Returning to the Path.

A hermeneutic phenomenological study of parental expectations and the meaning of transition to early parenting in couples with a pregnancy conceived using in-vitro fertilisation.

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A thesis submitted in partial fulfilment of the requirements of the University of Greenwich for the Degree of Doctor of Philosophy

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Declaration

I certify that the work contained in this thesis, or any part of it, has not been accepted in substance for any previous degree awarded to me or any other person, and is not concurrently being submitted for any other degree other than that of Doctor of Philosophy which has been studied at the University of Greenwich, London, UK.

I also declare that the work contained in this thesis is the result of my own investigations, except where otherwise identified and acknowledged by references. I further declare that no aspects of the contents of this thesis are the outcome of any form of research misconduct.

I declare any personal, sensitive or confidential information/data has been removed or participants have been anonymised. I further declare that where any questionnaires, survey answers or other qualitative responses of participants are recorded/included in the appendices, all personal information has been removed or anonymised. Where University forms (such as those from the Research Ethics Committee) have been included in appendices, all handwritten/scanned signatures have been removed.

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Abstract

Background: Increasing numbers of couples are undergoing In vitro fertilisation (IVF) after plans to commence their family is thwarted, a process involving greater psychological and physical demands which may heighten expectations of parenthood. The concept of good parenting is socially constructed and it may be that having actively sought parenthood, parents who have conceived using IVF feel pressure to be 'good' at it. This study seeks to understand the lived experiences of transition to early parenthood following IVF.

Method: A Heideggerian hermeneutic phenomenological study using in-depth data analysis. Three couples expecting their first child, a singleton non-donor pregnancy conceived using IVF, were purposively selected and interviewed on three occasions: at 34 weeks pregnant, six weeks following birth and at three months post birth. The study design enabled rich detail and interpretation aided by a unique combination of both time point and longitudinal data analysis.

Findings: The contribution of interpretive phenomenology to a small number of couples helped draw deep meaning from their experiences. The key finding 'Returning to the Path' was identified as the point at which couples felt they were where they had anticipated being several years earlier, drawing on three over-arching themes: Seeking the Way, Returning to the Path and Journeying On. These were considered using Heideggerian concepts which helped reveal the meaning parents attributed to their experiences. The pregnancy may be experienced as a 'tentative' progression, however following birth, parenthood was embraced with an instinctive, baby-led style – a finding not previously identified. Transition to parenthood was aided by social support and reliance on the couple relationship.

Consideration of potential siblings was a consideration which arose in early parenthood, as couples recognised ongoing implications of the path they had travelled.

Conclusion: Infertility is a deviation from the life path that a couple anticipated; the point of and influences on returning to that path is the key phenomenon identified in this study, which was different for each couple. Findings have implications for healthcare professionals in supporting couples through anxieties in pregnancy, the transition to parenthood and an appreciation of the ongoing implications of infertility.

Keywords: Assisted conception, Hermeneutic Phenomenology, In Vitro Fertilisation, Midwifery, Pregnancy, Parenthood, Qualitative research, United Kingdom

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We were as we were! ..... How could we have been otherwise? Or, being that way, have done otherwise? We were that way, at that time, and had been led to that place, ...by the state of our cognition and our experience up until that moment

Saunders (2017:270) Lincoln in the Bardo

Prequel to Introductory Chapters: The Beginning

Heidegger considered thinking, writing, experiencing the world as being on a way – a way to insight, but one that had to be experienced rather than taught. Consequently, there was no planned route or final destination, but a process of experiencing the journey and being alert to and pondering on that which showed itself (Smythe and Spence 2020). This thesis focuses on the experiences of couples having their first child through In Vitro Fertilisation (IVF) and is addressed using Heideggerian hermeneutic phenomenology. In contrast to other methodologies, hermeneutic phenomenology embraces a wide range of additional literature to prompt thinking as much as understanding context. Throughout this PhD, much of my time has been spent reading around the issues of infertility and Assisted Reproductive Treatments (ART) from both the experience of individuals and wider sociolegal aspects, whilst at the same time reading around parenting and the emerging discipline of 'parenting culture' (Centre for Parenting Culture Studies). These are both large and ongoing subject areas, it would not have been possible to read everything. The choices of which aspects I pursued and included in my writing was mine alone and reflects my own pre-suppositions, whilst the writing and rewriting helped hone it further. My reading took me off at tangents but all of it helped in clarifying the direction of the work, it became as Smythe and Spence (2012:12) refer to, a '*dialogical partner'*. Within these first four chapters are some of the results of my preparatory reading but reading which equally influenced the later analysis in a to-ing and fro-ing between literature and data in a reading-writing-thinking cycle (Smythe 2011). The introductory chapter which lays out the structure of the work is followed by the two areas of background literatures which represent those aspects that I felt were significant in the fields of both contemporary IVF and parenting within high income countries. Chapter four contains the literature review as traditionally expected within a research study, demonstrating a structured search and consolidation of findings.

Chapter One. Introduction

This thesis examines the experiences of couples as they undertake the transition to parenthood following an In Vitro Fertilisation (IVF) pregnancy. Using a hermeneutic phenomenological approach, it focuses on the lived experience of couples as they become parents following assisted conception. My motivation for the study was prompted by my midwifery background and an interest in how men and women negotiate and interpret their experiences of pregnancy, childbirth, and adaptation to parenthood. Those who require IVF to become parents form a discreet group with specific challenges prior to conceiving which may influence parenting.

Within midwifery literature, there is little empirical data of how experiences prior to pregnancy and childbirth influence the experience of becoming a parent. Anecdotally midwives argue that IVF 'solves' the difficulty conceiving and thus may fail to consider experiences prior to that, whilst postnatally, parents of IVF babies are perceived as having increased expectations of parenthood. I aimed to identify the experiences and potential meaning parents made of the transition in the context of their lives. From this, I hoped to propose potential ways for health professionals to support them.

1.1 Background

As technologies and techniques in the field of assisted conception improve, the number of couples becoming parents through IVF is increasing (Human Fertilisation and Embryology Authority (HFEA) 2020). However within the literature for both health professionals and parents, only broad reference to specific needs of these couples are made and following the birth, references decrease still further (Barnes et al 2012, Allott et al 2013, Younger et al 2015, Hudson and Culley 2015, Warmelink et al 2016a). Those who have undergone assisted

pregnancy may face greater psychological (Griel et al 2010, Crespo and Bestard 2016), physical (Thomson et al 2005, van Loendersloot et al 2010, Pandey et al 2012, Skora and Frankfurter 2012) and often financial demands (Connolly et al 2010, Bell 2010) in becoming parents potentially heightening expectations of parenthood. Previous experiences of infertility and reactions to that (a sense of failure and frustration, the cyclical nature of hopes raised and dashed) together with the stresses of intervention (high anxiety, medical intrusion and relinquishing of control) may further influence the transition to parenthood. This potentially altered transition is, as yet under researched and poorly understood and is thus the focus for this work. The experience of infertility for some, whilst challenging, may bring positives for themselves as individuals, their relationship or in readiness for parenting (Woollett 1991, Griel 1997, Schmidt et al 2005a, Paul et al 2010). For others, the anxiety and intrusion of investigations may affect their concept of self and perceptions of childbirth and early parenthood (Golombok and MacCullum 2003, Hjelmstedt et al 2004, Hammarberg et al 2008a, Fisher et al 2012, Khajehei and Finch 2016). Historically the focus on both infertility and parenting has been on the mother rather than the father (Earle and Letherby 2007, Fisher 2009, Bell 2019a, Allan et al 2019a), although this is slowly changing. Although gendered expectations and interpretations of the same situation may be evident, parenthood is usually undertaken as a joint process and consequently, couples were interviewed together.

Midwifery embraces three underpinning aspects: naturalism (physical facts) normativism (social norms) and phenomenological (the lived experience or how things appear to the woman/couple). Contemporary midwifery focuses on the physical, with National Institute for Health and Care Excellence (NICE) guidance underpinning practice. However, this emphasises broad benefits which whilst being useful for the majority of women negates the experiences of individual women, and in itself reflects a political and power imbalance in midwifery/medical interactions (Thomson and Crowther 2019). The literal meaning of

midwife as ‘with woman’ reflects the engagement with and the relational aspects of aiming to understand the woman’s own interpretation of her experience which implies a phenomenological approach (Miles et al 2013a). All of which takes place within a normative environment which is individual to any given time or space. Whilst science or medicine have their own meaning for an event, what an experience means for an individual, couple or family goes beyond the mere biological in the way that it matters to them in their situation (Svenaeus 2011).

1.2 The Research Question

The title identified for this work is '*A Heideggerian hermeneutic phenomenological study of parental expectations and the meaning of transition to early parenting in couples with a pregnancy conceived using in-vitro fertilisation*'. It focuses specifically on first time parents with a singleton pregnancy which is genetically related to both parents. Sub-groups including couples who used donor gametes, single parents, same sex couples and those with multiple IVF pregnancies were excluded. Non-genetic parenthood and social influences on single and same-sex parents may influence transition to parenthood (Golombok et al 2011, Borneskog et al 2013, Rubio et al 2017, Imrie et al 2018) whilst multiple pregnancies cause additional stresses, medically and psychologically (Glazebrook et al 2001, Wenze et al 2015, Ystrom et al 2014).

The primary research question is ‘What is the lived experience of the transition to parenthood for couples with a singleton IVF pregnancy, genetically their own?’

Secondary objectives are to gain insight into:

- The meaning ascribed to the experience of becoming parents following IVF

- Whether parents' perception of their previous experiences of infertility and associated interventions influence this transition?

- Potential differences or similarities between the perceived experiences of mothers and fathers of an IVF conceived baby?

- If, and how parents of an IVF conceived baby perceive wider societal views as influencing their experiences and behaviours?

1.3 Introducing the Theoretical Framework.

The broad theoretical framework initially focused upon transition to parenthood theory. Four commonly proposed transition theories were considered: systems theory (Cowan and Cowan 1992), developmental theory (Rossi 1968), dialectical theory (Stamp and Banski 1992) and role theory (Belsky and Kelly 1994). The first three are derived from psychology and psychotherapy whilst the latter has sociological roots. In addition, the work of Meleis (Meleis et al 2000), a generic transition framework used by nurses and healthcare professionals, is also considered. This recognises the differing nature of transitions; the transition to parenthood being both developmental and situational, transitions occurring simultaneously and the influence of engagement or expectation.

Sandelowski (1995) developed a specific theory of transition to parenthood for both fertile and infertile couples, which appears to reflect developmental theory. She identified four processes: defining (or redefining) nature; holding back or letting go; appraising or claiming the infant and assuming a parental identity. Those who became parents through technological intervention or adoption showed additional processes: social interactions with others (concealing/revealing/accommodating); an intense pursuit of parenthood (mazing); divesting of an infertile identity and a reconstruction of their infertility to regain control. The

uniqueness of the theory, according to Sandalowski, is that it sits outside of the *a priori* psychological concepts and embraces aspects of illness or non-normative adaptation in its between and intra group analysis.

Within these theories there is an implied prescriptive progression to achieve successful transition; a focus on activities or processes (Sandelowski refers to it as work), rather than a responsive reaction wherein parents find their own ways and interpretations of being a parent. Meleis' recognition of three influencing factors: nature of transition, transition conditions and patterns of response better reflects Sandelowski's additional challenges and evidence from research of contradictory outcomes for parents and children from IVF (Hammarberg 2008a). Sandelowski's work was beneficial in the discussion, but the prescriptive progression hindered its applicability to the underlying philosophy. Also considered within the discussion was the work of Allen et al (2019b) who published a retrospective study of transition to parenthood of IVF couples, just prior to completion of this thesis.

1.4 Introducing the Philosophical Framework.

This study sought to understand how couples interpret their own experiences of IVF and becoming parents, consequently a hermeneutical phenomenological approach was taken, based on the work of Martin Heidegger (1889-1976). Hermeneutics is the theory of interpretation, whilst phenomenology refers to the study of a phenomena, as experienced in the first person (Moran 2000), concepts which align with the reflective and reflexive context of midwifery (Plested 2014). Within Heideggerian thinking, the time and context in which an experience occurs is essential to a person's understanding of their experience (Heidegger 1962), with time, context and understanding constantly evolving. In this study, participants' experiences occur within a culture where infertility and parenthood are rich with socially constructed meaning, influencing both parents and researcher. The experience of infertility

encompasses both investigations and treatments individuals go through and the meaning they subscribe to them. Similarly, parenthood is their life-world, of which only their interpretation is relevant. Although the structure of this work implies a linear approach, hermeneutic phenomenology relies upon a spiralling of thinking (Ironside 2012, Smythe and Spence 2012). Thus, extensive reading around infertility and parenthood was regularly returned to, providing context for the thesis.

1.5 Structure of Thesis

Although this study focuses on the transition to parenthood, couples prior experiences of IVF treatment influenced that and, consequently background reading on both current context of IVF treatment and transition theory was undertaken. These two distinct areas comprise Chapters Two and Three respectively. Chapter Four is a specific literature review on the transition to parenthood for couples with an IVF pregnancy, which identified three themes: wellbeing, individual coping and family functioning. Methodology is considered in Chapter Five and through analysis of potential methodologies, demonstrates how that most appropriate to the research question was selected. Consideration of method comes in Chapter Six, including sampling, data collection, analysis and ethical approval. Within chapter six, the difficulties in gaining participants are considered with discussion of the implications focussing on how 'information power' (Malterud et al 2016) was maximised. This is followed by Chapter Seven which focuses on data analysis and using 'crafted stories' to aid analysis (Crowther et al 2016). This reveals ways of 'thinking and being' through engagement with the experienced story rather than pure text and is an emerging adjunct in hermeneutic phenomenological research. Chapters Eight, Nine and Ten present the emerging data followed by Chapter Eleven which discusses the findings in the context of the wider literature and Heideggerian concepts. The thesis concludes with Chapter Twelve, by making

recommendations for practice, research and policy, addressing limitations and reflecting on the researcher's experience.

1.6 Conclusion

This introductory chapter has set the scene for this thesis and provided the structure for the subsequent work, commencing with the background to the use of In Vitro Fertilisation and the experiences of those requiring it.

Chapter Two. The Context of In-Vitro Fertilisation

Within hermeneutic phenomenology, insight is gained not only from academic literature identified by strict inclusion/exclusion criteria but also from poems, art and all literary texts (Smythe and Spence 2012). For myself, once I'd started exploring hermeneutic phenomenology I kept finding insight in novels (a rationale I used in my continuing reading of fiction each evening), whilst appreciation of poetry may be considered both a therapeutic tool (Tufford 2009) and an introduction to interpretive analysis itself (Raingruber 2009).

Chapters Two and Three set the background for this study and precede a systematic review of the literature, giving an overview firstly of In-Vitro Fertilisation and subsequently of the transition to parenting, rather than a formal literature review. Chapter two commences with a definition and consideration of clinical practice, followed by historical background and resultant media responses. The development of the Human Fertilisation and Embryology Authority (HFEA), the sociological perspective of medicalisation and the feminist debate are also considered. The experiences of patients themselves conclude this chapter.

2.1 Infertility and IVF

'Louise Brown's birth..... was a defining moment in medicine and one that went on to have a huge impact on both the lives of individuals and society' (Cheshire 2018).

In 1978, Louise Brown became the first baby born as a result of the newly emerging technique of IVF, a promising medical 'solution' to the problem of infertility (Dow 2017, 2019). Infertility has been defined as a failure to conceive after regular unprotected sexual intercourse for one to two years (NICE 2013). According to the HFEA (2015), one in seven couples have difficulty conceiving and seeking help is recommended when couples have been

trying for over a year (sooner if aged 36 or older or if there are identified causes). Causes of infertility are varied and gender specific. In women causes may be hormonal, affecting the release of ova or physical, affecting the transport or implantation of an embryo (Luciano et al 2013, Masoumi et al 2015). For men, the cause is usually low or abnormal sperm count (Busuttil Leaver 2016). Environmental and lifestyle factors such as body mass index or smoking affect fertility for both men and women (Jurewicz et al 2009, Brewer and Balen 2010, Shukla et al 2014) whilst age, particularly maternal age (Armstrong and Akande 2013, HFEA 2020) shows a negative association. IVF does not resolve these issues and is thus a way of 'bypassing childlessness' rather than treating infertility (Konrad 2003).

IVF involves the surgical removal of the woman's ova (usually following hyperstimulation with drugs to increase the number of ova obtained), fertilisation with sperm outside of the body (this may include intracytoplasmic injection of sperm (ICSI)) and then re-implantation of the embryo into the uterus. The number of IVF cycles performed each year has risen steadily since the HFEA was established in 1991, whilst the live birth rate per cycle has increased from 14% to 29% for under 35's (HFEA 2020).

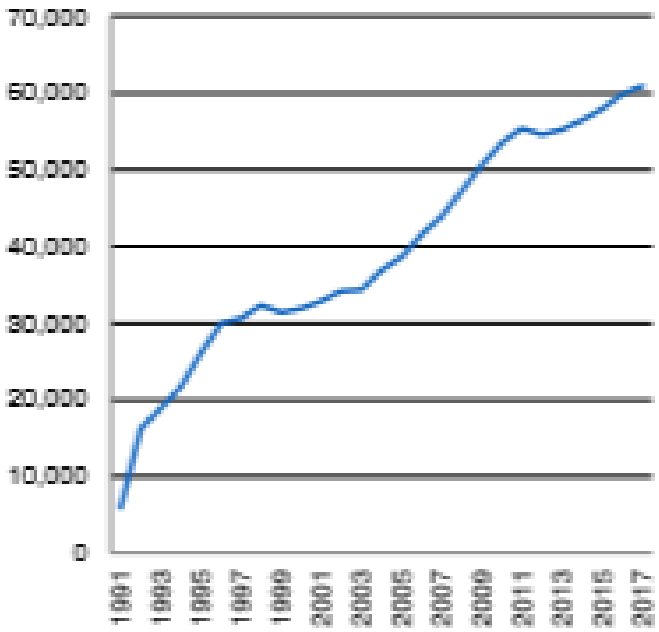

Figure 1. Increasing number of treatment cycles. Own eggs, partner sperm (Human Fertilisation Embryology Authority 2020)

Increasing treatment cycles may be a consequence of improved techniques but may also reflect current cultural norms of childbearing later in life, a factor known to increase difficulty conceiving. Whilst the average age of mothers in the UK is 30.7 years (Office of National Statistics 2020), it is 35.3 for those having IVF, with an average 4.5 years of trying to conceive (HFEA 2020). Social acceptability of treatment may be a factor for those seeking treatment, which relates to societal norms and values; as IVF becomes increasingly common, it also becomes acceptable (Inhorn and Birenbaum-Carmeli 2008, Mills et al 2015, HFEA 2020).

2.1.1 Success Rates of IVF

This acceptability can mean that IVF is perceived by society as the answer to all infertility problems (Weston and Qu 2005), an incorrect assumption which increases stress on those

undergoing treatment. Success rates (birth rate per embryo transferred) for IVF for those aged 35 and under is 31% with minimal difference between using fresh or frozen eggs. Although the mean success rate is 23% there are significant decreases as maternal age increases, to below 5% per cycle for women aged 43 or older (HFEA 2020). The positive media impression of IVF (Mills et al 2015) can lead prospective couples into IVF treatment unaware of the implications of treatment. IVF has been described as '*a market in hope. Those who enter it deserve to be fully informed of its potential to deliver grief and a sense of failure, as well as success*' (Jardine 2013). Clinicians can only advise on possible success rates and couples cannot know what the chances of success are for them. IVF may enable sperm and ova to meet but it cannot ensure fertilisation, successful implantation or ongoing development, which can only be assessed once the cycle has commenced. The emotional, physical and financial constraints on the number of attempts that are feasible, increases the stress on couples which is particularly evident following an unsuccessful attempt (Watkins and Baldo 2004,Verhaak et al 2007, Silva and Machado 2010, Allison 2011, Dann et al 2016).

Limited research exists on couples who withdraw from infertility treatment once started. Cost may be one factor (Connolly et al 2010), with the psychological stress, fear of failure or trauma of treatment also significant (Throsby 2004, Olivius et al 2004, Domar et al 2012). Infertility treatment can become a conveyer belt, in which the decision to stop becomes difficult with some describing it as taking over their lives (Becker and Nachtigall 1992, Daniluk 2001). The vulnerability of couples seeking treatment can impact upon their decision making, leading them to readily comply with proposed interventions (Cudmore 1992, Sandelowski 1993a, Daniluk 2001) and underestimating the risks involved whilst they focus on the hoped for child (Silva and Machado 2011).

2.1.2 Physiological Outcomes for IVF

Although the HFEA publishes outcomes for clinics (HFEA 2020), broad statistics do not reflect individual situations; clinics treating couples with 'milder' degrees of infertility (unexplained infertility, mild endometriosis or mild male factor infertility NICE 2016) will have better outcomes. Some argue the increasing use of IVF is not clinically justified and is being used for couples with mild or unexplained infertility who may have conceived in time anyway (Kamphuis et al 2014). Despite the potential emotional and physical complexities of infertility investigations and treatment, it has become the expected course for couples having difficulty conceiving.

Studies (van Loendersloot et al 2010, Barnes et al 2012, Pandey et al 2012) identify increased physiological risks of IVF to both mother and baby compared to spontaneous conceptions. These include increased risks of miscarriage (Tummers et al 2003, Sutcliffe and Ludwig 2007), although this may relate to age and increased aneuploidy (the abnormal number of chromosomes in a cell) (Sunkara et al 2014), ectopic pregnancy (Muller et al 2016), pre-eclampsia, placental abruption, postpartum haemorrhage (Thomson et al 2005, Pandey et al 2012) and placenta praevia (Poikkeus et al 2007) with advancing maternal age increasing the chance of pre-existing conditions. Poorer outcomes for IVF children are evident, but frequently related to multiple pregnancy and premature birth, both of which may be mitigated by appropriate management (Sazanova et al 2013, Kamphuis et al 2014). The 'one at a time' strategy, initiated in 2007, aims to reduce IVF multiple pregnancy rates and consequently, the risk of both fetal and maternal morbidity and mortality, by avoiding implantation of multiple embryos (Braude 2006, NICE 2013, Eaton et al 2017). The adoption of the single embryo transfer policy in the UK has led to a current low of 8% multiple birth rate, with the HFEA noting no significant benefit on the chance of live birth from implanting more embryos (HFEA 2020)

2.2 The Socio-Political, Ethical and Legal Context

Louise Brown was born in 1978 following extensive work by embryologist Robert Edwards, gynaecologist Patrick Steptoe and their assistant Jean Purdy (Johnson and Elder 2015). Resultant media and public responses ranged between admiration of sciences' ability to 'create a baby', to outright abhorrence at an interference with nature (Powell and Brown 2015, Dow 2017). One of the fiercest critics, the Catholic Church, remains opposed to IVF (Matthews 2017). The publications of the 'Oldham notebooks' (Johnson and Elder 2015) from the 1970's, poignantly detail the many women who undertook investigations which did not result in a baby. However, the majority of couples seeking IVF treatment today were born after Louise Brown and have grown up in an environment where IVF has become a socially sanctioned response to infertility, despite concern around future directions of biotechnology. It has become both '*normal and not'* (Franklin 2013a:7), a process which society recognises from media representation, yet proves more ambivalent for couples needing IVF to become parents.

2.2.1 The Human Fertilisation and Embryology Authority

In response to the growing debate around the ethics of IVF and potential future reproductive technologies the Warnock Committee was set up in 1982, followed in 1990 by the Act which created the regulatory body, the Human Fertilisation and Embryology Authority (HFEA). Its role is to regulate procedures, storage and use of gametes and embryos and to consider ethico-legal issues and policy around potential new advances. The HFEA '*embodies the democratic compromise between strongly held views in society*' (Deech and Smajdor 2007:1) and although well respected (McCracken 2013, Franklin 2013b), it carries a financial commitment. Its regulatory role and response to legal challenges, such as stem cell research or pre-implantation genetic diagnosis (PGD) - both only possible because of IVF, have

monetary implications with costs passed on to patients. Throsby (2004) argues that the acceptable face of IVF in assisting couples to have much wanted babies has enabled a 'technological creep' as developments initially considered unethical or eugenic become legitimised (Theodosiou and Johnson 2011). Within the debate, the Nuffield Council on Bioethics (2018) propose two principles to guide developments: that genome editing interventions are consistent with the welfare of any child produced and that it upholds the principles of social justice (Deech 2018). The interpretation of moral and ethical dilemmas leads to different framing and legislative control of Assisted Reproductive Treatments (ART) in other countries reflecting differing cultural practices, these are monitored triennially by the International Federation of Fertility Societies' Surveillance (IFFSS, Ory et al 2019).

2.2.2 The 'Right' to a Child or 'Lifestyle Choice'?

Whilst IVF for healthy heterosexual couples wanting and appearing able to provide for a child is rarely questioned, whether that desire is a right is debatable. The Human Rights Act (1998) refers to the right to respect one's private and family life (article 8) and a right to marry and found a family (article 12), however, that may not mean a right to help in achieving a family. Whilst society sympathises with those unable to conceive, it may not be considered one's 'private' life if intervention is required (Deech and Smajdor 2007) and paid for by the public purse. It could be argued that prospective parents also have a duty to consider the needs of others in society, restricting unlimited availability of IVF, both financially and socially (although for those who can afford it unlimited treatment is possible). However, the medical profession itself identifies infertility as a 'disease' (World Health Organisation 2018) which consequently should be treated if treatment is available [see 2.4]. In contrast, the majority of health insurance policies do not provide cover for infertility treatment, claiming that children are a 'lifestyle choice' (Stapleton and Skinner 2015); an

argument perpetuated by the stereotype of those seeking IVF as women who have delayed childbearing until they are 'older' in order to focus on a career (Davis and Loughran 2017).

2.2.3 NHS Funding

As it draws upon the public purse, infertility is perceived as both a public and a private issue (Wilkes et al 2009, Crespo and Bestard 2016). Within the UK, current National Institute for Health and Care Excellence (NICE) guidance (2013) suggest that Clinical Commissioning Groups (CCGs) should consider funding up to three full cycles for patients under 40 and one full cycle for those aged 40-42, however few offer this. This discrepancy between what individual CCGs will fund (varying between following the NICE guidance to not funding any IVF cycles) leads to the often quoted 'postcode lottery' (Byrne 2014, Payne and van den Akker 2016, Fertility Fairness 2018, Fertility Network 2019). CCGs are expected to respond to local needs and consequently fertility treatment may not be considered a priority. Despite evidence supporting long term economic benefits (Connolly et al 2009), there is minimal data on the general public's perception of appropriate areas for NHS funding. However, Benenden (2015) found that almost 60% of respondents expected couples to pay some of the costs of IVF treatment, whilst 20% thought couples should pay all costs. Currently the HFEA reports 60% of UK treatments are privately funded with the gap between those who can or cannot afford to pay widening (HFEA 2020). The commodification of reproductive treatment has enabled significant profit for fertility clinics (Spar 2006, Klein 2008). The HFEA regulates clinics but has no influence on pricing however it has spoken out about 'treatment add-ons' few of which are clinically proven (2018). For couples unable to access NHS funding, they commence infertility treatment not only dealing with the uncertainty of outcome, but not knowing the full financial cost involved (Luik 2015).

2.3 Pronatalism versus Choice

Couples, and women in particular, can face considerable pressure to have children, even in cultures where there is perceived free choice. That pressure may be intrinsic or come from family, community, or wider society (Brown and Ferree 2005, Cassidy and Sintrovani 2008, Burnett 2009). Motherhood remains a key concept of femininity and failure to become pregnant may challenge women's perceptions of self (Gillespie 2000, Throsby 2001, Earle and Letherby 2007). Whilst motherhood is seen as being undervalued in society with little material or social status, non-motherhood is granted even lower prestige (Reissman 2000, Letherby 2002), irrespective of the reason for not having children (Rich et al 2011). From a feminist perspective, motherhood and assisted conception in particular, suggest diverging critiques; motherhood as oppression versus motherhood as the embodiment of womanhood (Klein and Rowland 1989, Koch 1990, Denny 1994, Klein 2008). Whilst IVF may be welcomed as offering the potential for, or even right to, a choice over one's fertility, this is posited alongside an assumption that motherhood should be an obligation to pursue, despite associated physical and psychological risk to the woman's health, irrespective of the cause of infertility (Sandelowski 1993a, Throsby 2001, Neyer and Bernardi 2013, Crespo and Bestard 2016). As technological intervention becomes a normal response, to not use it becomes no longer a choice (Katz Rothman 1989), instead an expectation of at least 'trying' (Franklin 1997, Throsby 2006, Franklin and Roberts 2006, Toscano and Montgomery 2009), in which to opt not to have children or treatment becomes a radical decision.

2.3.1 Childlessness Discourse

Despite increasing numbers of childfree individuals (ONS 2019) there is, for most couples, an assumption that once they are in a committed relationship, financially secure and living independently, children will naturally follow. This expectation, reflected in questioning or

assumptions of others, carries implied accusations of selfishness for not having children (Maher and Saugeres 2007, Rich 2011, Bell 2013), parenthood being seen as a 'moral imperative' for both men and women (Ashburn Nardo 2017). This pronatalism reflects a dominant societal approach (Brown and Ferree 2005) rather than a holistic and rights-based focus (Bell, 2013).

Stigma is associated with any mark of difference from the perceived norm and the dominant social discourse (Goffman 1963, Jones et al 1984). The falling fertility rate in Britain is identified as a potential concern for Government, in view of the aging population, and whilst explicit pronatalism is generally avoided, policy and media portrayal (Brown and Ferree 2005, Grant and Hoorens 2006, Coast et al 2014) promote family life. Stigma is an experience for many couples without children, both those who choose not to (Lisle 1999, Park 2002, Rich et al 2011) and those who wish to procreate but cannot (Slade et al 2007, Monti et al 2009, Allan and Mounce 2015, Walker at al 2017, Carson et al 2019), who challenge the normal expectation that couples will have children. Individuals use a range of strategies to deflect this criticism, including humour, embarrassment of others by honesty, or avoidance of specific situations (Rich et al 2011), whilst others may use silence as a protection (Allison 2011). Throsby (2001:34) refers to female childlessness as being *'bereft of gender'* not being part of female discussions about children, nor fitting in with men's discussions; an exclusion from part of society. Occurrence and timing of childbearing is influenced primarily by social expectations, situation and circumstance (Maher and Dever 2004) with peers' childbearing influencing one's own (Balbo and Barban 2014), thus isolating those who are childfree within social groups. Even if it wasn't their experience, childless women identified negative characteristics in the discourse of their situation: unnatural, unwomanly, undervalued - together with an assumption by others that they were mothers on the basis of their age and gender (Rich et al 2011, Domar et al 2012). This

perception of stigma may reflect a Western, middle class perception, however those couples who are voluntarily childfree are more likely to be older, college educated and both in well paid jobs (Waren and Pals 2013). In contrast, involuntary childlessness crosses class and cultural divides, yet those most likely to seek professional help tend to have higher socio-economic status (Datta et al 2016, Bell 2015a) and be Caucasian (Bell 2010, 2015a). Individual perceptions of stigma can be rejected – what society may view as defecit, may not reflect an individual's self concept. Similarly, a label of infertility may be accepted or rejected, despite similar semblance (Loftus 2009, Leyser-Whalen et al 2017). If not necessarily feeling stigmatized, those without children often feel a need to justify their position; it is not a 'neutral status' (Rich et al 2011). This expectation on couples to have children, whilst not overt, may encourage those having difficulties conceiving to pursue treatment as an obligation rather than an option (Katz Rothman 1989, Klein 2008, Bell 2019a). Although a couple condition, the burden of infertility disproportionately affects women, rather than men – both socially and physically (Klein 2008, Rich et al 2011, Inhorn and Patrizio 2015).

2.3.2 Social Risk for Women

The above discourse is particularly distressing for women who are not childless by choice. Although stigma may be greater for those who choose to be childfree rather than those unable to have children (Rich et al 2011), it remains an issue (Sternke and Abrahamson 2015, Walker et al 2017, Worthington et al 2019), particularly for some cultural groups (Reissman 2000, WHO 2010, Ergin et al 2018) where there may be a strong pronatalist culture (such as Israel – where IVF is state funded) or where a woman's value is linked to her ability to provide an heir. Reissman (2000), in her study of South Indian women, identified how wealth and education resisted but did not ameliorate the stigma. Increasing celebrity disclosure (Shields 2005, Obama 2018) may be mediating stigma within high income countries, which

may be further assisted by specific online interaction (Mickey et al 2012, Jansen and Saint Onge 2015) although postings from broad social media may exacerbate distress (Hoffman 2018). The response of immersion in work, leisure activities or support groups (Parry 2005), may be misinterpreted by others as putting careers before motherhood rather than recognising career commitment as a response to fertility difficulties (Woollett 1991, Franklin 1997).

Where it exists, the stigma of infertility is not just related to differing social norms. Potential causes of infertility for women include delayed childbearing and undiagnosed sexually transmitted disease (STD), enabling some media sources (Sangster and Lawson 2014, 2015) to sensationalise those causes as women putting a career before motherhood and of female promiscuity (Breitkopf and Rubin 2015, Davis and Loughren 2017). The pressure on women of being 'responsible' for their infertility can be seen in the interpretation of individual behaviours; the stress of investigations interpreted as obsession (in some cases considered as exacerbating the issue) and attachment to pets interpreted as 'substitute children' (Woollett 1991). Bell (2013) identified 'courtesy stigma' where women may accept responsibility for joint factor or male infertility despite infertility still perceived as more stigmatizing for women than for men (Worthington et al 2019). Franklin (1997) describes IVF as a 'way of life' in the way it takes over, but offering a 'hope technology' rather than a guarantee whilst Berger et al (2013) refer to women 'trapped' in a complex web of infertility-related interactions.

The physical risks of reproductive technology, pregnancy and childbirth are greater for women than men and it appears, so are the social 'risks'. Whilst IVF may offer choices, for women it may be to choose a spontaneous pregnancy at an earlier point in life with a transient partner or take a chance on waiting for a more appropriate personal situation and relying on possible interventions. Provision of reproductive choices for the population as a whole may be of limited benefit to individual women in the broader context of their lives. Although in

theory women have some degree of control over their reproductive rights (if only in Western countries) these are influenced by social factors, in particular personal relationships and broader societal expectations (Earle and Letherby 2007).

2.4 Medicalisation of infertility

The World Health Organisation (Zegers-Rothschild et al 2009) considers infertility a disease, thus a legitimate cause for medical treatment, whilst in the USA, disability legislation has the potential to enable funding for treatment (Khetarpal and Singh 2012, Sternke and Abrahamson 2014). However, not all doctors (Devlin and Parkin 2003, Matthews-King 2016) nor the general public (Benenden 2015) would consider infertility a disease or appropriate for public funding. The range of causes, whether physiological or social, and difficulty in defining what constitutes a disease negate argument over definition and instead society should consider the ethicality (Maung 2017).

It may be argued the cultural imperative to reproduce pressurises couples to utilise all available options, looking towards medical technology to provide that (English et al 2012). Unusually within medicine, cure or intervention need not be the only answer; acceptance of a child-free life or adoption may be equally valid choices. Historically, infertility has been seen as a social condition, an often sad but unchangeable state. The development of treatments, and IVF in particular, offered couples the possibility of a child of their own and enabled the medicalisation of infertility. The couple presenting for assistance determine the concern rather than the professional (Greil et al 2010a), with the symptom being the distress perceived by the couple themselves. Infertility is a cyclical condition and whilst professional recognition of the problem may initially bring a degree of relief or hope, each subsequent unsuccessful attempt emphasises the distress (Becker and Nachtigall 1992, Verhaak et al

2007, Toscano and Montgomery 2009) with metaphors of gambling used by both doctors and parents (Mentor 1998). Accepting the medicalisation of infertility means that success equates to a child; adoption or remaining childfree may be a failure for all concerned, affecting both parents (Filetto and Makuch 2005, Johansson et al 2010) and staff (Cowan 2003, Kerr 2013). A review of psychosocial implications of infertility concluded that '*women are not merely passive victims of medicalisation and male reproductive control but are rather active agents in defining their own experience and in constructing meaningful moral worlds in situations not of their own choosing*' (Greil et al 2010a:154). This focus on 'women' may reflect a patriarchal view of medicalisation (Young 1984, Moore 2008, Halcomb 2018), however Barnes (2014) identified how men embraced medicalisation as a way of separating their infertile self with their sense of masculinity.

2.4.1 Professional Power

Parents may welcome the labelling of infertility as a medical condition with interventions offering a morally neutral response to the stigma of infertility, the patient can 'get better' by availing themselves of treatment (Becker and Nachtigall 1992, Conrad 1992) It was the patient's desire for a child and turning towards medicine (historically it would have been religion) that encouraged the medical profession to find solutions, a process that brought advantages to the medical, pharmaceutical and technological professions, in both financial and personal power (Conrad 2005, Reissman 2010, Conrad and Barker 2010). However, the consequence of this for couples was disempowerment, as control was handed over to the medical profession. The language used within infertility treatment is scientific and political with the emphasis on creation of a fetus or pregnancy, rather than a parent (Klein 2008, Thompson 2016). Journalism emphasises this in language of epic quests – succeeding against the odds in 'getting' a woman pregnant, with doctors as heros (Mentor 1998). In contrast the hero analogy is used by Thomson and Downe (2013) with the woman, rather than health

professionals, as the hero in embarking upon a subsequent pregnancy following traumatic birth. This has resonance for women undergoing infertility treatment which can be physically draining, uncomfortable and psychologically traumatic.

The use of human tissues, and gametes in particular, challenges assumptions of the essence of humanity, they can be sourced and gathered together as 'standing reserve' (Heidegger 1977). Mitchell and Waldby (2010) refer to 'biovalue' of human tissues, meaning profit from biological material. Whilst embryos cannot be traded, gametes can, although in the European Union (EU) financial recompense may be phrased as 'compensation' rather than as 'payment' to justify a trade in a product considered unnegotiable (Nettleton 2013). In contrast, in the US demand equates to cost, with greater financial rewards available for those with more desirable characteristics. Prior to IVF, trade in oocytes did not exist; they could not be utilised and, unlike sperm, can only be obtained by medical intervention. Thus, without IVF there would be no egg donation, host surrogacy or egg freezing (Waldby 2015).

Conrad (2005) acknowledges doctors as the gatekeepers but argues that it is commercial and market forces which are the drivers of medicalisation. Disparities in accessing infertility treatments may reflect the social control role of the medical profession. Whilst access to NHS IVF cycles is tightly controlled, there are fewer restrictions on those who can afford to pay privately. Bell's (2010) US study of low-income women seeking infertility treatments found that there was institutional classism evident, causing barriers for women seeking help.

Sandelowski (1999) argues that although the use of reproductive technology has wide potential, its use reflects cultural norms and moreover is a form of cultural expression in itself. Inhorn and Birenbaum-Carmeli (2008) claim that technologies are only accepted culturally when both professionals and the society recognise them as politically, morally and socially reasonable. Within Western culture IVF appears to have reached this point, whereas

technologies such as gene therapy, whilst becoming more acceptable, still carry a degree of discomfort within the public perception (Schmidt 2006, Robillard et al 2014).

2.5 Psychosocial Effects of Infertility

Serour (2012:77) describes IVF as a 'somatic answer to a subjective problem'. IVF is considered to be a 'good' thing, a medical response to a couple's unwanted situation. Once pregnancy is achieved - then the 'problem' is considered solved. Sociology's responses to IVF are limited in what this means for the concept of 'family' (Farrell et al 2012), particularly for non-donor heterosexual couples (Allan et al 2019b), despite significant literature on wider issues of access and technological advance (Inhorn 2020). Similarly, psychological implications have been poorly considered by both medical and commercial players (Cousineau and Domar 2007) and researchers (Griel et al 2010, Payne and van den Akker 2016, Allan 2017) in considering how individual psychology may affect treatment outcomes and adaptation to parenthood. This reflects the contemporary nature of IVF as an intervention; despite five million children worldwide being born as a result of the technique, many have not yet reached middle age and long-term implications are unknown from both a clinical and psychosocial perspective (Massy Beresford 2014).

2.5.1 Search for Meaning

An individual's understanding of the meaning of infertility alters depending upon their own socialisation and expectation, their fertility, fecundity and professional perspective. Infertility can be understood as a sense of loss; a loss of hope or expectation of a child, which may not be fully acknowledged until menopause (Miller 2003) but also a loss of the 'normality' of the experience of pregnancy and birth. Psychoanalytical notions of gender identity, and the social

and psychological desire to pass on one's genetic heritage are also important (Raphael-Leff 1991, Pawson 2003). For some there may be a conflict between it feeling 'natural' to want a child but needing to negotiate 'unnatural' ways to achieve this; it is a 'creation' by medicine, rather than the 'procreation' of a couple (Pawson 2003). Pregnancy and childbirth itself may not necessarily enable couples to divest the infertility identity (Sandelowski et al 1990, Konrad 2003, Allan et al 2019b), an identity which others, despite a failure to conceive, may refuse to accept.

2.5.2 Help Seeking

Couples initially have to acknowledge that they need help to achieve pregnancy, a difficult move from the personal and private situation of trying for a baby to the public arena of seeking medical help (Crawshaw 2009, Hinton et al 2012, Mounce 2017). The embracing of the personal issue as a biomedical disease, whilst offering the hope of treatment, also underlines their bodies' failure (Becker and Nachtigall 1992) and the anxieties of infertility are exacerbated by choices of potential treatment (Haynes and Miller 2003). Previous management of contraception gives an illusion of control which, whilst challenged by infertility, influences an individual's acceptance of fertility treatment (Szewczuk 2012). The assisted reproduction clinic is a place of 'liminality' (Allan 2009); an area where individuals are experiencing a transition which, whilst having a desired endpoint, carries no guarantee of successful conclusion. Thus, the clinic provides hope to individuals, but also underlines the accompanying uncertainty. Infertility is an emotive and psychosocial disease, yet the intimate and stigmatizing investigations such as monitoring of sexual activity, masturbation to provide sperm and forced maturation and handling of gametes is treated as a bio-medical process situated within the scientific arena. The clinic setting provides a framework within which to manage society's discomfort.

2.5.3 Effects of Infertility Treatment on Individuals

The rapid increase in IVF implies (wrongly) that the distress of infertility has been eliminated by medical advances. Consequently, for those for whom IVF does not work, depression is commonplace (Johnansson et al 2010, Chochovski et al 2013, Milazzo et al 2016) as the lack of personal control is evidenced; as Heitman (2002) phrases it, they 'fail the treatment' rather than the treatment failing them. Women can feel personally responsible as medical technology is perceived as rational, doctors may have achieved fertilisation, but implantation is dependent upon a woman's body (Miller 2003, Pawson 2003, Silva and Machado 2010). Lack of control is, for many women, a significant factor in their experience of infertility (Daniluk 2001). A sense of unfairness and entitlement was evident in the analyses of online blogs of women undergoing IVF, in which they compared their situation in relation to other mothers (Whitehead 2016, Sawyer 2019b).

When IVF is discussed in the media it is usually offering a positive, successful slant which can increase expectation in potential patients, their friends, families and society in general (Daniluk 2001, Sangster and Lawson 2014). Support from others may be affected by poor understanding of expectations. A 2006 YouGov survey indicated that almost half of respondents felt that the media implied that IVF had a high success rate (Horsey 2006). The expectation of childbearing amongst family and friends (Cassidy and Sintrovani 2008) means couples may not disclose to others that they are having infertility investigations, instead turning to each other for support. Gendered expectations result in additional stigma perceived by men (Lee 2003, Hinton and Miller 2013, Wischmann and Thorn 2013, Arya and Dibb 2016), consequently rarely disclosing to others and turning instead to their female partner (Dooley et al 2011). However, women, both fertile and infertile, perceive infertility as more stigmatizing to women (Worthington et al 2019) [see 2.3.2]. Couples may maintain silence as a coping mechanism to protect themselves (Allison 2011, Dann et al 2016) yet that silence

prevents wider discussion of infertility as an issue, despite statistically, couples being likely to know others in similar situations (Morgan 2015). Contact with friends with children can be painful and may consequently be avoided, reducing social support (Brian 2011), whilst the disruption to lineage can affect family relations (Raphael-Leff 2003). This active avoidance coping mechanism is associated with increased stress (Lykeridou et al 2011, Gourounti et al 2012). The link between stress and difficulty conceiving appears complex with some studies suggesting that elevated stress levels are linked to lower likelihood of conception (Hjollund et al 1999, Lord & Robertson 2005, Mattheisen et al 2011, Gourounti et al 2011), yet perceived sub or infertility is itself a cause of stress (Lykeridou et al 2009, Dooley et al 2011). NICE (2013) highlight that 'stress in the male and/or female partner can affect the couple's relationship and is likely to reduce libido and frequency of intercourse which can contribute to the fertility problems. Effects on the relationship may be guilt or resentment if either is identified as the cause of the infertility; although greater stresses are seen in those for whom no cause is found (Cowan 2003, Pawson 2003, Lykeridou et al 2009). Questioning the meaning behind the relationship in general is common (Raphael-Leff 2003, Watkins and Baldo 2004, Glover et al 2009) whilst treatments for infertility - scheduled intercourse and the intrusion of medical investigations - can remove the normal connection between the psychological and physical act of intercourse itself, potentially affecting sexuality (Finiello Zervas 2003, Burnett 2009). However, for some couples undergoing fertility treatment, the relationship is reported to be strengthened (Schmidt et al 2005a, Repokari et al 2007) although this may reflect couples who have negotiated the stresses of treatment together, those unable to cope having separated during the process.

2.5.4 Gendered Differences

Sandelowski et al (1990) identified gendered differences in how infertility was described; for men as something they *have* or shared with partners, whilst for women it was personal,

something they *are* or *were*. Gendered ideology for men implies infertility as a threat to their masculinity (Lee 2003, Halcomb 2018) and their expectation of life; it is both the importance of a child that is genetically his own that is the focus (Hinton and Miller 2013, Arya and Dibb 2016) and the social role (Hjelmstedt et al 1999, Bodin and Kall 2020). In contrast, women's responses are interpreted as a sense of loss (Miller 2003, Pawson 2003, Warmelink et al 2016b), of a need to mother or nurture another by creating family (Purewal and van den Akker 2007, Glover et al 2009). Regardless of cause, women undergo the more invasive investigations and treatment, with stress and anxiety exacerbated by discomfort and difficulty (Fairweather-Schmidt et al 2014). The focus on the couple as the 'hermaphrodite patient' is argued by Sandelowski (1999) as minimising the greater intervention burden for the woman. Men see their role as supporting their female partner (Malik and Coulson 2008, Halcomb 2018) whilst at the same time battling feelings of helplessness and alienation from processes (Fairweather-Schmidt et al 2014, Bell 2015b). The decision to seek help for infertility is predominantly made by the woman (Daniluk 2001), whilst decisions to stop treatment tend to be suggested by the male partner, although from a protective rather than authoritative perspective (Throsby and Gill 2004). This concept of being the 'strong' one is argued by Bell (2016) as providing a means of asserting masculinity, whilst the medicalisation process itself provides a framework in which the potential emasculation of infertility is managed by a diagnostic process.

Both Bell (2015b) and Culley et al (2013) whilst acknowledging difference, point to the commonalities between men and women experiencing infertility, regardless of potential cause. The sense of physical failure of the body, and the emotional aspects of that, remain similar despite a gendered expectation that may increase blame for the female partner.

2.5.5 Pregnancy Following IVF

Frequently, the increasing realisation and stresses of fertility problems, investigations and, interventions precedes successful IVF by several years and negative feelings associated with previous infertility continue to have an effect on some parents and their parenting (Golombok and MacCullum 2003, Hjelmstedt 2004, Hammarberg et al 2008a, Fisher et al 2012, Khajehei and Finch 2016). IVF may provide couples with a child, but it does not cure the problem - they remain a couple unable to conceive spontaneously; Olshansky (1996) refers to this as an identity of infertility. Allan (2009) argues for a 'space' to be available for these couples to work through the experience of moving from 'unable to conceive' to 'expectant parents' prior to birth. This may be compounded by fragmentation in care provision, with minimal communication between the GP practice, fertility clinic and maternity care (Warmelink et al 2016a, Allan 2017).

IVF pregnancy is accompanied by greater anxiety compared to spontaneous pregnancy (McMahon and Gibson 2002, Gameiro et al 2010a, Gourounti 2015, French et al 2015), with the source of that anxiety focussed on infant survival. A significant proportion of IVF mothers are anxious about early fetal loss, particularly relevant to those with previous unsuccessful attempts (Dornelles et al 2016, Dann et al 2016, Huang et al 2019). Although pertinent to all mothers, most mothers find anxiety lessens once they reach 12 weeks of pregnancy, for IVF mothers it continues into the second and third trimester (Dornelles et al 2014, Ranjbar et al 2015). These findings suggest ongoing effects of infertility; the baby's survival depends upon the mother's body, which previously failed to work as expected (Dornelles et al 2014), reflecting an ongoing perception of the infertile self despite advancing pregnancy (Sandelowski et al 1990, Bernstein et al 1994, Olshansky 2003, Fisher et al 2008). Couples work to integrate their experience of infertility into a current experience of pregnancy (Sandelowski 1995, Darwiche et al 2004), yet anecdotal and research evidence

(Allan and Finnerty 2007, Younger et al 2014, French et al 2015, Warmelink et al 2016a) suggests this remains unrecognised by midwives, what Allan and Finnerty (2007) call 'the practice gap'.

