funds for adoption, to support a child, and to have money available for other uses:

> It's a financial investment, I mean it's an emotional investment, clearly, but there is a financial component to it. And it's all cash, so you have to sort of think objectively. (Natalie 1)

Labelling the financial aspect as something to be tackled '*objectively*' separated it from an emotional decision. Finances were to be managed as an independent goal. Natalie glossed over the '*emotional investment*' as self-evident ('*clearly*') and focused on financial aspects. Some participants considered their future financial situation. Judy was concerned about spending money on IVF that would be unavailable to spend on an adoption:

> I said like six months ago that we were questioning you know, how, when to look into adoption, and, or if we keep going with the IVF cycles so, um, but yeah, I mean it's getting to the, kind of to the limit where we're not sure about the spending aspect any more, if we can keep going with the IVF. Or if it's like putting it away for adoptions. (Judy 2)

Judy's financial goal is subordinate to the goal of having a child, but she is more concerned with being a parent than being a biological parent. She wanted to manage their finances so she would be able to achieve the goal of parenthood by adoption if IVF failed.

The male participants acknowledged the expense of fertility treatment, that 'there's financial issues with it, too, it's expensive' (Jeremy 1), but expressed fewer concerns about their ability to cope with the financial demands. Matt assessed their financial situation favourably, that 'finances have been OK', with illustrations like not 'struggling' or 'living pay check-to-pay check'. His description highlighted other significant uses for the money:

> The kind of a joke always saying every time we go through the IVF process is like buying a little economy car or something, like oh, we could have bought several cars, you know, by now, but I think the transfer, the IVF where they do the egg retrievals are a little more expensive, but now going through the frozen embryos is a little less, maybe half the cost of a small economy car. (Matt 2)

The comparison with the cost of buying a car emphasised the expense of IVF. He described their '*kind of a joke*', which seemed an understatement of the comparison with a large purchase. For Matt, financial goals seem to span different life areas, enabling them to pursue IVF and to '*help out other people'* (Matt 2). Chris regretted money that could be used elsewhere:

> I don't want it to go to the third one. Because this money we could be spending on a new baby, it's money we could be spending on lots of other things to make our life very nice, but we worked it out that we've got enough money to do the three cycles, so money isn't a big problem. (Chris 3)

Like Matt, Chris emphasised having '*enough money*', and like Natalie, the potential for future uses for the money spent on treatment was important, particularly as money available for their potential child. Financial limits emerged early in treatment, not as financial resources were being exhausted. For Cathy, finances were not '*a pressure*' right now but might become so in the future:

> Financially, we've set aside money for this and I've been saving. So, it at the moment it isn't a pressure, because I know we're OK for money, but if it goes into cycle two or three then I might start feeling differently about that. (Cathy 1)

There was a mismatch between her suggestion that they can '*afford two*' and that it might go into '*cycle two or three*', when they might have already exceeded their financial limits. For Chris and Cathy, IVF was a last resort, whereas it was not for the other participants. Perhaps for that reason Chris and Cathy appeared more willing to exhaust their financial resources to achieve biological parenthood, while still wanting to be able to provide for their future child.

Financial concerns were important to all participants, but the women took the lead in monitoring and managing the couples' spending on treatment. The men mentioned alternative uses for the money spent. All the participants expressed awareness of potential financial limits when beginning IVF, not just as resources were exhausted. Previous research has suggested that men find finances

more stressful than women during fertility treatment (Abbey et al., 1992). Here, this assumption was reversed: the women worried about money, whereas the men emphasised having 'enough', perhaps reflecting stereotypes of men as providers, wanting to appear financially secure (Dyke and Murphy, 2006).