2.5.6 Coping Strategies

Social support is perceived to be lower for those with an IVF pregnancy compared to a spontaneous conception (Cassidy and Sintrovani 2008). Reduced social support correlates with increased psychological distress and maladaptive coping strategies (Berger et al 2013, Rockliff et al 2014), although some describe that IVF mothers learn coping strategies through the repeated stresses of IVF attempts (McMahon et al 2002, Verhaak et al 2005). Having had difficulty becoming pregnant they anticipate pregnancy as being equally difficult and may be reticent in looking too far forward. Agostini et al (2009) found a higher incidence of ambivalent maternal representation amongst IVF mothers, the ambivalence potentially indicating a desire for pregnancy greater than that of parenthood (Christie and Morgan 2003, Crespo and Bestard 2016). Parenting efficacy, evidenced by skill development and emotional response, appears influenced by expected parental efficacy during the third trimester (Biehle and Mickelson 2011, Egan 2019), with implications for those unable to envisage parenthood (Katz Rothman 1993). Whilst some IVF parents perceive their pregnancies as 'special' (Huang et al 2019) others focus on normalising their experience, both coping mechanisms for trying to manage their migration to becoming parents (Sandelowski et al 1992, Warmelink et al 2016b), or 'joining the club' (Dornelles et al 2016).

2.5.7 Parenthood following IVF

For some IVF parents the transition to parenthood may be more challenging, both emotionally and practically. IVF parents tend to be older and thus may have less support from their own aging parents, or from peers whose childbearing preceded their own (Poelker and

Baldwin 1999). During infertility investigations, couples may avoid young children as a psychological protection (Brian 2011) influencing realistic expectations of babies and young children. Despite findings of IVF parents experiencing higher anxiety levels during pregnancy (McMahon et al 2013, Moreno-Rossett et al 2016, Huang et al 2019), this is less evident after the first year (Gameiro et al 2010a, Kowalcek 2011, McMahon et al 2013), although how and when that heightened anxiety state reduces and factors affecting that appear to be unknown. This is significant as maternal wellbeing promotes positive adaptation in the transition to parenthood (Asmussen and Brims 2018).

Prenatal relationship satisfaction and planned pregnancy are key indices of postpartum relationship satisfaction. Those who conceive through ART report better relationship satisfaction during the transition to parenthood; the assumption being that communication skills and mutual support developed during infertility investigations assists in the transition to parenthood or that they have considered their desire for children more fully than those who fall pregnant more easily (Woollett 1991, Schmidt et al 2005a, Repokari et al 2007, Bracks-Zalloua et al 2010). Infertility thus becomes relationship enhancing, an opportunity for personal growth and contribution to society, and a validation of adult status in addition to the pleasure and accomplishment of raising children (Woollett 1991). However, Gameiro et al (2011a) suggest the specific skills for communication during infertility treatment differ for transition to parenthood, with marital adjustment influencing results. Contrary to expectations, a longer time in infertility treatment and a greater number of attempts increased parental wellbeing in the first year of parenthood (Repokari 2007, Jongbloed-Pereboom et al 2012), although this may be related to self selection; only couples with robust mental health manage repeated attempts at treatment. Marital congruence as an indicator for the relationship, decreases in both spontaneous and IVF births, exacerbated by depressive symptoms (Gameiro et al 2011a). This can be particularly significant for those who conceive

with IVF, in whom depression symptoms may be difficult to express, having undergone so much to achieve a child (Olshansky 2003, Jaffe and Diamond 2011).

Physical risk factors for making the transition to parenthood more difficult include difficult birth (Flykt et al 2014), breastfeeding difficulties (Hjalmhult and Lomborg 2012) and poor sleep quality (McDaniel and Teti 2012). Greater risks to the pregnancy for IVF conceptions identified previously increase the likelihood of difficult birth, labour interventions and assisted birth (Vulliemoz et al 2012), with higher rates of both elective and emergency caesarean birth noted (Lodge-Tulloch et al 2021). This correlates with increased postpartum pain and discomfort, and consequently poorer sleep quality, whilst caesarean delivery itself is a risk factor for early cessation of breastfeeding (Hobbs et al 2016). The increase in caesarean birth is suggested to be the primary negative influence in early postnatal adjustment for those with assisted conceptions (Hammarberg et al 2008b).

Mothers with an IVF pregnancy are more likely to initiate breastfeeding and during pregnancy, despite being ambivalent at mode of birth, were committed to breastfeeding as a means of reasserting their natural mothering in the face of an interventionist conception (Barnes 2013, Ladores and Aroian 2015a). However, despite increased initiation of breastfeeding they were less likely to maintain it. This may be linked to antenatal and postnatal anxiety affecting women's confidence in their ability to nurture a baby, potentially influenced by their inability to conceive naturally (Hammarberg et al 2011) in addition to the influence of operative birth (Hammarberg et al 2008b). Violated expectations of breastfeeding can affect postpartum wellbeing and adaptation (Borra et al 2015, Brown et al 2016a) and anxieties about breastfeeding advice may reflect a reliance on professional guidance fostered within the experience of infertility treatment (Hammaberg et al 2011).

2.5.8 Parent- Child Relationships

Studies identify generally normative development for both children and the parent-child relationship following assisted reproductive treatment (Hahn 2001, Golombok et al 2001, McMahon and Gibson 2002), although a later review reported inconsistencies in findings, probably related to the heterogeneity of methodologies (Hammarberg et al 2008a). Cairo et al's (2012) study of family interaction between IVF parents identified a decrease in marital satisfaction but an increasing parent-child relationship through the first year. They propose that the stronger child-focus amongst IVF parents affects the triadic mother-father-infant interaction. However, gendered differences have been identified with fathers reporting more parenting stress than mothers, potentially linked to more dominant maternal-child interaction. Fathers also perceived mothers as more controlling, which may reflect protective behaviours and control that helps with maternal anxiety (Bracks-Zalloua et al 2010).

Maternal assessment of the behaviour of 2 year old children conceived via Intracytoplasmic sperm injection (ICSI) identified less problem behaviours than a control group (Sutcliffe et al 2004) although this may reflect greater parental input following infertility or a greater tolerance towards behaviours other parents may label as problematic. Conversely, McMahon and Gibson (2002) found that IVF parents were more likely to describe their babies as temperamentally difficult. Theoretical work indicates a link between increased antenatal anxiety, high cortisol levels in utero and temperamental behaviours (O'Connor et al 2007, Glover 2015), although this relates more to long term stress. Limited exposure to young babies may influence assumptions of 'difficult behaviour'. Generally normative similarities were reported between IVF and spontaneous conception children at five years (McMahon et al 2003), although there was an increased number of IVF mothers showing an external locus of control in comparison to other mothers, a finding researchers had also noted in pregnancy. This concurs with the loss of control previously noted as an associated response to infertility

treatment (Daniluk 2001, Gourounti et al 2012). If IVF is characterised by medical intervention and the transfer of control to doctors, the same coping mechanism may be employed in adapting to parenthood - turning to 'experts' rather than one's own intuition (Segev and van den Akker 2006, Hammarberg et al 2008a), lower levels of parenting efficacy in those who had repeated IVF attempts was identified, as if each attempt further eroded self belief or control.

2.6 Conclusion

Although IVF is a biomedical intervention it carries significant psychological effects, influenced by socio-cultural norms and expectations. Infertility can challenge concepts of womanhood and manhood for individuals, increasing pressure, although conversely strengthening, the couple relationship. The pervasive influence of feminism and medicalisation affect both societal expectations of IVF and potentially individual concepts of self, which can lead to increased pressures during pregnancy, birth and transition to parenthood. This study seeks to understand the experiences of couples as they negotiate this journey.

Chapter Three. Transition to Parenthood

This chapter focuses on the transition to parenthood, considers the meaning of the term 'transition' and identifies and critiques transition theories. The chapter will also consider gendered difference and influences on the developing maternal role, paternal role and couple relationship. Whilst postmodernists would argue that individuals have multiple identities (Frie 2011), this study seeks to understand couples experience of the transition to parenthood within their sociocultural environment: traditional, caucasian, Eurocentric, and pronatalist. Reproduction, although '*universally physiological, it is also universally a cultural matter'* (McCourt 2010: 37) and cannot be experienced outside of that.

3.1 Transitions

Kralik et al (2006) undertook a literature review on the use of the term 'transition' within a healthcare context. They found five interpretations of the word from Princeton Universities 'Wordnet', which were:

- Sense 1: Passage (act of passing from one state to another). Changing something into something. Something performed (as opposed to something said)
- Sense 2: Conversion, transformation, alteration, shift.
- Sense 3: Happening, occurrence, change.
- Sense 4: Modulation (change in tone).
- Sense 5: Connects to what follows, extracting common features.

Transition is defined by Chick and Meleis (1986:239) as 'a *passage from one life phase, condition, or status to another…transition refers to both the process and the outcome of complex person-environment interactions'.* Transition within healthcare refers to how individuals adapt over time to a change, be it personal, situational or environmental (Kralik et

al 2006). Whilst the focus of this work is the transition to parenthood, this is recognised, not least amongst participants, as part of a wider journey couples are on from becoming partners, trying for a baby, acknowledging infertility difficulties and seeking help, treatment, becoming pregnant and becoming parents; each of these changes is an individual transition. It is this recognition of the journey of ongoing transition, that started following partnering, that led to the thesis title 'returning to the path' as the key phenomenon within this work. Crucially, transition requires adoption of an acceptable new self identity, as partner, patient, expectant parent, parent - all of which occurs in a contemporary environment of '*anxious reproduction'* (Faircloth and Gurtin 2018:985). It also requires resilience or '*sustained competence when under threat*' (Aranda et al 2012: 550) reflecting the challenges of infertility and treatment prior to subsequent parenting.

3.2 Adult Development Theory

Human development can be defined as 'a lasting (progressive) change in the way in which a person perceives and deals with his environment' (Bronfenbrenner 1979:3), reflecting Heidegger's influence of time and context on individual adaptation [see 5.4.2]. Adult development theories are often considered as a series of challenges at specific chronological points (Erikson 1968, Levinson 1978) or of tasks to be achieved (Valliant 1977). One of Erikson's crises - *generativity versus stagnation* and one of Valliant's tasks - *becoming keeper of meaning* (the passing on of traditions or norms) can relate to the nurturing or mentoring of children, primarily through parenting. Inability to achieve the task may influence progression through or acquisition of each stage. This has resonance with Neugarten's (1976) social clock theory; she argues that within every society there is a normal time for life stages to occur, failure to adhere to this 'timing' may influence social acceptance. This concept of 'reproductive time' influences those who conceive and those who are

voluntarily or involuntarily childless (Earle and Letherby 2007), yet it reflects a linear perspective, rather than a 'need orientated' cyclical notion of time associated with the rhythms of women's lives (Kahn 1989). However, within this study, the 'right' time for childbearing did not correlate with biology, and the body cycles indicating passing time and opportunity became a cause of distress. The theories of Erikson, Levinson and Valliant are criticized by Gilligan (1982) as reflecting masculine ideals of individuality and achievement; she argues that, for women, interpersonal connections are more pertinent, with maturity gained through caring for others, most evident in relationships with partners and in becoming a parent. These theories are broad and linear, reflecting internal conflict - often between two ideals. Dualistic approaches did not fit well with a study seeking to understand experiences, whilst the gender critique was inappropriate for a study that focussed on couples as an entity in itself.

Parenthood is a change and, as Bridges (2009:3) states 'change is situational…. transition is the psychological'. Transition may be seen as a response to change that enables adaptation, and assimilation of change into one's life (Kralik et al 2006). Others argue it reflects three phases: separation from previous life, transition through gradual change and re-integration into a new life (Raphael-Leff 1991, Bridges 2009). This resonates with previous work by Van Gennep (1960) on *'rites de passage'* in which ritual enables change to be socially incorporated. Transitions thus, start with an ending and end with a beginning (Bridges 2009) reflecting an ongoing process of development through a series of smaller transitions. These are influenced by internal and external factors and are '*both a result of and result in change in lives, health, relationships, and environments*' (Meleis 2000:13). The initial change is an identified event, in this case the decision to have a child, whilst the transitions that follow are: recognising oneself as needing help and help seeking, followed by the initiation of treatment,

conception, pregnancy, birth and on into parenting. Each stage involving re-evaluation of self and wider influences, including altered relationships and each resulting in change.

3.3 General Transition to Parenthood Theories

Arising from sociology (George 1993), psychology and psychotherapy, four general theories have been proposed to explain the transition to parenthood: developmental theory, role theory, systems theory and dialectic theory. Both developmental theory and role theory have their origins in the mid 20th century but remain relevant today.

3.3.1 Developmental Theory

Evolving from psychology, developmental theory involves a linear progression from one stage to another, whilst recognising wider impacts. Feminist sociologist, Alice Rossi (1968), was the first to use the word 'transition' for parenthood rather than 'crisis' (the term used in seminal work by Le Masters 1957). Rossi (1968) noted particular challenges for parents from higher income countries: lack of preparation as extended families diminished leaving first time parents inexperienced with babies, the abruptness of the new responsibility and the absence of guidance for negotiating changing relationships. Considered radical at the time, current evidence suggests parents still feel unprepared for early parenthood (Miller 2005, Wilkins 2006, Deave and Johnson 2008, Knaak 2009, Darvill et al 2010, Hjalmhult and Lomborg 2012, Read et al 2012, Bourke 2013). Parenthood is a developmental phase similar to infancy or adolescence and Raphael-Leff (1991) suggests that unresolved conflicts from earlier experiences may influence new development as a parent. Thus, parenting represents either a transfer of intergenerational issues or conversely, opportunity for healing; however, the assumption of a prescriptive, developmental transition did not fit with the uniqueness of lived experience.

3.3.2 Role Theory

Role theory stems from seminal sociological works by Mead (1934) and Parsons (1951), and reflects the altered obligations of new parents, typically the couple role being subjugated to the parent role. Rubin (1967a, 1967b) refers to maternal role attainment [see 3.8.1] as a goal to be 'achieved'. Socialisation is assumed to enable adjustment to the role, however the concept of role is maintained by social sanctions (George 1993). This assumption that established couples start a family has resonance with pronatalism discussed previously [see 2.3]. New roles are delineated by gendered expectation with successful adaptation to parenthood requiring ongoing negotiation (Belsky and Kelly 1994). Within this, role congruence is important and links within an identity theory approach (Cast 2004). The timing of parenting, which presumes a normative time for it to occur, focuses on a chronology that fails to consider the current rate of social and technological change.

Non-normative family structure may challenge the assumptions of role theory, as evidenced in LGBTQ families who work to clarify new notions of family in an environment of inadequate media representation (Reed 2018). The fact that this remains challenging, evidences the pervasive influence of role theory. Within the arena of childcare, lesbian and gay couples have been found to divide tasks more equitably between them than their heterosexual counterparts (Borneskog et al 2014), although beneficial relationship and child outcomes reflected satisfaction with labour division rather than equity (Farr and Patterson 2013). Thus, it may be that either acceptance of a traditional role, or adoption of a coherent new role facilitates assimilation to parenting. Independent considerations may be the meaning individuals give to that transition and influences of culture, religion and beliefs regarding the role (Barimani et al 2017). The non-normative beginnings of IVF parenting may equally challenge the notion of parental role as it does for LGBTQ parents.

3.3.3 Systems Theory

Systems theory (originally devised by Bowen 1978) is used by family therapists, looking at the interdependence and relationships between individual members and recognising how one experience in one's life influences another (Cowan and Cowan 1992). Thus, the birth of a baby affects not just each individual's perception of self but also of all their relationships in life. Burns (1999) proposes that Family Systems theory is useful for infertility counselling itself, focussing on family dynamics and psychosocial implications. Interventions which follow this model consequently address all family members, as each member impacts upon another: a couple relationship being more than the sum of its parts. This reflects the study rationale for using couple interviews and a focus on interdependency resonates with Heideggerian thinking, however it fails to consider wider influences on context.

3.3.4 Dialectic Theory

Dialectical theories stem from the works of Marx and consider the intrinsic contradictions which exist in all relationships, including parenthood: autonomy versus connectedness, expressive versus instrumental communication, and stability versus change (Stamp and Banski 1992), thus reflecting broader adult development theory. Relational dialectics theory also emphasises the influence of communication and cultural discourse (Baxter 2004). Autonomy can be challenged by the restrictions of being a parent (Cronin-Fisher and Sahlstein Parcell 2019) and trying to find a balance between parent, partner and self roles, influences both the parent-child relationship and the couple relationship (Fedele et al 1988, Baxter 2004). This negotiation echoes systems theory with communication being key, a communication which moves from being expressive to increasingly instrumental, a finding particularly associated with a reduction in relationship quality (Belsky et al 1983). The bi-

directionality of dialectic theory is increasingly recognised as a process in socialisation (Kuczynski and De Mol, 2015)

3.3.5 Critique of Transition to Parenthood Theories

Transition to parenthood theories, and therapeutic interventions arising from them, originate from one of these four generic theories. They all date from late 20th century and are Eurocentric, based predominantly on US studies, consequently indicative of this time and place. Heterogeneity is a challenge in all life transition theories (George 1993). This may be seen most clearly in developmental theory, where there is an assumption that a progressive adaptation to parenthood is the norm and that it follows a logical, linear pattern. This emphasis on normative development implies that those who react differently are undergoing an 'abnormal' transition, a deviation interpreted as an aberration on the part of the individual, rather than a changing society or environment. Although systems theory, role theory and dialectic theory acknowledge the relevance of interaction in enabling negotiation towards successful transition and systems theory also considers previous experiences, wider context is rarely considered in transition theory. The lack of acknowledgement of contextual factors and the assumption of a generic route to parenthood does not fit well with either a niche group of parents nor within a study focussing on lived experience in which individual perceptions are key.

3.4 The Lifecourse Perspective

The lifecourse perspective, whilst not considered a theory, is a 21st century, multidisciplinary approach - embracing sociology, psychology, biology, history, economics and demographics within which transitions and trajectories can be considered. It recognises the influence of

time, context, biology and economics as individuals interact with others through their lives and life events. It has proved popular in studies on healthcare and nursing, where its utility in recognising the range of factors influencing individuals, has led to the lifecourse health development framework (LCHD) (Halfon et al 2014, Russ 2014, Bates et al 2018). Lifecourse theories tend to reflect either an individual sense of agency (Elder 1994) or wider institutional influences (Wilkinson 1996), with integration of the two remaining a challenge (Schwiter 2011). The lifecourse also focuses on roles, not as traditionally considered but as dynamic and changing in responses to short term transitions and longer-term trajectories which reflect temporality (Macmillan and Copher 2005) and '*linked lives*' (858). The seeking of structure was inappropriate for a study focussing on individual experience however aspects of the lifecourse were beneficial, in particular the interaction between multiple influences on individuals and it was useful as an underlying perspective influencing findings and discussion.

3.5 Sandelowski's Theory of the Transition to Parenthood of Infertile Couples

Seminal work by Sandelowski (1990, 1993a, 1995) on infertile couples and those becoming parents following infertility, culminated in a theory of the transition to parenthood of infertile couples, based upon three studies: a phenomenological study of those still aiming to achieve parenthood, a socio-historic review of literature and a grounded theory study of those previously infertile who became parents. In contrast to previously considered theories, it includes a retrospective recognition of the prior experience of infertility influencing prospective parenting. There is no reference to any preliminary transition theory on which developing theory is based, although it has resonance with some previously considered. Sandelowski's proposed theory reflects transitional processes all parents go through: the loss/gain balance (dialectic theory), the learning to adapt to the child (developmental theory)

and the gaining of parental identity (role theory). However additional stages for those previously infertile (who become pregnant either spontaneously, through treatment with either their own or donor gametes, or became parents by adoption) included social and instrumental interactions to accept and address their infertility, followed by the divestment of that identity once parents. Sandelowski (1993a) refers to parenting after infertility as '*coming back*' in that '*by achieving parenthood, infertile couples had achieved cultural normality, even if they remained biologically infertile'* (227). Assimilation of the emotional process of infertility that they had gone through was important to them and leaving behind the infertile self is necessary before moving towards becoming a mother.

Several of the early studies on transition to parenting following infertility (Burns 1990, Sandelowski 1993a) include adopted children; although Burns argues that it may be the infertility leading to disrupted child-parent interactions, later evidence highlights an increased incidence of neurodevelopmental and neuropsychological need in adopted children (Woolgar and Baldock 2015, Taft et al 2015). The 'self-reporting' inherent in Burns (1990) and others is critiqued by Frances-Fischer and Lightsey (2003) who argue for the use of empirical measures for objectively assessing parenting following infertility. They devised an eight point Parenting After Infertility Survey yet provide no rationale for the method which seems counter-intuitive when focussing on individual perceptions. Although not pertinent to the philosophy underlying this PhD study, the four subscales that indicated reliable internal consistency do highlight key factors in the transition to parenthood following infertility: being a perfect parent, disclosure of child's origins, emotional aspects of infertility and overprotection of the child.

3.6 Meleis' Transitions Theory

In contrast to the pure theoretical constructs behind the transition theories mentioned, Meleis developed her transition theory from her experiences of nursing, informed by sociological influences of symbolic interactionism and role theory (Meleis 2015). Her initial concern focussed on potential problems occurring when individuals were unprepared for transition experiences. She argued that nurses should prepare individuals for a change, support them with it and facilitate integration into the new normal that followed. The model considers preventative work prior to transition and therapeutic work following, with the aim of providing '*role supplementation*' (Meleis 2010:13) or support. Indicators of positive adjustment focus on the individual feeling 'connected' and moving towards role mastery and identification with the new role [Figure 2].

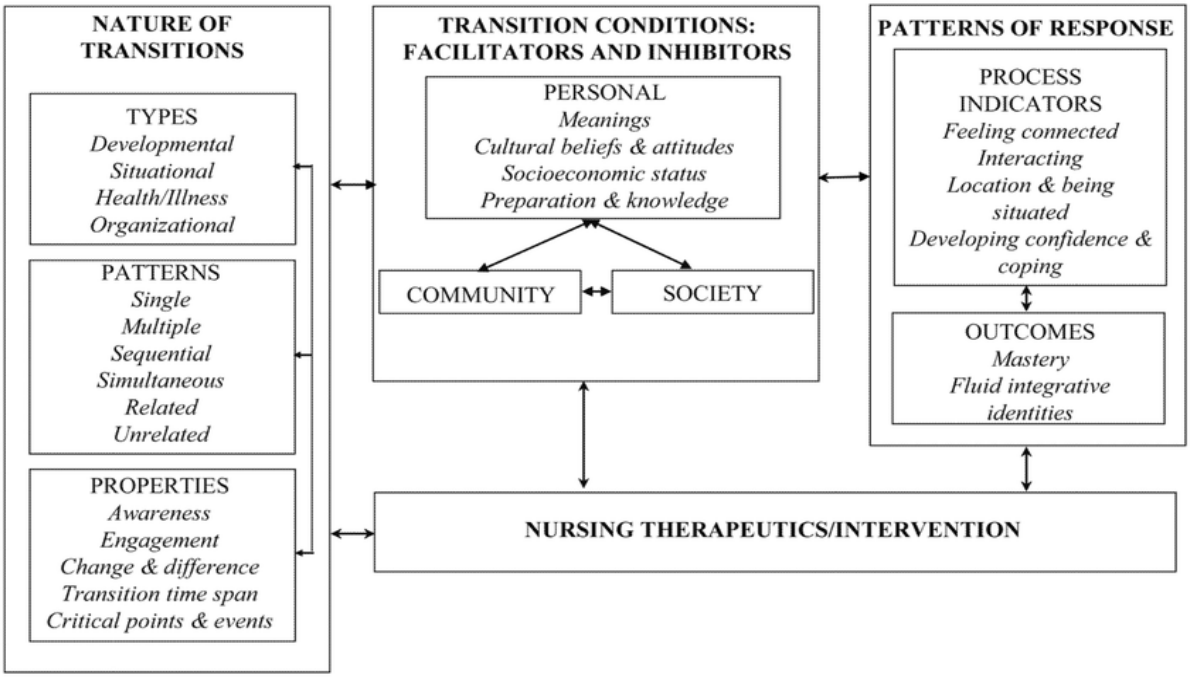

Figure 2. Transitions: a middle range theory (from Meleis et al 2000)

Meleis' Transitions Theory has been used in transitions through illness (Lundmark et al 2016), cultural adaptation (Baird 2012, Toosi et al 2016), retirement (Djukanovic and Peterson 2016) and parenthood (Barimani et al 2017, Swendsen et al 2010), as well as professional transitions for nurses (Vardaman and Mastel-Smith 2016). The recognition of varying environmental, personal and situational influences on transitions appealed and my nursing background valued the focus on how an individual perceives their own situation and how practitioners can work with them through that transition. Self–identity aligns with transition theory as the transition itself threatens the perception of self. Change can lead individuals to feel vulnerable and support with transition is a key concept for health care practitioners (Meleis 2000, Kralik et al 2006). Support, or the role supplementation that Meleis (2010) refers to, together with growing mastery enables retrieval of a valued self identification (Kralik et al 2006). Although the focus on 'mastery', predominantly determined by others rather than participants, felt uncomfortable from both a midwifery and hermeneutic phenomenological perspective, the holistic approach felt more relevant to the study than previous transition theories. Only one study which used the Meleis model within hermeneutic phenomenology was found (Poelvoorde 2016) and it focussed on the transition of newly qualified nurses through preceptorship with Meleis used to structure the literature review and to hone the research question.

3.7 Gendered Differences in Transition to Parenthood

The transition to heterosexual parenthood discourse is frequently gendered and presents three possible perspectives: his, hers and theirs (Mickelson and Biehle 2016). Although this study focuses on 'theirs' by utilising joint interviews, awareness of differing cultural expectations on men and women as they become parents is pertinent. Transition may occur in different ways and at different times for potential mothers and fathers (Dulude et al 2000). For mothers

this starts to occur at confirmation of pregnancy (Darvill et al 2010), whilst for fathers it may occur following visual evidence of the ultrasound scan (Draper 2002); a medical screening technique thus becomes a social tool. This reflects the previous discussion on adult development, wherein Gilligan (1982) identifies women's more interpersonal concept of relationship, albeit aided by physiological changes of pregnancy, whilst men need a tangible image (Mitchell and Georges 1998).

3.7.1 Developing a Maternal Identity

Motherhood has been described as a 'rite of passage' (Davis-Floyd 1992) which correlates with the three stage process, first described by van Gennep (1960) of separation of previous identity, liminality (pregnancy) and assimilation or acceptance into the new role (Jacinto and Buckley 2013). The three-stage transition process aligns with early work on the attainment of the maternal role, as devised by Rubin (1967a, 1967b). Based on the sociological concept of role theory [see 3.2.2] Rubin describes maternal identity as:

- taking on activities -mimicry and role play,
- taking in activities – understanding of one's own role with one's own child,
- letting go activities - grieving the previous life.

Role identity is represented as safety, social acceptance and attachment with a learnt understanding of the complexities of the role. Moreover Faircloth (2013) argues that it is framed as the most fulfilling stage of womanhood and part of identity work itself, although Barr (2008) argues that women with postnatal depression appear caught in a liminal stage of the rite of passage. This traditional and prescriptive concept of motherhood as a stage to be achieved is challenged by Mercer (1995, 2004) who suggests 'becoming a mother' is a better term than 'maternal role attainment' coined by Rubin. Mercer argues transition is an ongoing process influenced by significant others; what Meleis (2015) would consider community, and

previous experience, leading individuals to a personal perception of mothering. It reflects a spiralling growth, which is an ongoing interaction between the mother and the child (Mercer 2010), whilst from an existential psychology perspective it is a change which necessitates reorganisation, yet one that brings significant meaning (Prinds et al 2014). More contemporary work proposes assemblage theory (Reveley 2020) as beneficial in recognising how maternal identity is a continuous transitory state constructed by relationality with the social world. Identity emerges from *'relationships between self and others, culture and place and past and future lives'* (Reveley 2020:57) and is influenced by both expressive (language and practices) and material (environment, resources) considerations. Influences are assembled and reassembled by individuals to enable an ongoing identity formation. This reflects a much more phenomenological approach, a 'becoming' rather than a static state, however, it is also a mechanistic process of destabilisation, adaptation and readjustment to maintain a stable identity. Schadler (2014) claims that from a new materialistic approach, key activities, such as ultrasound scans, birth registration, and an individual's interaction with those processes are what forms a parent, further strengthened by the interaction with those undergoing similar experiences, leading to 'becoming'.

Both Rubin's (1967) and Mercer's (2004) theories were challenged as focussing on quantifiable similarities between women rather than a qualitative focus on individuals, and subsequently becomes 'expert led' and 'baby centred' with midwives acting as agents of social control (Parratt and Fahey 2011). Nelson's (2003) literature review on the transition to motherhood identified maternal engagement with the baby as a key process which enabled growth and transformation, incorporating a sense of responsibility with practical skills of mothering. Personal growth is also reflected in Stern's (1995) 'constellation of motherhood' which includes life growth, key relationships, social support matrix and self identity organisation. This reflects Meleis' (2015) outcomes as determined by individuals, rather than

the professional. The relationship with partner (Shapiro et al 2000, Redshaw and Martin, 2014) influenced transition to maternal role and adaptive coping [see 3.9] whilst maternal grandmothers are also influential (Taubman et al 2009). Social support was found to support parental and child wellbeing but was less influential in parental behaviour (Leahy Warren et al 2011, Respler Herman 2011).

In the 1970's feminists began to critique assumptions that women were 'naturally' caring and nurturing, and that motherhood represented the only fulfilment of one's role (Rich 1977, Oakley 1979, Gilligan 1982, Faircloth 2013). Simultaneously, parenting 'experts' such as doctors (Benjamin Spock) or psychologists (Donald Winnicott) were white, middle class, middle aged men. The notion that if mothering were instinctive then advice and guidance on childrearing would be irrelevant was not acknowledged (Marshall 1991, Coe 2013). The two dominant discourses influencing motherhood - the concept of technology and biomedical advice and that of nature and instinct can both represent patriarchy - one as the scientific expert, the other as the inevitability of gender (Barker 2011). These two opposing discourses are linked to differing orientations to motherhood (Raphael-Leff 1983); a model which refers to 'facilitator' mothers; those more likely to adapt to their baby (demonstrated by a faith in her own instincts and spontaneous responses to her child) or 'regulator' mothers, who expect the baby to adapt to her (a mother who involves others in care, or turn to professionals for advice). These differing orientations are still used, primarily in studying perinatal mental health (Staneva et al 2016, Hore et al 2019). Societal expectations of being a 'good' mother influence all women – whether they themselves are a parent or not (Maher and Saugers 2007) and resonate with Meleis' (2015) inclusion of society as a condition.

The transition to motherhood has been described as a 'natural progression and a major transition' (Redshaw and Martin 2011) and also a 'time for growth' (Taubman et al 2009). Women weave between the medical and natural discourses (Miller 2007); their prenatal focus

on an instinctive expectation of their body's ability challenged by their birth experience and early parenting. The dichotomy between social expectation and perceived reality of themselves as mothers is rectified only by increasing agency over time (Wilkins 2006, Miller 2007). Increasing agency could be considered as 'mastery' the term Meleis (2015) uses which, rather than referring to expertise, instead reflects a personal sense of control over life circumstances (King et al 2015, Hasson-Ohayon 2018). Marchant (2004) describes mothering as 'exhibited through altruistic, undemanding, selfless love'. This idealised, feminine imagery plays into pronatalism and the assumption of motherhood as the aspiration of all women, an experience at odds with many mothers' experiences (Barclay et al 1997, Miller 2005, Choi et al 2005, Wilkins 2006, Maher and Saugers 2007, Read et al 2011, Sevon 2011). Social ideology of perceived 'good mothering' leads to a disjuncture between women's expectations and experiences, leading women to feel judged, by both others and themselves, in their mothering in a way that men are not (Miller 2007, Currie 2009). Whilst men seem able to express their ambivalence towards the reality of parenting this is too risky for mothers, who refer to any struggle with the role as historical rather than current difficulties (Choi et al 2005, Miller 2011a). Motherhood involves loss, as well as gain (Barclay et al 1997), the loss of self or identity but also of the idealised expectation of motherhood (Richardson 1993). Being in control is a key aim in adjusting to parenthood (Hjalmhult and Lomborg 2012), involving competence in skills and developing a self- image of oneself as a mother, as highlighted by Nelson (2003). Barclay et al (1997) use the term 'working it out', as new mothers find a way to mother which works for them, whilst Leese (2016) described it as an experience of 'becoming', influenced either positively, or negatively, by factors such as relationships, informal support and finance, all against a backdrop of the normative or cultural discourse of motherhood. Sandelowski (1995) infers this 'becoming' in both claiming and caring for the child as a physical process and assuming

a parental identity as a psychological process. For those previously infertile, this includes 'relinquishing infertility' (Sandelowski 1995) as couples move on from a previous identity to a developing concept of parenthood. Expectations of motherhood as natural or instinctive may be more challenging for those who needed medical intervention to conceive. Maternal identity and self confidence are affected by a tentative pregnancy such as previous miscarriage, fetal loss or difficulty conceiving (Dunnington and Glazer 1991, Hammarberg et al 2008a) a situation women may manage by 'mask wearing' (Dann et al 2016) or 'holding back' (Sandelowski 1995) and which may be exacerbated by limited exposure to vicarious mothering (Schmidt et al 2005b, Brian 2011, Karaca and Unsal 2015), or previous reliance upon medical intervention (Darwiche et al 2013). This holding back may delay the process of transition (McMahon et al 1999, Smorti and Smorti 2012), necessitating 'come back work' (Sandelowski 1995) and evidenced in delayed preparation of environment (Dunnington and Glazer 1991, The VOICE group, 2010).

Society's expectations of motherhood can be argued to undermine and disempower all women who find parenting more difficult, focussing on an individual deficit model rather than recognising power inequalities and absence of support (Gutteridge 2010). The absence of resistance to recognised ideology leaves women struggling to 'perform' as mothers (Choi et al 2005). Contemporary society in high income countries may make the transition to motherhood more difficult with no recognised 'mothering the mother' or transition ceremonies as some other cultures practise (Kendall-Tackett 2001, Winson 2009). Historically, the confinement of birth was followed by a religious service of 'churching' which enabled both time for physical recovery and social recognition, following what remained a risky process (Knodel 1997). As medical advances have made childbirth safer, new indicators: screening (Mitchell and Georges 1998), gender reveal (Gieseler 2016) and baby showers (Fischer and Gainer 1993) have become transition markers, which whilst

determining physical transition may not reflect psychosocial or spiritual transition. Within many high income countries a focus on ‘returning to pre-pregnancy life’ is the focus and ‘nurturing’ the mother, as seen in other cultures is rarely considered (Selin and Stone 2009).

3.7.2 Developing a Paternal Identity

Whilst recognised theories of the transition to motherhood exist, there are no corresponding models for the transition to fatherhood. However, Draper (2003) in her ethnographic study suggests a similar three stage process; separation from the old life as the pregnancy was announced, liminality during pregnancy and birth – emphasised by the lack of physical difference compared to his partner, and finally incorporation of new role through adjustment. Public policy emphasises the mother’s role over the father’s (Machin 2015, Burgess and Goldman 2018) described by Daly (2013) as being ‘not gender neutral but gender blind’. Whilst mothers may feel caught in a socially normative expectation of how they should behave, fathers have few indicators and may feel conflicted in what they want and what is possible, frequently determined by the necessity for paid employment (Machin 2015). This could be considered as location or situatedness within the Meleis (2015) model. The ambiguity of the role can leave them feeling frustrated and on the periphery of the mother-baby dyad (Ives 2014). The notion of a 'good father' appears linked primarily to his ability to provide for his family and to ‘help’ the mother, a representation recognised by fathers themselves (Williams 2008, Genesoni and Tallandini 2009). Fathers find it difficult working out the social expectation of their role; evidence suggests that couples who managed the transition better either both held traditional, gendered expectations or started with fewer expectations and a sense of letting a role develop (Barclay and Lupton 1999, Williams 2008, Genesoni and Tallandini 2009, Miller 2011b, Chin et al 2011, Ives 2014).

The transition process for fathers involves similar challenges to expectation and a re-interpretation of their role to mothers (Goodman 2005, Chin et al 2011, Baldwin et al 2019). A frustration at a perceived lack of initial skills in being able to care for their child (in some cases exacerbated by breastfeeding) is seen as limiting their opportunities for interaction (Goodman 2005) with fathers tending to consider that their involvement would increase as the child became older (Hamilton and De Jonge 2010, Kowlessar et al 2015). However, fathers of IVF infants were more likely to be involved in early childcare than spontaneous conceptions, this may relate to their older age or reflect the shared experience of infertility and its challenges (Holditch-Davies et al 1999), which Sandelowski (1995) refers to as 'mazing'. Chin et al (2011) refer to the initial surprise being followed by adaptation to paternal role, one they call 'approachable provider'. This reflects the traditional responsibility of financial support together with a 'new man' focus on involvement in family life, although fathers tend to refer to 'different' rather than 'new' fatherhood (Williams 2008). While fathers see financial provider as a key role, they also identify play and time spent with children as important (Barclay and Lupton 1999, Henwood and Procter 2003, Hauari and Hollingworth 2009) although willingness to be an involved father is seen as an aspiration not always achieved (Collett et al 2015). Men feel both an expectation and desire to be more involved fathers than their own had been, but this leaves them struggling for support, particularly on what to expect and practical skills (Deave and Johnson 2008, Baldwin et al 2019). This desire for guidance contrasts with women's initial assumption that mothering will happen naturally (Miller 2005). An increasing recognition of the need for paternal as well as maternal mental health support has been noted, potentially exacerbated by men feeling excluded from routine midwifery or health visiting support (Machin 2015, Baldwin et al 2019).

Differences are identified in mother's and father's experiences of childcare (Miller 2012, Roeters and Garcia 2016). Mothers feel unable to express any frustration with the demands of childcare (Miller 2005), whilst men describe early parenthood as 'difficult' and express frustration in their own perceived inadequacies (Barclay and Lupton 1999, Goodman 2005, Miller 2011, Kowlessar et al 2015, Baldwin et al 2019). Although men recognise the 'new man' model and accept theoretical equality, a range of arguments, particularly employment, are suggested for why this may not occur (Williams 2008, Miller 2011a). Potentially, whilst two differing discourses of technical/medical versus instinctive/natural for motherhood exist, similar traditional /breadwinner discourses contrast with a nurturing/new man concept for fathers; essentially new parents are trying to find their way between the stereotypes (Henwood and Procter 2003, Williams 2008, Miller 2011b, Miller 2012). For both mothers and fathers, parenting occurs within the wider social environment with decisions on negotiating work responsibilities, childcare and domestic responsibilities being described as 'conflict driven' (Williams 2008). Parenting has become a contemporary issue with 'Parenting culture' recognised as an academic concern (Lee et al 2014) and child rearing the focus of heated moral discourse (Faircloth 2013).

3.8 The Transition from Couple to Parents

Parenting is a known stressor on the partner relationship (Cowan and Cowan 1992, Lawrence et al 2008, Bateman and Bharj 2009, Mortensen et al 2012, Doss and Rhoades 2017, Delicate et al 2018) with gendered differences in adaption to parenthood influencing this. Bateman and Bharj (2009) highlighted differing perceptions of mother's and father's expectations of the relationship and dissatisfaction within that, emphasised by a reduction in intimacy and of communication, compounded by the time demands of a new baby (an estimated 40 hours a week - Nomaguchi and Milkie 2003) tiredness (Houlston et al 2013) and conflict over

domestic responsibilities. When fathers assist in childcare responsibilities they are considered to be a good father, the recognition that mothers undertake the majority is considered expected, and rarely worthy of appreciation (Miller 2010, Chong and Mickelson 2016) even if also working outside of the home (Craig 2006, Baxter et al 2008, Koivunen et al 2009). However, findings suggest it is the perception of fairness which is influential on relationships rather than equity (Chong and Mickelson 2016). Studies on same sex couples, for whom assisted conception was also necessitated, found more equitable division of childcare and domestic roles generally, with social norms less evident (Rubio et al 2017). Violated postpartum expectations may be emphasized by the contrast with the antenatal period when couples find enhanced intimacy in planning an idealised version of their shared parenthood; a concept Clulow (1991:187) termed '*the fantasy of fusion*'. Conversely, others (Mitnick et al 2009, Lawrence et al 2010) argue that this decrease in relationship satisfaction is a return to the prenatal norm or that the changing nature is just a result of time, with childless couples identifying a similar change in relationship.

3.9 Conclusion

This chapter reviewed transition theories, including those specific to parenthood and of parenthood following infertility. Wider factors influencing transition were considered alongside a consideration of Meleis theory on how practitioners may support parents in that. The homogenous and assumptive progressions inherent in the theories were critiqued and generalisations of maternal, paternal and couple identities were considered, together with potential limitations to them.

Transition to parenthood is influenced by societal expectations and ideology, perceived as particularly pervasive for women and requiring individual negotiation and development. It is also influenced by general predictors: demographic difference, individual personality, relationship satisfaction, work/life balance, social support, and transition specific predictors: prenatal planning and expectation, infant characteristics, division of childcare and parental stress (Lawrence et al 2010). It may be that previous infertility is one of those predictors and relates to the first of the secondary objectives of this study. The effects of gender are considered and the concept of three perspectives: his, hers, theirs. Parenting is explored as a joint process, thus the shared perspective of 'theirs' as an individual concept was felt relevant.

Chapter Four. Literature search and review

A PhD facilitates the creation and interpretation of new knowledge and it is important that a thorough review of the existing recent literature is made. Traditionally, this establishes what is currently known about the subject and provides a justification for new work (Hart 1998). In addition, it can provide information on previous methodologies used and their underpinning theoretical frameworks, aiding development of the most appropriate tools and perspectives for new study.

The previous chapters explored the background evidence and gained context to stimulate thinking and reflection (Smythe and Spence 2012) on the two key issues: IVF and transition to parenthood. A move from these broad areas to the specific review of current literature and its methodologies is necessary to provide the location for this work. Within qualitative research there are a range of perspectives on how detailed the review needs to be (Cresswell 2007). In grounded theory, pre-knowledge is argued to constrain emerging insight (Glaser 1992), whilst interpretive phenomenology argues for a broad sweep of potentially relevant material ongoing throughout the research process to stimulate thinking (Smythe et al 2008, Smythe and Spence 2012). However, within that broad sweep the rationale for the study needs to be identified and considered. This involves a thorough understanding of what is already known to identify the research gap and provide the rationale for the study which will contribute to new knowledge (Hart 1998). In addition, the literature review enables an appreciation of previous methodologies used to answer specific research questions. The evaluation of methodology and findings '*demonstrates the political nature of the whole research process – how what we do affects what we get'* (Letherby 2015:41). Within this chapter the search strategy is detailed, pertinent literature is reviewed and collated, leading to identification of the research gap and the consequent rationale for the PhD study.

4.1 Literature Search Strategy

A scoping review of the literature was undertaken in Spring 2015 on the transition to parenthood following IVF/ART. The review was repeated in 2016 focussing on infertility rather than IVF, as it was the experience of infertility rather than the process of IVF prior to parenthood potentially affecting transition to parenthood. This identified few additional results (none were relevant to the study) which suggests that research on those who spontaneously achieve pregnancy following infertility or conceive following drug or surgical intervention are particularly unrepresented. In 2019, Allan et al published their review of psychosocial factors in the transition to parenthood following non-donor assisted reproduction, which did not identify any additional studies relevant to this work. The search was repeated in 2020 prior to submission at which point, Allan et al's (2019 b) subsequent paper was included.

A search of the relevant databases was undertaken, utilising University of Greenwich library services, searching biological, health science, psychology and social science databases from EBSCOhost: Academic Search Premier, CINAHL, Medline, Psych INFO, Biomed Central, Science Direct, Scopus, Sage journals, Taylor and Francis online and Wiley online library. The midwifery specific database, MIDIRS was also used. The terms *parent** (* was the truncation symbol), *transition* or *adjustment* and either *IVF* or *assisted conception* were used in various word combinations. Searches were limited to English language, primary research from within the past 10 years - to ensure that the work was contemporaneous and reflected the current technological and cultural position of IVF as a constantly evolving phenomenon. By 2020, this included three articles from 2009 which were retained. The only additional article already used in the thesis, was Allan et al (2019b).

Studies were excluded if they were:

- Not specific to IVF or assisted reproduction (this included spontaneous pregnancies or adoptive parenting)
- Not specific to heterosexual couples (this included single parents, lesbian and gay couples)
- Not specific to early parenthood (child ages >6 months)
- Not specific to parenting (looked at studies of IVF children rather than the parents)
- Biomedical
- Related only to multiple pregnancy

From the search 254 records were retrieved, reduced to 215 once duplicates were removed. Abstracts were screened for relevance with 198 excluded for focussing on biomedical, not related to assisted conception, not related to heterosexual couples, not related to parenting (focussed on pregnancy only or the child themselves) or specific to multiple pregnancy. The remaining 17 studies were re-screened. Of these, one focussed on maternal health following birth, two related to older children (> 6/12) and three did not focus on transition. Thus, six further studies were removed. Of the remaining 11 studies, four reported on different aspects from a single large study (Gameiro et al 2010a, 2010b, 2011a, 2011b). A return to the literature using the terms *parent** and *infert** generated 445 'hits' from which, using the same initial screening procedures, three new papers were obtained. One paper was subsequently excluded as it focussed on pregnancy only. A search through the midwifery database, Midwives Information and Resource Service (MIDIRS), identified another study, whilst another was published in the midwifery press at this time. Hand searching of reference lists identified one further study, whilst the 2020 review identified a final study published the previous year, giving a total of 17. [Fig 4]

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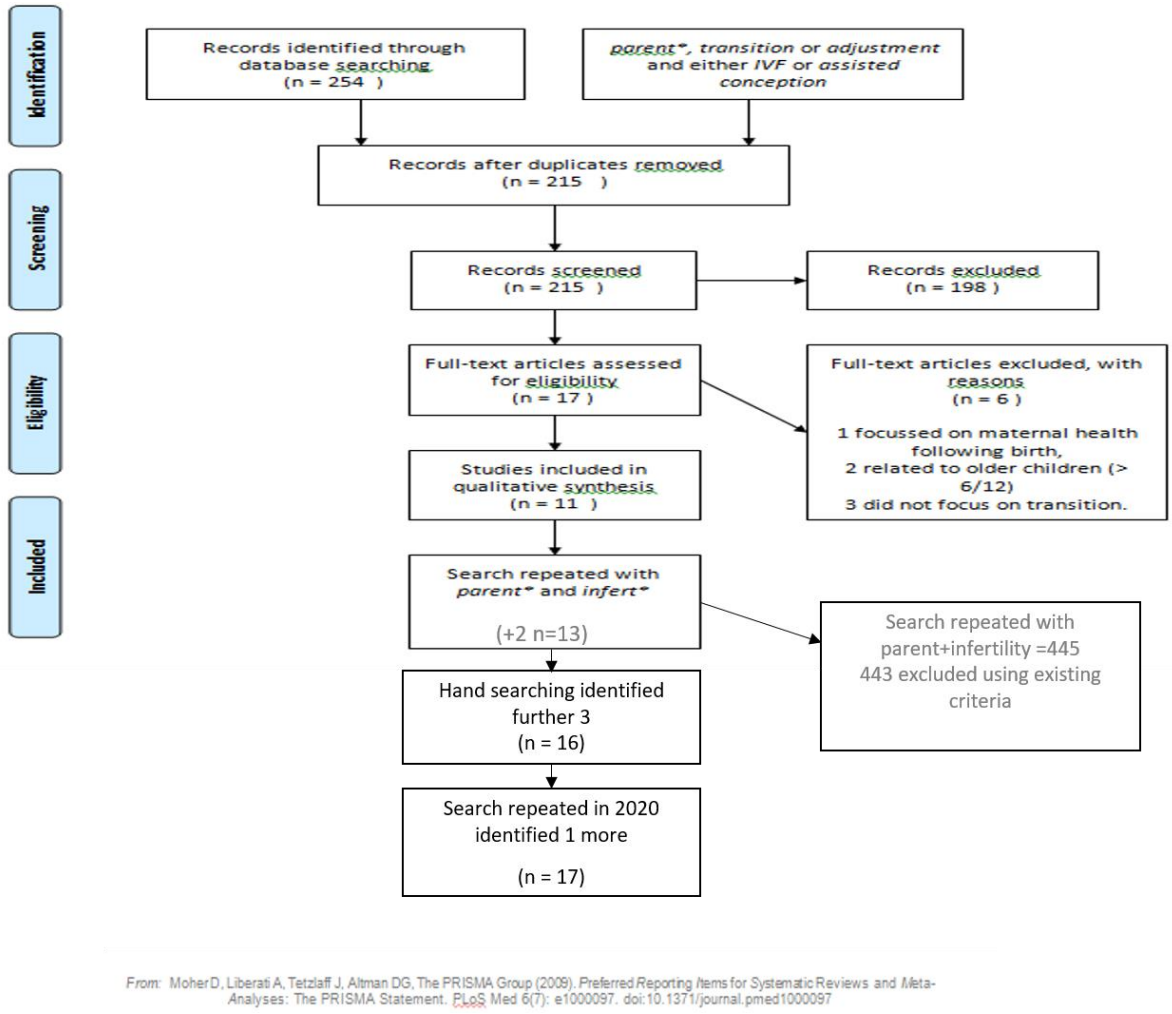

Figure 3. PRISMA diagram

4.2 Literature Review Process

The search identified 17 studies which were analysed using a modified Critical Appraisal Skills Programme (CASP) (Garrard 2007) and set out in a data extraction table [Appendix 1]. The use of CASP enabled a consistent, methodical approach to the data (Hart 1998) which can help identify the research 'problem' or gap (Cresswell 2007). The data extraction table shows how often or how strongly particular trends or themes came through, mediated by sample size and methodology used.

4.2.1 Characteristics of the Studies

Only one of the studies was UK specific (Allen et al 2019b). It is known that culture and nation influence all parents in their parenting, with country specific attitude and policy around IVF further mediating that (Cook et al 1997, Nekkebroek et al 2010). Of the remaining studies, three were from Australasia (Hammarberg et al 2009, McMahon et al 2013, Dann et al 2016), one from the USA (Ladores and Aroian 2015b), two Finnish (Flykt 2011 and 2014) and one Swiss (Cairo et al 2012). Nine were from predominantly Catholic, European countries: five from Portugal (Gameiro et al 2010a, 2010b, 2011a, 2011b, Guedes and Canavarro 2014), three from Italy (Agostini et al 2009, Monti et al 2009, 2015) and one from Spain (Moreno-Rosset et al 2016). These were often articles from one larger study. It could be argued that, although from Western countries, the dominant Catholic culture may influence specific findings in comparison to other studies (IVF is considered unethical within the Catholic Church as it negates marital intercourse for procreation and the IVF process can lead to the formation and subsequent loss of embryos). Fifteen out of 17 studies were longitudinal prospective studies, enabling real time reflection on responses. The exceptions were Ladores and Aroian (2015b) who interviewed mothers and Allan et al (2019b) who interviewed couples on their retrospective experience. This may lead to memory bias but is pertinent in view of Miller's (2005) comment on how women feel able to acknowledge difficulties with the mother role only historically. Most of the remaining studies covered the period from the third trimester until the child was approximately 6 months old. There was some withdrawal of respondents from studies during this time – this may be because of the intimate nature of some of the questions or, particularly for Gameiro et al's studies, because of the volume of questionnaires. In contrast Allan et al (2019 b) was a retrospective study undertaken when the child was between three and 18 months old, it was not possible to tell the average age. Although no prebirth interviews were undertaken, in response to the broad

question ‘tell me about when you became a parent for the first time? how did you feel?’ participants did discuss their experiences of both IVF and preparing for parenthood.

4.2.2 Methods and Methodologies

The majority of the studies (n=13) in the review used self completed questionnaires and/or a range of recognised psychological tools which were analysed using statistical methods. The comparability of different questionnaires used in different national settings could influence results (Pelgrum 2005). Agostini et al (2009) undertook semi-structured interviews which were then coded by the researcher and analysed statistically. This relies on the researcher accurately gaining shared meaning from the interview to enable appropriate coding. Self completed materials do not allow any opportunity to probe and findings can appear ‘sterile’ and lacking in texture for a subject as complex as parenting. Cairo et al (2012) used observation alongside the questionnaire utilising a doll to represent the child in prenatal assessment. Although observation has the potential to deliver more qualitative data, The Lausanne Trilogue Play (LTP) situation was used which is analysed using coding to produce a numerical quantitative score. The fit between the underlying paradigm and the method was appropriate in addressing the respective aims of all these studies (Agostini et al 2009, Cairo et al 2012, Flykt et al 2011,2014, Gameiro et al 2010a, 2010b, 2011a, 2011b, Guedes and Canavarro 2014, Hammarberg et al 2009, McMahon et al 2013, Monti et al 2009, 2015, Moreno-Rossett et al 2016) which were focussed on assessing or evaluating relationships between one factor and another eg. ART and mental representation. However, recognition of a connection between two factors gives no depth of understanding of how that may feel to individuals. Flykt et al (2014) highlight how self-report measures can be susceptible to bias and suggest that interview methods would have provided more comprehensive insight for antenatal expectations and violations, as well as mental health. The same could have been suggested for parenting stress and marital congruence.

Only three studies used qualitative methods. Dann et al (2016) and Ladores and Aroian (2015b) both followed a phenomenological perspective and whilst there was no overarching methodology for Allan et al (2019b), all utilised interviews. The quality of interview data is reliant upon a constructive relationship being developed between the researcher and participant. It enables probing – allowing the researcher to further clarify any specific points and encouraging the participant to enlarge upon areas that the researcher wished to focus upon (Silverman 2014). However, from a phenomenological perspective, it's important the researcher does not lead the participant; instead meaning arises from the participants own interpretation of what matters (Benner 1994). Ladores and Aroian (2015b) utilised a descriptive phenomenological design analysed using Colaizzi's framework. Descriptive phenomenology relied upon the two experienced nurse professionals suspending (bracketing) their previous knowledge with the insight emerging from the structured analysis. In contrast, Dann et al's (2016) use of Heideggerian hermeneutics was an interpretive phenomenology where insight is constructed from the interview interaction itself – specific to that time and place. Dann et al (2016) interviewed mothers on two occasions, antenatally at 28-30 weeks gestation and at eight to ten weeks postnatally. Ladores and Aroian (2015b) interviewed women twice, although the second interview was only two weeks following the first to clarify points from the initial meeting. The infants were aged up to three years old, with only one below six months. Similarly, Allan et al (2019b) interviewed couples between three and eighteen months postpartum – the age of the babies at interview is not stated. Allan et al (2019b) was the only study that interviewed couples together, a method that I used myself - both studies being undertaken simultaneously. It is acknowledged that this may emphasise joint perspectives in contrast with those focussing only on women (none in the literature review focussed on just men) or on partners individually [see 6.5.2]. As presented below, a key finding from both Ladores and Aroian's (2015b) study and Allan et al's 2019b) study is

the ‘lingering identity of infertility, whilst Dann et al (2016) provide a suggestion of how that is managed, with ‘silence as strategy’. It is these three studies that resonate best in explaining the depth of experience for parents following infertility treatment.

Greil et al (2010) in their review of psychosocial infertility studies and building on a previous 1997 work, identify how previous work on infertility focussed on quantitative psychological studies with a clinical focus. They argue for more qualitative research reflecting the social context of infertility and the three qualitative papers identified in this literature review were published subsequently. This emphasis on qualitative data is relevant when looking at transition to parenthood for couples with an IVF pregnancy; the parent’s own perspective, their own understanding of the transition to parenthood and how they make sense of the experience they have been through is important in considering how health professionals can best support them.

4.2.3 Sample Groups

As is common with accessing participants in research studies, the sample groups were disproportionately Caucasian, more affluent and had achieved a higher level of education than background demographics would suggest for parenthood. However, it needs to be recognised that couples undergoing IVF also tend to be Caucasian and relatively affluent, mirroring those characteristics. Twelve studies were conducted with couples (Agostini et al 2009, Allan et al 2019b, Cairo et al 2012, Flykt et al 2011 and 2014, Gameiro et al 2010a, 2010b, 2011a, 2011b, Monti et al 2009 and 2015, Moreno-Rosset et al 2016), whilst the remainder focussed on mothers only, including the two phenomenological studies (Dann et al 2016, Ladores and Aroian 2015b). None of the studies focussed on fathers only.

For all of the studies that used a control group (Agostini et al 2009, Flykt et al 2011 and 2014, Gameiro et al 2010a, 2010b, 2011a, 2011b, McMahon et al 2013, Monti et al 2009 and 2015) those with a spontaneous conception (SC) were younger than those who had ART; on

average ART mothers (and their partners if included) were two to three years older than their SC counterparts, for Gameiro et al's studies (2010a, 2010b, 2011a, 2011b) this increased to seven years. Hammaberg et al (2009) used national data as comparison and found ART couples to be five years older than SC couples. Rather than focussing on the contrast between ART and SC mothers, Guedes and Canavarro (2014) compared mothers of advanced maternal age (35 years or older at delivery) with younger mothers, using ART conception as a sub-group. This definition of advanced maternal age may reflect the Portuguese norm (in Gameiro's studies mean SC maternal age was 26), however 34 was the average maternal age in the majority of the studies.

The increased age of ART parents reflects the length of time of infertility and treatment. This was not stated in several of the studies (Agostini et al 2009, Flykt 2011 and 2014, McMahon et al 2013, Guedes and Canavarro 2014) and yet could be considered influential in adaptation (Hammarberg et al 2008a). The average length of time trying for a pregnancy ranged from one year (Moreno-Rosset et al 2016) to five years (Gameiro et al 2010a, 2010b, 2011a, 2011b), the average was two to three years. Most of the couples had had one previous unsuccessful IVF attempt before the index birth, although this ranged from none to two. Dann et al 2016 specifically focussed on mothers who had repeated pregnancy failures –an average of three IVF attempts, and pregnancy loss.

4.3 Trends Emerging from the Literature Review

By reviewing the literature and looking at both the trends identified in the quantitative studies and the themes from the qualitative data, three areas of focus were identified:

- **Wellbeing** (Hammarberg et al 2009, Monti et al 2009, Gameiro et al, 2010a, Gameiro et al 2011a, McMahon et al 2013, Flykt et al 2014, Monti et al 2015, Moreno-Rosset et al 2016, Allan et al 2019b)

- **Individual coping** (Agostini et al 2009, Hammarberg et al 2009, Gameiro et al 2010a, Gameiro et al 2010b, Gameiro et al 2011b, Flykt et al 2011, McMahon et al 2013, Guedes and Canavarro 2014, Ladores and Aroian 2015b, Dann et al 2016, Moreno-Rosset et al 2016)

- **Family functioning** (Flykt et al 2011, Gameiro et al 2010b, Gameiro et al 2011a, Cairo et al 2012, Allan et al 2019b)

There are close links between these three aspects with mental health being an influencing factor in them all. Mental health may be influenced by both intrinsic factors and external support and is a finding common in many parenting studies (Gutman et al 2009, Underdown and Barlow 2012, Parfitt and Ayers 2014).

4.3.1 Wellbeing

Mental wellbeing is described by Mind (2016) as - how you are feeling and how well you can cope with day-to-day life. Five of the studies, all quantitative, considered emotional wellbeing with recognised tools used for the assessment; two used the Brief Symptom Inventory (BSI), two the Edinburgh Postnatal Depression scale (EPDS) and two used the State Trait Anxiety scale. There was a small but clear rate of increased depression (more apparent in studies using EPDS than BSI), although this contrasted with significantly increased rates of admission to Australian mother and baby parenting units, a situation which may be less likely to occur in the UK which has an established, and statutory, midwifery and Health Visiting service for postnatal mothers. Gameiro et al (2010a) identified a decreased psychological quality of life in comparison to parents with spontaneous conceptions, as well as lower levels of marital congruence (Gameiro et al 2011a), the latter being particularly exacerbated by maternal depression. Despite no increased rates of depression amongst ART mothers in Hammarberg's study (2009) there were higher rates of perceived difficult infant

behaviour and subsequent admission to parenting services. A direct correlation was identified between difficulties conceiving and lower maternal confidence. Expectation of the parent-child relationship was examined by Flykt (2014) who found violated expectations to be mediated by mental health for mothers and marital discord for fathers. Whilst fathers of ART babies were more tolerant of infant difficulties, they were more susceptible to distress from delivery complications.

The evidence on parenting stress for IVF couples is not clear with previous studies finding differing results (Hammarberg et al 2008a). Monti et al (2009 and 2015) found increased rates of postpartum depression amongst ART mothers, particularly amongst those who had undertaken repeated ART cycles. Amongst ART fathers, rates of depression were higher than the control group in the third trimester and first week after birth. The findings led the authors to propose additional monitoring for ART couples. Moreno-Rossett et al (2016) and McMahon et al (2013) identify an increase in anxiety in pregnancy for ART couples and mothers, although this appears to be pregnancy specific rather than generic and correspondingly decreases following birth [as highlighted in 2.5.5]. Similar anxiety is recollected by couples within Allan et al's (2019b) study, with the pressure focussed on the survival of the ongoing pregnancy. These findings are reflected by Gameiro et al (2010a) with ART parents perceiving pregnancy as being more risky and demanding. These studies all had relatively small numbers of respondents, no more than 50 in a study with Gameiro et al (2010a, 2010b, 2011a, 2011b) using the same sample group for several related studies.

4.3.2 Individual Coping

How parents manage the transition to parenthood was evidenced in the two qualitative studies. Ladores and Arojan (2015b) undertook face to face interviews with ART mothers and although they had feelings of stress when parenthood was not as expected, they

concealed this from others as they were simultaneously grateful at having the opportunity of motherhood. This concealment resonates with the findings of Dann et al (2016) who refer to silence as a coping strategy. These studies used face to face interviews and highlight how qualitative research can reveal a depth of data rarely visible in quantitative studies.

Agostini (2009) suggest that ART parents may have a more ambivalent mental representation of the child, particularly compared to pregnancy. This is echoed by Guedes and Canavarro (2014) who highlight perceived difficulties with early parenting in those who have undergone IVF, potentially linked to an idealisation of the baby and of parenthood (Hammarberg et al 2008a). They suggest that health professionals should promote a realistic expectation of the first few weeks although perceived parenting difficulty by parents decreased over time. Similarly, Gameiro (2010a) identified parents initially having higher rates of difficulty in pregnancy, but this lessened over time. Both studies utilised several different psychological tools in their questionnaires, only BSI being common to both. In the longer term, Flykt et al (2011) did not find any evidence of dysfunctional representation of parenting in those with previous IVF, going on to suggest that the history of waiting longer to become parents may influence adaptation to parenting roles sooner and possibly more equity in child care roles. The Abidin Parenting Stress Index was used by both Gameiro et al (2010a, 2011b) and Flykt (2011). Coping mechanisms were identified for mothers as an increased closeness with the nuclear family, with corresponding reduction in support seeking from friends or extended family (Gameiro et al 2010b). However, this differed slightly for fathers who found support from friends to be more beneficial (Gameiro et al 2011b). These differences are considered by the authors to be related to the expectation of roles within the family – for women, maternity leave and increased time spent with the child encouraged a turning to immediate family for practical and psychological support. For men, the demands of earning a wage lessened their contact with the child and family, so turning to friends for reassurance. The

findings did not differ for mode of conception and reflected what is known, that social support is important in the transition to parenthood (Gutman et al 2009).

Individual coping may be related to the perceived temperament of the infant, with setting known to influence the stability of infant temperament (Bornstein et al 2014). The previously identified anxiety in pregnancy (McMahon et al 2013, Moreno-Rossett et al 2016) may theoretically predispose to more temperamentally difficult babies (Glover 2014). Two studies considered infant temperament using different tools and report differing results. Hammarberg (2009) identified a higher number of mothers reporting difficulties with their infants, however she was focussing on risks for admission to Mother and Baby units, so may have had a more pathological focus. McMahon et al's (2013) study found ART mothers reporting less difficult infant temperament than their spontaneous conception peers. Whilst some would argue this is related to a reluctance to disclose difficulties (Ladores and Arojan 2015b, Dann et al 2016), McMahon et al (2013) suggest that it demonstrates the difference between short term pregnancy specific anxiety, more common in ART mothers, compared to mothers with trait anxiety as a pathological condition. Expectation may be key here with Ladores and Arojan (2015b) suggesting that for IVF mothers, gratitude at having a child causes an idealisation of the baby. The studies concur in suggesting that healthcare professionals have a role in trying to give parents a realistic expectation of babies and parenthood, and of being alert to early difficulties with that. Allan et al (2019b) refer to individual coping but the influence of differing methods is evident in how couple interviews led to more couple focussed responses and an explanation of how reliance on each other eased transition, an area that reflects family functioning.

4.3.3 Family Functioning

Whilst individual coping relates to managing as individuals, theme three, family functioning, refers to the combination of both parents as a unit. Two studies explored family dynamics: Flykt et al 2011 investigated prenatal expectations of parenthood and the child, using a questionnaire of family representations and the Abidin Parenting Stress Index whilst Cairo et al 2012 focussed on the family alliance assessed through observation as well as questionnaire. Cairo et al (2012) had no control group, but instead used a reference group. Findings identified that prenatal family functioning was similar or higher than the reference sample in pregnancy but the family alliance, identified through the observation was lower for ART families postnatally, a finding not reflected in the questionnaire responses. A proposed rationale for this was a greater child focussed parental style amongst ART parents influencing the development of the mother – father alliance. Flykt et al (2011) proposed that ART parents would have either higher expectations of the future child as a result of idealisation secondary to the investment in becoming parents or lower expectations following the more tentative pregnancy in comparison to those with a spontaneous conception; neither hypothesis was borne out with similarities in both ART and normative parents. Flykt et al (2011) go on to suggest that the long process of infertility may promote a resilience in parents which enables them to find their parental roles sooner. Allan et al (2019b) suggest that the experience of infertility facilitated their involvement with pregnancy and parenting in contrast to contemporary social norms.

Gameiro et al (2010b) identified through convoy modelling, how new parents gravitated towards their nuclear family following childbirth, a process the authors term ‘social nesting’. A follow-on study (Gameiro et al 2011c) showed how the involvement of this support network, together with marital satisfaction (assessed using the recognised ENRICH tool) was positively associated with parental investment.

4.4 Existing Related Literature Reviews

Since 2005 four related literature reviews were undertaken. In 2008 Hammarberg et al undertook a systematic review of psychological and social aspects of pregnancy, childbirth and early parenting after assisted conception. This covered studies from the 1990's to the mid 2000s (the IVF rate in the UK was 20,000 in 1992 compared to 70,000 in 2016). They found results of studies inconsistent but concluded that increased anxiety in pregnancy and possible over idealisation of the child may affect parental identity. McGrath et al in 2010 published Parenting after Infertility: Issues for families and infants, a review aimed at US nurses. They highlight the increased care needs of infants, and subsequent psychological needs of parents of those born at low birth weight and needing additional care (more prevalent with multiple birth). The only article specific to midwives was by Younger et al (2014) who undertook a review titled 'Individualised care for women with assisted conception pregnancies and midwifery practice implications' focussing primarily on pregnancy. Also highlighting increased anxiety for these parents, Younger et al emphasise the importance of policy to promote women-centred care and of psychological awareness by midwives when supporting IVF parents. Most recently Allan et al (2019a) undertook a review focussing on psychosocial factors in the transition to parenthood following non-donor assisted reproduction, prior to their own study. Highlighting that despite non-donor IVF amongst heterosexual couples being significantly more common, most recent research has focussed on those receiving donor gametes – the assumption being that genetic parenthood within IVF couples is straightforward. Their inclusion criteria identified similar articles to my own (although they included studies with a child up to age ten) and generated three broad themes: social support, family and marital relationships, and parents emotional wellbeing, with all three influenced by gender differences. This final review was published as this current study was concluding and the similarity in findings provides rigour.

4.5 Conclusion

The review of current evidence shows only small differences between the transition to parenthood for ART parents and SC across most studies. Studies which do propose differences, for example Hammarberg et al (2009) who found increased rates of admission to parenting services, could only propose potential rationales. There were confirmed higher rates of depression and anxiety during IVF pregnancies, but these appeared to ease after birth. As with all mothers, poorer mental health affected satisfaction with parenting and partner support was important for wellbeing. The majority of studies make no direct reference to health professionals and were not undertaken in Britain, consequently the unique role of UK midwives and Health Visitors on transition to parenthood for IVF parents, or the NHS context in which treatment may occur, has not been considered. This PhD study aimed to address that gap.

What was apparent from the three qualitative studies was that IVF mothers were guarded in their responses with healthcare professionals and this continued into early parenthood. This is highlighted in Dann et al's (2016) title 'silence as strategy' which is identified as the dominant theme, one accompanied by 'mask wearing'. Ladores and Arojan (2015) found that women had censored their feelings rather than disclose to others when they felt they were unable to live up to their own expectations of motherhood, similarly Allan et al (2019b) identified how couples found it hard to articulate any difficulties during pregnancy or parenting. The anonymity of self completed questionnaires may prevent this bias, but any level of insight is difficult to establish using anonymous methods. Avoiding disclosure of negativity may indicate the mother's reluctance to admit such negativity to herself rather than a deliberate attempt to conceal feelings, as can be seen in previous studies on transition to motherhood for those with spontaneous conceptions (Barclay et al 1997, Miller 2005).

Interviews enable a supportive relationship between researcher and participant which encourages safe disclosure of feelings. The review of methods helped me to determine that for my own study I wished to use interviews to develop a relationship with individuals and to enable the collection of detailed data. However, of the three studies that used interviews, two were retrospective and the other focussed specifically on those women with a particularly difficult fertility/obstetric history, what was missing from the data was a more contemporaneous account and interpretation of couple's transition to parenthood for those with more normative IVF experiences.

The evidence from the literature review and the contextual background of chapters two and three revealed a scarcity of evidence on the lived experience of the transition to parenthood of couples with an IVF pregnancy in the contemporary environment of the UK, this provided the 'research gap'. The primary research question is therefore:

'What is the lived experience of the transition to parenthood for couples with a singleton IVF pregnancy, genetically their own?'

Secondary objectives are to gain insight into:

- The meaning ascribed to the experience of becoming parents following IVF
- Whether parents' perception of their previous experiences of infertility and associated interventions influence this transition?
- Potential differences or similarities between the perceived experiences of mothers and fathers of an IVF conceived baby?
- If, and how parents of an IVF conceived baby perceive wider societal views as influencing their experiences and behaviours?

Throughout chapters two, three and four, the importance of relationships and support from partners, family, friends and professionals was apparent particularly in the three themes of the literature review – wellbeing, individual coping and family functioning. To address the research question 'what is the lived experience of…?' a qualitative methodology is necessary to provide the required depth of insight – chapter five discusses several potential methodologies that were considered before Heideggerian hermeneutic phenomenology was identified as the most appropriate.

Prequel to Methodology Chapters and Underlying Philosophy: The Way

I commenced this work without a clear methodology established and an advantage of this was that I was able to consider the possible options more openly as viable opportunities. Throughout my life I have enjoyed reading novels and do so every night and just after I started to look at hermeneutic phenomenology as a possible methodology, I came across the quote from Lincoln in the Bardo (Saunders 2017) cited at the beginning of this thesis: *We were as we were! ..... How could we have been otherwise? Or, being that way, have done otherwise? We were that way, at that time, and had been led to that place, ...by the state of our cognition and our experience up until that moment*. These few lines resonated with me and the rationale of the influence of our time, place and experience reflected my own perspective on life. Wider reading on Heideggerian phenomenology has shown me that, despite it being a challenging methodology, it either 'is' you or it is not. The philosophy has influences much wider than just research and consequently must be seen as a way of viewing the world rather than just a structure for gathering and analysing data.

Having referred to this prequel as 'the way' I was reassured when later reading an article by Smythe and Spence (2020) which referred to Heidegger's explanation of 'method' as 'the way to access'. That endorsed my own perspective of methodology demonstrating a route from broad data to emerging insight.

Chapter Five. Methodology

It is important within research that there is synergy between the research question and methodology used. This chapter justifies the choice of methodology by considering why other paradigms and methodologies were discarded, and why the selected methodology was considered most appropriate for both the research question and the researcher.

5.1 Philosophies and Paradigms

Within research there are two dominant paradigms: a positivist/naturalist approach, which is deductive, involving quantitative methods to prove or disprove a theory, and an interpretive/constructivist approach, employing qualitative methodology to generate theory or insight from inductive data analysis. These reflect differing epistemological views of the nature of knowledge, relating to a world view that, for the former, the truth exists but just needs discovery whilst the latter view is of multiple truths dependent upon individual experiences and perceptions (Plowright 2011). Empirical study often leads to data gained from a third person perspective – from observation or experiment rather than the first person lived experience (Svenaeus 2011). Focussing on individual experience recognises subjective views of reality as an ontological assumption which, for the researcher, recognises that one's values and perspectives shape the interpretation (Cresswell 2007). This paradigm dichotomy resonates with midwifery researchers used to practising in an environment in which the concept of a medical model contrasts with a 'birth as normal event' model (Bryar and Sinclair 2011). The medical model relates to a philosophy of biology being the 'truth' and from that an assessment of individual 'risk' as determined by medical expertise. In the latter, birth is seen as a normal event in which an individual's psyche influences the physiology of the process. This dichotomy is reflected in the dominant use of evidence within midwifery, with quantitative evidence, often summarised within NICE guidance, perceived as the 'best'

way to provide care for all women. Consequently, there is minimal acknowledgement of individual difference and women's own experiences becomes subsumed beneath an assumed 'best practice' (Thomson and Crowther 2019).

5.2 The Nature of Qualitative Research

The differing paradigms tend to reflect an individual's world view. For many nurses and midwives, the relationship between the patient/client and practitioner is paramount, the reason often given for their choice of career, and this desire to understand another's perspective leans towards a qualitative approach (Braun and Clarke 2014). Qualitative research seeks to gain understanding of an individual's perception of their situation and is grounded in and values that specific experience. It involves *'exploring opinions, behaviours and experiences from the participants point of view, thereby determining what something means from the perspective of those taking part'* (Steen and Roberts 2011). Hence if my focus is on how parents understand their experiences, it is their opinion alone that is legitimate. In addition, Denzin and Lincoln (2008 14) argue that *qualitative researchers stress the socially constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry*. This feels particularly pertinent to this study as the contemporaneousness of IVF reflects its social construction whilst my professional role as midwife emphasises an intimacy different from that of other researchers.

As there was no hypothesis to be tested, instead an attempt to understand individual's viewpoints, it was important to stay close to the experience. To understand something, qualitative research needs to go beyond behaviours and description, to show awareness of context and the meaning individuals make of their own experiences and lives. This focus on the participant reflects the client-centred approach advocated within midwifery and enables

an open-ness to differing perspectives (Powell Kennedy 2010). Within that, the interaction between researcher and respondent is both valuable and intrinsic to the data collection process. The building of therapeutic relationships within a short time frame, a skill of experienced midwives (Hunter 2006a), enables empathetic data collection whilst utilising previous experience and knowledge and is a legitimate use for developing insight (Lambert et al 2010), hence an interpretive paradigm was both the practical and desirable option. Although all qualitative data relies upon interpretation, how that interpretation is undertaken can influence results. Deciding what should be studied, what questions are asked and how results are obtained and presented, influences results; methods need to reflect the methodology. Thus, having established the necessity of an interpretive paradigm, the rationale for the methodology needs to be considered.

5.3 Consideration of Possible Methodologies

Within qualitative research, a range of theoretical and philosophical concepts align themselves with particular methodologies. Transition theories, particularly those related to parenting, often derive from social constructionism (such as Sandelowski 1993a) or, more recently, Interpretive Phenomenological Analysis (IPA) (Smith 1999a). These were clearly a starting point to consider for a study of transition to parenting. In addition, Dykes (2004) identify those more common in midwifery: grounded theory, ethnography, feminist methodology and phenomenology. These will also be considered individually as it is only by having a clear understanding of the rationale behind differing concepts and acknowledging their advantages and disadvantages for a particular research question, that one's own methodology can be justified.

5.3.1 Social Constructionism

Social constructionism seeks to develop or construct meanings which are both culturally specific and reflect a range of created knowledge (Walker 2015) consequently trying to represent a breadth of possible experiences. Despite this spread, these meanings remain generally assumptive prepositions, suggesting a normative expectation for individuals, rather than experiences themselves being unique. This mirrors the earlier critiques of transition theories in chapter three. This study was seeking not to build or construct meaning, however broad, but to gain insight into how an experience may be, consequently social constructionism was rejected.

5.3.2 Interpretive Phenomenological Analysis

A method which claims to gain insight from an individual's interpretation is Interpretive Phenomenological analysis (IPA), a recent derivation of hermeneutical phenomenology. Stemming from an applied psychology root, it considers the intrinsic attempts of the individual to make sense of an event for themselves. The participant's interpretation is further interpreted by the researcher, who compares and contrasts it with others experiences and potentially identifying generalisations which can build into a theory (Smith et al 2009). Although considered suited to studies which focus on the bio-psycho-social (Biggerstaff and Thompson 2008) and having been used in maternal transition studies (Smith 1999a and 1999b) its repeated interpretations to rebuild anew have been criticised for lacking rigour (de Witt and Ploeg 2006) and for reducing data to description (Brooks 2006), consequently meaning is ascribed to text rather than the experience. Furthermore, the aim, to build a theory from generic assumptions, was incompatible with seeking to understand individual experience, it was therefore discarded.

5.3.3 Grounded Theory

Widely used in social science and healthcare, grounded theory aims to generate a theory or explanation which fits with the experiences of individuals. Devised by Glaser and Strauss (1967), it is based upon a bottom up approach to theory development, achieved by repeated data gathering until data saturation is reached. The concept of data saturation is incompatible with studies that seek to understand experience, as saturation can never be fully reached; experience is always totally unique to each person, in any given time and place. The disassociation from previous ideas to enable a systematic approach which allows theory to arise proved an additional challenge for a doctoral student familiar with the literature. Within grounded theory, data is deconstructed, then reconstructed to develop understanding, leading to an over-arching theory (Corbin and Holt 2005). However, deconstruction removes the intrinsic context in which the experience is situated, leaving only an abstract theory. Without context data lacks meaning and consequently understanding becomes more problematic. The focus on theory arising solely from the data as a purely inductive process is challenged by those who argue that theory is less discovered and more constructed by researchers, the presence of the researcher visible within it (Charmaz 2006). Recognition of the researcher in the work fits my world view, however the development of concrete theory does not, so for both philosophical and practical reasons grounded theory was excluded as a methodology.

5.3.4 Ethnography

Originating from anthropology, ethnography focuses on enculturation or the shared interpretations of a specific group (Cresswell 2007). It aims for understanding of social phenomena within a particular context by long term immersion of the researcher in the group (Harper and La Fontaine 2009). Although ethnography may have been useful in considering cultural issues for those with an IVF pregnancy, as a method it was inappropriate for a part-

time researcher who lacked the time available for 'immersion'. Although previously used in studies of ART clinics (Allan 2001, Thompson 2005), it was difficult to find a suitable cultural setting for the transition to parenthood for these couples; within assisted conception units individuals rarely interacted with each other, instead managing their emotions privately (Allan 2006) and, once pregnant, women were treated identically to other expectant mothers, thus their previous infertility was hidden (Younger et al 2015). Consequently, the difficulty in identifying an environment suitable for enculturation and the impracticality of long term immersion led me to reject ethnography for this study.

5.3.5 Feminist Methodology

Within the topic area there are several issues which align with a feminist perspective, particularly pro-natalism and the medicalisation of infertility (Letherby 2002). The concept of reproduction as oppression influenced the use of feminist methodologies in early ART studies and was beneficial in considering the differentiation between motherhood as a right compared to motherhood as subjugation (Hudson et al 2019). Whilst the word midwife means 'with woman', feminist research is not just researching women, but recognising essential inequalities and political aspects of women's position in society (Letherby 2003). This includes women's understanding of their own lives and motivation to change (Kralik and van Loon 2008). However, oppression can affect both men and women experiencing IVF, with society exerting differing but equally stressful expectations on both partners. Peters et al (2008) propose that feminist perspectives in couple research may be both useful and enhancing mutual respect. Dykes (2004) argues there are three key aspects to feminist research; the first two, reflexivity and intersubjectivity, aligned with the researchers own perspective, however the third principal - its transformative potential - was more difficult. Feminist research aims to reflect a collective view of women, rather than individual perceptions and experience, and to challenge existing structures, seeking change or

emancipation (Olesen 2005). Consequently, it was inappropriate for this study which sought to understand individual experience rather than transform social or political attitudes.

5.4 Phenomenology

Development of a generic theory did not fit comfortably with my belief in the uniqueness of individual experience, a philosophical stance that aligns itself with phenomenology. Phenomenology is the study of 'phenomena', of something that is important, knowable and for research purposes – of value, and how that is experienced (Moran 2000). It is also the recognition that the phenomena itself exists in a context with both the phenomena and its wider sociocultural influences being considered (Friberg et al 2000). With roots in philosophy, phenomenology is not about developing theories or arguments but enabling recognition or insights that resonate with others. The focus is on 'lived experience' that is, how something is consciously experienced – which may differ from a concrete reality. It is argued that phenomenology and its philosophical background is consistent with nursing ideals, more concerned with the human condition rather than theoretical stances (Mackey 2005, Dowling 2007, Balls 2009). The focus on the individual person, or within my study the couple, and the appreciation of the wider social context appealed to me and led me to consider the methodology in more depth.

5.4.1 Edmund Husserl and Descriptive Phenomenology

Phenomenology was originally proposed by Husserl who considered it a descriptive psychology, arguing that structured analysis would enable a cognitive recognition of the core understanding or 'essence' of the experience. As with grounded theory, descriptive phenomenologists consider the role of the researcher themselves, arguing that to reach a pure understanding of the lived experience, researchers need to suspend or bracket their own

perceptions, a position known as 'epoche'. They claim bracketing enables understanding of the essence of the experience in its purest form; thus, the researcher becomes a data collection tool only. However, something has to be consciously known and recognised before it can be bracketed and bracketing itself can be difficult, some may argue impossible, particularly as it's suggested the research question should be an issue keenly felt by the researcher themselves (Kenny 2012). As a midwifery educator and doctoral student, I had necessarily spent time reading around the subject area, yet it could be argued there is little value in previous reading if knowledge gained is to be suspended.

Husserl considered that individuals were free agents with autonomy of actions and thus the influence of context, in particular the temporality of time and place, was rarely considered; this is challenging within the context of parenting, which is socially constructed. Whilst descriptive phenomenology can be helpful in developing concepts with wide direct application, interpretive phenomenology aims to understand more hidden features of an experience for recognition and appreciation (Lopez and Willis 2004); this seemed to relate more to my study which focussed on a niche group and I was not seeking to generalise experience for a specific purpose. In addition, a structured and objective approach to analysis appear counter-intuitive to individual experience (Koch 1995) and the suspension of prior learning and experience seemed impossible for me. This led to me dismissing descriptive phenomenology.

5.4.2 Martin Heidegger and Interpretive (Hermeneutic) Phenomenology

In contrast to descriptive phenomenology, interpretive phenomenology recognises an individual's location and interaction with their socio-cultural world and the meaning or interpretation they give to their experience. This interpretation is not a search for obscure or hidden meaning, but something *lying near, that which lies nearest* (Heidegger 1977: 111)

often so close, it is rarely noticed. A summary of the differences between descriptive and interpretive phenomenology can be seen in Table 1.

Husserl: Descriptive Phenomenology	**Heidegger: Interpretive Phenomenology**
Description is more important than explanation	Explanation is more important than description
We can never really 'know' something – only our present understanding of it	Each person's understanding of an experience is unique to them and is based on past experiences
Asks the question 'what is this experience?'	Through interpretation, considers 'what does this experience mean?'
Aim is to describe the *life- world* of others	Aim is to understand the *lived experiences* of others
Experience happens in isolation from time and context	Experience is understood in relation to time and context
The researcher is seeking the essence of the conscious mind	The researcher acknowledges the influence of culture, language and previous knowledge and practice
Bracketing prevents contamination of data by the researcher who is a data collection tool only	The researcher participates in the making and interpretation of data (co-creation or co-constitution)
Validity of results is maintained by bracketing	The hermeneutic circle (fore-structure, co-constitution) maintains credibility

Table 1. Husserlian v Heideggarian Phenomenology (based on Dibley 2017a)

The key exponent of interpretive phenomenology was Martin Heidegger (1889-1976), a student of Husserl's who diverged from his lecturer on the importance of 'context'. In Heidegger's major publication, *Sein und Zeit* (Being and Time 1927), he argues against Cartesian duality (mind-body split) and asserts that it is the time and place in which one lives that influences one's understanding and experience; nothing can be seen as outside of that (Mulhall 1996). Heidegger refers to 'Being' as ontological, a relational totality which reflects our preoccupation with our own life and existence, our understanding of it and responsibility

to it (Polt 1999). Heidegger argues that we are all 'in the world' (both researcher and participant) and thus cannot be objectively standing outside looking in. Similarly, he emphasises temporality (Heidegger 1962), or the state of being human at this time. For this particular study, time is relevant, not just within context – how rapid technical advances in infertility alter the landscape, but also time for individuals – how increasing age, particularly maternal age, influence potential pressure on couples struggling to conceive, reflecting the 'social clock' theory, proposed by Neugarten (1976). However, Heidegger was not referring to ordinary time or 'clock time' but instead to the constant connections between past, present and future – how past experiences may influence one's present and ones hopes or expectations of the future. Philosophers call this ongoing flux A-series time, in comparison to B-series time – the before or after of a delineated point (Gell 1992).

5.4.2.1 Forestructures

Heidegger refers to 'forestructure' as the basis on which interpretation is founded. This includes our previous familiarity and understanding of the phenomena (fore-having), the interpretive approach (fore-sight) and our expectation of what may be found (fore-conception) (Ironside 2012). These presuppositions are acknowledged [Appendix 2] and, whilst not dictating or biasing the data, are incorporated into the formation of meaning between researcher and respondents (Lopez and Willis 2004). Later, in the writing up stage, direct quotes are used freely to enable the reader to also contribute to the analysis (Ironside 2012). Recognition of fore-structure enables the identification of habits and repetition and supports development of understanding. Thus, if we are of ourselves and are engaged with participants, the researcher cannot 'bracket' aspects of themselves. This does not mean that they do not acknowledge their influence, instead they recognise previous thoughts and experiences as part of being immersed in a new context. In recognition of this difference,

Dahlberg et al (2011) use the term 'bridling' to infer that our previous experience is not suspended but recognised, whilst also being mindful that it should not influence our openness to the interviewees and their responses. This recognition of prior experience encompasses both my theoretical wider reading and also personal experience, as a midwife and mother.

Pre-understandings may be popular conceptions that require exploration to move forward (McManus-Holroyd 2007). Interaction with participants and reciprocal dialogue leads to understanding in which useful prejudices are utilised whilst obstructive ones are minimised (Dowling 2007). Rather than using the word 'truth' Heidegger (1962) refers to 'a-lethia', or un-concealment (unconcealment which simultaneously conceals something else, as attention shifts). Unconcealment is a choice to disclose or otherwise which humans may consciously or unconsciously make, and which may differ from one occasion to another; the testimony of the teller may alter depending upon context (Derrida 2005). Within interpretive phenomenology the aim is to 'reveal' that which may not previously have been apparent. The co-construction by researcher and participants reflects how, as interpretive beings we move between past, present and new experiences, including interaction with others to reach new knowledge, knowing that it will never be complete (McManus-Holroyd 2007).

5.4.2.2 Heidegger's Use of Language and Applicability to Midwifery Research

A challenge of using Heidegger is his use of language, which whilst taken from old style German, also utilised etymology by looking back at original meanings and combining words to create the exact expression he wanted. This is then further complicated by translation into English causing his writing to require focussed concentration when being read (Smythe and Spence 2019). The use of such obscure language is explained by Steiner (1989) as Heidegger's struggle to find terminology which accurately reflects his thinking rather than existing theological or contemporary meanings. Many of Heidegger's words do not have

simple definitions but instead require wider reading of paragraphs and chapters for meaning to be gleaned; a process which draws the reader in, enabling understanding to come (Smythe and Spence 2019).

Miles et al (2013b) describes Heideggerian hermeneutic phenomenology as a 'perfect fit' for midwifery research, whilst Thomson and Crowther (2019) refer to an openness to those phenomena which matter in midwifery. Meanings are derived from human and contextual relationships and recognising how individuals relate with others and the world around them reflects the literal midwifery concept of 'with woman'. Miles et al (2013b) considers three aspects of Heidegger's work as it relates to midwives. Firstly 'being-in-the-world' (Heidegger calls this '**Dasein**' or 'there being'), that is we cannot be separated from our contexts - who we are and what we feel is constantly linked to time and situation. Secondly, concern or care (Heidegger refers to this as '**Sorge**'), referring to connectedness, or a '*need to **deal** with the world*' (Mulhall 1996:111) and an idea that care and concern can lead to future support and empowerment. The final aspect is **Authenticity**, belonging to oneself and active engagement with one's actions (in comparison to the 'going through the motions' of everyday) which leads to the establishment of trusting and respectful relationships. Reflection enables recognition of this connectivity and further developing critical reflection is mindful midwifery - a model which resonates with this phenomenological stance (Plested 2014).

An understanding of Heidegger's terminology is necessary for meaning making in interpretive phenomenological work, as it often uses words which carry different understandings and connotations outside of those with which we are more familiar. For Heidegger, Dasein or 'being there' is central; that is that we exist, and that existing occurs in our world. **Being-in-the-world** means that everything we are conscious of is because of our existence here and now, and that existence is influenced by time or **Temporality**, the

constant connections between one's own past, present and future, and place or **Historicity**, the culture, tradition and history into which one is born or socialised. These are influences that we generally cannot change, they are the situatedness of how we find ourselves in the world, a pre-determination that Heidegger refers to as **Thrownness**; for the participants in this study, finding themselves in Britain in the early 21st century and experiencing infertility. Withy (2011) highlights how Heidegger's concept of thrownness reflects not just the situation that one finds oneself in, but also from whence one has come. For the couples within this study, they had come from an assumption of fertility, assuming the cessation of contraceptive use would naturally lead to pregnancy and the beginning of their families. The experience of infertility was unexpected. Prior to attempting to have a child, they had assumed that their bodies **Present at hand**, an object with an assumed use, would prove to be **Ready to hand**, that in its use it would be proved valid. It was in the body's failure to perform as expected that the issue of infertility was **Brought to light** in that it shows itself; it is in the **Absence** of pregnancy that a concern is **Revealed**. The Heideggerian terms of being 'brought to light' or 'revealed' is particularly relevant in hermeneutic phenomenological research as it seeks to reveal meaning, often of issues that lie close to us - universal assumptions or unexamined thoughts. However, in recognising that something is revealed, we also acknowledge that another is being concealed by the very process of turning our attention to new insight. Throughout this thesis a range of Heideggerian terms are used, they are indicated in bold the first time they are included and followed with a brief explanation of the meaning with which Heidegger used them. A glossary of terms is in Appendix 3 as a reminder.

5.4.3 Maurice Merleau-Ponty and Max van Manen

Different interpretive phenomenologists emphasise specific aspects of the methodology, for Merleau-Ponty (1995) it is perception. In supporting Heidegger's assertion that we are all 'in

the world', he similarly argues that the world is in us; thus, insight reflects our social world as much as the individual's world (Dahlberg 2006). Merleau-Ponty focuses specifically on the body as expression and embodiment in the world (Moran 2000) and through the body experience and meaning is perceived. This is potentially relevant in my study; infertility can be representative of a body that may be perceived to be failing, a body which doctors act upon and which is subsequently expected to birth and nurture a child. Seeking infertility treatment can be linked to Merleau-Ponty's consideration of the body's existence as 'being towards the world', reflecting intentionality in consciously planned actions. Although potentially aiding understanding of the experience of IVF treatment and subsequent pregnancy, it was less relevant to the primary aim of the study - the experience of transition to parenting, a psychosocial concept rather the physiological act of birth.

Van-Manen (1997a) writes on pedagogical work, with reference to both education and parenting. He discusses how parenting has changed, from a focus on physical care in the 1960's and later moving from care of the body to care of the mind. This included an expectation of stimulation considered necessary for a child to develop and towards a more current idea of parenting as an interaction between parent and child; thus the expectation of 'good' parenting differs over time. However, it remains an expectation of what a parent should do, not what being a parent is or means to that individual. Whilst everyone has a sense of what parenting means in terms of attitudes, behaviour and emotions; it cannot be reduced to a series of descriptive statements, instead it requires insightful interpretation (van Manen 1997a). Much of his work relates to parenting as an interaction between child and parent, albeit one often initiated by the adult, however the pre-verbal age of the child in the current study makes the interaction between child and parent less relevant. Although the phenomenologies of both Merleau-Ponty and van Manen initially appeared a relevant

framework, both were dismissed as they focussed on physical being or physical action rather than perception of experience.

5.4.4 Hans-Georg Gadamer

Over time, reading undertaken helped me to recognise the importance of the cyclical (hermeneutical) nature of interpretive phenomenology (Ironside 2012, Smythe and Spence 2012). Returning to different literatures and transcripts as thoughts occurred to me contrasted with my original assumption of a progressive, linear approach. Through re-reading both data and literature, my awareness of the importance of language increased; the words others use to portray meaning and the dialogue itself. Heidegger considers language in Being and Time, reflecting on how it arises from and contributes to Dasein (Mulhall 1996). However, Gadamer, a student of Heidegger's built upon this in his seminal work Truth and Method (1975/2013:407) and writes '*Being that can be understood is language*'. Language is not just a tool to be analysed, but relates to the interaction, the dialogue between individuals, and reflects the culture, environment and experiences surrounding them. McManus Holroyd (2007:6) explains: *'To engage in understanding a text or person does not mean getting inside the person's mind. Instead, it simply means being open to the perspective from which the person or text has formed the views to be disclosed.'*

Thus, it is not just the words that are used or the way the words are said, but how these are interpreted. In constructionism, language is considered the means by which meaning is constructed, through the choice of words, of emphasis, of explanation. This contrasts with a Gadamerian thinking of language (Gadamer 2013) in which the flow of conversation leads to understanding. Gadamer argues that within a real conversation we need not agree with the other, but we do need to accept the other's perspective as valid as we aim to understand. We gain understanding of the self through interaction with others, in the 'between' of the conversation (Guignon 2004). That joint understanding creates a **'mood'** or **'attunement'.**

These two Heideggerian terms are subtly different, Heidegger uses mood as an underlying sense of how something is, whilst attunement is the feeling, sensing or adaptation to a mood. If, as Gadamer argues, language is the flow, attunement or interpretation of an interaction – verbatim descriptions of a conversation do not reflect that. In recognising the limitations of pure narrative, I turned to the concept of crafted stories [see 6.6.2].

Gadamer saw human life as always seeking to understand - an activity without end, and language as the means by which understanding is achieved (Moran 2000) or what Freeman (2007:926) refers to as: *'what happens in the space where the reader meets text or the listener meets the speaker'*. Complete understanding is never possible; one's unique experience cannot be fully explained linguistically (Van Manen 1997a), however we can aim towards understanding by cognisant philosophies and structures (McManus Holroyd 2007).

Language is necessary to increase understanding of our 'horizons'. The term horizons, originally used by Husserl, is utilised by Gadamer for the current limits of one's understanding. He did not view the horizon as closed and argued that as one's understanding moves, so one's horizon moves, including a recognition of historicity – that we can learn from the past as well as from the present (Weinsheimer 1985). Gadamer refers to 'fusion of horizons' as we reach mutual understanding with another (Moran 2000, McManus Holroyd 2007). This need not necessarily be agreement, but an understanding of another's point of view – to agree to differ remains valid. This mutual understanding resonates with Heidegger's notion of 'being with' as researchers aim to be 'with' their participants. An integral part of that 'being' with is the acknowledgement of our forestructures and prejudices. Gadamer uses the term prejudice not in the perjorative sense that it is often used, but instead as our own viewpoints or perspectives on life that everyone inevitably holds. In acknowledging our own prejudices, it also helps us to recognise other possible prejudices and to recognise that these are positions that can be moved from (Smythe and Spence 2012). To

have prejudices need not bias a study, but to not manage one's prejudices may. Gadamer (2013) argues that prejudice comes from either human authority or from overhastiness, both of these may be mediated by taking stock of a situation, considering why we accepted something as authority, or why we rushed to judgement without accounting for additional possible factors. In reading this, it helped me to understand the importance of 'dwelling' in the data and the cyclical reading-writing-thinking process (Smythe 2011) that leads to developing understanding.

Awareness of one's own bias – accrued from personal experience of the world, from reading, from media, from professional background or from culture – needs to be acknowledged to enable the data to be seen afresh. Thus, the 'fresh' data is combined with the researcher's understandings to form new fusions of horizon, utilising those prejudices which may be beneficial to the study and minimising those perceived as unhelpful. Fleming et al (2003) argue that the term 'gaining understanding' is better than 'collecting data' with language as the tool through which that understanding is gained. The process is one of ongoing shifts of horizons, which is never-ending (Gadamer 2013, Fleming et al 2003) and requires a constant openness to new insight. Our preunderstanding is intrinsic within subsequent understanding and we need to return to it and reflect upon it regularly (Fleming et al 2003). Spence (2017 describes how that openness to new understanding may be enhanced through discussions with supervisors, personal reflection within journals and a pondering on emerging insight. This focus on openness and a willingness to engage with others resonated with me as a researcher and confirmed my intention to use Heideggerian hermeneutic phenomenology, informed by Gadamerian understanding.

5.5 Conclusion

Having previously identified the research question, this chapter reviewed possible applicable methodologies and critically analysed reasons for their adoption or rejection. Heideggerian hermeneutical (interpretive) phenomenology resonated with my own perspective and way of thinking. It is not a value neutral approach (Thomson et al 2011) as it requires engagement with the challenging underlying philosophy as part of our being and an openness to the emergence of insight. However, the commitment to interpretive phenomenology felt the best way for me to try and understand the lived experience of those becoming parents following IVF, at this point in time and place, reflecting each parent's (and couple's) uniqueness and autonomy in their experience (the phenomenon) and the interpretation of that (hermeneutics). This insight feels best guided by the work of Gadamer, who focuses upon the understanding of the experience expressed through language, which in turn influenced choices of method. Consequently, the chosen methodology of Heideggerian hermeneutic phenomenology was appropriate for both the research questions and the personal perspective of the researcher. This study will add the voices of parents to the body of work that currently exists [Chapter Four].

Chapter Six. Method

The preceding chapter focussed on the choice of Heideggerian hermeneutic phenomenology as the guiding theoretical methodology underlying the whole study, this chapter considers choice of method within the research process. Research design is the how and when of the study, providing a clear rationale for why each decision in the design was made, to ensure it correlates with the underlying philosophy (Koch 1995).