'We're doing it together': Maintaining the relationship

Participants valued the importance of a strong, healthy marital relationship, with the decision to have a child and narratives about creating a family based on maintaining this. Chris described having a child as being the '*cream on top of the cake*', a bonus for their relationship:

> And then I met Cathy. And um we've had a really wicked relationship, and ah very fulfilling, and felt right to have a baby. (Chris 1)

Chris emphasised the strength of their relationship as a foundation for having a child in all his interviews and that having a child was in addition to, not at the expense of that. Having a baby was a fulfilment of their relationship and is a goal within this context. Natalie articulated the dual goals of parenthood and the relationship most explicitly, explaining her unwillingness to pursue IVF at the expense of her marriage:

> We're not willing to crumble our marriage, we're not willing to create a financial crisis, we're just not willing to do that. Because then we're broken, and, I mean, putting any child biological or otherwise into that situation is not healthy. (Natalie 1)

As well as wanting to maintain their relationship, she described having a child as contingent on having a '*healthy*' environment for them. She projected their current experiences into the future and the impact on their potential child. Judy mentioned receiving therapy at her follow up interview but emphasised its focus on her relationship and '*me growing up*' and not on infertility:

> So, it has nothing to do with the fertility, we haven't even talked about, I mean, my therapist knows I'm going through fertility treatments, but it, but I don't even talk about that aspect of it, it's like more other issues that like within our marriage, like ah family related, and, you know, like me growing up and stuff. (Judy 2)

This supports participants' emphasis on healthy emotional responses to treatment, mentioned in the second theme. She valued dealing with issues '*within our marriage*' to achieve a good situation before becoming pregnant. Closeness sometimes reflected a desire to replicate the togetherness required for 'natural' conception that is lacking during the 'artificial' process of IVF, which does not require the simultaneous presence of both partners. Matt strove to attend appointments, to '*be a support to Judy*' (1), and so both would be present while conceiving their child:

> And my thinking was always that I wanted to be at the appointments, so if the kids were ever to ask, you know, about the birds and the bees, it's kind of like yeah mom and dad were together when we conceived you. You know. Instead of, no dad was way over here, and mom was over here and you guys were in a little Petri dish. (Matt 1)

Matt wanted to share first-hand the future narrative about their child(ren)'s conception, rather than drawing on his wife's account, projecting their current choices into a future narrative. While most participants expressed the continuity of their relationship in the future, Cathy and Chris had a conflict between the desire to have a baby and to maintain their relationship:

> You just have to um, you know, just weigh up your, well not weigh up your options that sounds a bit callous doesn't it, just decide either are you going to go for it, or are you actually going to split up. (Cathy 1)

Cathy weighed up her relationship with Chris against her desire to have a baby when he did have children from a previous relationship, with the possibility that she might have to trade-off between the two. She struggled with the magnitude of both life choices, wondering whether she appeared '*a bit callous*'.

Participants valued the involvement of their partner during IVF, for support and decision making and by pursuing parenthood as an extension of their relationship and maintaining a healthy family for their future child. Despite having separate interviews, participants often used the pronoun 'we' to describe their experiences and reflected each other's perspectives closely. Mutual language showed fertility treatment occurring within a couple's relationship as a joint experience, reflecting observations made by Johnson and Johnson (2009) that decisions to seek treatment tended to be made together.

Previous research has considered the relationship as an outcome mediator, such as support during treatment (Abbey et al., 1991), or the impact of individual responses on outcomes for each partner (Benyamini et al., 2009; Peterson et al., 2009). Other research has studied the impact of infertility on the relationship, for example, finding meaning in the marriage (Abbey and Halman, 1995), strengthening the relationship and appreciating their spouses (Lee et al., 2009; Repokari et al., 2007). Previous research has not considered how people see and do their relationship during treatment. The relationship is often subordinated to the need to conceive, for example, showing that the relationship is healthy despite difficulties in conceiving to maintain a valid claim to treatment (Jones and Hunter, 1996). This study highlights how this arose from a desire for mutual experiences because having a child is a joint activity. A common story may be especially desirable with IVF, to reflect natural conception and to project forward to consider how current experiences influence future narratives, particularly in relation to a potential child.