6.1 Hermeneutic Methods

Heidegger was a philosopher, not a researcher and his writing considered ways of understanding the world rather than researching it. However, the associated interpretation of past, present and future as it evolves to show itself could be perceived as method (Horrigan-Kelly et al 2016) with the practical implementation of that needing to be justified. There should be synergy between the underlying philosophy and the method (Smythe 2011), which is summarised by Pernecky (2016: 183) as *'philosophy forms the core around which all other decisions in the research process revolve'*. Clear study design, to fit both purpose and philosophical framework adds rigour and provides the overarching structure for the whole thesis. For many of the studies in the literature review [Chapter Four], an underpinning methodology remained unstated and although titles implied an understanding of experiences, it did not appear likely that the choice of method, often self-completed questionnaires and screening tools, would achieve this. McManus-Holroyd (2007) argues that a scientific-based reliance on rigour in qualitative research has led to method leading methodology, changing findings in the process. As noted in the literature review, different findings often mirrored the different methodologies used. Quantitative studies, particularly using questionnaires or psychological tools showed minimal differences between ART (assisted reproductive technologies) and SC (spontaneous conception) parents but interviews used in the two

phenomenological studies (Ladores and Aroian 2015b, Dann et al 2016) gain richer data and more subtle nuances. The type of data obtained from qualitative research is in-depth and detailed, it is not suitable, nor designed to be suitable, for statistical analysis (Miles and Huberman 1994), instead requiring lengthy and committed analysis to enable appropriate interpretation, in line with interpretive phenomenological principles. Heidegger argues that the phenomena shows itself by bringing itself to light, therefore it is always there but just needs to be shown. This involves a 'pondering' on the data (Smythe 2011) or a 'circling' of thinking (Smythe et al 2008) with a mind that is open and, whilst acknowledging fore-structures, enables understanding to come.

Hermeneutical phenomenological research aims to understand the meaning that individuals give to a specific social situation or experience; to gain that understanding requires naturalistic settings for data collection prior to inductive analysis. Creswell (2007) suggests that the final write up of the research should show '*the voices of participants, the reflexivity of the researcher and a complex description and interpretation of the problem*' (p37) leading to an extension of the literature. To enable that, the most appropriate method needs to be used to address the research question which is compatible with the overarching philosophical approach.

6.2 Population, Sampling and Sample size

For Heidegger, Dasein, or 'there being' of an individual was intrinsic, so within Heideggerian phenomenology, as with all qualitative research the population had to be composed of those couples who had experienced first time parenthood with a singleton IVF pregnancy, genetically their own. For practical purposes, the population was further restricted to the local area and to those fluent in English. The involvement of the sample group in the research process is imperative, and individuals are referred to as participants as they are involved in

the process offering in depth insight into their experiences (Hennink et al 2011). The depth and specificity of their contribution means large numbers are not required with the quality of analysis powering findings (Malterud et al 2016).

The clarity of the sampling technique is important in showing a transparent process that leads to valid results (Robinson 2014). For a phenomenological study it is essential that participants have experienced the phenomena under consideration, therefore purposive sampling was used to ensure involvement of participants most likely to address the research aims and answer the research question. The inclusion criteria were English speaking, first time parents of genetically related, singleton babies, conceived using IVF, from local NHS Trusts. The rationale for inclusion/exclusion needs to be clear as insight into similar, although unique, experiences should enable common threads of experience to be elicited. The inclusion criteria of first-time parents reflects the most significant transition to parenthood, in comparison to subsequent births (Gameiro et al 2009, Katz-Wise et al 2010) addressing the primary research question of the lived experience of the transition to parenthood. The focus on singleton pregnancies was because the experience of parenting multiples brings its own additional challenges, during pregnancy and early parenting (Klock 2004, Wenze et al 2013, van den Akker et al 2016), which may lead to meaningfully different experiences. The decision to include only genetically related pregnancies reflects research on fathers of children conceived using donor sperm suggesting that it may influence responses (Blake et al 2014). Similarly, the use of donor eggs involves additional psychological adaptation in the mother of 'making the child mine' (Imrie et al 2020). The disproportionate amount of research on donor families in comparison to the more common genetic IVF is commented on by Allan et al (2019a). The criterion for genetic IVF excluded same sex relationships, whose social infertility differs from the experience of unforeseen infertility considered in the second objective. The ability to speak English was a necessity as facilities for interpretation were not financially feasible.

From a Gadamerian perspective, the challenge of translation would have added an additional layer of complexity to ascertaining meaning through language, whilst the necessity for face to face contact – one aspect of the 'being there' of phenomenology, also meant accessing participants from the local area (approximately 15 mile radius).

6.3 Recruitment

Initial inquiry had suggested 15-20 couples a year fulfilled the criteria from the identified NHS Trust, one chosen to be convenient for the researcher but in which she had not previously worked. When accessing participants proved difficult, additional forms of recruitment were tried. An advertisement on Infertility UK website was accepted, it did not involve the NHS and approval was granted by the University Research Ethics Committee, however this did not lead to any potential participants, possibly indicating the advantage of a personal approach via intermediaries. The inclusion of a second NHS Trust was submitted to HRA as a non substantial amendment. Prior to commencement of the interviews, Trust Research and Development (R&D) approval was required. HRA approval reassured R&D that the study was ethical, but the capacity of the Trust to undertake the research needed to be assured as community midwives' time would be involved. The previously agreed support from the Heads of Midwifery proved beneficial with this.

Despite holding an honorary contract as midwifery link lecturer in one of the Trusts, I was not employed by them and data protection prevented me from approaching potential participants myself. Consequently, I was reliant on the support and engagement of the midwives within the Trust who acted as gatekeepers. Participants were identified by midwives during the booking interview. At this time a full history is taken from the couple including information about their physical wellbeing, social history and obstetric history. From this routine information, potential participants could be identified so the history taking

itself became a sampling tool. The booking appointment occurs at approximately ten weeks gestation, and relevant couples were given an introductory letter [Appendix 8] asking if they would like to be involved. As the first interview was at 34 weeks gestation this gave them three months in which to decide if they wished to participate. This avoided them being under any time pressure but may have led to them forgetting about the study. Whilst appropriate time for couples to consider potential participation is an ethical principle, the length of time created an additional concern as complications or fetal loss may have occurred in the interim, with contact from myself potentially exacerbating distress. To avoid ethically inappropriate contact, I telephoned the relevant community midwife just prior to contacting the couples at 34 weeks gestation to ensure the pregnancy was ongoing and my involvement appropriate. Subsequent interviews were arranged by couples contacting me to inform me of the birth, consequently it was assumed that they were happy to continue their involvement [see Appendix 6].

At the commencement of the research I had contacted the relevant Heads of Midwifery to obtain their support; they were important gatekeepers in both enabling access and providing recognition for me to the community midwives. Accessing participants relied on the co-operation of the midwives undertaking the booking appointment, in both distributing the invitation to participate and in explaining the study to potential participants. Following this variable, it also relied on couples being willing to participate and prepared to send me their details in the pre-paid envelope. Thus when I struggled to get participants, I couldn't be sure if it was because couples didn't want to be involved or that they hadn't been given either the option or full information about it. The complexity of information being given in an initial appointment as well as the potentially stigmatizing label of infertility or IVF was identified by Carson et al (2019) in their study considering why fertility clinic patients decline the inclusion of their data in ongoing research.

Upon reflection, my identification with the midwives and knowledge of their workload led to me being reluctant to send out frequent reminders of the study to them; reminders which I felt would be burdensome and irritating, but which may have increased response rate. The demands of service provision, in particular time pressures and memory, influencing gatekeepers within health is proven (Miller and Bell 2002, Sygna et al 2015, Loades et al 2019). Additional prompts on computerised records were not feasible for this study but may have helped remind staff whilst an opt-out system, although increasing participation (Sygna et al 2015) was not considered ethical for a study seeking to understand an experience rather than potentially prove an intervention. At the commencement of recruitment, I thought that snowballing may have helped to increase numbers of participants, however the couples did not often share details of their IVF conception widely and knew of no others who had experienced it at the time, whilst the formation of friendships within fertility clinics is not common (Allan 2001). Another factor that also influenced recruitment was the decision to exclude donor conceptions; not initially clear in the potential sample group were the number of donor gamete pregnancies – in particular, increasing numbers from egg donation. However, the rationale for excluding this group was supported when I visited a couple, incorrectly invited to participate, for whom the pregnancy was a result of donor insemination; the male partner was too busy with work to be interviewed and additional issues of genetic similarity were raised which were not indicated by other participants.

Those identified shared a geographic and a life history homogeneity which followed from the inclusion criteria and a demographic homogeneity, reflecting the most common demographic accessing IVF services: caucasian, financially stable couples in their 30's, who are also the most likely demographic group to participate in research (whom Braun and Clarke (2013) refer to as the 'usual suspects'). An aspect not considered in the initial proposal was the difficulties for those with more complex histories to participate. This was made clear when I

contacted a woman who although initially agreeing, felt upon reflection that the late miscarriage of a previous IVF pregnancy had been so traumatic, neither she nor her husband felt they could participate in an interview. Existing research on infertility and IVF pregnancies has highlighted the absence of men's responses (Throsby and Gill 2004, Berger et al 2013, Culley et al 2013) and it is possible that there were couples where only one partner was happy to take part. The longitudinal nature of the study may have meant that couples were reluctant to take part because of the time commitment, however within the context of midwifery, couples are expecting to see the same midwife over the course of a pregnancy and early parenting, and I had hoped my professional background would aid the relationship.

The sample size originally proposed to the ethics committee was 12 couples, as this was perceived to be the number most feasible for gaining insight within the researcher's time constraints. Longitudinal study design, considered most appropriate for understanding transition, requires smaller numbers of participants because of the repeated interviews involved (Dibley et al 2020). Although there were difficulties with recruitment, the adoption of hermeneutic phenomenology, which typically involves small sample sizes because of the depth of data and complexity of analysis, mitigated against this as a potential problem. Silverman (2010) suggests that in all qualitative studies recruitment may be changed for practical or theoretical reasons; it is the rationale for change that needs to be clear. A study which is ideographic, that is focussing on the individual, requires smaller numbers to ensure that the voice of the participants is heard within the analysis, which should be rich and detailed. This is further elaborated on by Malterud et al (2016) who highlight the significance of using established theory, together with quality dialogue and a clear analysis strategy, all strengths of this study as helping to generate information power. The size of a study does not determine its rigour, it is the quality of data and the skill and commitment of the researcher in

how this is both achieved and analysed that leads to a robust study (Yardley 2000, Crouch and McKenzie 2006, Smythe et al 2008, Malterud et al 2016) [see 12.1].

6.4 Ethical Approval

Ethical practice relates to potential effects on participants and is pertinent to the entire research process – epistemology, methodology and analysis, through to dissemination, as researchers have a responsibility to share their findings. This focus on ethical process demonstrates a deontological approach (Braun and Clarke 2013) where the rights of an individual supersede potential benefits to the group.

For research within the National Health Service (NHS), ethical approval must be sought from the Health Research Authority (HRA 2017) which exists to protect the interests of patients and the public during health and social care research, including clinical trials. The standards are derived from the Nuremberg Code (1947) and developed into the Declaration of Helsinki (1964), the International guidance on medical research. The process of applying for approval was long and complex, however the detailed information required on both the form and all the additional documentation (patient information sheet, consent form, letters to other professionals and interview guides [see Appendices 4, 10, 11, 12, 14] helped to clarify the study detail for myself. Together with feedback from my supervisors leading to several subsequent revisions, the final proposal was accepted at the first submission with only two minor changes.

As infertility, pregnancy and childbirth are all potentially stressful and emotive areas, the risk of causing distress during the interview was possible. However, as an experienced midwife I was used to managing this and also had the details of additional support services if couples had felt they needed them. Participants were aware I was a midwife and contact details could have been misused by parents needing clinical advice, this was overcome by knowing

appropriate referral details for any clinical concerns. Couples were reassured throughout that confidentiality would be maintained and that pseudonyms would be used in the written report. The only time confidentiality can be breached is if concerns of significant harm arise. Within the Patient Information Sheet [Appendix 10] and in the consent form [Appendix 11], participants were clearly informed that if any child protection concerns were identified, then they would be referred to the local Safeguarding team. The University of Greenwich has a lone worker policy and I also reviewed those of the relevant NHS Trusts. The interviews were conducted in the participant's home, although they had the option of a neutral venue if they preferred. Only my supervisor knew the address and time that I was going, and I sent her a text just prior to and immediately after I left the participants house to ensure my personal security.

It was anticipated that as a midwife, parents would be reassured of the recognised standards of ethics and professionalism and this appeared to be the case. My knowledge of infertility investigations and referral processes gained from previous reading and meetings with relevant staff, together with my knowledge of midwifery appeared to lead to couples trusting me as someone who had some understanding of the experiences they had been through. However, my current role as a lecturer meant that I was also outside of the NHS services and was receptive to any critique of the services.

6.5 Data Collection

Sandelowski (2002) argues that there are four categories of qualitative data gathering: observation, documents, artifacts and interview. Whilst observation may be used in phenomenological research, it has limitations. It can be intrusive, particularly within the intimate family setting, although it can offer insight into how participants embody meaning or include taken for granted assumptions which respondents may not verbalise (Dahlberg 2006).

This emphasises the potential importance of annotation in any transcripts (Cresswell 2007) to utilise opportunistic observation. As an observer only, the researcher remains detached and this does not fit well within the midwife relationship or Heideggerian hermeneutic phenomenology.

The use of documents and artifacts is a more recent addition to qualitative data, but rarely the sole means of data collection, Although not commonly used in phenomenological studies, Gill and Liamputtong (2009) found diaries a beneficial adjunct to interviews in their study of the lived experience of mothers of children with autism. It provided day to day insight into issues that could later be considered in interview. Similarly, Bedwell et al (2012) found reflective diaries provided additional data and context in their Heideggerian study of midwives' experiences of intrapartum care, the participants' skill in reflection benefitting both researcher and midwife. When using diaries, it may be that what is not remarked upon is as relevant as what participants choose to include, mirroring Gadamer's perspective on language flow. To further gain insight, I consequently offered participants the opportunity of completing a diary. Artefacts such as the presence or otherwise of baby equipment in the house, particularly antenatally, may provide data indicating embodiment of previous experience – this is an area I had not previously considered.

6.5.1 Interviews

Within phenomenology, as in many qualitative studies, interviews are the most common means of data collection. Face to face interviews once set up can be very productive, participants will often volunteer information that they may not disclose in an email or telephone interview (Ryan et al 2009). Being physically present enables engagement with participants as '*a person's face establishes an ethical connection with another*' (Rentmeester 2018:433) with the use of audio recording facilitating the visual focus on the individual.

Within Heideggerian phenomenology, face to face interviews are preferable– it is the 'being there' or the Dasein - that enables the interaction to establish meaning. Online or telephone interviews may enable verbal dialogue and be valuable if practical constraints prevent attendance, but rapport may be more difficult to establish and body language lost (Novick 2008) It is important that participants are able to tell their own story, so an unstructured interview, using minimal prompts is most effective at encouraging couples to recount their experience in their own words – their 'lived experience'. As the term transition means 'passage over time', an opening question of 'can you tell me your journey' linked well. This includes both context and details of the experience which may give the researcher the opportunity to probe. However, prompting should be limited to 'tell me more about that?' rather than the introduction of a new idea, so that shared meaning is obtained (Healy 2011), this is the commencement of co-constitution. Poorly worded prompts may reflect the researcher's lived experience rather than participants. Whilst language is considered expressive, as vocalisation, there is no saying without hearing (Corradi Fiumara 1990). She points to Heidegger's reference to hearing as 'hearkening and heeding' or to Gadamer's (2013) 'orientation towards openess' rather than a purely auditory response. Only by listening can a dialogue result (rather than competing monologues), a reciprocal development of co-constitution (Corradi Fiumara 1990). This resonates with Letherby (2003) who, reflecting upon Oakleys's (1981) perspective of participatory interviewing, argues that in the building of a rapport, some giving of oneself is beneficial. However, over-friendliness can become exploitative as participants may reveal more than they wish whilst inappropriate use of participatory interviewing will undermine rigour for many research questions. Whilst phenomenological interviewing focuses on encouragement of dialogue rather than introductions of new ideas (even inadvertently), giving of ourselves is still possible in supportive body language, gestures and responding to questions. This recognises the

relationship and the gratitude of the researcher in the gift of information provided by participants (Oakley 2016).

Sandelowski (2002) recognises interviews as both socially and culturally constructed and concludes that it is naïve to consider the interview as the absolute truth, indeed from a phenomenological perspective, 'absolute truth' does not exist (Derrida 2005). Phenomenology recognises that '*the truth of the event, as an abstract entity, is subjective and knowable only through embodied perception'* (Starks and Brown Trinidad 2007: 1374). This concept of embodiment recognises that individuals may not always verbalise or record 'facts'; consciously or unconsciously, what is said or written may be filtered through a desire to appear a particular way (to both the interviewer and the other partner present) as well as an individual's attempt to make sense of a situation. Embodiment is about how a situation is understood and how meaning is generated in time and place. For interviewers, awareness of this is intrinsic to managing it; in recognising that memory, social acceptability and the reinterpretation of understanding through repetition influences 'fact'.

The interview is referred to by Waller et al (2016:14) as a '*non-innocent conversation'*; the researcher is using it as a means to an end, the production of new understanding, In contrast to a professional interaction (as in a midwifery consultation) where information is gained for the participants needs, the research interview is for a researcher's needs. Fontana and Frey (2008) take this further in suggesting that, if poorly used, the interview can become a political instrument, with the same information used differently in different contexts. This highlights Heidegger's concept of something being relevant only in a given time and place (1962). The interview itself is not just a gathering of information for later analysis, it requires being alert to what others are trying to portray (Plested 2014). Each interview is unique to the time, place and dynamics of those present, attentiveness of the interviewer to this is an important aspect of the 'thinking' associated with phenomenology, recognising the non-verbal language as

well as verbal – expressions, hesitations and silences. This is being alert to not just the ontic description (the realm of being; describing) but the ontological (the realm of being of itself; interpretation). All individuals have the 'fore-structure' previously discussed, the instinctive attempt to create meaning which is ever-present, reflecting Heidegger's 'being in the world'. An openness to new knowledge and understanding enables new interpretation, McManus Holroyd (2007:3) argues that when we '*bring together ontology and epistemology – ways of being and ways of knowing – there is more opportunity to move beyond the limitations associated with knowledge constructed purely from the methodologies of the natural sciences'*. That is, phenomenological methodology acknowledges the 'how' we know something at this point in time and place not just 'what' we know. In considering the choice of method, the development of understanding of anothers' lived experience was best achieved by means of face-to-face interviews, reflecting Heidegger's notion of Dasein as always 'with others'.

6.5.2 Interviewing Couples

As parenting often implies a joint process the decision to undertake interviews with both parents together was made, shared experiences aligning with joint interviews (Radcliffe et al 2013, Sakellariou et al 2013), however, this required consideration from both methodological and ethical perspectives (Norlyk et al 2015). Couples present themselves as a participating partnership rather than as two individuals (Taylor and de Vocht 2011), this may be particularly pertinent for those who have negotiated the experiences of infertility and forged a common understanding in the process. The lack of couple interviews in infertility and ignorance of dyadic interactions on stress and coping was highlighted by Schmidt (2009) whilst Bell (2015b) argues that researching just women or just men causes a divergence of views rather than recognising the similarities which exist. Joint interviews may steer it towards joint issues, potentially minimising individual experiences or offering responses they

know to be acceptable to the other (Sakellariou et al 2013, Norlyk et al 2015), or giving the socially acceptable response to protect the partner (Taylor and de Vocht 2011). However, Samorinha et al (2016) in their study of couples with an IVF pregnancy identified no differences in the responses of couples interviewed or women alone. Dyadic interviews, in which both parents are interviewed individually but analysed as a unit, can avoid the 'acceptable' response and avoids the dominance of one partner over another (Hudson et al 2018). However, dyadic interviews miss the couple interaction, body language and joint interpretation which, from a Gadamerian perspective remain part of language. A potential influence is tending to prioritise one respondent's input over another, either through one individual dominating the conversation or through unconscious bias. I had to be aware of my own perspective, as a midwife, my professional career has focussed more on mothers than on fathers, and, as a mother myself, I could relate more easily to the woman's experience compared to the father. This emphasises the importance of reflexivity [see 12.2] and the Heideggerian concept of presuppositions, that in acknowledging one's own perspectives, it is possible to move one's gaze away from them (Spence 2017). There is the possibility that conflict may occur between participants, however watching how couples manage this gives insight in itself (Bjornholt and Farstad 2014), alternatively, couples may prompt each other in remembering or considering issues themselves.

In view of the gendered responses to parenting it was originally proposed to interview couples separately at one of the interview points. However, it became apparent that couples felt reluctant about this and there is a risk of the researcher being seen as potentially divisive, whilst issues of confidentiality could become more challenging (Sakellariou et al 2013, Bjornholt and Farstadt 2014). From a Heideggerian perspective, if individuals and their world are co-constructed, joint interviews will give, not the individual views of mothers and fathers, but a collective perspective of the parental unit – an entity in itself (Taylor and de Vocht

2011). This entity reflects the concept of Dasein; that existing in the world relies on our relationships within it. If I'd chosen to look at mothering and fathering, individual interviews would have been appropriate (Dasein would still be relevant, an individual's knowledge of the other parent would have been ever present), but to look at 'parenting' as a joint enterprise requires joint interviews. The absence of joint couple perspectives in infertility studies was highlighted by Schmidt (2009), although it was used by Mounce (2017) in her study of those commencing infertility treatment. Within Heideggerian phenomenological studies, de Vocht in her study of intimacy and sexuality for those with life threatening illness (Taylor and de Vocht 2011) used joint couple interviews, arguing that sexual intimacy is the factor that makes a friendship a couple relationship; similarly having a child together is the factor that changes a couple to parents. Joint interviewing was a unique element of this thesis; although simultaneously Allan et al (2019b) were utilising joint interviews in their transition to parenthood study [see 4.2.2], as was Parascandalo (2016) in her Heideggerian phenomenological study of the experiences of parents of preterm infants and, of neonatal staff of NICU-to-home transition in Malta.

Within interviews, observations can also be made about both environment and body language – this may be particularly pertinent when interviewing couples and, once the child is born, within the triad (Bjornholt and Farstadt 2014). Body language, tone and emphasis are all part of language and this relates equally to the researcher themselves. Polt (1999:71) explains how *responsible interpreters approach things with presuppositions, but also adjust their presuppositions to the things;* this is what interpretive phenomenology calls the 'hermeneutic circle' which acknowledges the forestructures. That is, the knowledge we already have which we bring forward to fuse with our newly gained experience to inform interpretation and development of new knowledge – a fusing of horizons [see 5.4.4].

6.5.3 Interviewing within the Study

Once participants had returned the initial letter, they were telephoned or emailed (their preference) to further explain the study and the participant information sheet [Appendix 10] was sent. At 32 weeks, once an ongoing pregnancy was confirmed, the mother-to-be was contacted to arrange the first interview. Each couple was interviewed on three occasions: at 34 weeks of pregnancy, six weeks postpartum and finally, three months postpartum. These time frames enabled insight into the lived experience of the antenatal phase – when memories of the journey through the IVF experience still felt current, and parenthood only anticipated. Whilst the six-week interview often focussed on the birth itself, by 12 weeks parents were starting to develop some structure to their days and a 'new normality'. All interviews took place in the couple's own home, during the day or early evening to fit with a couple's working day. Heidegger (1951) argues that home is a place in which we dwell, or feel comfortable and at peace in. Being in their own homes enabled couples to feel more relaxed – they often showed me photos or presents they had received or on one occasion, the nursery ready for the baby. It was also the environment in which their later parenting was predominantly taking place. Whilst 'context' in phenomenology often relates to participant's psychological environment: their norms, values and experience, similarly the physical environment may prompt recognition of feelings and situations experienced there.

As a previous community midwife, I was familiar with being in the homes of new parents and of building relationships with patients within a short time frame, rapport influencing the quality of data gained (Ryan et al 2009, Malterud et al 2016). As anticipated, once couples had met me, they were happy for me to return for the two subsequent visits, both parents being present for all interviews. I had some experience of using interviews for data collection (Reeves and Gale 2009, Gale and Davies 2013). Hunter (2007) argues that the relationship between the researcher and participant is the most important factor in gaining quality data,

more so than the tool itself. She goes on to argue that reciprocity is an important factor within that, a feeling that the participant gains from the experience. This reciprocity is considered by Oakley (2016) as the giving the gift of insight to the researcher, particularly evidenced in longitudinal studies. This may be in a feeling of having helped others in a similar position (Clark 2010) or in finding that telling the story helps in their understanding of it (Callister 2005, Crouch and McKenzie 2006, Larkin et al 2009, Kay et al 2017).

In the study, two of the fathers (Daniel and Adam) tended to default to the mother as the individual who was pregnant or was at home with the baby and I often had to turn to ask the father their own thoughts; Seale et al (2008) identified similar issues. However, once I had prompted them, they talked freely and often this then prompted discussion between the couple themselves with myself just listening. Conversely for one couple, the father tended to lead the conversation, at times going off on tangents, but again there were frequent episodes of the couple talking to each other while I maintained a more passive but attentive listening mode.

Within hermeneutic phenomenology the aim is to reveal the phenomenon through enabling the respondents to narrate their experience, consequently, there were no interview questions as such and instead a series of prompts to guide the interviews. As the purpose was to gain an understanding of a lived experience and it was the participant voice that mattered, these were broad ideas to guide the interview only rather than specific questions. These prompts were sent to and personally reviewed by a British author and journalist who writes on fertility issues, works with the charity Infertility UK and is herself a mother of an IVF child. Her approval of the wording of prompts was reassuring in that it should not only obtain data relevant to the study aims but that inadvertent distress caused by the wording was minimised. Interviews were recorded on a digital recorder; prior to each subsequent interview the audio was listened to again so that any key points arising from the previous interview could be

considered in the next. Returning to the audio rather than just a transcript also enabled engagement with the 'feel' of the interview itself (the 'being there'), as well as the text, this later proved valuable in data analysis.

Within phenomenology the aim is to expose the phenomena, thus broad open questions with minimal prompts only ('could you tell me more...?') should be used to avoid 'leading' the interview. Interviews started with an open-ended question 'can you tell me about when you started trying for a family?' or 'how has it been since we last met?'. This enabled participants to go back to the experience and how they felt at that time helping to provide them with a structure in which to commence their discussion. It also proved useful in promoting joint discussion between the couple as they looked to each other to provide clarity in dates and times. There were times when I would take the couple back to a point they had made earlier to reveal deeper meaning 'you previously mentioned…' this is not to introduce bias but can aid clarity over what is said and provide opportunity for more detail if the participants feel it is relevant. In addition, it facilitates co-constituion by enabling the researcher to confirm joint understanding with the participants (Dibley et al 2020).

Even within the interviews, interpretation began as my own pre-understandings were changed. Although commencing with broad 'tell me about' questions, there were times when I needed to clarify to ensure I understood participants meaning and I used repetition of phrases they had used to explore deeper; techniques which I used in practice (Egan 2017). The importance of active listening was key in enabling couples to tell their story but also knowing when to take them back to a point to clarify, on occasions for them to clarify for themselves or between themselves as a couple. Gadamer (2013:376) refers to conducting a conversation as the '*art of forming concepts through working out the common meaning'*. Thus questioning, listening, interpreting was ongoing and intrinsic throughout interviews (Crowther 2014) and building into a shared understanding, emphasised in this study by

repeated interviews with couples. *'It is in the telling of stories that meaning emerges'* (Dibley et al 2020:98) and how it is told is as important as what is told. Following each interview, I would make rough field notes on areas that seemed particularly pertinent, points that arose that felt significant or impressions of how I felt the interview had gone. This was also the start of my interpretation, as I started to think about possible links to Heideggerian concepts or the extant literature. Once the interviews had been transcribed, I also wrote around them, using the audio to clarify the expression, tone and emotion of the written word.

Although transition is ongoing, it was early parenthood (the initial three months) I was seeking to understand. The return to participants reflects the hermeneutic circle; the understanding gained from the first interview develops the researcher's understanding for another context, the second interview. Thus Gadamer's (2013) term 'horizon' as an explanation of the breadth of our knowledge, is steadily developed in the 'fusion of horizons' the increase of understanding as we recognise the existence of more than one truth, leading to meaning which is co-created (Taylor and de Vocht 2011). This works both ways as understanding develops between researcher and participants, forming co-constitution both within each, and across the three, interviews. Subsequent co-constitution is later generated by wider publication as text and reader's horizons combine.

6.5.4 Diary Completion

In my study I asked respondents to complete, if and when they wished, a diary to look back upon – to try and gain an understanding of experiences felt at the time rather than viewed retrospectively. From a Heideggerian perspective, temporality, or our experiences at that point in time (acknowledging both past and future, as well as present), is only relevant at that point, therefore the three timings of interviews may miss issues which participants felt were important occurring between time points. The use of a diary may enable that experience to be

recorded ‘as is’ rather than retrospectively. In addition, Woll (2013) argues that diaries are helpful in longitudinal studies focussing on adaptation. Couples were given a blank notebook to use as a diary at the first visit and these were utilised to varying degrees by different couples, always completed by the women. These were also looked at and used as prompts in subsequent interviews with the parents and, following the final interview and with permission, were photocopied and returned to them. Together with the transcriptions of the interviews - each of which lasted approximately 45 minutes, this generated a significant quantity of data.

Only minimal guidance was provided on the completion of the diaries as I did not want it to appear too onerous for those involved (it was noticeable that there was significantly more input during pregnancy in comparison to after the baby was born), however this did lead to varying usage which may have been improved by specific direction (Smith 1999a, Woll 2013). Upon reflection, alternative forms of diary recording may have been beneficial; the couples participating were computer literate and their working (and social media) lives dominated by typed rather than written interaction. Audio diaries have also been used to research life transitions (Worth 2009) and wellbeing (Hislop et al 2005) and may lend themselves better to a free flow of narrative. However, Bedwell et al (2012) felt that the use of handwritten paper diaries encouraged an intimacy helpful in their study which considered issues of midwives’ personal confidence. I originally anticipated that diaries would help identify feelings that could be less clearly recalled in retrospect, reflecting the temporality of certain feelings. My initial thoughts of the diary as an additional volume of data was challenged as I recognized them as providing a differing type of data, offering insights which may not have been apparent through interview alone (Braun and Clarke 2013). Reissman (2008) suggests that at times of personal crisis, narrative enables individuals to make sense of facts and assimilate them into a logical, temporal story which aids coherence. Birth stories

may be seen as a way of integrating the experience of birth with self, as individuals adapt to becoming parents (Dahlen et al 2010). This 'story' can then be retold – and I found that within the diaries were pieces of writing which had been spoken verbatim in conversation. This rehearsal of a story Bruner (2004) proposes enables an individual to 'become'. Although arguing from a constructionist approach, this mirrors Heidegger's arguments of 'being' emerging from moments of crisis (Polt 2006).

6.6 Data Analysis

The hermeneutical process is an ongoing 'making sense' of events through interpretation and co-constitution – the constant combining of new knowledge and experience with existing knowledge and experience (Koch 1995), in this case enhanced by the use of the different forms of data. This co-constitution is how individuals interpret their world, and also how the researcher identifies meaning by blending data from the participants and their own understanding (Lopez and Willis 2004, Reissman 2008). As there is no one truth and no complete analysis, for researchers a decision has to be made when they feel they're at the point at having established meaning, with no substantial contradictions, for that point in time. Although data gathering in qualitative research demands awareness of self and a thoughtful consideration of method, it is in the analysis that the rigour of a study is tested [see 12.1]. It is often described broadly as 'thematic analysis' attempting to quantify text to mirror the rigour of a quantitative process, but this removes the influence of time, place and human relationships which should be visible in a Heideggerian hermeneutic study. Gadamer (2013) asks 'where is the relationship in the story?' If there is no relationship, there is no story.

Data analysis is both an art and a science relying upon both technical skills in the identification of themes and collating of the data, as well as an intuition to see meanings within that. Data analysis commences when data is being gathered; how the researcher responds to the interviewee, how the questions are asked and which leads are followed, are

all a form of analysis. Both Gadamer (2013) and Van Manen (1997b) state that any approach addressing the data needs to include the pre-judgements and pre-understanding of the researcher. Van Manen (1984) argues that pre-understanding should be acknowledged and critiqued, whereas for Gadamer (2013), pre-understanding was not seen as a threat, merely a recognition. To enable analysis, audio data needed to be transcribed into a written form. Sandelowski (1994) explains that this is rarely as simple as it appears, human interaction relies upon body language and the use of tone, volume, pauses and hesitancy which characterise our interactions so the transcription is as accurate a representation of the data as the transcriber can produce. Following transcription of the interviews the transcript itself was annotated as I listened through the recording to indicate how something was said – expression and tone, and events that were occurring at the time – the baby frequently needing attention in the postnatal interviews. Once transcribed, developing a composite representation takes considerable time and commitment. Van Manen (1990) refers to phenomenological analysis as primarily a writing exercise as meaning arises from the process of writing and rewriting, leaving the researcher feeling as if they have vicariously lived the experience. In her overview of hermeneutic phenomenological research processes, Smythe (2011:52) argues for the importance of taking time to ponder on the findings in a '*re-viewing'*, aligning with Gadamer's (2013) idea of dialogue, both with oneself and others to help develop understanding.

6.6.1 Choosing a Method of Analysis

The search for a phenomenological data analysis 'process' felt difficult, but it is necessary to use some structured approach to help demonstrate rigour and credibility of findings. Koch (1995) comments that, particularly in nursing research, method is focussed on at the expense

of philosophy. Within my reading, I identified Husserlian approaches, involving bracketing such as Giorgi (1989) and Colaizzi (1978), being used for interpretive phenomenological studies, despite not fitting with the underlying philosophy (Fleming et al 2003, Wojnar and Swanson 2007, Ortiz 2009). This is addressed by Conroy (2003) in her table of Hermeneutic Principles for Research, which considers issues pertinent to both interview technique and data analysis, but whilst providing pointers, fails to offer clear direction.

Fleming et al (2003) advocate an analysis in keeping with Gadamer's (2013) key concept of dialogue, with four steps. The first is to identify a key expression which summarises each text The next is to look at meaning or understanding of each individual section, in the light of the researchers pre-understanding which leads to themes (although the word 'theme' can feel boundaried, both Crowther et al (2016) and Smythe et al (2008) use the more generic 'quality'). These sections can then be related back to the overall expression to enlarge meaning and to complete the hermeneutic circle for the third stage. The hermeneutic circle can be understood as the whole being a sum of its parts whilst the parts make up the whole, or alternatively, as the interpretation bringing together the text, whilst the text leads to the interpretation (Ortiz 2009). The final stage of Fleming et al's (2003) analysis is the identification of key pieces of text which summarise the meanings being revealed; when included in the final work it should give a succinct summary of the findings. Although Fleming et al's (2003) analysis seemed straightforward the initial phase of identifying a key expression felt daunting for a novice hermeneutical researcher such as myself.

Crist and Tanner (2003) proposed a five phased approach which relied upon a team approach to analysing the data. This felt more rigorous, but was difficult for myself as a doctoral student working alone, albeit with supervisor support. A compromise appeared to be Diekelmann et al (1989). Their clear seven staged plan advocates a critical friend or supervisor looking at aspects of the analysis. This is helpful in developing understanding but

Fleming et al (2003) argue that it's not clear what is advocated if there are differing interpretations; it may be that 'agreeing to disagree' is itself a result (Dibley 2018). Diekelmann et al's (1989) original staged plan included member checking with participants, now argued to undermine insight, as time, place and understanding may have changed since initial data gathering (Sandelowski 1993b, McConnell-Henry et al 2011). The idea of co-constitution, in which the researcher utilises their skills in clarifying without leading during the interview, is instead advocated. The clarity of Diekelmann et al's (1989) structure was helpful to a relatively novice researcher and had been used by nursing colleagues in doctoral research (Shepherd 2012, Dibley et al 2017).

Despite Diekelmann et al (1989) being used in Heideggerian nursing research (Crotser and Dickerson 2010, Guenther et al 2012, Moran 2016) a review of midwifery studies found it rarely used. Some midwifery-specific studies that claimed a Heideggerian phenomenological approach failed to follow it through in the analysis; with some (van der Putten 2008) using descriptive phenomenological data analysis by Collaizi (1973), whilst others (Deegan and Terry 2013, Lewis et al 2017) used thematic analysis by Braun and Clarke (2006). An article for midwifery researchers on understanding phenomenology (Mapp 2008) whilst referring to both Heideggerian and Husserlian phenomenology offers only Husserlian data analysis techniques. Several other studies cite using Van Manen for their analysis (Yates et al 2013, Brown et al 2016b), however no structured process is advocated; instead, Van Manen emphasises the reading and rereading of transcripts together with reflection to identify themes. Van Manen argued against a prescribed method, insisting that it detracts from the data itself and the underpinning philosophy. However, as a novice researcher, I struggled between wanting a practical guide and an aspiration towards a creative ideal – I was relieved to hear others' similar concerns (Rocha Pereira 2012). A further midwifery study (Lundgren 2004) claimed to be a synthesis of four hermeneutic and phenomenological studies of

midwives' and mother's experiences of pregnancy and childbirth, although interesting it is incompatible with Heideggerian principles of context and time. After reviewing several analytical approaches, Diekelmann et al (1989) was felt to be the most appropriate. The stages of Diekelmann et al (1989) are detailed in Table 2, however the linear progression implied by a table, whilst useful for understanding, does not clearly reflect the cyclical thinking and 'dwelling' with the data, through which insight comes (Smythe et al 2008, Spence 2017). The gathering of all the data prior to beginning analysis is counter-intuitive to the process of Heideggerian phenomenology, in which the experience, and initial thoughts, gained from a first interview is taken into subsequent ones (Smythe 2011). This does not mean that there is no logical, methodical system of analysis – the rigour of the study is dependent upon this, but that the process of structured analysis must not stifle emerging insight.

	Diekelmann et al (1989)
Stage 1	Read all transcriptions for an overall understanding
Stage 2	Write interpretive summaries and coding for possible themes for all transcripts
Stage 3	Analyse transcripts as a group in order to identify themes
Stage 4	Return to the transcripts, or to the participants, for clarification or disagreements in interpreting and writing a composite analysis of each text
Stage 5	Compare and contrast texts to identify and describe shared practices and common meanings
Stage 6	Identify constitutive patterns that link the themes
Stage 7	Elicit responses and suggestions on a final draft from a colleague familiar with the content and/or methods of the study

Table 2. Diekelmann et al's (1989) method of data analysis

6.6.2 Crafted Stories

'Storytelling reveals meaning without committing the error of defining it' (Arendt 1970)

The initial searching for a hermeneutic phenomenological method for analysis identified a paper by Crowther et al (2016) on crafting stories. Although interesting and appealing to my love of literature it was initially felt to be a corruption of the data. However, upon reflection I realised that I was stuck on a constructionist approach – preoccupied with hesitations, errs and umms which detracted from what the participant was trying to say rather than being intrinsic to it. After meeting with Susan Crowther and, after trying crafting stories, I found that it helped the data resonate and speak to me.

Stories historically have been used as communication, enabling listeners to envisage themselves both within the story, a 'being there' of Dasein and an interaction with it, a fusion of horizons between their existing knowledge and that of the story, to create a new understanding. Spier (2018) suggests that asking others about their experiences moves away from 'how, what, why' and instead towards an understanding of 'Being'. Within midwifery, birth storytelling is used by mothers in repeating experiences to friends, family and professionals retrospectively to make meaning of their experiences (Callister 2004, Dahlen et al 2010) or prospectively in learning from birth stories of others (Savage 2001, Munro et al 2010, Kay et al 2017). Storytelling represents maintenance of social ties and relationships (Olafsdottir and Kirkham 2009) and the processing of experience is evidenced in differing accounts over time as a mother's perspective changes, and altered depending upon the listener, reflecting the importance of time and context (Dahlen et al 2010). Midwifery lecturers themselves have identified the importance of storytelling with their students and its value in integrating theory and practice (Kirkham 1997, Hunter and Hunter 2006, Leamon 2009, Weston 2011, 2012), whilst reflection can be considered as storytelling with oneself

(Olafsdottir and Kirkham 2009). The telling of stories demonstrates a temporal sequence and shows what the teller feels is important at that point in time as they seek to clarify meaning (Sandelowski 1991, Olafsdottir and Kirkham 2009).

Some qualitative studies ask participants to tell a story from which research findings are deduced, relying on coding for analysis. The interviewing style may be similar, starting from a 'tell me about...' however crafted stories, as used in hermeneutic phenomenology, is not about the text as a story, but about the impression of the story. The data is worked with not worked on (Crowther et al 2016) to craft a neater version rather than create a new one. Although stories align with narrative methods, the focus of narrative in the transcript is on language whereas for phenomenologists it embraces also, the spaces in between, the nuances of emphasis and, for this study the interaction between both participants and interviewer, which offer a potentially different interpretation than the literal (Caelli 2001). These 'tidied' transcripts, which Caelli (2001) refers to as 'narrative from transcripts' and Crowther et al (2016) call 'crafted stories' ground the text firmly within the participants experience. The process has correlations with i-poems, a further emerging concept in data analysis which selects from the data each occasion when the pronoun 'i' is used and forming stanzas from those to create poems, (Edwards and Weller 2012, Fontein-Kuipers et al 2018a). Both derive from the transcript, but the procreation of a new form illuminates the participant experience. Stories encourage others to see themselves within it and this draws the reader into the research, enabling a fusion of horizons between participant, researcher and reader. It is not intended as 'truth', instead it asks how the story resonates with the reader. It helps to show the meaning participants ascribe to an experience and maintains the Heideggerian emphasis rather than an Interpretive Phenomenological Analysis which in contrast focuses on the analysis of the text – not unlike discourse analysis. Using crafted stories to support the

transcripts for analysis maintained the focus on participant experience and was used with Diekelmann et al (1989) to provide the structure.

6.6.3 Revealing Meaning

The difference between descriptive and interpretive phenomenology can be summarised as 'what does the text say?' and 'what does the text talk about?' the latter related to meaning rather than narrative (Ricoeur 1976). This is summarised by Smythe et al (2007: 1392) that '*what we call 'themes' are not necessarily 'the same thing' said again and again but rather an understanding we have seen something that matters significantly'*. It may be that the same section of data demonstrates more than one theme so a system that enables multiple assignments is necessary. The process of data analysis, as throughout the phenomenological approach, is nonlinear; researchers go back to the data frequently in a spiralling motion to seek deeper meaning. This is experiential thematic analysis, maintaining the focus on the participant's experience, what Horrigan-Kelly et al (2016:7) refer to as '*to inductively reveal meaning from the emic* (insider) *perspective*'. As throughout the research process, reflexivity or management of self is important in this [see 12.2]. Whilst it can be acknowledged that the data may be open to other interpretations, and is never complete, the findings that emerge from the study must be consistent with the data, it must maintain rigour. A contribution to that interpretation may come from the reader themselves so that, rather than findings presented as a final result, excerpts from the data with the researchers own interpretation are presented for the reader to further consider (Ironside 2012).

A unique aspect of this hermeneutic phenomenological study is both the cross-sectional and longitudinal analysis. Each interview undertaken was considered in relation to a couple's experience over time and in relation with others at the three time points (34 weeks, 6 weeks post delivery and 3 months post delivery) [Table 3] which may provide differing insight or

understanding (Grossoehme and Lipstein 2016). Although longitudinal analysis is a less common approach within Heidegerian phenomenology, for a study on transition or 'passage through' an experience, it appeared logical, reflecting changes in lived experience at differing points in time. It has been used previously in student transition (Hamshire and Jack 2016), nursing career development (Dunn 2009) and early parenthood (Healey 2012, Parascandalo 2016), Parascandalo also involving couple interviews.

	34/40	6 weeks PN	3 months PN	
Couple 1	↓ a → 1	↓ d → 2	↓ g → 3	→
Couple 2	↓ b → 4	↓ e → 5	↓ h → 6	→
Couple 3	↓ c → 7	↓ f → 8	↓ i → 9	→
	↓	↓	↓	

Table 3. Longitudinal and time point data analysis

Three interviews were undertaken with each of three couples, with the optional use of a diary [see 6.5.4] which generated nine transcripts in all and significant data for each couple. This enabled sufficient opportunity for 'dwelling with' the data, and to be realistic for a PhD researcher working alone. Heideggerian phenomenological research is often undertaken in small teams, particularly the viewing or reviewing of the data for analysis (Cohen et al 2000) which better supports capacity to manage a larger data set. A further benefit of co-researchers is the enhancement of rigour in ensuring that similar points are identified as significant and to avoid unintentional bias from the lone researcher. To address this, each of my supervisors were given a script to annotate areas that they felt were significant. These were discussed within the subsequent supervisory meeting.

6.7 Conclusion

This chapter considered how the underlying theoretical constructs and philosophy behind the study relate to the method, starting with decisions around sampling and rationale for the

inclusion criteria. The importance of ethical practice and of gaining formal approval was explained and how that influenced recruitment. The process of data collection and its applicability to a hermeneutical phenomenological approach was made explicit, including the rationale for couple interviews and of considering both longitudinal and cross-sectional data. Differing models for data analysis were assessed and the decision to use Diekelmann et al's (1989) structure was identified, together with crafted stories to aid engagement.

Heidegerian hermeneutical analysis is considered more thoughtful, cyclical and poetic than other forms of data analysis, an aspect that attracted me. Thomson et al (2011) refers to poetics in the emergence of insight demonstrated by the use of language – a single phrase enhancing understanding of meaning, a concept reminiscent of Gadamer. However, within this ethereal concept, it is important that the rigour is maintained and a clear process of data analysis is made explicit – the structure of Diekelmann (1989) makes this easier, whilst remembering that the '*intent is not to develop a procedure for understanding, but to clarify the conditions that can lead to understanding'* (McManus Holroyd 2007:1). The subsequent chapter explains how the data analysis method was undertaken in practice to create a transparent and robust study.

Chapter Seven. Emerging Results

The ‘bringing forth into awareness’ is the process of data analysis, which within Heideggerian phenomenology requires committed, time consuming immersion in the data, to see beyond just narrative (van Manen 1997b) and I was grateful for a six week sabbatical which enabled that. This immersion both leads to, and is supported by, the spiral process of reading-thinking-writing (Smythe et al 2008). Within this is acknowledged the influence of the researcher in creating a fusion of horizons (Gadamer 2013), enhanced within this study by the developing participant-researcher relationship formed from repeated interviews. This relationship assisted an understanding of the couples’ background culture and influences that also contributed to the analysis, an acknowledgement that participants, as well as researcher, have forestructures. This chapter will consider how the themes and findings emerged, demonstrating both methodical structure and ontological insight to consider them in the light of a Heideggerian perspective.

7.1 Integration of Diekelmann et al (1989)

Having identified Diekelmann et al (1989) as an appropriate method of data analysis, I drafted a plan which integrated the the data analysis model with the use of crafted stories and the unique aspect of both longitudinal and time point data analysis to provide a clear structure. The stages of analysis as related to the study are detailed in Table 4.

	Action	Notes/rationale	Diekelmann et al (1989) stages
1	Audio recordings transcribed	To ensure data can be worked upon	
2	Transcribed data turned into crafted stories	Audio listened to concurrently to ensure meaning clear	
3	Transcripts and crafted stories colour coded per couple and numbered by interview	Ensures clarity of themes by couple and time point	
4	Transcript for couple 1 interview 1 read and listened through for annotation of preliminary ideas/themes.		Stage 1
5	Diary data reviewed to see if evident in existing themes or additional themes identified		
6	Initial themes noted in data analysis book for couple 1 interview 1.	Need ongoing evidence of thoughts to show rigour	Stage 2
7	Process repeated for couple 1, interview 2 and then again for interview 3		
8	Crafted stories reviewed to ensure themes apparent there also. May identify additional themes	If ideas not also recurring in crafted stories, suggests significant loss of insight through creating stories	
9	Large sheet of paper used to group similar themes together from all 3 interviews for couple one	Initial identification of over-arching themes for couple 1.	Stage 3
10	Layout of themes on paper	With visual representation, patterns start to emerge of links between themes	Stage 4
11	Process 1-10 repeated for couple 2 and couple 3		
12	Analysis of themes from all three couple journeys	Constitutional and relational patterns considered between couple's journeys	Stage 5
13	Transcript given to each supervisor for their identification of significant points	Rigour enhanced by considering similarity between researcher and supervisor thoughts	
14	Themes arising from interview 1 for couple 1,2 and 3 grouped and laid onto new sheet of paper	Commonalities of experience between couples may become evident	
15	Process repeated for second and third interviews		
16	Analysis of all 6 large sheets for themes or qualities which may contribute to further analysis	Completion of hermeneutic circle	Stage 6
17	Ongoing discussion with supervisor on potential findings in light of previous knowledge	Review of transcripts, stories and sheets of analysis with supervisor	Stage 7
18	Secondary analysis to link similar initial themes into secondary themes and constitutional patterns	Constitutive patterns are in every transcript, relational themes occur more than once	
19	Write up of final summary of themes and insight at that point in time		

Table 4. Alignment of data analysis actions with the analysis stages of Diekelmann et al's (1989) method

Having a clear plan helped in the working through of the analysis, enabling me to keep track of what I was doing (and why). The structural plan provides the rigour to support the insights gained from the study; it does not provide a procedure for understanding, instead it provides a framework in which understanding can occur (McManus Holroyd 2007). I used a separate notebook to document my data analysis and emerging thoughts. Although there is an element of thematic analysis within hermeneutic phenomenology, it needs to go beyond a record of how often something was mentioned and instead focus on interpretation of what is said – what is being uncovered? what is the meaning of what is expressed? This ontological approach is summarised by Smythe and Spence (2020) as being orientated towards the 'Being', the lived experience. Within my notebook, I was documenting similar themes, but the emerging thoughts were the hermeneutic aspect which developed over time. These notes demonstrate how emerging results derive from the data analysis process, however what felt daunting was the waiting for insight to be revealed - as hermeneutic phenomenologists reassured me it would. This ontological aspect came through moving backwards and forwards between the data, existing literature and hermeneutic texts. Thus, although documented here as a logical sequence, it was the integration of reading and thinking whilst undertaking the analysis that enabled meaning to be revealed. A related fear was that I might in error, be ignoring some significant insight, and it was only in learning to let go and recognise that this was my analysis (and accepting that others may see it differently), did I manage to move beyond this anxiety. However, in accepting that, I also needed to take responsibility for demonstrating that the findings are logical, trustworthy and credible and for that reason the data analysis needed to be clear.

7.2 Preparing the Data

The data gathered enabled analysis of both longitudinal data for each couple and cross sectional at differing time points, unique amongst hermeneutic phenomenology. Although the term trajectory reflects a more individual progression, an arc rather than a linear expectation (Grossoehme and Lipstein 2016) the decision was made to use the term longitudinal as it is more commonly used within research studies to indicate chronological progression. The interviews generated nine transcripts and additional diary data. The length of interviews ranged from 32 minutes to 80 minutes (mean: 53) and generated 187 pages of transcript. A further 54 pages of diary entries were gathered, predominantly from one participant, Carla. She had kept a diary since her first pregnancy five years earlier and had maintained it at intervals – through two miscarriages, IVF treatment and the current pregnancy. She kindly allowed me access to it all – 170 pages which provided great insight, however for data analysis purposes, I decided to focus on the 50 pages from when I'd first met her to the final 3/12 interview. The transcripts and diary accounts enabled sufficient opportunity for 'dwelling with' the data, and to be realistic for a PhD researcher working alone.

The first stage was for the data to be transcribed. Ideally, this should be undertaken by the researcher themselves (Balls 2009) to enable the researcher to 'dwell' in the data. Although I tried to manage this, it was not possible because of its time-consuming nature and concurrent work commitments, and I needed to rely on additional help. To ensure that I was very familiar with the context and 'feel' of the interview I listened through the interviews frequently to ensure that the transcription was accurate (and also gauging my own interview techniques, with a view to further improving them). Familiarity with the audio and listening to the previous interview prior to repeat visits enabled rapid re-engagement with couples, as I could recall their social situations and expectations. I was shown prepared nurseries, baby

clothes, teddies, and photographs which added to the experience, enabling not just the written data to contribute to the analysis (McGovern 2016). Couples were understandably proud of their babies, keen to show them to me and handing the baby to me to hold; an action I interpreted as trust. These additional actions, together with some of the non-verbal and verbal expressions – joking, laughing, voice breaking etc I was able to note on the transcripts.

7.2.1 The Process of Crafting Stories

Crowther et al (2016) provide some clear guidance on how to work with the data to craft the stories. Initially it involves removing superfluous data, the removal of 'umms', 'err's and repetition. At times repetition was used to emphasise meaning and highlighted the significance of participant's thoughts and feelings; this was retained as it did not constitute superfluous detail instead being used as emphasis. Similarly, elements of doubt appeared to be present in some of the sentences left hanging and these also were retained as implying meaning. Simultaneously using the audio to get a feel of the meaning was helpful with this. The focus is maintained on the story as something that happened, or their experience, so meaningful areas are retained and unnecessary expansion is removed. This left a series of small nuggests of related text which was then linked with additional words to ensure grammar and to provide a logical temporal and contextual flow. The participants' words were used as much as possible and by reading it through I could identify if the modified story still reflected what I felt participants were trying to tell me. This was a series of moving between the text and the story, adding and removing material until I was happy the story represented the couple and their experience. Crowther et al (2016) suggests that the interpretive process involves considering if the story 'shows' the experience and if it still holds the meaning as well as considering if it engages and works as a story of itself. A specific aspect which I found helped was the use of a 'title' a short quote taken from the data which seemed to

summarise the gist of the story. A similar finding was identified by a participant in Smythe and Spence's (2020) study who refers to 'punch lines' as helping to show insight.

An example of the process, from Claire and Daniel's first interview, is indicated below:

Original transcript

Daniel: Was it about…a year and a half was it?

Claire: Yeah I think it was just after a year we started to think didn't we, if something…

Daniel: Yeah we started to question it, just a…but then, yeah we just carried on for a bit I think didn't we?

Claire: Yeah. It sounds really bizarre but now that we are pregnant and everything is thankfully okay, not long to go. I feel like it's almost…things become a bit of a distant memory, which is a nice thing really

Daniel: Yeah it's gone quite quick hasn't it?

Claire: At the time it's all very full on and you know. And then when you first fall pregnant I think it's the fear factor which is the same for anyone, IVF or not, but then as a little bump starts to come and everything seems to be okay you know, tests are good, scans are good it has started to almost not..I don't think it will ever go away, you'll always remember it, but it's almost nice that it's not at the front of my mind now, more to the back of my mind I suppose.

Daniel: Yeah we're kind of, yeah, just like a normal pregnancy now

Claire: Yes

Daniel: You're past that stage of being well, not a special couple or anything like that but once the bump starts showing

Claire: It's a lot isn't it?

Daniel: And you now kind of think oh we're just like a normal pregnant couple

Claire: It was a lot to go through weren't it? And now I think we're at a nice stage where we're really are just enjoying it and excited about it

Daniel: Yeah just waiting, yes.

Claire: Yeah, you've done good really haven't you?

Daniel: What putting up with-

Claire: Yeah you have

Crafted story *Memory fades*

'It was about…a year and a half was it?' 'Yeah - it was just after a year, we started to think didn't we?' We started to question it but then, we just carried on for a bit and I think It sounds really bizarre but now that we are pregnant, things become a bit of a distant memory. At the time it's all very full on and you know. And then when you first fall pregnant it's the fear factor, but then as a little bump starts to come and everything seems to be okay you know, tests are good, scans are good it has started to .... I don't think it will ever go away, you'll always remember it, but it's almost nice that it's not at the front of my mind now, more to the back of my mind I suppose.

We're kind of, just like a normal pregnancy now, not a special couple or anything like that but once the bump starts showing, you think oh we're just like a normal pregnant couple, but it's a lot isn't it? it was a lot to go through.

From the transcripts, crafted stories were drafted following the process recommended by Crowther et al (2016) and detailed above. From 241 pages of transcripts and diary entries, 181 crafted stories were devised. For each I used a verbatim quote which acted as a 'title' for the story and I tried hard to keep to the language used by participants, this minimised the opportunity for my own inadvertent interpretation. One of the participants, Jakub, was from

Eastern Europe and although his English was very good, meaning could be lost in transcripts which lacked syntax. Using the audio at the same time was important to understand the nuances. Another concern I had was in trying to 'clean up' stories but wanting to keep Jakub's manner of speaking. Within the first interview I found the crafted stories particularly helpful in portraying what I believe Jakub always meant. However, in the second interview, it was more challenging to create crafted stories as the couple tended to interrupt each other in elaborating, clarifying or supporting a point throughout. They were often at different points in a story, correcting each other on detail – yet once done meaning came through more clearly than in the disjointed transcript and further demonstrated the utility of crafted stories.

A specific aspect of this study was the use of couple interviews and I could find no other examples of the use of crafted stories in couple interview studies. I found when drafting the stories that in most instances they were 'couple stories' and I presented them as such – as a combined perspective, using the pronoun 'we' as they most often did. Only occasionally did I need to specify if a particular reference was to either the mother or the father, and on a couple of occasions I had a story that specifically related to just one parent. These provided additional data by drawing out insight which was less apparent in the transcripts. Within the crafted stories, there was some evidence of 'rehearsal' of stories, for example there was minimal crafting needed for birth stories (similarly, diary data used the same terminology as verbal accounts) suggesting that birth stories are a way mothers use to rationalise or come to terms with an experience (Callister 2004, Dahlen et al 2010), which equally appears to be the case for all health disruptions (Bury 1982). The process of crafting stories helped me to engage with the message of the narrative rather than analysis of words, the experience rather than text. Crafted stories helped identification with participant's experience, and in some instances brought forward insight which had been lost amongst the words.

7.3 Handling the Data

Once the transcripts and stories are felt to be as representative as possible of the interaction, then inductive analysis can begin. I used traditional paper and paste, undertaking frequent photocopying of transcripts and stories. These were colour co-ordinated by couple – green, red and blue and numerically for point in time – one, two or three. Although I had undertaken training in NVIVO, a data analysis software package, I found the tactile handling of the data more rewarding and intuitive; through the physical handling, I could hear the voices of the participants. This process was conducive to the immersion necessary within Heideggerian phenomenology, by being surrounded by visual representations of developing themes, I was able to reflect and ruminate on the data, in this way insight started to be revealed. This resonates with Heidegger's calling – the thinking, reflecting and contemplation of the data and the initially daunting wait for insight to emerge (Smythe et al 2008). There are opposing perspectives on the use of qualitative data analysis software (QDAS) within phenomenology; if text enables intuitive comprehension then coding reduces data to soundbites, leaving it disembodied (van Manen 2014), others argue that technology becomes a tool which leads the process rather than responds to the data (Goble et al 2012). In contrast, those who find value in QDAS argue that it is not the method that is the issue, but the researcher using it, and that by retaining a clear focus on methodology these issues can be avoided (Sohn 2017). For myself, unfamiliarity with the technology and a desire for involvement in the text led me to exclude QDAS.

Data was individually analysed for interview one for the first couple (Figure 4). This involved detailed reviewing of each transcript and areas of significance underlined and commented upon. The audio was used to ensure meaning by focussing on tone, inflection and pauses as verbatim accounts alone may fail to indicate underlying emotion and feeling that

speech provide (Reissman 2008). Repeated interviews with participants meant that I could recall the 'feel' of them and this aided my analysis.

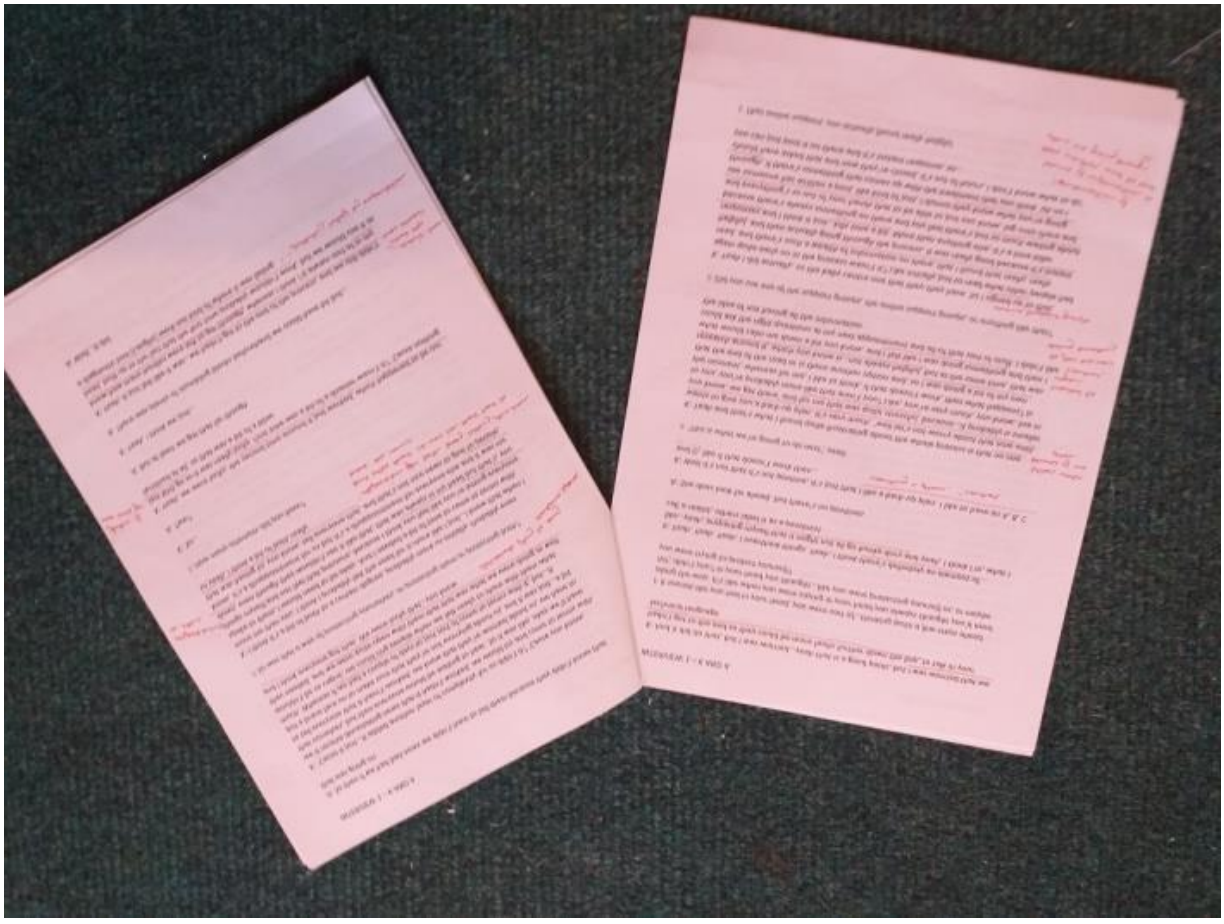

Figure 4. Annotated transcripts

The specific points highlighted, small sections of underlined data and my corresponding thoughts were then noted in my journal. The same process was followed for the second and third interviews of couple one. The pages of notes in my journal were photocopied and cut up so that I had a collection of individual clips which had been drawn from the data. Initially unsure how to refer to these thoughts, comments and reflections, I decided to think of them as 'notions' from the dictionary definition of *'an individual's conception or impression of something known, experienced or imagined'* (Merriam Webster 2020). In particular I liked the seminal idea of 'a conception' which implied it as a starting point from which

understanding and insight could develop. Over time I realised that I was being more specific in areas that I was highlighting, and I returned to the first couple of transcripts to review them in more depth as my engagement in the process deepened. These notions were collated to form broad themes which were laid out initially over the floor of my study as groups merged and emerged (Figure 5) and later, were attached to large pieces of paper which enabled notions to be moved as appeared necessary (Figure 6) as analysis progressed.

Figure 5. Initial layout of themes

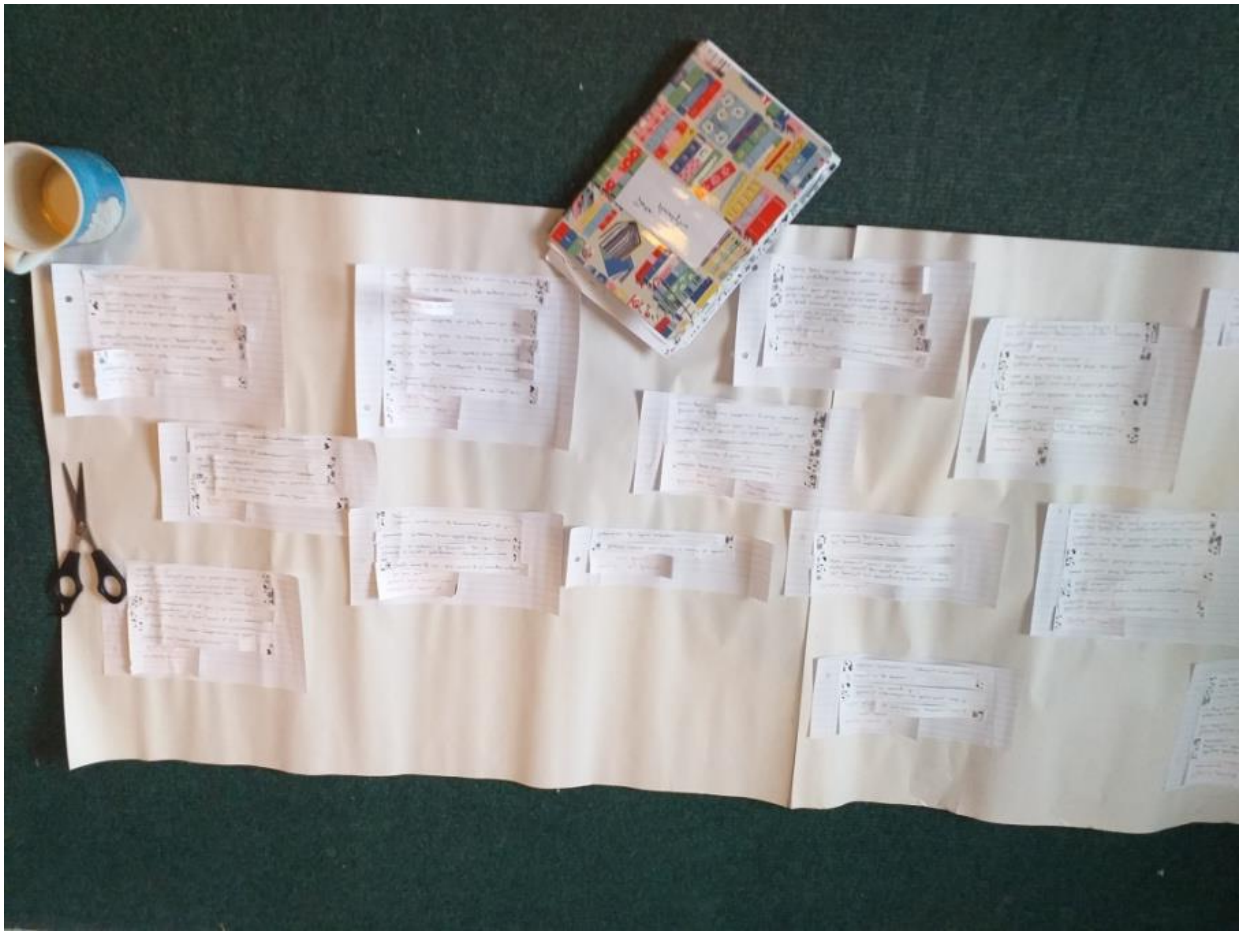

Figure 6. Arrangement of themes following initial analysis

Some notions appeared to fit into more than one theme and the multiple photocopies made this easier. These themes were starting to '*captures something important about the data ..... and represents some level of patterned response or meaning'* (Braun and Clark 2006:82). The data – both, the full transcript and corresponding notions drawn from it was read and reread, and as meanings start to appear were grouped into clusters of meanings (Dahlberg 2011), this provides a temporary framework to enable further patterns to be seen. The quality and transparency of this process is key to demonstrating the rigour within the research and the responsibility of turning personal experiences into potential public insight (Mauthner and Doucet 1998).

The next stage was reviewing the stories, which were then grouped under what was felt to be a relevant theme; some stories seemed to belong in more than one theme and some needed dividing. I was concerned that if there were significant differences in the identified themes from transcripts and stories then this could indicate significant adulteration of the data had occurred by crafting stories, but this did not seem to be the case. However, the stories did seem to draw out some different perspectives and additional themes were devised whilst other themes were tweaked. The stories seemed to shift emphasis - the difference of a researcher looking at disjointed transcripts compared to the way a story draws you in and involves you with it.

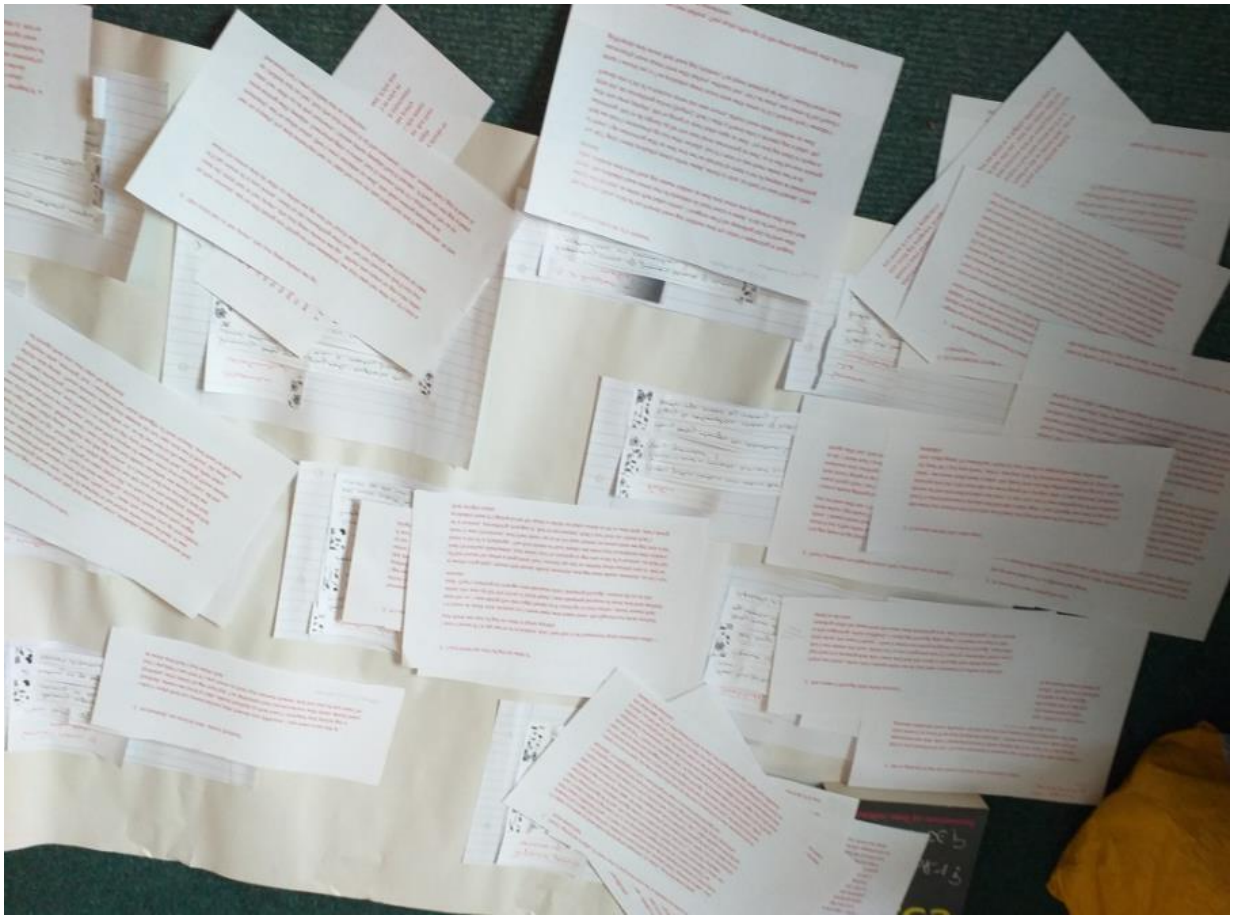

Figure 7. Crafted stories grouped according to identified themes

Interpretive phenomenology goes beyond just description and grouping to thinking and interpreting, whilst being mindful of underlying philosophies. It tries to keep close to the original experience, a more ontological approach. The grouping of data should consequently avoid taking material out of context, but chunks of data lifted verbatim for analysis is not suited to phenomenology, instead it is the whole, or the 'story' that is considered (Smythe 2011, Crowther et al 2016). Mindful of the interaction between the whole and the individual notions, once I had completed the grouping of notions and crafted stories into themes I wrote a summary of my overall perceptions of each couple and the broad themes and potential Heideggerian concepts they may align with. The first of these is shown below:

Claire and Daniel longitudinal data summary:

Data gathering *Data consists of 3 joint interviews of 32 minutes, 44 minutes and I hour 16 minutes respectively, minimal diary completion.*

Within the third interview, Claire and Daniel both spoke about the experience of IVF in much more detail retrospectively than they had in the first interview (? too close in interview one or did they feel the need for the baby to be here before they could relax, were they holding back to get control?).

Claire and Daniel were at school and grew up together. They had been partners for 10 years, they often finished each other's sentences and knew what the other was referring to. Both came from large families which lived nearby and there was a shared cultural background (in contrast Karen and Alex had a North/South divide, whilst Carla and Jakub had cultural difference, but shared family disruption).

Following transcription, crafted stories were constructed. I was listening to the audio whilst drafting stories to ensure I was getting the meaning. Stories were 'joint' stories, although I

was aware that I tended to default to the mother's voice. As they often continued each other's sentences, joint stories were relatively easy. I tried to put linked ideas together - although that was my interpretation, as were the titles - the wording came from the transcript. I found feeling came through better (not stronger, but better) in the stories. An area I considered was how much hesitation or repetition to put in. Listening to the transcripts I tried to include some if it was relevant ie. if it indicated sadness or doubt but did not if it appeared to be a search for the correct word or a mannerism.

Process *The initial stage was reading through the transcripts and indicating key thoughts which were noted, this was done for interviews 1, 2, 3. These were then combined under broad headings. Some came up on all three interviews, others just once or twice (repetition not necessarily indicating importance, but if evident in all three interviews this could indicate significance). These broad themes were arranged on a large piece of paper and seemed to indicate a spread of thoughts moving longitudinally from pregnancy to 3 months. Other potential models of data presentation considered were overlapping circles or a linear model indicating positives or negatives.*

Initial themes were:

Awe (123) - the numbers relate to the interviews each theme arose in, *Fortune (123), Violation of expectation (13), Rationalising process (3), assimilating reality (123), Faith in medics (12), Doubting themselves (23), In it together (12), We'll be okay (123), Finding the way (23), Learning (23), Equal but different (23), Motherhood as bond (3), Family (23), Meaning of baby (23), Trying again (23)*

In addition, there were points arising from the transcripts which did not seem to belong anywhere – these were 'parked' for later review.

The next stage involved filing the crafted stories into relevant sections, this seemed to draw out some different perspectives – additional themes of ''Presence' of baby' and 'Managing questions' were devised, whilst other categories were tweaked. The previous category of 'Trying again' was abandoned and instead the ideas seemed more nuanced and sat better with fortune and violated expectations. I needed to think through how and why the stories seemed to shift emphasis – was it the 'me' within the stories, or the 'me' within the transcripts. This felt like the difference of a researcher looking at transcripts compared to the way a story draws you in and involves you with it.

Following the involvement of the stories it seemed some themes could be linked: Awe and Fortune, Doubting themselves and Faith in medics, finding the way and Learning, In it together and We'll be okay.

To ensure rigour, a copy of the first interview was given to one of my supervisors (each supervisor looked at one) to annotate for those points that arose for her. I was pleased that these frequently mirrored my own, however it emphasized for me a point which in retrospect I'd lost amongst In it together and We'll be okay which was 'Becoming normal'. Although clearly present in interview 1 it also appeared in the absorption into wider family in interview 2.

In much of the second and third interview, Claire and Daniel were talking about the baby, yet often in talking about the baby they're talking about themselves and others – usually about their relationship with each other, sometimes about relationships with family or friends or, on occasions, dialogue with themselves. A relationship with a baby is non-verbal, so it only appears obliquely in verbal or written data (may be more clearly seen in observation).

Initial Hg thoughts - violation of expectation may reflect present at hand/ready to hand. Dasein refers to our situatedness or interconnectivity relevant to family influences (amongst

others). Mood/attunement (fortune/ luck). Enculturation (as more modern version of 'das men' – the 'they') in the 'how to' parent – for Claire and Daniel and it feels a finding the way and in it together. Though this may be 'inauthentic' – does 'authenticity' break through in the moments of 'would it be different if it was a spontaneous conception?' Similarly does this reflect temporality – how past and future influence the present, particularly evident when considering the possibility of future children.

This demonstrates how analysis began, by noting how often a theme appeared (123 relates to it being in all three interviews) and in showing how some themes were combined or separated through the process, it also demonstrates how I was starting to note potential Heideggerian perspectives. In recognising that the whole is constitutive of the parts and that the parts constitute the whole (Benner 1994), I now had, with the thematic groups of notions, crafted stories and overall summary, significant data which was aiding insight into the experience for this one couple. Through continuing to read and relate to the underlying philosophy, what Smythe (2011:46) calls *'living the method'*, I was able to start identifying emerging Heideggerian concepts. This shows analysis as described by Spencer et al (2003:119) as requiring *'a mix of creativity and systematic searching, a blend of inspiration and diligent detection'*.

The whole process was repeated for couple two and then for couple three. I noted a tendency to layout the themes chronologically, which may have reflected the longitudinal structure of the interview schedule, or may reflect either my own cultural background of midwifery or wider societal expectations of childbearing which moves logically from the antenatal period, through birth to parenting. Within the interviews this chronology was more circular, with participants concluding the third interviews with reference to subsequent children, which they all had considered. Within this consideration was reflection upon whether they would be able to conceive spontaneously or would need or want to again use IVF, the point at which they

originally started their first accounts. As highlighted in the summary shown, I started to notice that often the mother's voice came through more strongly than the fathers. I was aware that this probably reflected my own presuppositions – as a mother myself it was easier to relate to their experience and as a midwife, it was women that I was most used to interacting with. I had anticipated this [6.5.2] and tried within the interviews to to turn to the fathers and ask 'and what about your thoughts?'

Heideggerian phenomenology is often undertaken in small teams, particularly the viewing or reviewing of the data for analysis (Cohen et al 2000) and it was important that I was being fair and transparent in my analysis. Consequently each of my supervisors were given an interview transcript: 'a' to Professor Karen Cleaver, 'b' to Dr Sally Glen and 'c' to Dr Lesley Dibley and asked to highlight areas that stood out to them as significant and their interpretations. No new ideas were identified although one theme was reintroduced after review. Similarly, a transcript and resultant crafted story were reviewed by Dr Dibley to ensure that it reflected the meaning inherent in the text.

The language which I used for initial themes arose from the participants expressions – 'winging it' which Karen used to describe early parenting or 'keep pushing to get help' an expression used by Carla and Jakub on trying to access referral, or my own feelings of what participants were saying such as 'delight in becoming' or 'trying to see the path'. Some of these may have been more visible to me as the researcher than they were for the participants, 'violated expectations' or 'personification' of the baby for example, and as such I take responsibility for these representations, recognising that they are my own interpretation of the words of others.

The identification of themes involved an iterative development, moving backwards and forwards between the transcripts and stories of each interview to gain a fair and rational representation of meaning. This is evidenced in my notes below from the third couple.

The stories were filed under the themes. No stories were directly linked to 'managing self' and it was combined with 'pressure from others' to form a new group 'don't stress about it'. Two other groups which felt related were left as they were: 'is it me?' which reflected reduced self esteem or femininity and 'memories of stress/worry' which reflected retrospective concerns. The theme 'togetherness' included a significant subgroup of trust, although the original title was unchanged and the theme of 'personification' was formed which reflected two stories -a perceived association between the baby and the cat, and the baby's love of reading. The themes of 'moving towards motherhood' and 'becoming' were reconsidered, as both reflected a delight in both pregnancy and parenthood, consequently being re-named as 'delight in becoming'. This also reflected the two thoughts in 'family life' – the relief at being discharged from hospital and being able to move forward and the pleasure in returning home from work to new family. 'Baby as connection' contained only one story – about the maternal grandparents: her dad as 'natural' and the growing bond between maternal stepmother and baby. The thoughts within this group felt better divided between a new group, 'technology' linking to the use of Apps and Skype in replacing peer support and maintaining connection to paternal grandparents and slotting the two remaining thoughts, baby as 'guilty pleasure' and means of introduction to 'delight in becoming'.

The use of data from transcripts/diary and crafted stories shows both what is present and what is absent. As the stories came from words they showed only what was stated, however my comments identified more subtle points, eg. the lack of reference to the process of IVF, or effects of the drugs. This reflects Gadamer's concept of the 'gaps' within a conversation, the absence of something being as important as an inclusion.

7.4 Initial Longitudinal Analysis

The analyses for all three couples were then combined to provide longitudinal analysis [Table 5]. Within this, the initial themes drawn from Claire and Daniel's summary can be seen, alongside those of the other couples. Although the themes are arranged as a chronological order, descending from the pregnancy period to settling into parenthood, it does not equate to data from the first interview relating only to pregnancy and that from the third relating only to parenthood. It was interesting that couples often spoke more about the experience of infertility and IVF in retrospect at the third interview, or that support from family was as relevant through the IVF process as well as in parenthood.

C and D	K and A	C and J	Broad themes emerging
Awe +Fortune Violation of expectation Rationalising process Assimilating reality Doubting themselves, but faith in medics Managing questions	Needing reassurance Protection Control Telling others Trying to see the path Someone who understands	Don't stress about it Alternative plans as coping method Together Keep pushing to get help Someone who'll help Happy to talk Memories of stress Is it me? Seeking control Further children	Seeking a way
In it together, so we'll be okay Finding the way Becoming 'normal'	Needing reassurance Needing time to get your head around it Winging it Skilled nurturing	As long as baby is okay Instinctive parenting Know yourself Delight in 'becoming'	Returning to the path (for C+D once pregnant, for K+A an empowering birth, for C+J when home)
Motherhood as bond Family 'Presence' of baby	Structuring the day Responsive relationship Support or mates Social norms of mantalk	'Dad' Day to day To be working parents Personification Technology aiding support Together Not what was promised	Living the new life
Equal but different Meaning of baby	Different parents because of IVF Gratitude Future	Changed perspective Telling baby Expectation/rationale for future plans	Thinking it through

Table 5. Initial longitudinal data analysis

The broad themes were summarised with gerund words, which are verb forms acting as nouns, the 'ing' ending implying a moving towards, and thus corelated well with a study focussing on a journey. They are used within Heideggerian phenomenology as reflecting an 'emerging' of insight, that is that it broadens a horizon, but recognising that there is always more to learn (Dibley et al 2020). From corelating the data of all three couples, four themes were identified: 'Seeking a way' which referred to couples experiences of managing their infertility, IVF treatment, pregnancy and parenthood, 'Returning to the path' which refers to when couples perceived that they were similar to other expectant or new parents, 'Living the new life' which relates to the practical day by day experience of new parenthood and 'Thinking it through' in which couples reflect upon and aim to understand their experiences.

7.5 Initial Time Point Data Analysis

Having undertaken the longitudinal analysis, I then had a break before commencing the time point analysis. This was beneficial because, although I was aware of my findings from the longitudinal analysis, I was able to approach the data afresh. Having already identified the notions drawn from the transcripts, I started to consider those from each of the 34 week interviews under themes and again included the crafted stories. As before an overall summary was drafted, which is shown below:

Data Analysis 34/40

Data gathering *Data existed from all three couples with audio totalling 2 hours 5 minutes. The female partner of the third couple also allowed me access to her personal diary, kept since initially trying to become pregnant. This was useful in gaining background information but was not included in analysis as a similar opportunity did not exist for the other couples.*

Commencement of analysis showed that my comments on emerging concepts from the transcripts were noticeably less for the first couple – the first transcript I had looked at. In view of this I went back to the script to further review my comments. This was useful as although it introduced no new ideas it did subdivide it to highlight more nuanced points.

Process *Eight themes were initially identified: Seeking or finding a way (***)* – the colours relate to different couples, *In it together (***), Pressure (often self induced)(***) Protecting self (***), Telling (**), Control – empowerment (***), Control – external (***) and Reframing (**).*

Crafted stories were then filed against these themes and this process identified another theme, Interaction with others (that related to family, friends and online support. It also identified interactions between, particularly, pressure and telling and protecting self and telling. The stories often reflected more than one theme with stories demonstrating how one theme led to another.

Control did appear to be a central concept at this stage as couples wavered between wanting to be able to 'own' the situation but anxious to do whatever was suggested to ensure the safe arrival of the baby.

Initial Hg thoughts: The idea of control resonates with Hg's work on technology – the push and pull between wanting the effects of technology, but not the process. Protecting self may link with authenticity, they act with thinking to protect themselves. Within finding or seeking a way couples discussed the growing realisation of needing help, their bodies – assumed 'ready to hand' start to announce a problem (although diagnosis was a shock). IVF drug

treatment gave the semblance of pregnancy exacerbating distress for women in particular. Technology and the body as resource (Lambeth 2019)

Within the longitudinal data analysis, I had used a numbering system to identify themes occurring in the first, second and third interviews, within the time point data analysis I used colour, green indicating the first couple, red the second couple and blue for the third. Again, I highlighted some of my initial Heideggerian perspectives; within the 34 week data, technology was being revealed in a way that was hidden within the longitudinal data. This highlights how what we do influences what we get. A unique aspect of this study was the combination of longitudinal and time point data which broadened out the understanding and meaning inherent in the experience.

The process was then repeated for the six-week postpartum data and the three month postpartum data, which was grouped as before in table 5. Fom this analysis four themes also became apparent: 'Getting your head around it', 'Gaining support from others', 'Trying to find our way' and 'Finding a way to be'. The summary analysis of the time point themes is shown in Table 6 below,

34/40	6/52	3/12	Broad themes emerging
Pressure (often self induced) Protecting self Reframing	Uncertainty of labour Unexpected but okay Confusion	'Thinking' about parenthood Gaining information and advice What would have helped?	Getting your head around it
In it together Telling	Two of us together Social support (particularly family) Children as connection	Joint parenthood Connections - Friends Connections - Family Mantalk	Gaining support from others
Seeking or finding a way Control – empowerment Control – external	Making plans Finding our way 'Meaning' of baby	Looking back - Infertility LB- IVF process and pregnancy LB - Managing others Different because of IVF Changed by parenthood Future pregnancies	Trying to find our way
	Moving towards being 'family' Managing Living life Moving forward	Day to Day Baby as individual Work	Finding a way to be
Anxious optimism	Hurdle jumped and moving forward	Seeing the way ahead	

Table 6. Initial Time point data analysis

As before, the themes appeared to show a chronological order as couples seek to make sense of their experiences of initial infertility diagnoses and moving through to their experiences of early parenthood. Despite the several weeks which elapsed between the longitudinal and time point analyses and acknowledging my own perspectives and presuppositions which had been influenced by the prior experience of the longitudinal analysis, it was evident that similar themes were arising. Both 'Seeking a way' and 'Trying to find our way' indicates a searching for means to an end, whilst 'Thinking it through' and 'Trying to get your head around it' suggest an internal dialogue as couples try to make sense of their experience. In considering the remaining themes, there seemed to be a focus on a new way of being that was reflected in 'Living the new life' and 'Finding a way to be' whilst 'Gaining support from others'and 'Returning to the path' relate to the ' how' of couples finding a new way to be. Within the three-month data it became clear that 'Looking back' generated a substantial number of stories.

Although noted at six weeks, it's increasing evidence at my last visit to the couples suggests that they wanted to tell me things that they previously felt they couldn't express (this may be an advantage of seeing couples on several occasions enabling our relationship to develop). The themes identified a spiralling approach as the theme 'Future pregnancies' linked to 'Looking back' and 'Different because of IVF' as couples considered the desire for more children balanced with knowing what it may entail. The significance of these two themes can be linked to the concept of historicity and the expectation of the historical societal norm of having children following partnering. Couples have an ecstatic (outside of itself) temporality towards the situation that was and (in considering future pregnancies) what may again be, challenging our concept of being. Heidegger suggests that in emergency Being emerges (Polt 2006).

Another aspect which I noted from the timepoint data was some of the underlying feelings which seemed to emerge at each stage – at 34 weeks 'Anxious optimism', at six weeks post partum 'Hurdle jumped and moving forward' which seemed to relate to the safe birth and at three months 'Seeing the way ahead'. These also appeared to relate to a progression through an experience and I chose to include them in the table as underlying moods.

7.6 Secondary Longitudinal Data Analysis

Through supervision, it became clear that there needed to be more consolidation of themes. This was not about reducing or tidying up, but a requirement to encourage my thinking onwards towards a higher level of interpretation. I returned to the data to review how pertinent particular themes were for different couples and at different time points, keeping in mind Smythe et al's (2008:1392) guidance that a theme is not something identified several times, but '*something that matters significantly'*. I focussed on the longitudinal data [see Table 7] and colour coded over-arching relational themes (those that occur more than once)

which then resulted in three constitutional themes (those that occur for every couple). This identified three themes 'Seeking a technological path' 'Returning to the path' and 'Journeying on'. The final theme I found difficult to name as I felt it needed to reflect forward motion without implying leaving something behind. Journeying seemed to incorporate the more spiritual aspects of assimilating previous experiences whilst still moving onwards

C and D	K and A	C and J	Relational themes	Constitutive Pattern
Awe +Fortune Violation of expectation Rationalising process Assimilating reality Doubting themselves, but faith in medics Managing questions	Needing reassurance Protection Control Telling others Trying to see the path Someone who understands	Don't stress about it Alternative plans as coping method Together Keep pushing to get help Someone who'll help Happy to talk Memories of stress Is it me? Seeking control	Control Seeking help Managing self	**Seeking a technological path**
In it together, so we'll be okay Finding the way Becoming 'normal' Equal but different Meaning of baby	Needing time to get your head around it Winging it Skilled nurturing Different parents because of IVF Gratitude Future	As long as baby is okay Instinctive parenting Know yourself Delight in 'becoming' Changed perspective Telling baby Expectation/rationale for future plans Not what was promised	Different because of IVF Finding the way	**Returning to the path** (for C+D once pregnant, for K+A an empowering birth, for C+J when home)
Motherhood as bond Family 'Presence' of baby	Structuring the day Responsive relationship Support or mates Social norms of mantalk	'Dad' Day to day To be working parents Personification Technology aiding support	Support from others Moving onwards Mantalk _	**Journeying on**

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Table 7. Secondary longitudinal data analysis

As had been noted in the initial longitudinal data, the theme of 'Returning to the path' appeared to occur at differing times for different couples. As demonstrated in the crafting of stories [see 7.2.1] for Claire and Daniel, once pregnant they considered themselves a 'normal couple'. This appeared at a different stage for the other couples, prompted in one case by an empowering birth and for the other couple, their return home. This theme of 'Returning to the

path', became central to the study and helped determine the overarching structure of the whole thesis in the model of 'pathways'.

7.7 Secondary Time Point Data Analysis

Secondary data analysis of the time point data was then addressed [Table 8]. In the six-week postpartum interview the experience of labour and birth was evident as a key point, something which was less clear in longitudinal analysis, this emerged as a 'stand alone' theme. That aside, the remainder of the themes were aligned with relational themes already identified in the secondary longitudinal analysis and the use of the identical colour coding system helped to clarify this.

34/40	6/52	3/12
Pressure (often self induced) Protecting self Reframing **Managing self**	Uncertainty of labour Unexpected but okay Confusion *Labour as individual theme*	'Thinking' about parenthood Gaining information and advice What would have helped? **Finding the way**
In it together Telling **Seeking help**	**Two of us together** Social support (particularly family) Children as connection **Finding the way**	**Joint parenthood** Connections - Friends Connections - Family Mantalk **Support from others/ Mantalk**
Seeking or finding a way Control – empowerment Control – external **Control**	Making plans Finding our way 'Meaning' of baby **Finding the way**	Looking back - Infertility LB- IVF process and pregnancy LB - Managing others Different because of IVF Changed by parenthood Future pregnancies **Different because of IVF**
	Moving towards being 'family' Managing Living life Moving forward **Finding the way**	Day to Day Baby as individual Work **Bringing up baby**
Mood-Anxious optimism	*Mood - Hurdle jumped and moving forward*	*Mood-Seeing the way ahead*
Seeking a technological path	**Returning to the path**	**Journeying on**

Table 8. Secondary time point data analysis

The chronological flow from 'Seeking a technological path' to 'Returning to the path' and to 'Journeying on' correlated with the generic feeling of the 'moods' previously identified: 'anxious optimism', 'hurdle jumped and moving forward' and seeing the way ahead', I retained these in the overall model as the 'moods'.

An advantage of looking at longitudinal and time point data separately [see 7.4 and 7.5] was the highlighting of subtle differences, for example, 'a' way and 'our' way. 'Seeking ***a***

technological path' relates more to accessing medical intervention necessitating a powerful 'other'. The understanding of ***seeking*** is 'attempting to find', which implies something may not be found; these couples were aware they were fortunate to get treatment and for it to be successful. 'Finding ***our*** way' appeared more pertinent to the couples' management of parenting - it is in their own hands. ***Finding*** our way acknowledges there are several possible ways to parent; these couples, in common with all new parents, were looking to find one that worked for them, not a proscribed 'method' but a way of working together which felt right for them.

As a key feature of hermeneutic inquiry is the movement of the researcher between the parts and the whole (Benner 1994), the data as a complete set was reviewed, and a further theme was identified - 'the failing body', which was primarily a maternal concern and reflects feminist issues previously considered [see 2.3]. The hermeneutic researcher needs to move between getting an understanding of anothers lived experience (more visible in the parts) and withdrawing the gaze to an interpretive perspective (more evident in the whole). It may also be that the couple interviews and use of joint data in the analysis had hidden this particular theme and it was only in putting the data together as a whole that it was unconcealed and became visible. Similarly, the concept of togetherness, which cut across all the constitutive themes may reflect the method, specifically the couple interviews, used. The overall model was devised to reflect the significance of the couple relationship as the backbone of the transition process, not as an undermining of individuality or to critique those who opt for single parenthood, but recognising that within this study, the use of couple interviews in particular highlighted it. The experience of birth remained a clear highlight separate from themes but its significance in the transition process needed to be noted within the model. The overall structure is indicated below in Figure 8.

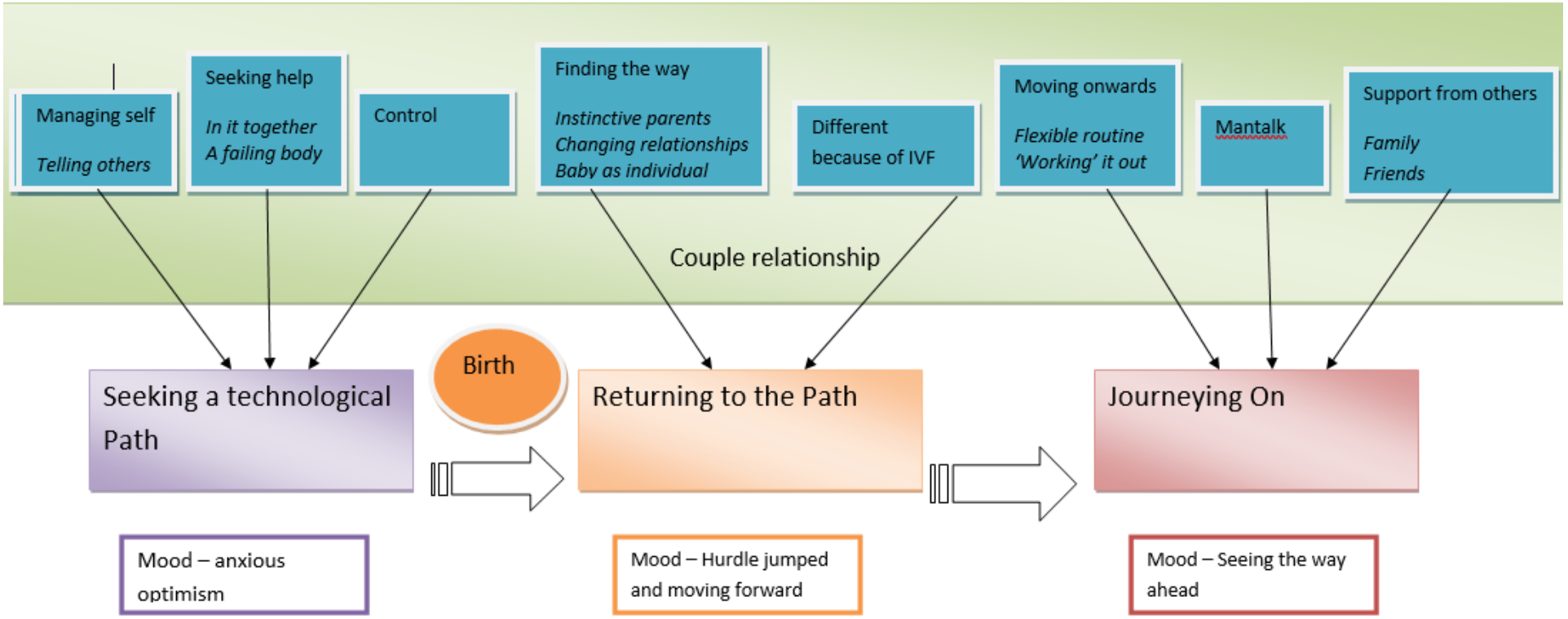

Figure 8. Diagrammatic explanation of the data analysis.

7. 8 Participants

Although traditionally placed at the start of a results chapter, I have chosen to provide the demographic details of the participant couples (using pseudonyms to protect identity) here [Table 9]. This enables the reader to commence the subsequent chapters, which focus on the experiences of the three couples, knowing a name and brief outline of their situation and aiding engagement with their data. Although fulfilling the inclusion criteria each was offering their own unique stories; differences of class, place of birth, length of relationship and obstetric history all influenced their understanding of being in the world.

Pseudonym	Age	Ethnicity	Employment	Length of time trying to conceive	Previous pregnancies	IVF attempts
Claire	30	British Caucasian	Import clerk	4 years	None	One
Daniel	30	British Caucasian	Builder			
Karen	29	British Caucasian	Human resources researcher	4 years	None	Two
Alex	29	British Caucasian	Information Technology			
Carla	30	British Caucasian	Pastry chef	5 years	Two previous miscarriages	One
Jakub	30	Eastern European	Chef			

Table 9. Demographic details of participants

As shown in Claire and Daniel's longitudinal data summary [see 7.3] an appreciation of a couples' specific background contributes to drawing meaning from the data and its interpretation. For Claire and Daniel, the fact that they both came from large families within a small geographical area and that they had known each other since they were children was significant. In contrast, Jakub was from Eastern Europe and his parents (who were separated)

were still there. Carla had no contact with her mother and implied, but did not state, a difficult childhood. They appeared to have more limited social support and were renting their present house. They intended to (and did) move shortly after my last interview with them to be closer to her father and stepmother 150 miles away. For them, the previous two miscarriages remained significant and were referred to (often enotionally) in each of the interviews. Karen was a researcher herself and her motivation for wanting herself and Alex to be involved felt related to her belief that 'data's important'. Karen and Alex's interviews, particularly the first one, felt slightly different to the others in that they wanted to explain what they felt would be helpful for parents in similar circumstances. The repeated interviews which further developed rapport seemed to help this as they got to know me and again demonstrates an advantage of repeated interviews. In contrast, I sensed that for Claire and Daniel and Carla and Jakub there was a sense of wanting to talk about their experiences, possibly in a more cathartic way.