Discussion

This study suggests that goal setting during fertility treatment is more complex and varied than has been assumed. These participants discussed multiple goals. While they were eager to achieve parenthood, participants attempted to balance biological parenthood with maintaining emotional well-being, financial security and a good relationship. Although this study looked for temporal aspects of themes, these appeared largely constant at the different interview time points. Accounts showed some differences between first and subsequent IVF cycles, although not for these themes.

The addition of a third interview with Cathy and Chris added to the temporal aspects of the analysis, which is described where relevant.

Balancing these goals contrasts with the picture of parenthood at any price often described in the infertility literature (Becker and Nachtigall, 1994) and the assumption that other life goals are adversely impacted as fertility patients pour their resources into treatment (Benyamini et al., 2008; Kraaij et al., 2010). There is little explicit research into the goals of people having fertility treatment, and the assumption that infertile individuals (women particularly) are desperate to produce a child at any cost has been criticised before (Letherby, 2002). This research supports and extends Letherby's critique, with both men and women describing various goals during fertility treatment.

Multiple goals are compatible with a selfregulation approach. Scheier and Carver's (2003) model of hierarchical goals with multiple sub-goals contributing to an overarching goal encompasses the results found here, giving a more detailed representation. Within this model, parenthood, but not necessarily biological parenthood, would appear to be the overarching goal for participants. Previous research has suggested a sequential process from fertility treatment, adjusting to treatment failure, and then considering alternative parenting options (Goldberg et al., 2009). This research suggests that couples may consider alternative family building options alongside treatment, although there is scope to understand better why couples pursue IVF rather than adoption, even while expressing openness to both. Verhaak et al. (2007) pointed out that research into decision making about starting (and ending) IVF is lacking. The interviews suggested that comparatively easier access to IVF and familiarity with medical approaches might have influenced this decision. Understanding the impact of the individual importance of biological parenthood may be a key element in better understanding the goal setting of infertile individuals and couples.

The other themes here seem subordinate to the main theme of desiring parenthood, but representing them as goals rather than outcomes or mediators differs from previous research. The representation of emotional states as desired goals rather than inadvertent outcomes of experience differs particularly from previous research. Understanding emotional goals during fertility treatment, rather than evaluating emotional responses, may help clarify why emotional responses to fertility treatment appear to vary so widely (Greil et al., 2010). Identifying multiple goals of those undergoing fertility treatment may elucidate some perplexing issues, such as contradictions between the perceived difficulty of infertility and the lack of general psychopathology (Lord and Robertson, 2005; Verhaak et al., 2007), and why couples drop out of treatment before exhausting their financial resources (Olivius, 2004; Verberg et al., 2008). Understanding emotional representations during treatment (rather than evaluating emotional responses) may explain why emotional responses to fertility treatment appear to vary so widely (Greil et al., 2010). Similarly, identifying different goals and their varying importance between couples may clarify why couples terminate treatment 'prematurely'.

This understanding of multiple goals may have implications for therapy or support of individuals and couples undergoing fertility treatment. Individuals who have the goal of remaining emotionally healthy may resist support if it is perceived as placing them in a category of being emotionally unhealthy. Fertility patients, therefore, may find alternative forms of support more helpful, particularly those aimed at helping them achieve other goals, such as a healthy relationship,

financial security, and making decisions about achieving parenthood through other routes, such as adoption.

The themes reported here are likely to be a subset of the wider goals that may be relevant to infertile individuals. Though these were the most prevalent, identified during their interviews by the majority of participants, there were other goals that appeared in one or two interviews that were not included in this article. Further research with a wider sample might add to these goals and clarify the goal structure suggested here.

This research challenges the perspective that achievement of biological parenthood is the only goal of couples during fertility treatment. Men and women were found to identify and attempt to balance multiple goals that could be conceptualised as a hierarchy, with a top-level goal of achieving parenthood, though not necessarily biological parenthood, and three subordinate goals of maintaining emotional well-being, financial security and a good relationship. Again, further work might allow more detail and variation to be added to the themes developed here.

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