This background information on the couples is included here in recognition of the reader's involvement in the hermeneutic circle of understanding. Whilst I was priviledged to meet the participants, I feel a responsibility to portray accurately the stories that are their's and, whilst acknowledging my own involvement in the emerging insight, it feels important that the reader who is also adding their contribution to the understanding, maintains the participants at the centre.

7.9 Conclusion

The title of this chapter, 'emerging results' was carefully chosen, although hermeneutics is less concerned with results than with continuation of a conversation (Rorty 1981), which focuses on that which is less seen. The scientific term 'findings' was dismissed as it implies outcomes required searching for, rather than the Heideggerian concept of revealing or

showing themselves. Crowther (2014) uses the term ‘poesis’ or making, in that something is formed by interpretation. However, I have chosen the term results, from the dictionary definition ‘consequence of’ - the consequence of the fusion of horizons of participants and researcher.

The acknowledgement of methodological decision making and how it may influence the study is as important as the acknowledgement of the forestructures with all experience shaping findings and interpretation. The chapter introduced the participants and demonstrated the correlation between Diekelmann et al (1989) and my own data analysis. It shows (Figs 5, 6, 7) the practical undertaking of the data analysis which was a tactile and intuitive process. Tables 5 and 7 for longitudinal data and 6 and 8 for time point data indicate how relational and constitutive patterns were revealed, which is summarised in Figure 8. It is only through having an appropriate and thorough process can the emerging themes in subsequent chapters be considered meaningful. Participant details are included in this chapter to emphasise the concept of the data as arising from and specific to the context of these couples’ lives – the Being-in-the-world that Heidegger refers to. Thus, they are part of the analysis, not just part of the findings.

Prequel to Findings: The Paths

The term 'The Paths' was identified because for the couples in this study their experience of becoming parents was portrayed as a journey on a path of meaning making. Heidegger frequently used peregrination titles for his work, writing which Steiner (1989) describes as slow and meandering to encourage us to think deeply. The concept of 'journey' is also a common one in the literature surrounding both the experience of assisted reproduction (Hinton and Miller 2013, Mounce 2017) and of parenthood (Barnes and Balbir 2007, Dahlen et al 2010, Leese 2016). The concept of paths is about always looking at the possibilities ahead of us.

The subsequent three chapters (Chapter Eight, Chapter Nine and Chapter Ten) focus on the relational themes and the constitutive patterns which emerged from data analysis, moving chronologically from couples retrospective recognition of a fertility problem to their assimilation into parenthood, reflected in the aforementioned moods: 'anxious optimism', 'hurdle jumped and moving forward' and 'seeing the way ahead'. Heidegger reminds us that we are always 'being in the world' and consequently emerging horizons are always co-constituted with existing literature. Therefore, the subsequent three chapters will consolidate the emerging data with existing literature and a Heideggerian perspective, creating new insight to broaden our horizon of understanding. Research should always work with prior knowledge to progress and gain additional insight on the topic area (Letherby 2003).

The chapters present the emerging insight and uses data extracts to illustrate points. Data extracts are indicated by italics, with the names and number at the end showing which couple and which interview (1st, 2nd, 3rd) it refers to. Although at times the quotes clearly refer to one parent or the other, it is recorded as both names in the interview to reflect the context in which the information was shared; joint interviews producing insight different to that which

may be given in individual interviews. The data has shared ownership, even if offered by one parent. The use of quotes both illustrates findings and enable the reader to consider their own interpretation, aiding co-construction. Chapter Eleven discusses how findings interact with existing studies, Heideggerian concepts and researcher reflexivity to broaden horizons of understanding. The findings chapters commence with an extract of the data analysis diagram (replicated below), indicating the themes to be addressed and how they relate to the others.

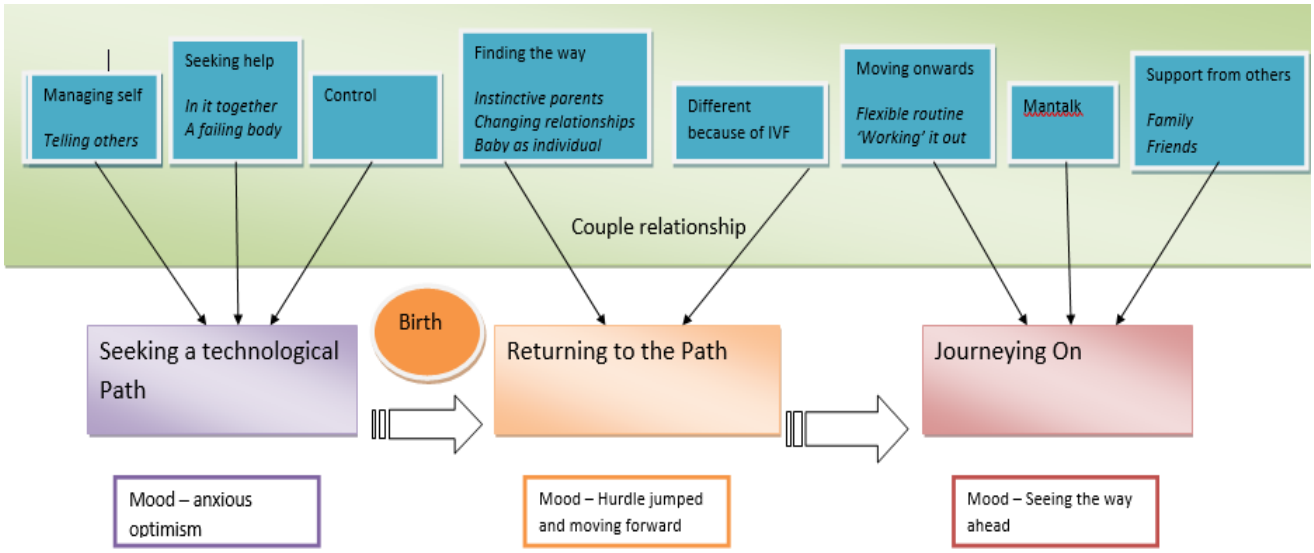

Figure 8. Diagrammatic explanation of the data analysis.

Chapter Eight. Seeking a Technological Path

But the hope, the burning hope and the road, the open road

Masefield (1903) The Seekers (adapted by Dyson 1935)

Chapter eight focuses on the first constitutional theme 'Seeking a technological path'and it's associated mood of 'Anxious optimism'. The relational themes of 'Managing self' (with 'telling others' as a sub theme), 'Seeking help' (with 'in it together' and 'a failing body' as subthemes) and 'Control'. These are indicated in the diagram below [Figure 10], an excerpt from the overall model. This chapter also includes the section on birth which represented a key point for all the couples but fell outside of the development of themes as being unique and of itself.

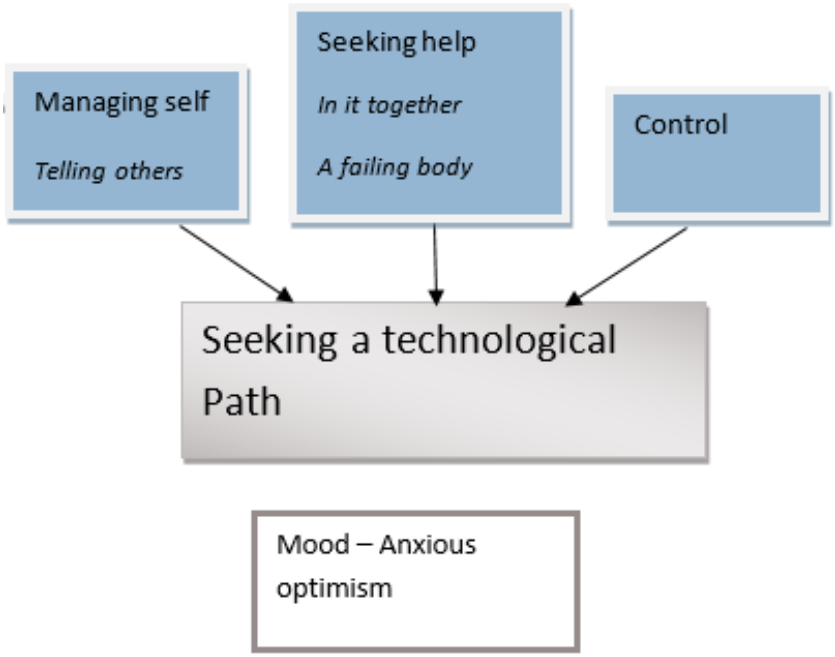

Figure 9. Theme 1. Seeking a Technological Path

'When we were actually told it might not happen, and we might need IVF, it was a bit of a shock' (Claire and Daniel 1st)

Seeking a technological path reflects how couples managed the experience of infertility, and the technological interventions of IVF and considers how they sought to make sense of and assimilate those experiences. ***Dasein*** (as human being) is the only entity which 'leads' its life - it is concerned about itself and the interpretation of its being (Mulhall 1996).

Within the data is evidence of couples thinking through their experience (potentially facilitated by the interviews themselves) and developing a narrative to explain their experience to themselves, using language to try and understand and assimilate it. Although psychosocial counselling is available within clinics, most couples negotiate their own way through this (Boivin et al 1999, Marcus et al 2007, Payne and van den Akker 2016). Narrativity is proposed as a way to make sense of our experiences and locating them within our **temporality** (Ricoeur 1984-88) and has been used in psychotherapy to help individuals understand potentially traumatic experiences (Polkinghorne 2004). Heidegger's concept of Dasein was being that is always *in* the world and consequently seeks to understand experiences *as* its world (Freeman 2007). Rationalising and understanding their experiences gave participants a means of 'seeking the path' (Becker 1994).

At the time I first interviewed the couples there was no reference to 'why us?' if that had been how they felt, they had moved beyond it and instead spoke to me about the stages they'd been through in getting to IVF. However, in the final interviews there was more reference to the frustration of being unable to conceive and needing IVF retrospectively [see 8.2.2]. The unanticipated situation of involuntary childlessness was addressed by management of self and

engagement with healthcare services, which drew them down increasingly technological intervention.

8.1 Managing Self

Management of self involved a range of practical and psychological coping mechanisms exercised prior to and during treatment. This included, for Carla and Jakub, having alternative plans:

'We had Plan A, Plan B and Plan C. If we weren't able to have children, then we were actually thinking about moving to Australia' (Carla and Jacub 3rd).

Increasing knowledge as a coping mechanism was pursued by Karen in undertaking research on the internet, whilst Carla and Jakub sought information at a Fertility Fair, although they found it overwhelming at the time:

'We went to the fertility show but it felt they were talking in a foreign language. The people there seemed to be older or had been trying for 5 years and knew the research and everything. I didn't even know what IVF stood for, we just went to find out and it was too much information, too complicated' (Carla and Jakub 3rd)

Increasing knowledge can be seen as an effective psychosocial intervention (Boivin 2003). This proactive approach appears to relate to gaining control [see 8.3] within a situation they've been unwillingly thrown into, it represents a problem-appraisal coping mechanism associated with reduced stress levels within the high stress process of IVF (Gourounti et al 2012). Trying to remain positive was expressed by Claire and Daniel who felt supported by others such as her mother's prayers, and good luck charms:

'I remember my friend, she gave me a, she gave me a little bracelet before we started the IVF and said oh like, 'just wear this every day', I have it in my car now, I won't take it out either. My other friend she gave me a fertility stone' (Claire and Daniel 3rd).

All of the couples said that they would have been prepared to pay for IVF if necessary - although the possibility of still not being successful did not seem to feature within that.

Thrownness is both a feeling and a situation which we enter into accompanied by our previous experiences and expectations (Freeman 2007). This is influenced by Heidegger's (1962) ideas of both ***historicity*** – our pre-existing culture, practice and tradition we are born or socialised into and our ***temporality*** – our own unique past, present and future, and how we pursue possibilities within that. The recognition by friends and family of what it means to the couples indicates the shared historicity between them. 'Chronos' or clock time reflects time as both an individual concept:

'*People used to say, 'you two have been together the longest, why have you not got a baby?' (Claire and Daniel 1st)*

and also a societal concept, in that the assumption of IVF – unheard of 40 years ago, was an expected option (Katz Rothman 1989) and also one reliant on time, shown here in Karen's frustration at the length investigations took:

'Even early on I think I felt like it was going to end up in IVF' (Karen and Alex 1st).

The response to infertility is to turn to technology and for the couples in this study there appears to be minimal discussion about this (although Karen later reflects on how the birth reassured her they had '*done the right thing*' something she appears not to have been able to verbalise previously). Heidegger considers that we are naive about technology assuming that we can use it for our own purposes, without considering the full consequences – in providing

the possibility of a child it becomes an expectation, despite a degree of physical and psychological risk arising from it [see 11.4].

8.1.1 Telling Others

One way in which couples tried to manage or protect self was in trying to control what information about their infertility or IVF they shared with others and if telling, who with and how much to say. Claire and Daniel and Karen and Alex both referred to discussions between them about to whom and how much to say. Whilst couples found that sharing brought support, it also increased pressure, as a greater sense of expectation was placed on them, as Karen describes:

'We had quite a lot of conversations about, 'what are you saying to people' to match up with what I'm saying. It was almost as stressful as the original situation, we're very open people normally, but it just felt like this was a topic that you shouldn't be open about, it was quite a…difficult subject' (Karen and Alex 1st)

'When we did tell people more about it, it was great to have people to talk to, but it also came with a pressure, because then people wanted to know how you were getting on. We were not telling them exactly where we were in the process, giving ourselves a bit of a buffer.....you feel you're letting everyone down, even though they wouldn't see it like that. You know, it's a disappointment for us but it's a disappointment for everyone else and it was me that had to tell everyone that. So I think I was trying to protect both us and them' (Karen and Alex 1st)

Work was a particularly difficult area, as time off work for IVF appointments was required, which, for Karen, was exacerbated by feeling that the effects of the necessary hormone medications affected her ability to perform her job. Payne et al (2018) identified the balance

between telling employers to enable the necessary time off and maintaining privacy was an issue for IVF patients, exemplified by Claire below, and suggest specific workplace policies would help.

'Sometimes I wish at work, I'd told more people, now that he's here I'm glad that I didn't tell everyone but some days I felt like I just need to wear a badge, that would say 'don't say anything baby related to me' or 'don't ask me how I'm feeling' (Claire and Daniel 3rd)

In contrast, Carla and Jakub felt that they were happy to talk to people about their IVF treatment. It may be that for them the previous miscarriages meant that they did not identify with the potentially stigmatising label of infertility.

Control and management of self relate to solipsistic concepts, however Dasein's Being is ***being-in-the-world*** relates to the role an individual occupies in relation to others – family member, friend or work colleague (Mulhall 1996). ***Authenticity***, as in active engagement with one's situation may occur when a personal issue becomes particularly pertinent (Moran 2000). It requires an acceptance or 'owning' it and is evident in the data as couples stand back and think through their rationale for telling others. A desire for disclosure – for practical or emotional support, is balanced with a sense of it being 'private' or stigmatising.

8.2 Seeking Help

All the couples initially sought help from their GP who acted as gatekeepers to further services. Both Karen and Alex, and Carla and Jakub felt that they were being delayed in referral to secondary services despite what appeared to be recognised NICE guidance (2013) being followed by their doctors:

'There was a huge learning curve, 'cause we hadn't really known anything about it beforehand. The process is really long when you first go to the doctors before you actually

get anywhere near IVF - there's a lot of waiting around and that was quite frustrating, and a lot of tick box exercises I found. I had six month's worth of Clomid which made me sick a lot so that was tough, really tough' (Karen and Alex 1st)

'You take tablets or supplements to try and help you, you've got these ovulation sticks or the temperature probe you know you've been trying all these other things just to know when you're ovulating but nothing. It feels like a mission, you have to go and push otherwise they tell you you're fine and send you out the door' (Carla and Jakub 1st)

This contrast between couples feeling fobbed off, whilst GPs felt constrained by policy, was highlighted by Hinton et al (2012). The frustration at the drawn-out process of intervention was, for Carla and Jakub, further exacerbated by the dilemma of not being able to access infertility treatment because of previous miscarriages and not being able to have investigations for miscarriage because of secondary infertility.

Distress is evident in these accounts as expectations of the body are frustrated – so couples turn to (indeed expect) technology to help find an answer for them (Lambeth 2019), reflecting society's faith in medicine. For Heidegger, IVF was unknown and yet he considered technology in general and the relatively thoughtless way we seek it, looking to technology without considering the individual (Heidegger 1977). For Karen, her distress was exacerbated by the **semblance** of pregnancy that medication caused:

'*when you're being physically sick from the drugs and you're not drinking (alcohol), people just assume you're pregnant all the time, I found that really stressful (Karen and Alex 1st)*

Heidegger (1962:51) claims *'only when the meaning of something is such that it makes a pretension of showing itself - that is, of being a phenomenon - can it show itself as something*

which it is not'. The significance of possible pregnancy is recognised by Karen's friends and family, and it is only the passing of time that shows that it is not what appeared.

8.2.1 In it Together

A sense of being 'in it together' was cited as both a way of managing the stress of IVF, coping with labour and a reason for finding early parenting enjoyable and is evident throughout all the accounts. Studies indicate significant stresses caused by infertility on marital relationships, potentially leading some couples to separate during investigations or conversely for others to become closer (Hammarberg 2008a, Tao et al 2012):

'He came to all the appointments with me, because I was always quite emotional and (to be fair, we were both going through it so..). It was nice to be with each other and go through it together' (Claire and Daniel 1st)

'We always went together for the IVF appointments we felt we're in this together so it was important for us to experience this and to remember all those little bits' (Carla and Jakub 3rd)

Whilst Heidegger refers to Dasein as a priori category, it is clear that **being-with** (that we are always in a world inhabited by others which influences our sense of self) or being-in-the-world (that everything we are conscious of is because of our existence here and now) is culturally constructed through interaction with others (Molina 2018). The influence of friends and family is referred to in 9.3 but the partner relationship is intrinsic within this study, providing the rationale for joint interviews and is evident throughout. A sense of togetherness was identified by Warmelink et al (2016b) and Reimann (2016), emphasised within her study by IVF being sought within a politically unsupportive environment. Temporality reflects couples' previous experiences - individually and as a partnership, together with the

possibilities of the future and through this the couple relationship is co-constructed using interaction and negotiation (Molina 2018). Contemporary meaning-making sets the groundwork for the emergence of the new relationship as a triad rather than dyad, and of future possibilities within that.

8.2.2 A Failing Body

Although not identified in individual analysis, when bringing the data set together as a whole, a feminist perspective of the failing body became apparent. All of the mothers felt an additional pressure on them as they related the infertility to their own body 'failing' (despite no evidence of underlying cause in either partner), and felt responsible for IVF succeeding:

'I probably felt, because it was my body, I was thinking, 'come on' like my body needs to work, it needs to do this for both of us and it is a big thing to put on yourself' (Claire and Daniel 3rd)

Similar findings were identified by Walker et al (2017) with IVF failure compounding the stigma of infertility. It appeared that the previous unsuccessful attempt for Karen and Alex and previous miscarriages for Carla and Jacub increased the pressure on them in a way that was less apparent for Claire and Daniel. For Carla the miscarriages together with secondary infertility left her:

'not feeling like a real woman' (Carla and Jakub 1st)

The philosopher, Merleau-Ponty (1995) was heavily influenced by Heidegger and wrote extensively on corporeality or the lived body. For him, our perception of our bodies connects us to the world and is influenced by context – space, time and language, thus we are 'towards-the-world'. It is characterised by a concept of what our bodies can do reflexively; for the couples in this study, particularly felt by the women, their bodies cannot do what they

expected of them. It is in the **absence** of pregnancy that a problem is **announced**. Their perception of their bodies is influenced by its subjectivity and it's situatedness in the world as they see it (Toadvine 2019). The process of IVF put additional pressures on women's bodies, in the effects of the hormonal interventions and on their psyche (Finiello Zervas 2003, Cowan 2003, Lankreijer et al 2019). In addition, the breakdown of the process of conception into different stages provided many more opportunities to 'fail', in producing eggs, achieving fertilisation, successful implantation and ongoing pregnancy:

'They collected five eggs and we were worrying 'are they any good?' We were in the cubicle and we could hear that others had twenty, and I was like 'oh, what is wrong? I haven't produced enough' (Carla and Jakub 1st)

*'Then, when we went in they took thirteen (*eggs), *and when it came to the day (*for embryo replacement) *and she said, oh there's only one, I thought 'what? How…?' Thirteen came out, eleven survive, but only one was good enough quality to go in, and I was thinking…I almost felt like, what is the point?' (Claire and Daniel 3rd)*

Within spontaneous conception, the processes of ovulation, conception and implantation occur in an unacknowledged place and time, the body's capabilities functioning without constant monitoring. However, for these couples, awareness was constant. Once pregnant Claire and Daniel appear to relax more – for them discharge from the Assisted Conception Unit (ACU) reassured them that they were '*like any other normal couple now'*. Discharge by the ACU epitomises one more hurdle couples negotiate, each one marked by 'cautious joy'. (Toscano and Montgomery 2009:1023). Despite becoming pregnant, ongoing fear of their body's ability, evidenced by Karen's pregnancy related anxiety and explained here by Carla:

'I'm more worried about the baby being inside me because I don't trust my body but when the baby's coming out I'm going to be fine' (Carla and Jakub 1st).

The development of the baby's body schema, traditionally considered to commence at birth is argued by Lymer (2011) to commence during pregnancy as an affectively structured process based on habitual responses; for example fetal movement and a mother's response to that is the start of an interaction. It is possible that the cautious, potentially delayed acceptance of the pregnancy, because of self protection may affect that interaction. Increased anxiety in pregnancy has been identified by Allan et al (2019b) in their retrospective study and McMahon and Gibson (2002) and Gameiro et al (2010a). Only in retrospect could Karen fully express her underlying anxiety that for them it was 'not meant to be' with an empowering (satisfying and confidence building) birth helping her acceptance:

'I felt the way my body had failed so miserably in the conception, I was really worried that it was also going to fail me in the labour, and that maybe my body just wasn't designed to have a baby. The fact that I actually managed to do it all naturally myself was a bit of reassurance that we had done the right thing. Sometimes I'd have this little wobble that maybe we shouldn't have interfered with nature and were we doing the right thing? Was there going to be something wrong with the baby because we're going through IVF?' (Karen and Alex 2nd)

The female partners taking responsibility for blame which appears to be reflected here resonates with Bell's (2015b) study of both men and women's experiences of infertility. Similarly, the men within the study felt responsible for not being able to help their partners and felt the gendered pressure to be the 'strong' one, which in itself supported infertility as a 'women's issue'. Jakub felt a helplessness and both he and Daniel recounted wanting to be involved as much as they could to support their partners:

'I think for Carla it was worse, she gets stressed more easily and no matter how confident you are, you always think a little bit less about yourself - that was really hard I just didn't know how to help or anything' (Carla and Jakub 1st)

'Because it was her body, I felt I needed to participate in something, you know, so that was me having control of the needles and all that....(Claire and Daniel 3rd)

Merleau-Ponty's consideration of embodiment provides insight when considering couples experiences of infertility and IVF and provides some explanation for how body and self are intertwined. For these couples, the body, although available, is viewed as malfunctioning - although present at hand, it is not ready to hand. Clarke et al (2006) identified similar responses in considering the body as a failing machine, which goes on to affect the concept of self.

8.3 Control

The experience of infertility is characterised by a lack of personal control, often commencing prior to referral as the anticipated pregnancy does not occur (Cousineau and Domar 2007). That loss of control, over both one's own body and the medicalisation required to achieve one's goal, was an aspect couples sought to address by attempting to control that which they could.

Self preservation through maintaining control was important to all participants; for Claire and Daniel an external locus of control was evident, although doubting themselves, they had faith in medical staff and control was achieved by following their guidance precisely:

'I suppose the thing that was going through my head was 'if we do everything by the book, as how they do it, at the times they say, and it doesn't work, then we've done everything' we've done our best' (Claire and Daniel 3rd)

For those who never achieve a child, adaptation to childlessness can be aided by 'at least we tried' (Toscano and Montgomery 2009, Bell 2013) and this seemed to be a rationale for

Claire and Daniel who later show frustration at another client in the ACU who did not take her medication as prescribed.

For Karen and Alex control related to ensuring the doctors were aware of their specific situation at each antenatal appointment:

'I feel the pressure is on me to make sure that I get them to look at the right things in the notes I think 'oh have they seen that bit? Have they seen this bit? Are they thinking about that?' I just feel like I need to go very prepared, and make sure that I'm pointing them in the right direction, which is ridiculous because obviously they know what they're doing more than I do but I just feel like I can't give them all that control.' (Karen and Alex 1st)

For all the couples, control was evident in the use of checklists, plans and countdowns with reference to them both in pregnancy and in early parenting. For Carla and Jakub this was physically evident throughout her diary and the whiteboard they showed me on the wall. Although not unusual for first time parents, it may also enable couples to regain aspects of control from the previous experiences of IVF in which appointments, timed medications and intercourse itself were structured.

In parenting, the use of lists and plans was used to structure their day, particularly for Karen and Carla. Dasein is about understanding itself and the world 'by its own possibilities for being' (Heidegger 1962) – projective understanding. List-making may be a way of showing those possibilities, a way to regain control when the possibilities appeared to be in another's hands. '*As projecting, understanding is the kind of Being of Dasein in which it* ***is*** *its possibilities as possibilities'* (Heidegger 1962:185).

Claire had regular plans of visiting friends and family, and whilst Carla had rough notes scribbled on a whiteboard, for Karen those plans were quite structured:

'I normally have a plan for the day, but I know that the plan might not go ahead, and then we have a backup plan..... I always have everything planned the night before with what we're going to do and I get everything organised the night before. I do a lot of prepping for things and I've found that is the key really to the next day going smoothly. If I need to I stay up late to get everything sorted for the next day, otherwise you start the day behind already, and then it's very difficult to catch up' (Karen and Alex 3rd).

The lack of control in ART (Gourounti 2012, Bell 2013) is a consequence of the **Technology** that Heidegger (1977) refers to. He describes it as manipulation, potentially exploitation, of nature and of using those resources to our own ends and encouraged individuals to think through the implications of technology. This thoughtfulness on process can be seen more clearly for the study participants in the retrospective reflections on their experiences, at a time when they had moved beyond the vulnerability of treatment and pregnancy. In the initial interviews it appeared that they entered IVF relatively unthinkingly, potentially influenced by popular media portrayal or alternatively, protection of self meant that they were reluctant to voice any concerns. For these couples - particularly Karen and Alex, and Carla and Jakub - it was themselves rather than the medical profession pushing for the desired technological intervention, reflecting the medicalization discussed in Chapter two. Whilst couples aim to gain control by accessing medical intervention, the response is an increasing objectification as the body becomes the site of bioscientific investigation, reflecting differing horizons of the clinician and patient (Toombs 1987) – the consequent fusion of horizons explained by Karen as '*a huge learning curve'*. This objectification relates to a medical appropriation of the body leading to a sense of 'alienation' (Young 1984) which may exacerbate a potential disconnect between the woman and the pregnancy. Thomson (2011) in her study of traumatic birth suggests that a woman's sense of becoming a mother was concealed by the technological thinking surrounding birth. Thus, despite an assumption of technology and IVF as an

appropriate response to infertility within contemporary society, it's 'otherness' continues to exert an influence on couples during pregnancy in the meaning they ascribe to it and to the point at which they return to the path of transition to parenthood.

For these couples their assumptions of partnering being naturally followed by parenting had been violated, when they commenced trying for a baby, they had assumed or expected that pregnancy would shortly follow. Heidegger (1962:306) suggests that *'Even in expecting, one leaps away from the possible and gets a footing in the real. It is for its reality that what is expected is expected. By the very nature of expecting, the possible is drawn into the real, arising from it and returning to it.'.* Temporality is always about future possibilities. Having planned for a baby, couples are already considering the possibilities of the perceived future, and not being able to achieve that is to leave the path they foresaw. If temporality is the understanding of current time as the moment between past and future time, then the knowledge of an altered future, similarly causes us to reflect differently on our own past, as Claire muses: '*growing up you never imagine you're going to need IVF*' as she goes on to relate the fecundity of her parents and siblings. Svenaeus (2011) suggests that illness can alienate past and future, with time narrowing to a focus on the present, this may lead to the desire for a child becoming all-encompasing during treatment and a focus that causes more prolonged anxiety during the antenatal period. This unease or 'unhomelikeness' (Svenaeus 2011) leads Dasein to feel alien or out of sync with what was expected and reflects the concerns of Karen and Carla in particular in their worry of their bodies ability to protect the baby.

It appears that this unease or 'otherness' of process remains with couples as they progress through the pregnancy to birth. It encompasses the physical discomfort and stress of technological intervention (particularly for the mother) as well as feelings of self-directed blame. The use of coping mechanisms for themselves and decisions on information sharing

with others were areas in which the stress was mediated by a sense of 'being in it together' and supporting each other. A supportiveness that each refers to in their descriptions of the birth.

8.4 Labour and Birth

Labour, as expected was an important discussion point in all the initial postpartum interviews. The experience of birth was different for them all but was revealed in the data as an 'Uncertainty' – not knowing how it would be or if it was 'normal', but also 'Unexpected but okay'. The word 'confusion' was used by Karen and Alex in the immediate postpartum period in being moved from delivery suite to a ward, and also by Carla and Jakub as staff were concerned about Carla's condition. For them, confusion over advice during readmission proved particularly upsetting.

In common with all new parents, particularly for mothers, was the need to talk about the experience of labour as a form of assimilating the experience (Sullivan 1997, Farley and Widmann 2001, Callister 2004, Dahlen et al 2010). The presence of rehearsed speech, as in a story repeated to oneself and others, which Reissman (2008) refers to as performance narrative, is evident in response to being asked – tell me about the labour.... For Claire it starts with *'on Wednesdays I usually go to yoga... '* and, for Carla, *' it was 8 o'clock – I remember because it was Grandad's watch..'*

More extensive quotes are used here to show insight into the couples' experiences to aid understanding and co-construction. Heidegger's use of the word **Ereignis** may be useful here; '*an event that is my own'* (Polt 1999:147); that is, it happens, is interpreted by and belongs to the person experiencing it - an event in which understanding may be reviewed.

For Claire and Daniel, a long latent phase at home, which the couple found both stressful but also bonding, resulted in a caesarean section shortly after going into the hospital:

'We'd talked about it - whatever's best for baby - so, okay if he has to come via C-section then C-section it was. We had had the two days of sitting together with me moaning and being sick in labour and I just wanted him here safe'

'There was no fuss and they never made me feel that it wasn't going to be okay. I don't feel any negativity about having a caesarean I'd loved to have seen what it'd be like to have given birth, but he's here, he's safe and he's pretty amazing really'

'He was completely fine, that's what she (midwife) said, he was completely fine. I could hear it all, but I just felt such a relief, I didn't feel anxious about anything' (Claire and Daniel 2nd)

Karen and Alex were expecting (in a way hoping) for an elective caesarean section, but the baby turning from breech presentation to cephalic presentation changed the plan and they had an induction of labour which led to a normal delivery which she found 'better than I expected':

'All the time that we didn't have a plan, that was making me feel anxious but as soon as like, they gave me a date and said 'we're going to induce you on that date', it was fine'

'The worst bit for me actually was the waters breaking, it's just so messy. I had to be attached to the CTG monitor, they kept struggling to find a heartbeat, and with every contraction, the heartbeat dropped. One midwife was worried about it and then we had a switch of midwives, and the other one came in and was like 'actually that's quite a regular thing' as long as it coincided with each contraction, it made sense. So they were happier after that but it was a bit scary at the time'

'Knowing that I did it all, pretty much myself, gave me a real boost. I still would have been pleased even if I did have pain relief, I wasn't against having it, but it was just an additional boost knowing I'd done it myself … I'm quite proud of myself'

' I don't know what I really expected when she was very first born. I think for me, I was just a bit …shell-shocked by it all. I didn't really feel like I was present, I don't know if it was the drugs or the fact that I'd been up all night, I was just exhausted probably' (Karen and Alex 2nd)

Carla and Jakub had the planned waterbirth which followed a short but painful labour, only for Carla to be unwell afterwards because of haemorrhage. The experience of maternity care for them was worsened by needing readmission for suspected raised serum bilirubin levels in the baby, and receiving conflicting advice on breastfeeding during that time:

'She was in the pool and we were just talking about other analgesia, and then the midwife was just looking at Carla and she said if your body tells you that you want to push then just go with it. It was like the light bulb in my head and I thought, wait a second is that actually happening now? The midwife said okay, you can start pushing now and then it was, wait until the next contraction and it's going be the last one and that was it, the baby was there in the water and I was just looking at the baby in the water because it was just underneath, and the midwife said you can take the baby'

'Later, when I was breastfeeding her, I felt really bad pains and started shaking. My blood pressure dropped and I went really white. Baby was fine, so she was pushed to the side and then as soon as I stood up lots of blood came out.

That was the hardest time, at least for me (J), it was the most difficult because the baby was fine but what about mummy?'

'It was 10 o'clock at night that they discharged us but then the next day we went back into the hospital because the midwife came and said (baby) was looking yellow..... I felt really bad because I was just doing what I was told, it was just really bad communication and I was getting so frustrated explaining the same thing over, I don't know how many times and over again. We were there another 3 nights - that was really horrible, really long' (Carla and Jakub 2nd)

For the couples in this study an, albeit wary, enjoyment in pregnancy was tempered by an apprehension of birth, but also an excitement in the event and all that it represented. Whilst nervousness of the unknown birth is common for all expectant couples, there are hints within these couple's accounts of that anxiety influencing their enjoyment of pregnancy which may have been influenced by the technological path required to get to that point. This reflects existing literature (McMahon and Gibson 2002, Hjelmstead et al 2004, Gameiro et al, 2010a, Gourounti 2015). Similarly, Sandelowski (1993a) identified that previous violated expectations meant that IVF couples moderated their expectations of labour, focussing instead on safe delivery of the baby rather than rewarding birth experience.

8.5 Conclusion

With a focus on the couples' experience of infertility, IVF conception and pregnancy 'Seeking a technological path' suggests a wariness in these parents of being able to think too far ahead and an attempt to regain a degree of control in the face of both social expectation and the necessity of medical intervention. Active management of self in seeking control, including consideration of support from family and friends appears to be used as a coping mechanism by couples. The key source of support is a turning to each other and a sense of 'in it together' which continues throughout the transition to parenthood. In considering the first of the secondary objectives, *whether parent's perceptions of their previous experience of*

infertility and associated interventions influence this transition? it can be shown how an ongoing understanding of future influencing past and past influencing future is demonstrated in temporality. In common with existing literature (Hammarberg et al 2008a, Gameiro et al 2010a, Gourounti 2015, Allan 2019b) there appears to be an increased anxiety in pregnancy, focussed around the baby's survival and a degree of delay in anticipating imminent parenthood, resonating with previous findings (McMahon et al 1999, Allan 2019b). Key Heideggerian terms of temporality and historicity are implicit within this as couples try to integrate and assimilate their experiences into their broader understanding. The couple's experiences of labour as Ereignis, an event which causes significant readjustment to their Being, concludes this section.

Chapter Nine. Returning to the Path

When I've had a week of twelve a.m. three a.m. five a.m. wakes

A new mum awake in a zombie-like state

When you do go to sleep

And I need to sleep too

I spend another three hours just staring at you

McNish (2020:112) Stupidly Awake

'Returning to the path' is the second constitutive theme and relates to parents coming to terms with new parenthood. Following on from the birth, the underlying mood is of 'A hurdle jumped and moving on'. The relational themes are 'Finding the way'(which is sub-divided into 'instinctive parents', 'changing relationships' and 'baby as individual') focussing more on experience – illustrated by the McNish verse above and 'Different because of IVF' which is a more reflective consideration.

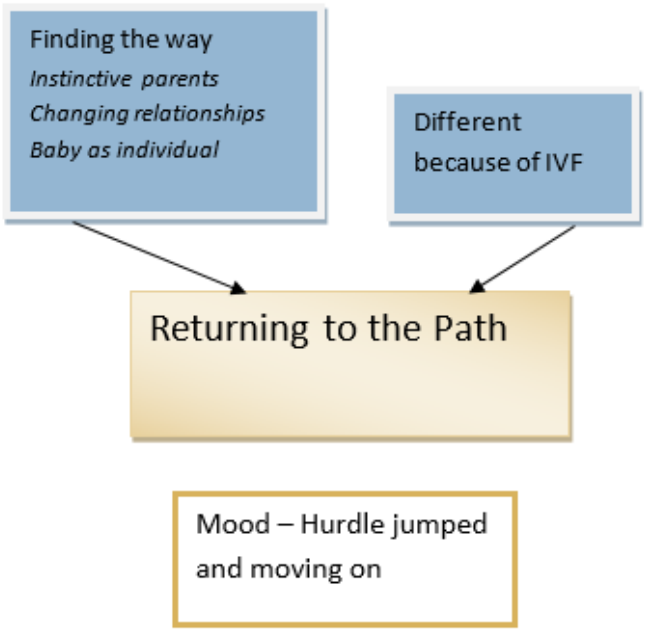

Figure 10. Theme 2. Returning to the Path

'Now, it feels really good, she's a little angel. I feel like a mummy. I felt like a mummy for ages but now it has finally happened and it's just, I'm so happy' (Carla and Jakub 2nd)

The concept of 'Returning to the path' was the perception of being 'normal' or similar to other couples who had conceived spontaneously. This returning appeared to occur at different points for different couples; for Claire and Daniel, at being transferred from the ACU (Assisted Conception Unit) to the local hospital in contrast to Karen and Alex who found leaving the specialist unit daunting. For Karen and Alex an empowering birth appears to have been a catalyst, whilst a readmission with the baby and conflicting advice on feeding, left Carla and Jakub in limbo until they were home to stay:

'The doctor just checked everything was okay and then said we'll be signed off from the infertility unit which is quite a nice thing really because then you're just like everyone else going to the midwife' (Claire and Daniel 1st)

'In pregnancy and labour I wanted them to understand my anxiety, whereas after the birth, I was just so much more relaxed. I didn't think I would be as relaxed as I was but I didn't really need that reassurance anymore. It was pretty instant' (Karen and Alex 2nd)

'when we finally came home it was like 180 degrees better, so much better; we could sleep, we could eat' (Carla and Jakub 2nd)

The meaning of motherhood is likened to the meaning of life itself and of our inherent humanity and vulnerability; the transition perceived as a spiritual, existential change which makes life worth living (Prinds et al 2014). Couples within this study appeared to have engaged with the 'meaning' of the child to them, through the reflection on their IVF journey and of the birth itself. Carla and Jakub both expressed that joy, at being a mother: *'I felt like a*

natural mummy, being able to breastfeed' and father *'the midwife said 'pick up the baby dad' and it just felt great'* Research on the meaning of motherhood reveals paradoxical findings where an emphasis on technocratic birth eclipses existential and spiritual meanings, leading to a societal focus on medicalised birth (Callister 2004, Crowther et al 2019) and assumptions of normative adaptation which challenges those who find the transition harder (Miller 2005, Prinds et al 2014). Although all the couples considered that they were now similar to others who had not required IVF, the experience of infertility and IVF (and for Carla and Jakub, the miscarriages) was something that they felt would always be with them.

9.1 Finding the Way

Once back on the path, couples needed to assimilate their experience and find a new way to be. The transition to parenthood starts in pregnancy, in the opening of possibilities that temporal future provides. For these couples the experience of IVF may delay that process for varying periods of time until they feel that they are back to the point anticipated when they first foresaw parenthood. Parenthood is an 'unconcealment' in that it can only be partly known prior to the event, it is not hidden as such, just not yet known; however for those requiring IVF this anticipation may be an aspect that prior to delivery they feel they have to conceal (Withy 2017) as to look too far ahead feels daunting, with this concealment acting as self protection.

Despite a prolonged period of preparation –from the decision to have a baby to being pregnant - couples had difficulty expressing how they thought the early days of parenthood would be, and despite baby equipment being prepared, could not picture the baby actually being present, as explained by Karen and Alex:

'Before she was born, we were struggling to imagine it.....There was a lot of things that we hadn't really thought a lot about, like feeding for example. I was a bit in denial about it, the

whole situation, was I going to breast feed or bottle feed and what to plan for' (Karen and Alex 2nd).

It may be that this reflected the 'holding back' or a wariness of tempting fate, however postpartum a sense of embracing parenthood and finding resolution was apparent. Stern et al (1998) suggest that it is during pregnancy that mothers start to divest their pre-pregnancy state to move towards a developing motherhood identity, potentially causing difficulties if there is a disconnect between the perceived, potentially idealised baby and reality. However, the potential 'suspension' of maternal identity development in these couples may promote an affirming welcome of the baby, both of itself and as confirmation of parenthood. Sandelowski et al (1992) refer to 'relinquishing infertility' as a process previously infertile parents need to go through, using internal and external narrative. Heidegger (2010), in writing about journeys, considered how understanding develops through participation with others in conversation - suggesting that insight comes from slow contemplation and challenging of existing ideas with self and others rather than in technological advancement or arbitrary time points.

9.1.1 Instinctive Parents

The couples all described their parenting as instinctive and responsive. It may be that for them this description rationalises or justifies their need for medical intervention for conception, a sense that parenthood was meant to be. Karen explains this:

'*the way my body had failed so miserably in the conception, I was really worried that it was also going to fail me in the labour, and that maybe my body just wasn't designed to have a baby. The fact that I actually managed to do it all naturally myself was a bit of reassurance that we had done the right thing' (Karen and Alex 2nd).*

Once at home the couples describe being able to find their own way of parenting, one that works for them as a family and that they feel confident with. This self-confidence may be in contrast to the erosion of confidence during conception and pregnancy, which necessitated the intervention of others:

'I don't think I realised quite how anxious I was, until now when I look back at it and I realise that actually I was a ball of anxiety. We were very relaxed from the minute we came home really' (Karen and Alex 3rd)

'It's weird to think now how my confidence is with him just compared to then. It's only eight weeks but, it really does just start coming to you and you start to realise, you know, I can do this and stop doubting yourself... you know your instinct is right' (Claire and Daniel 2nd)

Arnold-Baker (2015) within her existential-phenomenological exploration of early mothering suggests that this instinctiveness hides the learning that the parents have been going through in engaging with and learning to respond to their baby; needing to 'let go' in order to cope. In contrast the participants within this study tended to be able to follow their baby's pattern from the beginning; this may be a response to the previous constraints of IVF and anxieties of pregnancy. It may also be that the additional emotional cost of parenthood for IVF couples makes them more tolerant of the stresses of early parenthood (McMahon et al 2013), although Fisher (2009) suggests that the emotional investment instead leaves couples reluctant to express any negativity, either to themselves or others, in adapting to the longed for baby. Miller (2005) similarly in her study of all new mothers, found that societal pressures prevented them from discussing any difficulties except in retrospect.

None of the couples identified a chosen 'way' to parent, instead relying on what felt right to them whilst drawing on the experience of friends or family:

'everybody's got a different opinion and I do think that you've got to parent…in a way that does work for you' (Claire and Daniel 3rd)

'Parenthood feels easy, it's very natural. I haven't had any problem or become stressed out about anything, it's been good – I feel like I'm a natural mummy' (Carla and Jakub 3rd)

This contrasts with earlier literature (Gibson et al 2000, McMahon et al 2003) which found IVF mothers were more likely to have an external locus of control suggesting a reliance on 'expert guidance'. Similarly, Mohammadi et al (2015) identified a hyper-vigilance and over-protection in ART mothers, and Hahn and DiPetro (2001) refer to ART mothers being 'more' protective rather than 'overprotective'. Neither this study, nor Allan et al (2019b) identified over-protection in parents however, it may be that intense investment is more associated with mothers of older children who have a growing sense of agency (Hahn and DiPetro studied children aged three to seven years) compared to babies, or to cultural differences (Mohammadi et al studied children nine months to seven years in Iran).

9.1.2 Changing Relationships

Despite not being able to express how they thought life would be with a baby, couples had some sort of mental idea as they commented on how the reality differed. Fathers in particular cited examples, and literature has previously identified how fathers are able to voice more challenging experiences in a way that women are culturally unable to (Choi et al 2005, Miller 2007):

'It does change your relationship, it does definitely push your boundaries. I think I've learned if Claire's a bit tense, I just, don't comment, just leave it alone. Because I've come in and I've only seen him for two hours, she's had him all day, you seen it in her face and, 'oh, okay, I won't ask how your day's been', I'll just let it blow over' (Claire and Daniel 3rd)

Carla commenting on how she thought she had changed, used the term 'evolving':

'it's like any relationship, at the start of a relationship you might be going out drinking or you might be going out more and then slowly the following year you don't go out that much or whatever but that's the relationship evolving'(Carla and Jakub 2nd)

Within the parent's accounts was evidence of shared parenting and a verbalised reference from each parent of the pride they felt in seeing their partner with the baby. They worked together to find practical ways of parenting together which seemed to carry on from the sense of 'in it together' of the IVF process:

' we always conferred in the beginning, just for, for reassurance really, even about putting a nappy on.....We'd both be checking it'(Claire and Daniel 2nd)

This corresponds with the findings of Allan et al (2019b) who also identified a strong working relationship and dialogue between the couples of 'how' they wanted to parent. Karen and Alex specifically refer to this throughout their interviews, they had discussed it together and learnt from friend's transitions to parenthood which preceded their own. Both Allan et al (2019b) and this study used joint interviews which may have enabled this aspect to emerge. Allan et al (2019b) suggests that the discussion and reflective interaction between the couples identified in both pregnancy and parenthood relates to 'mazing' referred to by Sandelowski (1989, 1993a, 1995), as couples try to make sense of and weigh up investment in the process, in the form of physical input, psychological input, time and money. Primarily referred to in

the quest for a child, mazing is the '*recursive, iterative and resource-intensive process*' (Sandelowski 1989: 220) couples go through in engaging with myriad options and decisions, which also occurs in pregnancy and when considering future children. The 'working together' identified in this study during both treatment and in early parenting may be influenced by the couple's shared temporality. Their experiences of going through the stress of treatment together (particularly as they did not always tell friends or family) promoted a reliance on each other evidenced in shared parenting.

Carla's description of relationships evolving refers equally to the family triad. Although at times challenging expectation, all saw the baby as an individual to be negotiated with; they adapted to the baby's needs, whilst at the same time the baby fitted in with their plans.

9.1.3 Baby as an Individual

Personification of the baby started in utero, imbuing the child with motivation or preferences. Interestingly these are referred to only in retrospect, and this may again reflect a 'holding back' of anticipation of the child until there is a certainty of that presence:

'She'd like Queen or Elton John, she likes Tracy Chapman. When she was in the tummy she was listening to Tracy Chapman, I'd be indoors or doing my make up and she'd kick -boom boom' (Carla and Jakub 2nd)

It felt harder for Karen and Alex, who may be verbalising what the other couples also felt:

'We've had a few complications along the way, it's feels like just when you're starting to enjoy it, there's something else to worry about. ...You think about being pregnant for a long time and then suddenly it kind of hits you, actually there's gonna be a baby - and that's quite a different thing. It's been such a long time since we've allowed ourselves to think about

that, it took a while to get back into it. So picturing it happened later for us than it would if we hadn't gone through all of that' (Karen and Alex 1st)

Both Hammaberg et al (2008a) and Guedes and Canavarro (2014) highlight perceived difficulties with early parenting in those who have undergone IVF, suggesting it may be linked to an idealisation of the baby. However, this study does not suggest an unrealistic expectation, more a guarded 'holding back'. In the longer term, Flykt et al (2011) did not find any evidence of dysfunctional representation of parenting in those with previous IVF, going on to suggest that the history of waiting longer to become parents may influence adaptation to parenting roles sooner and possibly with more equity in child care roles, a finding suggested in both this study and Allan et al (2019b).

The normal development of babies was rationalised by couples as fortune that they had a 'good' baby, with Carla and Jakub crediting it as reflecting their relationship:

'She has a really cool temperament, really chilled isn't she? I think it's because we're relaxed and we're happy' (Carla and Jakub 2nd)

'She has been quite an easy baby, touch wood, so far, in that she does eat well, she sleeps pretty well normally, she's pretty happy. It's quite rewarding because she smiles pretty much all day long' (Karen and Alex 3rd)

The couple's enjoyment of the baby and life as a parent was often related back to the past when the possibility of it not happening for them was very real, and that helped them to manage more challenging times, a finding supported by Allan et al (2019b).

9.2 Different Because of IVF

It was noticeable that the stresses of infertility and IVF were more frequently referred to in retrospect (particularly within the third interview – although that may relate to a growing trust in me as the researcher leading to disclosure). The term IVF was only rarely mentioned antenatally, referred to instead as '*it*' (Claire and Daniel) or '*not a topic you discuss'* (Karen and Alex). For Carla and Jakub, the process was rarely mentioned at all and it may be that it's complete '***absence***' in their dialogue is itself showing something important. This couple had had previous spontaneous conceptions and it may be that for them the label of needing 'treatment' was not fully accepted. Within the diary data, Carla was aware that there were times when she felt tearful and unwell, but she did not ascribe these feelings to the hormonal medication she was taking in contrast to both Karen and Claire.

Postnatally there was more reference to IVF; a pride in the child translated into admiration of process. It may be that the anxieties of pregnancy and needing reassurance is reflecting Heideggerian (1962) concepts of ongoing semblance (showing itself to be something which it is not, misinterpretation); although pregnancy points to motherhood, she (it is particularly a maternal anxiety) cannot believe it until the baby is safely born – **Announcement** (confirmation of something that is):

'I feel like I need them to be here to actually believe it. I know they're there, I can feel them all the time, but I think once they're here, that's probably when it's really gonna hit me and wow, this actually happened' (Claire and Daniel1).

Although fetal movements were a physical reminder of the baby in utero, birth was seen as a risky process with no guarantees, summarised here by Karen and Alex:

'We would just like it to be in the safest, controlled manner as possible really - we just don't want to risk anything' (Karen and Alex 1st),

It may be that the stress and pain of infertility can more easily be expressed retrospectively; only by the secured presence of the baby through the event of birth can couples fully comprehend the emerging of possibilities and recognise clearly the historical - temporal impact (Rogers 2016).

Retrospective consideration of IVF brought with it a sense of joy, awe and wonder, noted by Crowther (2014) in her study of birth, but heightened here by the IVF; a wonder of both birth and the technology that led to it. Couples felt both fortunate and grateful that they had been offered IVF and the joy or delight in the child was evident in all accounts. It may be that gratitude affected their responses, in that they couldn't present themselves as having any difficulties adjusting (Ulrich et al 2004, Hammarberg et al 2008a), however that was not the feeling that I had from them. Claire described how she rationalised the acknowledgement of challenges in her head:

'*I almost feel a bit of a guilt factor sometimes because of the IVF. If he's had a bad day, and I feel like I've not dealt with it maybe as well as I could, I find myself…thinking, you know, 'be grateful that he's here'. Then I think, 'oh but don't beat yourself up that you've had a bad day' as well, I find myself doing that a lot' (Claire and Daniel 3rd)*

That sense of gratitude and joy was the underlying ***mood*** to which parents, as well as their friends and family were ***attuned*** (although health care professionals were said to be aware of the IVF pregnancy, couple's accounts did not convey a similar sense of acknowledgement of the awe and 'specialness' from staff). Crowther et al (2014:25) suggest that the mood of joy is '*constitutive of birth'*, yet for these couples it would appear that this sense of joy goes on into early parenthood – emphasised here by the ongoing sense of gratitude and awe:

'it made us appreciate her even more and get more prepared as well. Those five years of trying for a baby, it was a lot of stress, a lot of pain as well. We really cherish and appreciate every moment of her and we're not going to go and take her for granted, so yeah, IVF has helped us in that perspective' (Carla and Jakub 3rd)

'I still really want to tell him (baby) when he's older that he's an IVF baby, just because it is such an amazing thing'..... 'I can't fault them because it worked' (Claire and Daniel 3rd)

Similar findings of gratitude and a different perspective because of IVF were identified by Allan et al (2019b) in their study of IVF parents with children three to eighteen months old, which they suggest reflects the ongoing 'infertile identity' referred to by Sandelowski (1995). However, none of the couples here used the term 'infertility', instead seeing themselves as having needed a 'bit of help'. Thus they fit into a 'between' group – able to have children but not necessarily able to conceive without help, influenced by their **thrownness** in the world, a world in which an assumption of technology is the response to an unexpected situation.

In considering their experiences of parenting, couples identified IVF as a justification for the sort of parents they were. This includes feeling that they were 'better' parents; for Carla and Jakub in being 'more prepared' and for Karen and Alex in 'learning from others'. It may be that this also provides some self protection, in that couples rationalise potential advantages of the difficult times that they have overcome:

'I think, we're better parents for having waited for longer than we would have been if we'd got pregnant initially We wouldn't have had so much time to reflect on, how we want to do things, and again with our relationship' (Karen and Alex 2nd)

Couples reflected that their experiences had helped them to manage some of the stress and demands of early parenting better, a finding mirrored by Allan et al (2019b). They all referred

to the interrupted sleep which they managed as couples whilst Jakub referred to learning to change nappies as just common sense. They felt an enhanced appreciation of the child, but were wary of alienating the experience of other parents whom they recognised similarly loved their children:

'There's nothing wrong with how other people view it, I probably would have been the same if I'd just sailed through it. I'm sure I would have worried more about the baby's gender and things but, when you've gone through other stuff, it's just not important anymore' (Karen and Alex 1st)

Being in the world provides a familiarity with the world which we are absorbed within. That absorption reflects an ***inauthentic*** approach which we rarely question, it is the everyday dealing with life (Polt 1999). This is a necessary way of being as we cannot stand back and probe our every thought, action or decision. However, within the interviews the influence of IVF on couples' parenting became apparent as they engaged with and reflected upon their experience in a way that was more authentic. Within these moments of 'would it be different if ...?' authenticity broke through as couples' discussion about everyday life halted to engage in the question and consider the other possibilities that could have been. For Carla in particular, it was noticeable in the turn of the conversation as references to the previous miscarriages caused her voice to break and a conscious change of subject, whereas for Claire and Daniel and Karen and Alex, it was more a wistfulness:

'I don't think it will ever go away, you'll always remember it, but it's almost nice that it's not at the front of my mind now, more to the back of my mind I suppose' (Claire and Daniel 1st)

'I do feel we are very aware that it could have not ever happened for us, and that just makes us appreciate things that little bit more' (Karen and Alex 3rd)

In ‘Returning to the path’ these couples appear the same as all new parents and yet they retain a lingering sense of difference.

All of the couples had discussed having more children and made reference to it in the third interviews. There were no identified reasons for their infertility and they all continued to hope for a subsequent spontaneous conception with both Karen and Alex, and Carla and Jakub also having frozen embryos potentially available. Considering the cost of future treatment and risk of failure was a concern, the balancing of risks and benefit referred to as ‘mazing’ by Sandelowski (1995). She goes on to suggest that ‘relinquishing infertility’ may be delayed, or maybe never achieved, until decisions on future family size are confirmed. This included no longer needing to be constantly focussing on fertility; Claire and Daniel when referring to sexual intercourse itself state:

‘I’d like to think that when we do start trying again, that we can enjoy it, because …before that it was… Yeah it was quite sort of…regimented’ (Claire and Daniel 3rd).

In their study of IVF parents three to eighteen months postpartum, Allan et al (2019b) concur with Sandelowski (1995) and suggest that the stress of infertility recurs in decisions around subsequent children, with some (Redshaw et al 2007, Allan et al 2019b), in common with Claire and Daniel and Karen and Alex, explaining that the knowledge of the emotional investment necessary with IVF leads them to be reluctant to use it again despite wanting further children.

9.3 Conclusion

Following birth and the return from the hospital couples were able to relax into new parenthood, whilst Karen and Alex refer to the anxiety lifting – only in retrospect did she realise how anxious she’d been, Claire and Jakub use the word ‘relieved’. For Claire and

Jakub, readmission delayed that transition and it was only when they were discharged from hospital the second time did they feel able to move forward. Whilst previous experience was not forgotten, the all-encompassing experience of early parenthood and similarities with other parents reinforced normality and a path travelled with others. The sense of **uncanniness** (the sense of feeling out of place) was righted by the long-expected baby and a return to 'being-at-home' supported by others. All the couples felt that they were instinctive parents – for Claire and Daniel this appeared to be related to familiarity with familial parenting and Karen felt affirmed by the birth which increased her confidence. It may be that for Carla and Jakub, a growing frustration with the care received in hospital prompted them to turn to their own instincts. Instinctive parenting linked to responsiveness towards the baby, which in itself strengthened the concept of the baby as a sociable and negotiable individual. This child focus may be a recognition that for these couples, parenthood may never have occurred which resonates with existing findings with the positives of a much wanted child being located within a framework of 'luck', albeit luck resulting from considerable efforts and stress on their part (Redshaw et al 2007, MacDougall et al 2012). Whilst the experience of IVF had an ongoing effect, it was a 'mood' of awe and wonder in both the baby and the process that led to this 'attunement' between the parents and baby further strengthening the responsiveness.

Chapter Ten. Journeying On

As we walk into a landscape, we leave our marks on it and it leaves it's mark on us; as we explore the outside, so we explore our inner selves.

Usher (2020:52) The Way Under Our Feet

The final constitutive theme is 'Journeying on' with the underlying mood one of 'seeing the way ahead. It is made up of three relational themes 'Moving onwards (subdivided into 'flexible routine' and 'working it out'), 'Mantalk' and 'Support from others' (subdivided into 'family' and 'friends'). The above quote from Usher (2020) is from a book subtitled 'a spirituality of walking' and relates to our relationships with others and, for some, a higher being.

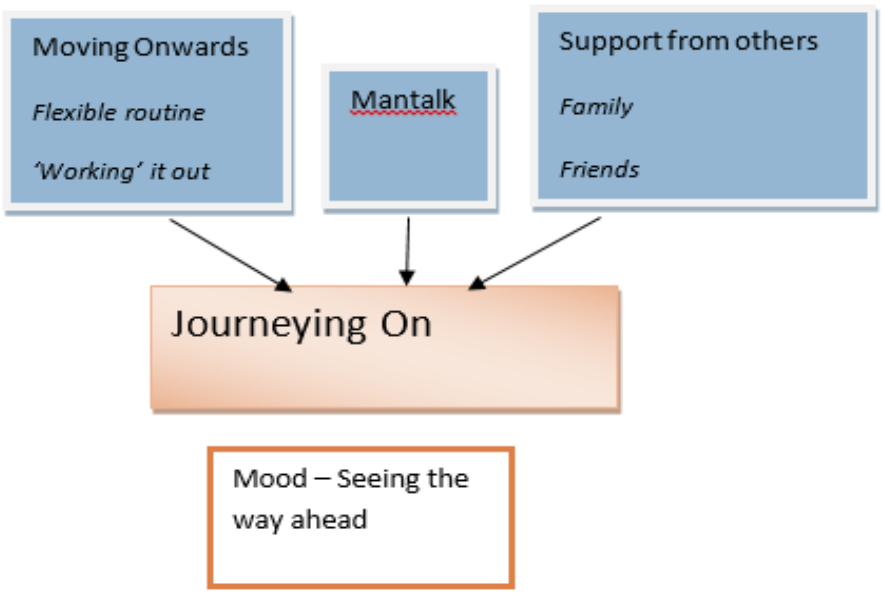

Figure 11. Theme 3. Journeying On

'I can't imagine life without him now. He's here and, there's so many more years and stuff to come from him, I think it's crazy really that he's just here' (Claire and Daniel 3rd)

The title 'journeying on' was chosen in recognition of Heidegger's frequent use of the term, but also to reflect spiritual aspects of infertility, conception and parenting, which contrasts with the more empirical, normative approach often taken in health. Whilst spirituality is often linked to religiosity, it is, in its wider sense about connectedness, transcendence and meaning in life (Romeiro et al 2017):

This theme reflects the day to day living with a new baby and how both parents' structure that practically and rationalise the process. In common with all new parents, they found the experience all-encompassing and struggled to picture life before (Arnold Baker 2015) yet were still influenced by their own experiences – temporality, and social and cultural norms – historicity.

The adaptation to parenthood was aided by the 'they' or '**Das man**' in Heidegger's German which refers to the 'they' as everybody but nobody specifically. Here, it refers to family, friends, healthcare professionals and society who provide both support for new parents and also an enculturation as they find themselves absorbed into the community of new parents, the 'support matrix' identified by Stern (1995). The 'they' socialise parents into ways of being; Claire refers to this when she talks of checking with family, friends or the internet about minor concerns with the baby, Karen refers to seeing how others parent to find their own way and Carla and Jakub make reference to it in dismissal *'it's not as difficult as 'they' say it is'*. The 'they' or the 'many' offer society's often unspoken expectation of what parents (or 'good' parents) should do or be, which may restrict individual agency (van der Berge 2013), but also enable enculturation into the parenting community, through compliance

with perceived social norms. This develops new parents' confidence in parenting - they are managing well because they do as others do and this confirms a return to the path expected. The return to the path was for these couples a return to **dwelling** ('at home' both literally and in the Heideggerian sense of the term as the manner in which we feel at home in the world) in an environment in which they felt familiar and in which they could engage and project forward.

10.1 Moving Onwards

Moving onwards refers to the day to day practice of parenting, a verb which although gender neutral, is recognised predominantly as referring to mothers, underpinned by contemporary policy (Daly 2013, Lee et al 2014). For all the couples in the study, the father had returned to paid employment with the mother undertaking the majority of the childcare, although there was evidence of shared parenthood and 'hands-on' fathering throughout:

'Some of the guys were asking me 'what was it like changing a nappy? did you have to learn?' I said, 'what are you talking about? there's a nappy, and you just put a new one on - not such a big deal, right?'(Carla and Jakub 3rd)

It appeared that it was the mothers who were making decisions on the structure of their day with fathers following their guidance when home, and mothers who were establishing a social life with 'playdates' for the children:

'We are quite busy really. Daniel always says to me, 'oh what are you doing tomorrow, I can't keep up'. Even the weekends it's busy, there hasn't been a weekend off..... I think it's natural because we've both come from big families, there just naturally always something going on - if it's not family then it's friend's, more so now, because people want to see him' (Claire and Daniel 3rd)

This reflects the gendered context of contemporary parenting (despite government and societal claims of equity) where mothers are expected to take a greater responsibility for physical childcare and appropriate socialisation, and consequently for child outcomes (Hayes 1996, Miller 2007, Faircloth 2013). This accountability for the child's wellbeing reflects the pressure the women faced at being accountable for the success of IVF initially.

10.1.1 Flexible Routine

In following their instincts with the baby [see 9.1.1] and negotiation with the baby as an individual [see 9.1.3], mothers developed a flexible routine, structured around social support groups [see 10.3.2]. A concept of 'routine' is common within Western culture (Harries and Brown 2019) and advocated in many childcare books (Hardyment 2007), despite being counterintuitive to responsive parenting. Claire explains her dilemma:

'We don't have a particular routine, I was googling it earlier in the week, but I don't know if it's bad or good or what. I've got lots of friends that have had their babies, everybody's got a different opinion and I do think that you've got to parent…in a way that does work for you' (Claire and Daniel 3rd)

The mothers in this study all described their weeks as 'busy'. Whilst for Claire and Karen it was structured around visits to friends and family, Carla structured hers by ongoing use of the whiteboard, in which lists continued her management of self:

'It's just finding your own schedule and the board helps because I like to make a list and write things down, I need to do this and this and I can spread that out over a week and make my own little schedule. I do something every day just to keep us busy. We might just go to the shop and buy some milk and then we can go for a walk around as well or we just go to buy a

balloon or some formula. I don't buy everything in the same trip, I separate it through the week' (Carla and Jakub 3rd)

In early parenthood, lists act as small steps to a larger whole, a more practical approach than providing possibilities. Heidegger referred to '***for-the-sake-of-which***' or why we do something, in which a task 'going to buy formula' is for the sake of a more 'existentiell possibility' – that of 'being a parent'.

10.1.2 'Working' it Out

Whilst fathers had all returned to full time work a couple of weeks after the baby was born, the mothers were intending to return part time. Although mothers recognised that this may be good for them as individuals, none were looking forward to returning. Claire summarised the feeling of them all:

'They've already asked me about returning to work but, I don't want to rush back, but at the same time, it's awful but money does have a… I openly said to them, if I do come back, it'll be part time. I miss the adult conversation, and I did enjoy my job, I think I miss that part of it, but I think I will also miss not being with him all of the time. I think of all the things that I'm seeing now, I worry that I might miss those first things and that someone else will be getting to see them first' (Claire and Daniel 3rd)

Carla had already returned to do a single day (one of ten, as agreed with her employer) and although being tearful the night before, had found that once there she quickly settled into it. Both herself and Jakub equally felt that it was important for him to spend time alone with the baby and also to gain some comprehension of the demands of childcare:

'at one stage I was holding her (the baby) *in one hand and I had a mop in another. I had to schedule everything so I could work it out what time to do what, it was a little bit challenging.*

I didn't have a chance to eat anything - I always tell Carla off because she's not eating and drinking properly and now I see much better it isn't easy to do that' (Carla and Jacub 3rd)

Although equitable parenthood is an initial ideal for many couples, it appears that this is more apparent for IVF fathers (Allan et al 2019b) than other couples (Sevon 2011, Miller 2011b, Miller 2012).

The fathers acknowledged their partners were doing the bulk of the practical childcare but also expressed their wishes of being involved, and focussed on their days off as a time when they were actively involved, reflecting other contemporary findings (Dermott and Miller 2018). By three months, all the mothers were bottle feeding and negotiation around night feeds provided another area for involvement. Alex's comment here on how he 'makes' time is typical:

'I'm back at work now anyway so I come back and make time. We figured out what worked best for us. I was doing the late night feeds so Karen could go to bed earlier, which meant that when she was up for the three o'clock feed, I was sleeping because of work and that worked well' (Karen and Alex 2nd)

'Daniel sometimes works on a weekend, and he says 'oh I won't work the Sunday because otherwise we won't really have a day together as a family' (Claire and Daniel 3rd)

These perspectives are contemporary, Western cultural norms reflecting the temporality and historicity of the parents. This traditional, but complementary role behaviour was identified by Bracks-Zoualla et al (2011) in their study of IVF fathers who perceived that their partners were not only more able in early childcare but were critical of their parenting, although fathers felt more confident as children became older and did not attribute their views to IVF. This contrasts with Allan et al (2019b) who undertook couple interviews where, despite what

appeared traditional roles, couples indicated that they worked together in a way the researchers felt reflected the togetherness of IVF treatment. These two differing perspectives may instead indicate differing methodologies of joint or individual interviews which emphasise joint issues whilst simultaneously minimising more gender specific aspects.

10.2 Mantalk

Within the interviews I often needed to prompt the men to see if they had differing thoughts in comparison to their partners. In reflecting Western cultural norms, couples often thought it was the woman I wanted to hear from: being a midwife may have enforced that, and both Alex and Daniel tended to default to their wives, as the person who was initially carrying and later at home more with the baby. In contrast Jakub often dominated the conversation, something Carla commented on in her diary, although this may be from a protective perspective. (My sense on being with them in person was that this did not reflect a significant power imbalance in their relationship). Whilst women utilise their peer group for specific support and advice, this is less apparent for men; barriers existing include masculine stereotypes, lack of opportunity and health professionals' focus on mothers (Rominov et al 2018, Baldwin et al 2019). A recent evaluation of a SMS messaging service for new fathers found that it was anthropomorphised (Fletcher et al 2019) suggesting a lack of peer support, as Alex suggests:

'I don't really find my conversations with friends any different. I see them a lot still at football, where we tend to talk…about football. I've definitely had conversations with them about baby, but I wouldn't say that it's any more so than just normal chatter and the rest of the time I'm at work and that's just work chat' (Karen and Alex 3rd)

This reflects what Heidegger refers to as **idle talk,** the everyday, 'getting by' of social chat. It is only in moments of breakdown when the situation changes. Jakub describes how a

colleague at work had lost a baby and he felt that he was able to identify with him and talk about it because of his experiences with the miscarriages and IVF:

'it's not the same but, having been through the miscarriages, I felt I could talk to him. Even the IVF and those obstacles have made us a little bit closer, I'm able to understand him better and he came to me to talk' (Carla and Jakub 2nd)

It would appear that when together parents interacted together in complementary roles in parenting, both recognising the effectiveness of the other in their interactions with the baby. However, whilst mothers were fully engaged with the child during the day and sharing similar experiences with peers, for the fathers, absorption in their working lives minimised interaction with colleagues about familial issues, which reflected their initial reluctance to disclose IVF treatment. This reflects contemporary norms (Dermott and Miller 2015, Gatrell and Cooper 2016).

10.3 Support from Others

How individuals manage a changing situation is influenced by family and peer group relationships (Bronfenbrenner 1979) with social support that participants were gathering from family and friends endorsing their confidence in parenthood. Stern (1995) refers to a maternal 'support matrix', in which mothers are gathering around them those who can provide support, both physically and psychologically. Individuals are aware of, and influenced by, others irrespective of whether they are actually physically present; ***being-with*** refers to their being in our world (Polt 1999), and consequently it was awareness of the support of significant others, as much as physical presence that helped. For Jakub, technology aided this support:

'With my mum we're on whatsapp or skype daily..... Mum speaks English as well although it's a bit difficult because she doesn't have that regular conversation and when it come to grammar it's harder. She is really good and we can talk to her easily but sometimes we need to make sure we understand each other' (Carla and Jakub 2nd)

This demonstrates dwelling as not just spatiality, but also a psychological making sense, understanding one's place and feeling at home with it; dwelling is how we 'are' in the world (Wheeler 2011). Family and friends are those who are accompanying couples on their journey. For family in particular this was a continuation of a relationship and close family, having been aware of the previous difficulties, recognised the child as a much wanted or 'special' baby, although both Claire and Daniel, and Karen and Alex specifically hoped that the baby would not continue to be treated differently by others:

'Our close friends and family probably feel like we do, they still look at her like she's a complete miracle…… at the moment she's the centre of everyone's universe and I don't think that would be particularly healthy to go on forever' (Karen and Alex 3rd)

10.3.1 Family

During early pregnancy, a moving towards family has been noted in both spontaneously conceiving and IVF couples (Bost et al 2002, Gameiro 2010b) and this was noted in this study where family undertook practical, informational and emotional support, despite geographic distance. For Karen and Alex his parents drove down from North East England to stay for a week whereas for Carla and Jakub, social media enabled daily contact with his mother in Eastern Europe. Claire and Daniel had a large family living locally whom they turned to for advice:

'My sisters were brilliant, there was a hot line (to them) in the first couple of days. I know it sounds silly but it was things that I did know, but you know when you just want someone's reassurance' (Claire and Daniel 2nd)

Claire goes on to describe how she turned to her sisters rather than her mother, as their guidance was considered more current, a point highlighted by Faircloth and Gurtin (2018) who suggest less reliance on generational knowledge of childrearing and instead a reliance on 'expert' authority, often transmitted via social media. Karen and Alex were cared for by his parents, yet there was no reference to guidance on the baby (they refer to discussions with friends rather than family):

'They were looking after us, so all we had to do was look after baby, which was great. These dinners would just appear on our laps and we'd think 'oh yeah, brilliant idea, starving' but, I would never have thought of that myself, and they're the kind of things that you just take for granted.....'They were also really mindful of the fact that they didn't want to intrude on our time either, so they subtly made sure that they went out once a day and gave us a bit of time at home' (Karen and Alex 2nd)

Heidegger differentiates between two modes of helping or being-with: **leaping in** or **leaping ahead**. Leaping in refers to the undertaking of a task for someone, often meant helpfully, but reducing their opportunities to gain the skill, understanding or experience. Leaping ahead is more authentic – supportive but allowing another to consider their possibilities, it addresses the person rather than the task (Polt 1999). This can be seen in the actions of Alex's parents as they undertake background tasks which enable Karen and Alex to develop their own parenting.

10.3.2 Friends

A difference noted between the second and third interviews was a reduction in reference to familial contact and increasing reference to friendships, including new friendships being formed. Karen refers to meeting people through the NCT classes or through activities – swimming or playgroups:

'A lot of my friends have got children and my sister's expecting in August..... The NCT (National Childbirth Trust – organisers of antenatal and postnatal groups) *girls I meet probably every other week, which is nice, so they're new friends (Karen and Alex 3rd)*

She also talks of meeting the partners of some of Alex's friends whom she wouldn't have met alone before, but the children become a connection. Similarly, Claire found groups of friends combined through the shared interest of children a similar age:

'It's kind of brought groups of friends together, which is really nice. Because, I've got a few groups of friends and if I go round my friend's for lunch and another girl from my other group says about it, my friend's like 'oh invite her round', because she's had a baby as well, I feel like it's connected. Although they've known each other, because I've known most of them a long time, they're not necessarily close, but where you've now got that thing in common, I feel it pulls you together better, in a nice way' (Claire and Daniel 3rd)

This was less evident for Carla and Jakub, whose friends appeared to be work colleagues. They were intending to shortly move closer to Carla's parents in a different part of the country and consequently the desire to form new friendships was less pertinent as they knew they would be leaving the area. However, Carla had accessed an app for meeting new mothers in an area and formed a new friendship via social media, meeting up with her regularly:

'Yesterday I went out with a friend – we met through a baby app I'd seen on facebook 'Mush' it is, it's like a dating app. for mummies and fathers expecting, like a mummy club. We talked for three months and I was like when I felt better we can meet up, so we did, popped in at Jakub's work and had lunch' (Carla and Jakub 2nd)

For Carla and Jakub, technology is again used as a means of accessing support. Heidegger explains it as a way of manipulating resources, in this instance the '***standing reserve***' of others as peer support.

This move from a focus on family initially towards peer support has been noted in the literature (Bost et al 2002, Gameiro 2010b, Kalmijn 2012) which also notes the gaining of more local friends. Social support is recognised as an important aspect of mental wellbeing for new parents, particularly mothers (Gutman et al 2009, Underdown and Barlow 2012, Arnold-Baker 2014). Whilst initiated by the mothers in this study, it was supported and encouraged by the fathers also. Allan et al (2019b) in their study of IVF parents noted friendships being formed with other parents who had undergone IVF treatment. Whilst not being noted in the current study, there was reference to now knowing or knowing of others who had had IVF whom they had been unaware of whilst having treatment themselves. This suggests that whilst reluctant to disclose having treatment prior to birth that once the baby is born couples were happy to talk about it. Karen talks of how she had met with a friend of a friend who was seeking treatment to discuss her experiences and she felt that having a 'buddy' system would be helpful and something ART services should consider:

'When I was about to go through the process, a friend of mine actually hooked me up with someone that had been through it, and I met up with her for a coffee, and just asked her all my questions before I was going through it and that was really helpful. I have since been put in touch with someone that is just starting IVF now, and I'm kind of doing the same for her.

It's also quite therapeutic to talk to someone once you've been through it as well, it feels like you're giving something back and you're helping someone and it's good for both of you.' (Karen and Alex 3rd)

For Jakub, although having always stated he would be happy to discuss IVF he acknowledged that starting those conversations with others could be difficult:

'there are unspoken things and although we are in 2019 still people don't talk about it on a regular basis like 'hey do want to hear about how we got a baby by IVF?' (Carla and Jakub 2nd)

Allan et al (2019:12) suggests that in feeling able to talk, parents show an '*emerging identity as an IVF parent'*. It may be that within Allan et al's study the older age (3-18 months) of the children correlated with parents meeting more parents, facilitating exchanges in which IVF disclosure occurred. Statistically, it is likely couples knew other IVF parents, with 2-3% of new births currently conceived using IVF (Office for National Statistics 2017).

10.4 Conclusion

In moving forward in their parenting, these couples were showing a normative transition similar to all parents as they found patterns of daily living which both worked for them and enabled enculturation into the dominant social norm. This was influenced by the 'they'- initially family, and later friends, whom they looked to for support and affirmation, whilst in response supporting others. Couples felt able to look ahead (in contrast to during the pregnancy, when this was difficult) to consider the return to work and also to contemplate further children – a possibility that was not straightforward for these couples and they balanced the desire for further children with awareness of the expense and stress that it may involve. This thesis has indicated that it is not just the travelling of the journey that matters.

Couples were prevented from following the route that they wanted and forced to take an unwanted (and more challenging) detour (Sandelowski 1995) until they were able to return to the path – for each of them at a different point along it; yet that which they had experienced whilst on the detour remained with them.

The previous three chapters have addressed the main themes arising from the study. The subsequent chapter will consider the new understanding emerging and consider it in light of Heideggerian concepts, existing literature and in relation to the research questions, focussing on how it expands what is already known.

Chapter Eleven. Discussion - Pathways

To be a reader is to feel a little less lonely. To be a reader is to be challenged…….But always to feel, always to think. To be a reader is not a passive state, it is active, always responding.

Winman (2015) To be a reader

The previous chapters identified emerging findings from the study, and these will now be further explored in the context of Heideggger's philosophy. The findings reveal a chronological move from a stressful pre-pregnancy phase, which prompts a more cautious pregnancy, and then towards an affirming and confident adaptation to parenthood. It identifies the differing moments in each couple's journey when they felt that they had 'returned' to the point they had anticipated when they were first trying for a baby and this was the phenomenon made visible within the study. For the couples in this study their experience of becoming parents was portrayed as a journey on a path of meaning-making. The concept of 'journey' is a common one in the literature surrounding both the experience of assisted reproduction (Speier 2011, Romeiro et al 2017) and of parenthood (Carbines et al 2017, Lundqvist et al 2019). However, this thesis has indicated that it is not just the travelling of that journey that matters but the planned route. The concept of paths is about always looking at the possibilities ahead of us. Couples were prevented from following the route that they wanted and forced to take an unwanted (and more challenging) detour until they were able to return to the path; yet that which they had experienced whilst on the detour remained with them. This chapter will consider the emerging findings in relation to the research questions with implications for practice, research, policy and education being drawn from it. Heidegger (2010) referred to pathways as a means of journeying to our new understanding, a co-constitution between existing knowledge, new findings and the interpretation by both researcher and reader.

11.1 Returning to the Path

The phenomenon of returning to the path follows on from the initial disruption to couples' expected, and planned, lifecourse and reveals a previously hidden aspect or unique finding. The development theories of Erikson (1968) and Valliant 1977) mentioned previously [3.2] indicate how intentionality precedes the procreation of children, with the terminology of Erikson – generativity versus stagnation, highlighting how couples experiencing infertility may perceive their experience (Miller 2003). The decision to have children may be anticipated in childhood or only become pertinent to individuals once in what feels an appropriate relationship for that. Decision making focusses around the timing feeling right, with both individual and social factors pertinant, and reflects joint decisions on the relationship, financial stability and age (Sevon 2005, Schwerdtfeger et al 2013). This decision making represents the separation from a previous life as the start of transition process identified by Bridges (2009). Couples start to look forward to an anticipated pregnancy as the commencement of a new stage of life and as an announcement to others of their intention of a family. However, the absence of the desired pregnancy also necessitates adaptation and the assimilation of changed plans into their broader life picture, an aspect of transition identified by Kralik et al (2006). That adaptation also has resonance with assemblage theory (Reveley 2020) as couples assemble and reassemble influences and resources to manage changing identities.

For some women, motherhood is considered indicative of their femininity (Loftus and Andriot 2012, Bell 2019) as seen in 8.2.2 although a gendered sense of self as infertile may be countered by medicalisation and the ongoing hope implied within that (Bell 2019). This was further evidenced by both Claire and Carla who both reflected that having had a child by IVF, it may prompt a spontaneous conception and challenge the 'infertile' label. Thus,

despite a clearly defined medical diagnosis of infertility, women may not accept it and instead perceive it as difficulty or requiring help. Focussing on identity theory, Loftus and Namaste (2011) considered how women created and sustained their potential identity of biological mother until they became mothers or decided to stop infertility treatment – Carla summarises this when she states '*I've felt like a mother for a long time*', further indicating how the identity of 'mother' may be adopted prior to actual conception.

In comparison to the past, motherhood is seen to be a choice with contraception giving the appearance of that control, despite evidence suggesting that the dichotomy of planned/unplanned pregnancy is not straightforward (Barrett and Wellings 2002). The initial assumption that cessation of contraception would result in a baby, is then followed by increasing levels of help seeking, both formal and informal (Griel et al 2020, Grenfell 2021). Sweeney et al (2015) suggest that the process of becoming a parent commences at this time of committed trying for a baby, a perspective supported by Sevon (2005) who suggest that motherhood can be thought of as starting once pregnancy is planned. Whilst couples were continuing with their lives, it remained continually with them, as Jakub explains '*You try not to think about it but you can't really help it, it's just stuck somewhere, little things are changing like the house and stuff, we went for holidays but then at the end of the day you are still thinking about it so.., maybe not every day but almost every day*'. This pressure may be exacerbated by friends and family who inadvertently make assumptions; Karen recalls how friends assumed she was pregnant because of her abstinence from alcohol. Claire describes the 'shock' of being told that they may need IVF – despite seeking treatment it was not what they had envisioned and did not fit their mental picture which she explained she had from growing up or '*how you see it in the movies'*. This mental picture of the family they foresaw at the commencement of trying reccurs again postnatally; both Claire and Daniel and Karen and Alex state that before they started trying for a baby, they wanted families of three or four

children. They now recognise this is unlikely, with both couples aware of the implications of significant financial cost of potential further treatment, for no guaranteed outcome.

Polt (1999) describes how we relate to the future as possibility, of something that may or may not occur, but that is a 'something' worthy of discussion and thought. Consequently, we alter our actions to enable these possibilities to take place, a 'for the sake of which'. The couples within this study stopped contraceptive use for the sake of commencing a family. This proactive approach reflects an aspect of thrownness – not the happenstance of finding yourself in a situation, but the active decision-making of throwing or projecting. Heidegger (1962:183) refers to this as 'potentiality-for-being' its possibility is not yet actual but is disclosive in what is desired. Thus, when the term 'returning to the path' is used, it relates to the potential, the possibility, the image couples first had on making the decision that the time was right for them to start a family.

11.1.1 The experience of the path taken

When writing this thesis, and its emerging concept of returning to the path, the image in my head was always of a woodland, with a main well-trodden path, along which most people walked yet with various smaller paths leading from it – of varying lengths, widths, directions and accessibility. The path that couples in this study were on had originally appeared clear – we have found each other, we have employment, a home, we could manage financially – we are ready to have a baby. The initial assumption of spontaneous pregnancy following contraceptive cessation was challenged, forcing them from the main path onto that of infertility investigations and intervention - a smaller one, less travelled, more difficult to negotiate and with no clear end in sight. The analogy of feeling lost may be applicable here and resonates with the earlier theme of 'seeking' [Chapter Eight] a route through. For the couples, the experience of being referred to and seen at the Assisted Conception Unit felt like

signposting – indicating a route, though not an easy route, back onto the path they had envisaged. This involves a leaping-in by doctors utilising technology [11.4]. That leaping in creates a dependence upon the medical system, but one which couples readily acquiesced to, seeing the doctors as experts and their only opportunity to achieve the baby that they desired.

If the path away from the main route feels long and unclear, once pregnancy occurs, the path which heads back in the right direction is one taken tentatively. Pregnancy is a period of wary hopefulness and couples turn to each other in trying to manage their emotions. Despite no physiological reasons why pregnancy should not be followed by parenthood, these couples have psychologically invested heavily in parenthood and as an act of self protection may be reluctant to look too far forward – birth remaining, as it is for many parents, a hurdle to be overcome. For Claire and Daniel, returning to the path did appear to occur in pregnancy, seeing the transfer of care from the ACU to the local hospital as reassurance of being a 'normal pregnant couple'. Claire and Daniel's data indicates a complete faith in the medical profession, later discussing how despite the emergency caesarean section, Claire felt calm and clearly recalled the reassurance the words of staff at his birth provided when they affirmed: '*he is completely fine*'.

Although during pregnancy couples were continuing with antenatal appointments, attending antenatal classes and preparing equipment, there remained a holding back, also identified by Dunnington and Glazer (1991), Sandelowski (1995), McMahon et al (1999), Toscano and Montgomery (2009) and Smorti and Smorti (2012). This was more apparent for Karen and Alex, who had experienced a previous unsuccessful attempt (McMahon et al 1997b, Agostini et al 2018) and for Carla and Jacub for whom the previous miscarriages increased the pressure on them in a way that was less apparent for Claire and Daniel. Similar findings have been identified in mothers who have had a previous neonatal loss (Cote-Arsenault and O'Leary 2016, Lee et al 2017, Moore and Cote- Arsenault 2018) with tentative pregnancies

resulting from the knowledge that pregnancy does not always equate to taking a baby home. The effects of loss linger with the loss of the normality of a spontaneous pregnancy compounded by previous attempts or pregnancy loss. Therefore, it is important for healthcare professionals to take into account individual historicity, to recognise the meaning of the IVF experience, and attempts or pregnancies that went before, which may influence a more cautious engagement with prospective parenthood.

For Karen, the experience of birth itself was empowering. During the pregnancy she had felt the need to ensure that medical staff were aware of her specific history – this was not a distrust, but an awareness that for the doctors their case was one amongst many, whereas for them as a couple, it meant everything. Pregnancy had been an anxious and wary travelling of the path in which she had struggled to feel in control. Similarly in labour, she had worried that the midwives were '*fobbing her off*' when monitoring the fetal heartbeat, but managing with minimal analgesia in labour, the normal delivery, intact perineum and early breastfeeding all reassured her that they had '*done the right thing*' in pursuing IVF. This confirmation for her that it was '*meant to be*' enabled a prompt return to the original path which surprised Karen, whilst Alex himself remained a calming, supportive presence throughout. The 'holding back' of pregnancy meant that Karen had given little thought to how she intended to feed the baby and what she may need, she uses the words '*in denial*' - she was holding on until she could finally accept that the baby was here.

For Carla and Jakub, during both pregnancy and postnatally they were frustrated by what they perceived as unnecessary and conflicting advice from healthcare professionals and a difficult first week delayed their return to parenthood as they envisaged it. They appeared to have an ambiguity towards the healthcare system; gratitude at the opportunity for IVF but a frustration at errors within the system around appointments, referrals and advice given. Whilst Karen had felt the need to guide medical staff to points in her notes as she felt

responsible, for Carla and Jakub it appeared to be more of a need to reclaim control. To fully realise that control, they needed to be in their own environment and their readmission had disrupted and delayed the start of family life as they forsaw it. Heidegger often refers to the idea of a clearing in the forest as a space where we can become, as well as us being the clearing (Heidegger 1962:171). This clearing or opening enables the couples to become what they had envisaged, the clearing is the '*open region of unconcealement*' (Polt 1999:149) where they are able to return to the path they had planned. Heidegger's imagery of forest and woodland resonates with the arborial illustration used throughout this thesis.

The thesis title 'Returning to the Path' stems from the recognition that all individuals have a perception of options or choices in their life (even if constrained by time and place) and act towards those. Cerbonne (2006:54) explains *'Dasein is its possibilities, not in the sense that they are already actualized, but because its way of being essentially involves this notion of projection'.* This concept of projection relates to the future, whilst the concept of thrownness is current time – how one finds oneself now and about which we must now deal. Thus, the holding back previously identified may influence the current situation, and indeed be a means of 'dealing with'. Withy (2011) cautions against considering thrownness as a passivity that must be dealt with as recognising the importance of where we were thrown from and why. Dealing with relates to how we understand something, making sense of what we have experienced and integrating it into a sense of now. This is influenced by the cultural context – for the couples in this study, the possibility of a family through IVF technology was a realistic possibility (in contrast to 50 years ago), yet it remained within a context of statistical 'luck' and sociopolitical support. It is in the meeting of projection and thrownness that the returning to the path is found. Heidegger had an openness to time so that at any given point Being is 'ahead of itself' 'already being in' and 'being alongside' which correlates with an

anticipated future, an acknowledged past and a current present, all of which make up 'now' (Mulhall 1996).

11.1.2 Factors influencing a return to the path

Individual historicity appears significant in how couples manage their experience. For Claire and Daniel faith in medicine and family experiences of normal childbearing appear significant in them, feeling during pregnancy like '*a normal couple*' – as they phrased it - once discharged from the Assisted Conception Unit. This was endorsed by their wider family, whose fertility and fecundity demonstrated to them, that pregnancy was followed by childbirth and assimilation into a network of support from friends and family familiar with young children. The tentative nature of the pregnancy was evident in a lack of concern about the child's gender or the type of birth, a situation they related to the need for the IVF initially, however once pregnant they expected a successful progression and outcome. meant that they were unable to approach the pregnancy as confidently as Claire and Daniel. However, Karen explained how her own parents remained anxious throughout the pregnancy as they themselves had experienced previous miscarriages. Similarly, Jakub's parents had tried for several years before he was born whilst Carla, although not mentioning her birth mother, explained that her stepmother had been unable to have children. Both couples were aware that pregnancy did not always equate to bringing home a baby, as their past history and family history had demonstrated, and for them, pregnancy was experienced in a tentative walk along the diverted path, each step bringing them closer to the goal of a child and a return to the main path. Thus, family history influences the couples' forestructures (prior influences and understandings) and expectation of pregnancy, birth and parenthood, as well as potential attitudes towards seeking help and acceptance of intervention.

The tentative path is evidenced in Karen's concern that she wanted doctors to read her notes '*really carefully*' and is supported by both Allan et al (2019b) and Sandelowski's (1993) work. There was an anxiety that medical staff may not realise the additional efforts and stress the couple had been through to fall pregnant and she felt a responsibility to highlight it. Claire and Daniel in contrast to the others expressed no frustration or doubt about the abilities of healthcare staff or of the system. They felt able to pass the responsibility on to medical staff, feeling that if they followed their advice then they would have done all they could – for them, the 'leaping in' of medical staff felt a reassurance of being cared for and supported. Both Karen and Alex, and Carla and Jakub had felt frustrated by their GPs at not being able to be quickly referred to infertility services, with this ambivalence continuing into the pregnancy. Resistance to the potential domination of medical power is shown by Karen in her guidance of medical staff towards her notes and by Carla's questioning of a referral to have her blood pressure checked as she felt well. This frustration was later compounded by Carla's readmission in which she experienced contradictory advice about the baby which further undermined her faith in the healthcare professionals. Conversely, this appeared to validate her own feelings of instinctive parenthood and the sense that she, or they as she included Jakub in this, knew their own child best.

The tentative journey of pregnancy was eased by birth, with couples relieved at the safe delivery of the baby and despite a variety of birth experiences, all perceived them as positive. Karen expresses how the birth reassured her they had done the right thing, and for her this precipitated an instant switch from a tentative and anxious pregnancy to a more confident parenthood. Each couple was together at the birth with the women expressing how important the partner's presence was in supporting and reassuring them as they went through this stage together.

The return to the path reflects the idea that for the couples in this study there was a point, different for each of them when they felt that they were 'normal' or where they had expected to be when they commenced trying for a baby. This has resonance with Sandelowski's (1993a) theme of 'relinquishing infertility' which she describes as an active process of comeback work, with couples aiming to identify with those with a spontaneous conception; acknowledging differing conceptions yet expecting and experiencing normal pregnancy progression. Other couples perceived their pregnancies as special, reflecting ongoing physical or psychological challenges which made relinquishing the infertile identity more difficult. In recognising that returning to the path occurs at different points for different couples, it similarly is not an absolute position, despite feeling 'normal' parents there would be moments which would catch them out as a 'what if..?' or could 'this be because..?' when they sense how aspects of the past influenced their present and future. The whence of a couples thrownness – individual historicity, culture and place continues to influence where they are now (even if, as Heidegger suggests it is veiled or unclear) and future projections in a continuing journey forward (Withy 2011).

In summary, those factors which influence the return to the path are historicity and its influence on expectation, faith in the medical profession and the experience of birth. Each of these has an influence on the other and are significant to midwives who need to demonstrate an understanding of the first whilst having the skills to promote positive experiences of the other two.

11.2 Meanings

The first of the secondary objectives for this thesis is what is the *meaning* ascribed to the experience of becoming parents following IVF. The study identifies a range of different

factors that relate to ascribed meaning: the infertility, the IVF, the child and parenthood itself. Heidegger (1962) commences Being and Time by considering what is the meaning of Being? [see 5.4.2]. Meaning is dependent upon context and implies that we form some sort of understanding of something – in this thesis, of the transition to parenting following IVF. Meaning reveals the relevance or importance of something to us, with time as an influencing factor on that meaning (Polt 1999). It also suggests that we have some concept of what it is we are seeking meaning about – a provisional model of what we expect, whilst Smythe (2011:39) suggests that we're also alert to the '*possibilities of semblance, the taken for granted, the assumed'.* Whilst meaning requires context to make sense, it also provides context for us to project our own possibilities on to (Polt 1999) including the consideration of what parenthood is for us as individuals. However, Heidegger also considers that meaning is not purely a manifestation of self, but that the thrownness of Dasein governs the possible situations we find ourselves in; we respond to, as much as create, meaning. From a midwifery perspective, Crowther et al (2020) in their inquiry into spirituality in childbearing identified meaning and sense making as a theme, repeatedly referred to as a connectivity and relationality between individuals and also between existential concepts of spirituality, what had gone before, was happening at the time and a projected future – aspects of Heidegger's historicity.

11.2.1 Meaning of Infertility and IVF

The first of the secondary research objectives was whether parents' perception of their previous experiences of infertility and associated interventions influence this transition.

Infertility is a violation of one's expectation of bearing children, which we assume will occur spontaneously and at a point of our choosing (Letherby 1999, Whitehead 2016, Bell 2019a, Sawyer 2019a). Within Being and Time (1962) Heidegger differentiates between ***present-at-***

hand and ***ready-to-hand***. Present-at-hand is the theoretical or assumed function of an object, whilst only in performance is that capacity proven and it becomes ready-to-hand. The couples in this study had all assumed that they would be able to have children; that their bodies *present at hand* would function for them and prove to be *ready to hand* when required; an assumption that is challenged by infertility in which their body shows itself to be '*unready*'. Thus, it is in the body's failure to function as expected - by conceiving a pregnancy, that attention is drawn to it and it becomes visible, prompting the action of seeking help. Infertility was distressing for them all and caused them to suffer, a situation which Wright (2008) suggests is exacerbated by the struggle to find meaning. Karen suggested that she felt they were 'better' parents through delayed parenthood, and this may reflect a search for meaning within a previously unwanted situation.

For Claire and Daniel and Karen and Adam it was a growing realisation that what was expected was not occurring – it was in the absence of a pregnancy that a concern was revealed. For Carla and Jakub it was the loss of the first pregnancy that made them realise they wanted a child – their desire was ***'brought to light'***, only to be followed by the same growing doubt experienced by the others. Smorti and Smorti (2012) identify 'doubt' as the initial stage in what they refer to as the 'plot of a story' for couples becoming pregnant after ART. Growing doubt is followed by diagnostic intervention which results in a 'sentence', itself addressed by the metaphor of struggle and eventual victory. Similar disruption is identified in those experiencing illness, both mental and physical health and neurodiversity (Svenaeus 2011, Riazi et al 2014, Hundt 2019, Reed and Osborne 2019), which lead to a diagnosis which is itself both wanted and unwanted. They found themselves ***'thrown'*** into a situation not of their choosing, but which mattered significantly to them. Thrownness is the situatedness of how we find ourselves in the world, a new situation, but one that is bordered by current cultural and temporal norms. A current norm is the possible option of IVF.

'*Dasein is in every case what it can be, and in the way in which it is its own possibility*' (Heidegger 1962:183). Consequently, individuals are always alert to the potential possibilities in their lives; for these couples, the possibility of a child, to which the response was to seek medical help. Whilst IVF provided for these couples the possibility of their own child, they did have other possibilities - they could have accepted a child-free life or considered adoption, but for them all, looking to medical help was their first response and they made no reference to any other. This reflects recent findings by Bell (2019b) who argues that biological privilege, supported by medicalisation, enhance the assumption of treatment as a first response. Just over half of couples seek medical help for infertility (Boivin et al 2007, Oakley et al 2008), although there are differences in ethnic and socioeconomic background (Stanford et al 2016). The couples in this study were all Caucasian and identified with a Western biomedical perspective of infertility; that is, that referral for treatment was an accepted norm whilst accessibility to IVF treatment via the NHS (although restricted) made it a possibility.

It is interesting to note that, as found by Allan and Finnerty (2007), couples did not interact with other couples in the setting of the assisted conception unit; despite the probable similarity of experiences, couples maintained a self-concealment. This self-concealment continued into their discussions of who or what to say to friends and family. Although Karen found her experiences in using the online support group helpful in a practical sense – information or guidance on making up medications as well as a legitimate occupation which helped her desire for control, her experience remained detached and relatively anonymous. This is in contrast to some other studies (Whitehead 2016, Sawyer 2019b) which identified women turning to online blogs or support groups, in an attempt to gain support from those who understand the experience and recognise the feelings of frustration, anger and exclusion. These studies reflect a specifically white, middle/upper class demographic who appear to find

the cathartic nature of writing helpful. In contrast Malik and Coulson (2010) highlight that is the reading of material (others negative experiences, incorrect information and pain on hearing of other's pregnancies) which is identified as unhelpful. The couples in this study appear to turn predominantly to their partner and immediate family for support. A finding similarly identified by Gameiro et al (2010b, 2011b), a process they refer to as 'social nesting'. A correlation between social support and adaptation to parenthood was noted by Crespo and Bestard (2016), but this was mediated by caution over who and how much to disclose to others as seen within this study. The persistence of a degree of stigma, despite increasing rates of IVF (HFEA 2020) was identified and although the couples now – following IVF success - felt more able to talk to others it did not appear to be the case initially. This may reflect a decision to conceal their perceived stigmatising identity of infertility as a self protection, managing that concealment within a small identified group. Similar findings have been found in relation to cancer diagnoses (Hilton et al 2009) in which reasons for the difficulty disclosing to others relate to wanting to spare others distress and for men, hegemonic constructions of masculinity.

Once conception had occurred, a cautious optimism followed. Darwiche et al (2013) identified three possible responses in couples being transferred from specialist ART care to the general hospital – autonomy, as shown by Claire and Daniel, who were happy to begin a new phase, dependence, evident for Karen who perceived the specialist as 'protector', and avoidance, where the input of ACU was minimised; this was not evidenced in this study - all three couples spoke highly of the ACU and felt indebted to it. French et al (2015) refer to the 'gap' between the frequent monitoring of the IVF process within the ACU and the assumption of routine appointments once transferred to maternity care. In particular, the lack of antenatal appointments or scans between weeks 12 to 20 felt difficult (despite the reality that at that gestation there is little intervention that can help in the event of a problem).

The anxiety of pregnancy is related to Being's thrownness into the world – thrown into a situation which is not of it's choosing but is significant to it and is related to the time and place in which couples find themselves. The participants' concern about the pregnancy is individual, reflects their previous experiences and emphasises their difference to other expectant couples. Consequently, the relevance **das man** or the 'they' provide for these couples in pregnancy is reduced; they may be perceived as dictating a norm for spontaneously conceiving couple which those with IVF pregnancies may not identify with, instead those who have had similar experiences, including the partner with whom they had gone through the experience were seen as helpful (Warmelink et al 2016b). Although Claire and Daniel, and Karen and Alex had attended antenatal classes, they appear to have been spectators rather than involved within them; Claire and Daniel suggest that was because it was a large group, later in the evening, whilst for Karen and Alex, the group contained a number of couples with complex obstetric histories (including losses). McMahon et al (1999) suggest that IVF mothers may avoid information during pregnancy as a means to manage anxiety. This can lead to a state of 'uncanniness' - that is, that Dasein exists in a state it did not necessarily choose for itself, but within which it must manage. *'Dasein finds itself alongside in anxiety, comes proximally to expression: the 'nothing and nowhere'. But here 'uncanniness' also means 'not-being-at-home''* (Heidegger 1962:233). This wariness is also common to those with previous perinatal loss; Meredith et al (2017) identified increased anxiety during pregnancy and a reluctance to look too far forward, whilst Moore and Cote-Arsenauld (2018) in their analysis of pregnancy diaries also use a 'journeying' term with mothers focussing on the need to 'stay on track'. In pregnancy IVF parents can find themselves in a liminal state; no longer an infertility patient, but not fertile, pregnant but wary of being expectant (Sandelowski et al 1990, Olshansky 2003, Konrad 2003) As with those

that have experienced previous perinatal loss, the meaning of IVF in pregnancy is a sense of still being in the race, but not yet across the finishing line.

Although some earlier studies on parenting following IVF suggest an over-expectation of the child (Hammarberg et al 2008a, McGrath et al 2010), couples in this study, rather than picturing an idealised child, were not able to envisage the child at all. This may follow from not being able to 'let themselves go' and believe in the pregnancy (McMahon et al 1999, Smorti and Smorti 2012), the latter also identifying later preparation of a nursery and reduced conversation with the unborn baby, that they suggest may indicate avoidant coping. Similar findings of delayed preparation and attachment were also highlighted in Meredith et al's (2017) study of pregnancy following perinatal loss.

Through the interviews there was evidence on couples reflecting upon their experience and turning to each other to confirm or expand a point between them. Narrativity is proposed as a way of making sense of our experiences and locating them within our **temporality** (Ricoeur 1984-88) and has been used in psychotherapy to help individuals understand potentially traumatic experiences (Polkinghorne 2004). Heidegger's concept of Dasein was being that is always in the world and consequently seeks to understand experiences as its world (Freeman 2007). Rationalising and understanding their experiences gave participants a means of 'seeking the path' (Becker 1994) through their world.

In Heidegger's later writing (1977: 180) he states that '*to venture after meaning is the essence of reflecting'*. The couples in this study spoke more in retrospect about the IVF and the challenges associated with it, both physically in managing effects of the medication and psychologically, particularly knowing what to say to others. The retrospection was necessary for their reflecting, not just an acknowledgement of what they had experienced but a '*calm, self-possessed surrender to that which is worthy of questioning'* (ibid). This retrospection was

particularly noticeable in the final interview - perhaps couples had wanted to highlight aspects that felt important to them on what they knew was my last visit, however it tended to be prompted by my asking them about any plans for future children. This resonates with Sandelowski's (1992) reference to a lingering infertile identity, which Allan et al (2019b) suggests recurs in thoughts of subsequent children. All three couples had already discussed having further children, both Claire and Daniel, and Carla and Jakub hoping that having had a child would prompt a subsequent spontaneous conception. For this study, 'trying again' was perceived to be at some point in the future, however Allan et al's (2019b) participants were three months to two years postpartum and thoughts of additional children remained daunting, prompting reminders of the emotional and physical difficulties of IVF and challenging their developing identities as parents.

For Heidegger, mood is not an individual psychological response, but a '*way the world itself appears*' (Moran 2000:241) with moods disclosing something of the individual. Infertility had challenged the couple's expectation of their world - it was different to them because of what they had experienced. How an individual is at that point in time, together with historicity and temporality – the past and potential future of an individual, leads to attunement. Therefore, the experience of infertility and IVF will always be present for these couples. By needing to seek a technological path there was an admiration of the technology, but also a wariness or 'holding back', as they were reluctant to hope prior to conception and, once pregnant, to ascribe meaning to something that was not yet proven, feelings which recurred in considering siblings for their children. Temporality reflects couples' previous experiences - individually and together, in addition to the possibilities of the future and through this, the couple relationship is co-constructed using interaction and negotiation (Molina 2018). Illness is an unhomelike being-in-the-world (Svenaeus 2011) which 'breaks in' and resists our attempts to make meaning of it and to assimilate it into our being. In the

same way infertility matters to us and thwarts the anticipated future life, with the body itself becoming the obstacle. Meaning-making is setting the groundwork for the emergence of a new relationship as a triad rather than dyad and future possibilities within that.

11.2.2 Meaning of the Child

Couples within this study appeared to have engaged with the 'meaning' of the child to them, through the reflection on their IVF journey. Although not verbalising it directly there was a sense of the child as being wanted as a representation of the couple relationship, as a member of a family and of an individual reason to be. Arnold-Baker (2015) identified the transition to motherhood as developing the relationship with baby, supported by significant others which leads to an identification of 'self' – it may be that for those in the current study, the difficulty of conceiving both this baby and potential siblings affects the sense of 'self'.

Birth was perceived as a pleasant surprise to all the mothers. During the pregnancy, although having made loose birth plans, they all emphasised how the safe delivery of the child was the primary concern. In her study of the meaning of giving birth, Lundgren (2011) describes birth for the woman as an encounter with herself, as well as with the midwife. Coping with the pain of labour appeared affirming to these mothers; meaning potentially being ascribed to 'natural' childbirth countering the technological conception necessary. Although Claire had an emergency caesarean section, the prolonged managing of contractions at home was felt to bring her and Daniel together, whilst the calming approach by staff when determining the need for operative delivery reassured her. Her perception of the caesarean was that whilst not 'natural' it was not 'abnormal'. For Karen, the birth marked a turning point in which an empowering birth reassured her that the pregnancy was meant to be and the anxieties of pregnancy eased instantly. For her the evidence of her body's ability to birth her baby countered the difficulty in conceiving. Although mothers described birth in Western

biomedical terms, from an existential perspective it also reflects a reinterpretation of self and a strength gained by managing the pain and experience of birth, which can reaffirm a sense of self as mother. This experience of a positive outcome following the difficulties in conceiving and the anxiety of pregnancy has resonance with other women for whom an empowering birth can be 'redemptive' following previous associated trauma (Thomson and Downe 2010).

Prinds et al (2014) refer to the meaning of motherhood as being likened to the meaning of life itself, our inherent humanity and vulnerability. Their review of existential meaning in the transition to motherhood highlights spiritual aspects at birth, rarely considered in the current technocratic environment of Western birth. For some this was articulated as God, whilst for others there was an acknowledgement of the mystery of birth reflecting the mystery of death. This relates to 'being towards death' (1962) a Heideggerian concept which is a fundamental activity for everyone. The presence of one's own children may be perceived as, not an evasion of death, but of an explanation or sense of continuity after. Heidegger argues that it is the moving towards death that each of us recognises which enables authenticity and prompts our need for coherence, seeing our life as a finite project, with an (albeit unknown) end date (Guignon 2004).

Heidegger himself makes no reference to birth or the development of being, however for Hannah Arendt, a student of Heidegger's, natality is the origins of our '*capacity to begin*' (Totschnig 2017:328). Once born, a baby clearly is 'being-in-the-world', yet at that point, is not capable of 'leading' its life; it is reliant upon others. The natality that Arendt refers to may be the beginning of parenting - within the accounts, parents are projecting their own interpretation of the child, reflecting their own temporality and historicity. However, this temporality is unique, a situation Arendt herself alludes to when arguing that through birth, each of us is capable of a new beginning (Arendt 1981). The link between past and future may reflect the split of pregnancy as women acknowledge both the developing being of their

own child and the subconscious recognition of her own mother's body (Young 1984). Whilst birth may be perceived as the commencement of parenting, it may also be identified as the cessation of pregnancy, an experience some associated with stress.

Instinctiveness in parenting (or a belief in it) may reflect the Heideggerian concept of **safeguarding**, with 'safe' here meaning '*to set something free into its own essence'* (Heidegger 1993:352) or the making and letting it be. Although Heidegger was writing about the natural world and contrasting it with man's manipulation of technology, it could similarly be seen as an individual's intrinsic response to the miracle of a child following the technological intervention of IVF. A focus on letting the child 'be' may also reflect the influence of IVF leading to them feeling less worried about 'little things' [see 9.2]. It has links with 'dwelling' as in a place where one feels safe or at home, spatially, but also where one can rationalise and make sense of being (Wheeler 2011) and of a new beginning. Whilst dwelling may refer to one's physical home, it may also reflect a sense of feeling at home in one's cultural environment; becoming a parent enables couple's access to a social norm of parenting: discussions with other parents, involvement in activities, a social status often seen as a rite of passage. Thus, the child acts as bridge to a new world.

11.2.3 Meaning of parenthood

As much of the literature suggests (Hammarberg et al 2008a, Allan et al 2019b), the couples' transition to parenthood was generally normative. A significant factor was when couples themselves perceived that they were 'normal' (or at least felt that they reflected a cultural norm), were similar to others or 'back on the path'. When I commenced the study, some midwife colleagues asked me why I was focussing on IVF couples as they felt once they were pregnant, they were the same as other couples – and treated them as such. For Claire and Daniel, this was partly true, being transferred from the Assisted Conception Unit to the local

hospital Trust reassured them they were ‘normal’ - a term they reiterated several times. For Karen and Alex, birth was a turning point, prompting a sudden (and unexpected) decrease in anxiety levels for Karen in particular, whilst for Carla and Jakub postnatal readmission delayed a return to home and normality. For these couples the perception of their previous experiences of infertility and the interventions influenced their association with a ‘normative’ process and, as identified by Sandelowski (1995) and Allan (2019b), continued to have an effect in their consideration of further children. The meaning of the transition to parenthood after IVF was, for them returning to a path previously mapped out in both their heads and their hearts. However, although returning to the path, they cannot ignore the detour necessary, and which potentially may be needed again. Although IVF has provided them with a child and assimilation into a cultural norm, it has not provided the normality of personal control and that vulnerability remains an area worthy of awareness for midwives and other healthcare professionals.

When I commenced the study, I anticipated couples responding to the baby as a culmination of their efforts, and of medical intervention, in achieving a much-wanted child. I was aware of anecdotal accounts of how the achievement of the longed-for goal of a child led to an anticlimactic response to an over-idealised child – this was the provisional model. Findings from the review of the literature identified contrasting results (Hammarberg 2008a, Allan et al 2019) although methodology was found to influence findings. Cairo et al (2012) identified decreased levels of postnatal family alliance for IVF parents than spontaneous conception couples at nine months. They propose that this may reflect increased expectation of the baby and a more child-centred approach (Hahn and DiPietro 2001, Mohammadi 2015) that may influence the triadic interaction and point to a differing transition for IVF couples. However, Segev and van den Akker (2006) caution against the misuse of terms which both imply ‘over-protectiveness’ and which suggest parents may offer socially desirable answers because of

gratitude (Golombok et al 2001) and conclude, in common with the majority of studies (McMahon et al 1997a, Hammarberg et al 2008a, Jongbloed-Pereboom et al 2012) that there are overall minimal differences in psychosocial outcomes for children and family functioning between IVF and spontaneous conceptions.

All of these studies relied on a quantitative approach which, as identified, was unlikely to draw out the subtleties which a phenomenological study should provide. Quantitative approaches correlate with a technocratic approach to research and - in the same way that technocratic birth sidelines existential and spiritual meanings (Prinds et al 2014), quantitative research sidelines issues of meaning. For parents in this study, as for all parents, the new baby brought great joy - the expected frustrations of lack of sleep, lack of free time and learning what their babies needed of them were acknowledged, but were seen as expected limitations rather than demands. At times of frustration couples were able to balance it with the knowledge, as Karen and Alex phrase it, 'we're grateful to have the opportunity of sleepless nights.' These couples had a strong sense of working together, although within a traditional gendered pattern [see 10.2]. For the fathers, the initial joint approach to parenting in the early days shifted once they returned to work and there was a tendency to default to their partner's perceived experience with the baby within the third interview. This togetherness reflects ideologies of new fatherhood (Williams 2008) potentially emphasised by the difficulties of infertility and IVF experienced as a couple (Repokari et al 2007), with similar findings identified by Allan et al (2019b).

Whilst the couple relationship appeared to be the primary support for each other, couples describe how they embraced and were absorbed into a normative world of others: existing friends, family and new acquaintances with the everydayness of this enabling a necessary 'inauthentic' functioning which demonstrates concern for and with others. Heidegger refers to this as **solicitude** (the way in which others matter to us). This concern is both normative

and constitutive – we promote it as normal because we constitute it as normal. This shared sense of community suggests not just that we created it, but that equally it created us (van der Berg 2013). For example, whilst 'das man' (the they) as the normative community within which talk of routine is common may potentially put pressure on new parents, it equally is composed of 'us' providing a cultural norm that brings with it a sense of belonging and support which links to dwelling. Involvement with the 'they' is an '*enabling condition'* (Guignon 2007:279) which allows access to and resources for flourishing within that environment. Whilst during pregnancy couples rarely referred to turning to others, beyond discussions on who they told about the IVF, once they were parents there was a branching out to others, which may reflect the point at which they felt they had returned to the path. Claire and Daniel refer to friends whose babies were due around the same time as theirs who provide antenatal support to Claire, yet this is not apparent for Karen and Alex, nor Carla and Jakub. Heidegger (1962) differentiates between 'datability' or relational structure of time and awaiting or the 'now-not-yet' of time, for these couples 'now not yet' fits with the delay necessary until they feel able to engage with the das man of their parenting community.

The meaning of parenthood for these couples is an assimilation into a community and a new family life, that they had previously feared, even in pregnancy, that they may not have an opportunity to experience. This is accompanied by a joy in the child that not only they, but friends and family also embrace, providing a justification for the challenging interventions of IVF treatment.

11.3 Gendered Responsibilities

The second research objective was to gain insight into potential differences or similarities between the perceived experiences of mothers and fathers of an IVF conceived baby. It is

possible the originally proposed method of interviewing couples separately may have aided this insight, however the focus on just three couples made it difficult to draw clear insight. Yet despite this the couples did express and describe gender difference in perceived responsibility for the infertility itself, the pregnancy and ongoing parenting. This is significant as one would expect couple interviews to minimise gendered findings (Seale et al 2008, Norlyk et al 2015) and, as noted it was only when bringing all the data together that thse findings were apparent. The acknowledgement of gendered responsibilities was highlighted by both partners – it was often the male partner that explained to me that it was much harder for his wife, particularly when explaining the pressures of infertility and IVF treatment, recognising the greater psychological and physical burden. The women tended to respond to this by a quiet affirmation, which whilst appearing to signal their agreement, may also be a reluctance to disabuse their partner of his own constructed reality.

The day to day focus on maternal responsibility for the child was more frequently referred to as being dependent upon the fathers need to return to work. Findings reflected the maternal rather than paternal focus highlighted previously (Draper 2003, Deave and Johnson 2008, Chin et al 2011, Steen et al 2012, Halcomb 2018) which correlates with contemporary culture. Even in Sweden – a much more egalitarian society with policies promoting equality in parenting (Kerstis et al 2018, Hrybanova et al 2019) this discrepancy is evident. Fathers' experience of IVF parenthood is under-researched (Culley et al 2013, Allan et al 2019a), particularly when compared to studies of gay fathers, which, despite being a statistically small group, were more common. Allan et al (2019b) refer to men's experiences as 'one step removed' both physically and psychologically.

As argued within 6.5.2, parenting is a joint enterprise, particularly for these couples potentially brought closer through undergoing infertility investigations together (Repokari 2007), and thus the couple entity as a unique concept was focussed upon. However, within

this there were some differences identified, particularly in the responsibility women assumed for the success of IVF and the ongoing safety of the pregnancy [see 8.2.2]. Claire described how she was putting pressure on herself as she was thinking *'my body needs to work, it needs to do this for both of us'* (herself and Daniel). All three mothers in their antenatal interview expressed that they would feel happier once the baby had arrived, Carla clearly linking it to a lack of trust in her body's ability, a similar finding to that expressed retrospectively by Karen. For Carla, the previous miscarriages had left her *'not feeling like a real woman'* with the failure to become pregnant, or maintain a pregnancy threatening her sense of self in a way that was not evident for the fathers. Despite not being overt, it may be that their sense of masculinity was challenged, yet the emphasis on the maternal body as the site of investigations and treatment shifts the focus onto the female partner (Sandelowski 1999, Bell 2015b, 2016), leading to men minimising their own experience. The three fathers in this study represented themselves as being the support for their partners and although Jakub expressed how distressed he felt and how he could not stop thinking of their difficulties conceiving, he emphasised how much worse it was for Carla, relating it to her confidence and sense of self.

As referred to previously the phenomenologist Merleau-Ponty [see 5.4.3] focuses on perception and on the centrality of the body to human existence. For these couples, the body has failed to work as expected and is perceived to have betrayed them, affecting their self identity, particularly pertinant to the mothers. Yet it has not just failed biologically but has failed in showing their intentions of intended parenthood to the world, which changes others' perceptions of the couple. Whilst infertility reflects a lack of control over their body, it may also relate to lack of control over other's perceptions of them as individuals. This is evident in the pressure which Daniel and Claire particularly felt from their large and well-meaning extended family, stress which Claire acknowledges was unintended, but painful.

Feelings of blame appear to be particularly common amongst women in comparison to men, identified during infertility treatment (Silva and Machado 2011), pregnancy following IVF (Walker et al 2017) and for perinatal and parenting outcomes (Gold et al 2018, Courcy and des Rivieres 2017), both self-blame and the perception of blame from others. A survey in the US in 2003 found that 65% (n=1561) of women and 59% of men (n=406) identified the 'mother not taking care of herself' as the cause for most preterm births (Massett et al 2003), supporting the argument that blame for perinatal outcomes disproportionately falls upon the mother, despite unknown cause being a common factor within infertility, stillbirth and prematurity.

The fathers appeared to see themselves in a supporting role reassuring their partners that they were doing well and that everything would be successful. This appeared to be protectiveness (maybe of their own anxieties as much as their partners), potentially influenced by gendered notions of masculinity, and an acknowledgement of the additional challenges of treatment that their partner, and to a certain extent both of them, had been through. However, at the same time they expressed a sense of powerlessness, equally identified by Warmelink et al (2016b). Again, similar findings have been identified in fathers who have experienced perinatal loss, with men's grief and anxiety subsumed beneath both their desire and a perceived expectation (of both society and health care professionals) to protect and support their partner (Obst et al 2020). The use of couple interviews is proposed as a means of enabling men to verbalise emotional aspects of the process, supported as they are by their female partners who encourage more personal disclosure by their own openness (Seymour et al 1995).

It may be that this supportive presence was the image that they wanted to portray to myself as an interviewer, as a midwife and presumably to society in general. It is possible that individual interviews may have drawn out differences between the couples and highlighted

issues which they were reluctant to express to the other. However, Letherby (2003) whilst highlighting the lack of research on the 'same' issue from male and female perspectives, suggests that the gender of the researcher themselves is likely to influence findings. This is a factor to consider when acknowledging one's own presuppositions, one cannot be anything other than the gender one identifies with, instead the potential influence that that may have on the data gathered, its analysis and its influence on findings must be acknowledged and managed. The desire to appear as a supportive partner and parent is also shown in research on lesbian co-mothers (Wojnar and Katzenmeyer 2014) which identified how the non-biological mother felt the need to alter their behaviour to appear an 'appropriate' parent. The lesbian couples, having used assisted reproductive technology, wanted to prove that they were responsible individuals, a pressure potentially exacerbated by lingering social stigma on same sex families; yet that same pressure to be 'deserving' of the opportunity for IVF may have an influence on all couples.

The transition to parenthood reflected normative experiences for both mothers and fathers as previously identified in 3.8 and this study shows correlations with the existing literature. The fathers appeared to be involved in early childcare, as suggested by Holditch-Davies et al (1999) and Allan (2019b) and reflecting a contemporary focus on father's personal identity and a more practical involvement in child rearing (Faircloth 2014). Although particularly evident during paternity leave, the later necessity for fathers to return to work and maintain income was emphasised by both parents. This divergence between the return to continuing employment for fathers and a new maternal sphere of home and peer group for the mothers seems to reflect the traditional gendered difference of support networks existing alongside the family triad. Reflecting the findings of the current study, Gameiro et al (2011b) identified no difference in social support between IVF and spontaneously conceiving couples, although men tended to focus on friends rather than family, compared to women. Parenting stress

appears less evident for lesbian couples undergoing IVF than it is for heterosexual couples with either IVF or spontaneous conceptions (Borneskog et al 2014). This is proposed to be linked to greater equality in parenting roles, although it may be that having not expected to have one's own child (until recent societal and legal changes) lesbian couples embrace the experience of motherhood differently. Alternatively, the decision to have a child when in a stigmatized situation, such as a lesbian relationship, reflects the self efficacy of the parents-to-be. Previously infertile heterosexual couples may fall between these two groups, of those who know they will need medical treatment and those who conceive unaided, being a group who initially assumed their natural fertility and were challenged when discovering intervention would be necessary.

Heidegger considered Being as a neutral entity and rarely considers gender, either politically or socially (Huntington 2001); instead, his focus on the human condition negates any difference of 'male' or 'female'. Denial of difference could be seen as maintaining white, middle-class male advantage, however Freeman (2011) argues that there are similarities in Heidegger's thinking and feminist thought, specifically his focus on subjectivity and the development of self, interdependence and both being-with and being-in-the-world, concepts traditionally associated with female development and highlighted by the feminist psychologist, Carol Gilligan (1982). The reliance on another and the building of significant relationships with others is how we become ourselves and how we develop as parents. Heidegger's absence of comment on gender reflects the apolitical nature of his work, he was not interested in the biology of being, only the ontology, and as feminism is usually political, Heidegger's perspective can only be implied. Merleau-Ponty has also been criticised for failing to consider feminine perspectives, yet Daly (2019) argues that his broad consideration of embodiment embraces diversity whilst his references to body schema and intersubjectivity resonate with a feminist ethics in which moral and social interaction are central, as espoused

by Gilligan (1982). This enables recognition of ART as both a physical and psychological concern.

For these couples, as with most, there were many more similarities of experiences then there were differences. Looking for commonalities of experience may be more fruitful than looking at difference, as difference is predominantly influenced by social construction and specifically visual cues (Friedman 2013). From a Heideggerian perspective, revealing one thing – gendered difference - actually leads to concealment of important similarities, for in focussing on one aspect the gaze is moved from another, the truth only ever partially revealed and in a constant state of flux. Heidegger argues we intervene because we can, *'the will to will'* (Polt 1999: 171) which leads to ongoing acceleration and as '*IVF is naturalized, women are technologized'* (Mentor 1985:75).

11.4 Technology

The third research objective 'if, and how parents of an IVF-conceived baby perceive wider societal views as influencing their experiences and behaviours' is addressed firstly via a consideration of technology (technological advance being influenced by the public's perception of its acceptability), and later by a consideration of 'das man' – the influence of immediate others. As Sandelowski (1999:13) states '*the technologically radical is often the culturally conservative'*. Technology is both instrumental and anthropological, the fact of its human invention - as a means to an end - indicates the 'issue' that it was designed to address, in the case of IVF, of infertility. The changing assumptions around childbirth and increasing efficacy of IVF (although still not guaranteed) reveals or alters both society's and an individual's understanding of 'normal'. The context of IVF within China demonstrates this particularly well, where the focus on birth control to ensure the one child policy goes alongside an assumption of the right to one child and consequently a significant acceleration

of IVF provision, sanctioned by the state and legislation (Wahlberg 2016). This routinization demonstrates how new technologies traverse the gap from radical to routine. Svenaeus (2013:4) summarises that '*technologies change our way of viewing and understanding the world*'. This changed perspective then becomes the 'enframing' or only way of thinking – in not being able to conceive easily couples move to IVF in a relatively thoughtless or **inauthentic** way. Whilst it may appear that those seeking ART have had to think much more about having a child than those who have spontaneous (including unplanned) conceptions, the thoughtlessness of IVF is the unconsidered process, not the goal. Heidegger's writing predates IVF, yet he reflected upon the push and pull of ***technology***, where individuals wanted the effects of technology, but not the process (Heidegger 1977). Distress is evident in couple's accounts as expectations of the body are frustrated and so they turn to, indeed expect, technology to help find an answer for them (Lambeth 2019) reflecting a biomedical model of medicine. Following a positive pregnancy test those with spontaneous conceptions tend to focus on pregnancy and the forthcoming birth, rather than reflecting back to the conception, focussing on the child that is (Modh et al 2011, Hall 2006). Consequently, the individual 'moments' of conception: fertilisation, initial cleavage, implantation are rarely routinely considered, despite being necessary in order for a pregnancy to result, *'that which has been circumspectively taken apart with regard to its 'in order to' and taken apart as such – that which is explicitly understood - has the structure of something as something'* Heidegger 1962:189. When working effectively, the body is not seen; it is only in the failure to conceive, in its functional absence does it become conspicuous and thus requiring technological intervention. That absence and the unthinking turn to resourcing, identified by Heidegger as indicative of technology (Lambeth 2019), provides the rational for further technological development. Within fertility treatment, regulation of development is a role devolved to the HFEA, generally supported by doctors and the general public. It is also

charged with the responsibility to consider, debate and reflect upon potential implications of future technological advances in a way which reflects Heidegger's (1977) suggestion of *'being one who listens and hears, rather than one who is simply constrained to obey'.*

Heidegger was wrongly considered as being anti-technology when he warned that in trying to manipulate technology, we became victims of its efficacy (Brassington 2007). However, he instead encourages us to think about, engage with and consider the meaning of technology more fully; that we consider the implications of technology to do harm as well as good *'everything depends on our manipulating technology in the proper manner as a means'* (Heidegger 1977:5) otherwise we risk losing our focus on Being as we are swept up in the technological tide.

Poesis is the 'bringing forth' or making something present which previously was not. Within IVF, it could be argued, poesis may relate to 'physis' - something is brought forth by itself – a cherry tree blooming or a fetus developing from an embryo. However, within IVF the initial creation of the embryo relies upon 'techne' which requires man's manipulation to bring forth a new being. The bringing forth is a way of revealing (Heidegger 1977); with that revealing showing how beings themselves are exploitable.

Technology looks to everything for its potential use, objectifying and gathering to supply a 'standing reserve' (Heidegger 1977) and beings themselves become manipulatable. Individuals may be 'human resources' to be available as any other resource: within the field of ART this can be seen in the gathering and storage of gametes and embryos in a way Heidegger could not have foreseen. It may also be 'das man', the they; as health care professionals bringing individuals together through antenatal groups, support groups or toddler sessions we may be manipulating others to provide support or it may reflect the reserve of support from others utilised through social media and video communication.

Heidegger does not consider whether technology is a 'good' or 'bad' thing, only that we engage with it consciously and thoughtfully, recognising it as a '*way of disclosing and revealing Being'* (Moran 2000:244). Within healthcare the focus is on the bioscientific – efficacy, safety and cost, in general there is a lack of a phenomenological perspective in considering the holistic needs of patients (and staff) (Ha'elyon and Gross 2011, Carel 2011, Sveneaus 2013). Technology is not a new concept, it is always 'of its time' and reflects a society's cultural norms (Sandelowski 1999).

11.5 Das man ('the they')

The third research objective considered parents perception of wider societal views, as portrayed and expressed by others, influence on their parenting. Heidegger argues that Dasein is always about an interaction with others, *'a bare subject without a world never 'is''* (Heidegger 1962:152). As a 'being-in-the-world, individuals are influenced by those around them and they themselves influence others. However, this relates not just to friends, colleagues, acquaintances, but the whole *'the 'who' is the neuter, the 'Anyone'*" (Heidegger 1962:126) which includes nameless others who influence through media, including social media. Yet the 'anyone' relates not just to people, but custom, practice and institutions which are our social milieu. In commencing this study I thought that participants may show a reliance on external sources of parenting advice; increased anxiety on returning home postpartum identified by Hammarberg et al (2008b) and a more external locus of control by McMahon et al (2003), particularly as the industry around parenting advice has increased (Lee et al 2014). The discourses around both parenting and fertility are argued by Faircloth and Gurtin (2017:985) to increase parental anxiety which they describe as *'anxious reproduction'*. However, this did not appear to be the case with parents embracing an instinctive parenting approach which mirrored their antenatal beliefs. They accessed IVF

treatment because they perceived parenthood to be something that they would be 'good' at (Gurtin and Faircloth 2018) and antenatally expressed an expectation that acknowledged there would be challenges but that they would manage, and particularly a sense of managing together.

In becoming parents, couples entered a world with which they were already familiar, they could interpret their own understanding of themselves as parents because they recognised the shared human space (Aho 2005) and could relate to the expectation of their roles [3.3.2]. There were times when all the couples made reference to wider sources of information, they looked on social media or asked friends, but this was for another perspective rather than as an authoritative source; they interpreted it in relation to their own instinctive viewpoint. Peters (2019) suggests that we engage with others *as* they engage with us (original italics), consequently individuals can recognise another's perspective and determine whether to accept it, adapt it or reject it according to their own views and that response strengthens the shared view of the world; the 'anyone' of das man.

It may be, as Karen and Alex suggest, that the opportunity to observe others' parenting had clarified for them what felt right (as suggested by Sydsjo et al 2002), whilst for Claire and Daniel consolidation on 'how' to parent was subconsciously obtained through contact with their large and culturally similar families. Carla and Jakub expressed a belief that parenting was not difficult and, in common with the others turned to each other for confirmation if in doubt. Heidegger considered temporality as both past and future, with 'projection' as a constantly looking forward. It may be that parenting advice is an ongoing 'for the sake of which' with guidance on getting into a routine, sleeping through the night, feeding or promoting optimal development seen as being for the future, these couples appeared to be enjoying the child in the here and now, rather than looking too far ahead – potentially a coping mechanism developed through infertility and IVF treatment.

The preceeding four subchapters address the research objectives as specified at the beginning of the thesis. As Heideggerian phenomenology acknowledges the presuppositions of the researcher together with the experiences and perspectives of the participants, it is recognised that these aspects may differ from those another researcher, or different participants, may have revealed. A fusion of horizons is formed by the contribution of both researcher and participants (and later by the reader) which pushes forward existing boundaries of the horizon of understanding, revealing new insight. To consider the utility of new understanding for healthcare professionals, the unique contribution to knowledge gained from this study is considered whilst acknowledging the relevance of Sandelowski's original work from 1995 [see 3.5] and the recent work of Allan et al (2019b).

11.6 Extending understanding: Sandelowski (1995) and Allen et al (2019b)

In undertaking this work I was looking for an understanding and insight into the lived experience of the transition to parenthood for couples with an IVF pregnancy. At the time there was minimal current literature beyond Sandelowski (1995) whose research had been undertaken in a differing cultural context of late 1980's United States in which IVF remained unusual. Shortly before completion of my own thesis, Allan et al (2019b) published their retrospective study of couples' transition to parenthood following IVF. The hermeneutic approach necessitates a fusing of horizons which incorporates previous literature with the study findings and Heideggerian concepts. Together this enables interpretation which leads to the revealing of the phenomenon, which the reader is also invited to join, further contributing to the interpretation. The two key pieces of literature from the existing field are the works by Sandelowski (1993a,1995) and Allen et al (2019b). The following sub-chapters clarify the

similarities and differences between the two studies and this thesis, whilst recognising how knowledge, understanding and revealing arises from the fusing of horizons .

11.6.1 Method and Methodology

Sandelowski's work was based on three studies: a phenomenological exploration of infertile couples, a sociohistoric review of literature on infertile women and a longitudinal grounded theory study of transition to parenthood (either biological or adoption). These were reported in a book (1993a) and a theory of the transition to parenthood of infertile couples was reported in a later journal article (1995). There is limited methodological detail in either the book or article and Sandelowski herself writes extensively on a range of differing qualitative methodologies and the use of mixed methods (1991, 1994, 2002, 2012). Sandelowski's study most relevant to my own is the latter grounded theory study on transition to parenthood. Allen et al (2019b) undertook a qualitative study (n = 16), which despite no specified underlying methodology, does follow some aspects of interpretive phenomenology – particularly, the unstructured interviews commencing with one broad 'tell me about…' question. Analysis is described as transcripts being coded and analysed thematically. Both studies undertook couple interviews, for Allen et al (2019b) this was a single retrospective interview when the child was between 3-18 months old (no mean available). Sandelowski used a prospective design, interviewing couples (both spontaneous (n = 20) and assisted conceptions (n = 39)) three times during pregnancy and at one week and three months postnatal. Adopted couples (n = 36) were interviewed every four months prior to placement and similarly at one week and three months following placement.

The similarities of findings within the studies helps to strengthen the overall rigour and adds to the 'phenomenological nod' as it relates to my own findings which are an extension of

understanding commenced in previous work, the fusion of horizons. Within Heideggerian hermeneutic phenomenology the consistency of the methodological approach throughout the work; in method, data analysis and subsequent discussion strengthens the findings. As a result of the small number of participants it was possible to go into depth (Malterud et al 2016), using a unique data analysis which synthesised the rigour of Diekelmann et al (1989) with both time point and longitudinal analysis, enhanced by the inclusion of Heidegger's philosophy, to enable deep thinking. The repeated re-reading and reviewing of the data allowed for a thoughtful spiralling of analysis which would not have been possible with large numbers. For myself as researcher, the small number of couples and the repeated visits to them meant that I was able to have a strong 'sense' of them in the analysis and writing up stages, I could 'hear' their voices as I wrote. The prospective study design was important in gaining couples' current lived experience which seemed particularly pertinent when considering the tentative nature of the pregnancy path, particularly for Karen and Adam, and Carla and Jakub. Allen et al (2019b) refer to this as anxiety and Sandelowski (1995) to holding back (which she also considers from the perspective of amniocentesis). However, my study suggested it was more of a wariness, a regular reassuring themselves that 'yes, we are doing okay' but an alert wariness within what was still an enjoyable state.

11.6.2 Insights gained

Returning to the path is a key finding revealed by this study, its significance and factors affecting it. The concept of being 'back on the path' has resonance with Sandelowski's (1992, 1993a) seminal finding of 'relinquishing infertility' as an act that previously infertile couples needed to accomplish. She refers to it as comeback work in which couples need to assimilate that past to be able to move forward, a process began in pregnancy. Sandelowski's study

began in 1987 and focussed on fertile and infertile couples becoming parents through adoption, artificial insemination by husband or donor, ovarian stimulation drugs and IVF (n=17). In the US (where Sandelowski is based) IVF live births were 1057 in 1987; in 2018 there were 73,818 (Centre for Disease Control and Prevention). Despite IVF being more common now than when Sandelowski undertook her work, there are similarities in findings in both this work and that of Allan et al (2019b). Sandelowski (1993a) referred to 'emotion work' in accepting the new identity, the contradiction inherent in being an infertile pregnant woman. Yet within a more contemporary environment the relative frequency equates to couples perceiving themselves as having a 'precious' pregnancy, but recognition of IVF by friends, family and society as a whole means it no longer feels a contradiction, instead an expected response.

Sandelowski's (1995) theory of transition to parenthood for infertile parents indicates the overlapping work of all the parents, irrespective of how they became parents, highlighting the commonalities rather than focussing on difference. Sandelowski (1995) highlights four processes; (re)defining nature, holding back/letting go, appraising, claiming, and taking care of the fetus/infant/child and assuming a parental identity. Of these holding back during pregnancy has already been identified within this study (and acknowledged as although not unique, appears more common in IVF or tentative pregnancies). The changing societal environment and increased familiarity with the concept of IVF appears to have lessened the (re)defining of nature – its presence in fertile couples being related to prenatal testing, now largely superseded by differing screening and diagnostics which occur in the first rather than second trimester. Appraising and claiming the child related to fitting the child to them, for example similarity of facial features or family traits. This may reflect the use of donor gametes or adoption within Sandelowski's (1995) study but is also related to recognition of the baby in utero – identification of movement patterns or perceived favourite music helping

to personify the baby to come, as seen within this study. Assuming a parental identity was a process familiar to all new couples aided by initiation into a parental community – similarly identified here. However, Sandelowski (1995) identified that those with previous infertility only felt fully parental once certain that no one would take the child away – a concept much less likely within the current increased familiarity of IVF. The passage of time and increased societal acceptance has lessened the comeback work of IVF couples in their needing to psychologically negotiate the 'unnaturalness' of IVF and delayed parenthood, however the protective holding back and adaptation to a parental identity remained within this study.

The differing points in time when couples started to feel 'normal' or as they perceived they would be if it were a spontaneous pregnancy and factors affecting that are worthy of further study to help address potential anxiety and identify sources of support. The term 'returning to the path' acknowledges that this does not happen at the same time for all couples. Time span is clearly relevant within any study involving infertility and is pertinant here in length of time trying to conceive and frustrations around access to treatment. Birth provides a critical point for all parents in this study, particularly for Karen. However other critical moments are mentioned – for Jakub, the first time he was referred to as 'dad' or the first time Karen and Alex travelled north to his home-town.

The degree of disclosure and difficulties in determining who to tell, what to tell and when is identified within this study and is worthy of further investigation as management of that added to the stress couples felt. It was not reported in Allen et al's (2019b) study, although it may be that retrospectively it appears less significant. Sandelowski (1993a:71) refers to infertility as an *'intrusive phenomenon'* in that for those trying, pregnancies and babies seem to be present all around them, leaving couples experiencing infertility feeling isolated. Women in particular utilised '*face work*' – maintaining a public face to preserve relationships and hide distress (Sandelowski 1993a:81), a finding similarly identified in this study. Within

Sandelowski's (1993a) study, couples found differences in telling others about difficulties conceiving which, although challenging felt less stigmatising than talking about IVF, a finding not apparent within this study where difficulty conceiving and assumption of IVF tended to be amalgamated. As seen in Chapter two, societal influences affect wider understanding of IVF, including stigma, media portrayal and economic factors. Whilst some may argue the passage of time has lessened negative perceptions (Bell 2015b, 2016) the relevance of these factors varies, dependent upon place and time. Within the UK, the role of the NHS versus private sector provision, and eligibility for treatment, remains controversial, whilst within the US, similar financial debates around insurance cover exist, potentially exacerbated by the free market economy.

The process of transition is evidenced in comparisons between the then and now which was emphasised by the longitudinal data obtained from returning interviews; couples would often start with 'compared to when you were here before….' These comparisons between previous and current timepoints point to a growing confidence and familiarity in parenting. Despite the delay of holding back in pregnancy (a wariness rather than an expressed lack of confidence), couples engaged with the child and provided an environment suitable for the baby, the current study mirroring Sandelowski's (1993a, 1995). However, the work of assuming a parental identity appeared less effort for couples within this study than suggested by Sandelowski (1995) or Allan et al (2019b) who refer to a time of difficulty in assimilating the experience of infertility into their parenting identity and the joy of parenthood being tempered with reflections of the process to get there. That was not apparent in this study, but there was a sense of poignancy when looking back, particularly for Carla and Jakub in the two previous miscarriages. It may be that the timing of interviews influenced this response, any potential concerns feeling too close to disclose or that the novelty of new parenthood, supported by friends and family was carrying them through. Couples felt confident once the

child was born and they were at home, and it may be that for them actually getting the child was the perceived challenge - parenting itself did not feel daunting. One of the more subtle nuances gained from the study, which was not identified by Allen et al (2019b) or Sandelowski (1993a, 1995) was a sense of the child being accepted as they were. Parents followed the lead of the child, adapting to sleep patterns and negotiating activities around them; parents felt no need to structure any routine for them (although mothers did feel a need to structure the day for themselves) and saw the child as easy going and an individual to negotiate with. Both Claire and Karen mused on whether this was because of them being IVF babies, identifying, even in pregnancy, that they did not worry about what other parents worried about, whether that was preferences of gender or birth plans. For Carla and Jakub, parenting felt instinctive, Jakub corelates getting the baby ready to go out as like putting a coat on 'it is just what you need to do'. In common with Allan et al (2019b) couples identified how the duration of trying had enabled them to think about being a parent and to be grateful for the opportunity, although this may be a process of rationalising the experience they had been through. Carla explained that she had felt like a mother for a long time before becoming one – the couples saw the reality of parenthood as confirmation of how they perceived themselves and embraced the experience. For those previously infertile, Sandelowski (1993a:126) refers to '*comeback work*' which she describes as biographical, as couples seek to assimilate their experiences of infertility and treatment into their own histories. Within the studies it is possible that the articulation of their experiences through the interview may have helped assimilation.

Within this study, identification as a parent and assimilating into a community of support appeared to be key insights. Whilst all the couples expressed clear identification in their new roles of mother, father, parent, assimilation into a community of support seemed less apparent for Carla and Jakub for whom an upcoming move closer to her parents may have meant local

community support felt less relevant. The overall outcome of being 'back on the path' acknowledged that although parenting itself lasted a lifetime, couples were at the point they had envisaged when first contemplating having a child. In common with Allan et al (2019b) support primarily came from their partner and there was a strong sense of in it together. The immediate family of parents and siblings were also important as well as friends, in particular for the mothers, friends with children a similar age. This was engagement with a community that they had long been wanting to join and both Claire and Karen expressed how it brought people together, motherhood being a common bond. A similar feeling was expressed by Carla, although for her, it was social networking that was forging that bond, in the absence of an identified circle of friends in similar circumstances.

An interesting insight from the study was the consideration of future children, simultaneously being identified by Allen et al (2019b). Whilst one may expect couples to be considering further children 3-18 months post delivery as in Allen et al's study, it was interesting that all three couples had already discussed it prior to my final visit. Although they reflected on the difference in decision-making now that they had a child compared to before, for them all, the mental image of their family was of more than one child and the knowledge of the previous difficulties gave them a sense of both urgency and trepidation. For Claire and Daniel and Carla and Jakub, they hoped that having had a child may prompt a spontaneous pregnancy, the option of need to return to IVF felt daunting for them all in both emotional and financial expense. Comeback work referred to by Sandelowski (1993a, 1995) is part of couples being able to relinquish their infertility, although as Allan et al (2019b) also found this may not be fully complete until couples feel comfortable with their family size, whether it is the number of children they originally planned or they are at peace with the family they have. Comeback work has parallels with the returning to the path identified by this study, however comeback is the process of returning to an acceptable quality of life, with the term arising from chronic

illness studies (Corbin 1991). It encompasses the idea that it may not be the life previously experienced or imagined but it is an acceptance of a new normality. Returning to the path reflects a continuum of expectation with the point of return the stage at which couples felt 'normal' or similar to others, a differing point for each of them.

For Heidegger, understanding is situated within the broader understanding of time and place. Potential contrasts between this study and Sandelowski's theory may be related to the passing of time and with that, increasing technology, more widespread use of and acceptance of those techniques and cultural norms (including within the UK, the role of the NHS). Time may not necessarily refer to the passing of time in years, and instead be pertinent to individual or wider societal situations 'at this point in time'. The acceptance of IVF and its cultural understanding is determined by 'das man' - in influencing parents, family, and friends, it equally influences midwives and other healthcare professionals as they are similarly in the world, identifying with the sociocultural norm.

11.6.3 Midwifery orientation

In undertaking the study, I was also hoping to gain insight which could be applied to practical understanding in how midwives and healthcare professionals could support parents. Sandelowski is a US nursing professor, midwifery itself remains unusual in the USA, particularly 30 years ago, and the USA has a medicalized approach to birth which limits direct application to contemporary UK setting. The authors on Allen et al's (2019b) study were from a nursing, midwifery, health visiting, sociology and psychology background, used to working and researching within the NHS setting and thus their work is more relevant to this study. However, the retrospective nature of their study, commencing beyond the point of midwife involvement may make clear links more difficult and within the article there is no

mention of midwives or healthcare professionals. The contrast between a medical and a midwifery model of birth (Bryar and Sinclair 2011) in which medicine focusses on outcomes – a healthy mother and baby, whilst midwifery also focusses on process - indicates the significance of the midwife role and how a positive pregnancy and birth experience helps develop a confidence which goes forward into parenting (Royal College of Midwives 2019, Bell et al 2018). For those with previous infertility this confidence may already be affected by the difficulties in conceiving and there remains a dominant biomedical construction of infertility (still regarded as predominantly a woman's problem) which would be better seen from a biopsychosocial perspective as a human issue, one which affects not just the individual but the whole family. For the couples in this study the identification of the additional anxieties they were experiencing could have been addressed; realistically, to mitigate rather than eliminate concerns. Recognition of normative changes may help coping. For Carla, her frustration at 'feeling hormonal' during treatment (evident in her journals) may have been easier if she was aware of the probable cause being the medication, similarly, acknowledging the 'difference' of IVF pregnancy may have been helpful for Karen.

Understanding of client perspective, as emphasised by Sandelowski (1999) provides a starting point but from that, additional midwife appointments may have helped as may signposting or referral to wellbeing resources – mindfulness or relaxation. Specific antenatal groups may have aided peer support, as all the couples felt that there were differences between their own experiences and expectations compared to other expectant parents, including Claire and Daniel who felt that they were 'normal' after transfer to local maternity services yet were frustrated by others concerns, that they felt were insignificant in relation to their experiences. Healthcare professionals themselves were a new community that couples were engaging with and whilst as individuals they were all seen as acting kindly, more acknowledgement of IVF would have been welcomed by Karen, whilst systematic errors of

communication were identified by Carla and Jakub during readmission. Consequently, the therapeutic support needs to reflect an understanding of the couples' world, an openness to the perspective of the couple, but also to align with professional knowledge and understanding so that both health professional and couple move forward in a fusion of horizons. Different couples will require different levels of support depending upon when they feel they have returned to the path or are at a point previously envisaged.

11.6.4 Unique contribution to knowledge

This work remains the only example of a Heideggerian hermeneutic phenomenological study on the transition to parenthood following IVF. The longitudinal nature emphasised the depth of analysis which was demonstrated by the iterative and spiralling hermeneutic circle, which was clearly structured around Diekelmann et al (1989). This depth showed nuances which were less apparent in similar work. In particular, it focussed on the return to the path as the point in which couples felt that they were back to the situation they envisaged when first contemplating pregnancy, a point at which the support of family and friends were influential. The study further emphasised the tentative path of pregnancy, most evident for Karen and Adam and Carla and Jakub, with similarities to the experiences of couples with previous pregnancy loss. However, parenthood felt instinctive for all of them, and they embraced a baby-led parenting style and appeared to readily accept their identities as parents – a contrast in findings from some of the respondents in Allen et al (2019b). Finally, the study identified the significance of difficult decisions around future children – also identified by Allen et al (2019b), this study makes it clear that these challenges are evident shortly after childbirth, even as couples are adapting to their new infant.

11.7 Conclusion

This chapter has discussed the implications arising from the study, with the longitudinal aspect enabling the meaning of transition to be more clearly demonstrated through the repeated interviews. These meanings included the meaning of infertility, the child and parenthood. Infertility, whilst no longer at the forefront of their minds, had ongoing significance for them and has links to technology [see 11.4] as Heidegger foresaw it. The meaning of the child indicated both the child's wider significance to family and friends as well as an existential self, whilst parenthood per se was a representation of the journey; a continuum of a choice made several years earlier in the decision to have a child, and a strengthening affiliation with other parents, further considered in 10.3.2. Overarching all the findings was the differing gender expectations implicit in both infertility investigations and parenting roles. A brief consideration of the individual couples' situation was included to help readers in their own co-constitution of results together with the findings of Sandelowski's (1995) seminal work and the recent work of Allen et al (2019b). This identified the unique aspects of the study in relation to methodology and midwifery orientation as well as the unique finding of the concept of returning to the path, the tentative pregnancy and the instinctive adaptation to parenthood. Despite that return, couples could not forget the past and although wanting to think of themselves as 'normal' they were acknowledging a 'but…' or 'maybe if' in their heads. The essence of this is succinctly captured by the poet Pat Parker (1978), 'the first thing you do is forget that I'm Black. Second, you must never forget that I'm Black'. Viz, 'the first thing you do is forget this is an IVF pregnancy, second, never forget this is an IVF pregnancy'. This maintains the focus on the couple, or parents, as people first, but as a couple for whom IVF will always be part of them, exemplified in ongoing consideration of siblings.

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Chapter Twelve. Conclusion: rigour, reflexivity, recommendations, limitations and personal learning

I have sought to produce a thesis that is *'thought-full'* (van Manen 1997b:368) in that it contains insight into and reflections on the transition to parenthood of IVF parents. It does not claim to offer definitive findings; rather it offers '*intrinsically sensitizing'* (Blumer 1954:10) insight which pushes forwards a border of understanding already established by others. The thesis anticipates the reader being able to engage with it and to commence an interpretation of it as they co-construct its meaning, joining myself as researcher and the participants in a fusion of horizons or understanding (Smythe et al 2008). I present to readers only my perspective, acknowledging that others may have highlighted differing aspects which may appear more pertinent to them (Reissman 2008). However, I hope that the insights I have gained can help others to engage and identify with the study and through critical reflection elaborate their frames of reference, leading to transformative learning (Mezirow 1997). Frames of reference are formed through cultural assimilation and are transformed through critical reflection prompted by and prompting new insight.

12.1 Rigour

Rigour is relevant throughout a study from the very beginning when considering if the research approach is an appropriate one to answer the research question. Research that seeks to understand experiences or meaning has to be able to ask participants to provide their own thoughts and feelings, frequently through interviews, but they could also include journalling – either written or verbal, making images – art or photography or the response to vignettes. Methodology needs to align to the research question and within the methodology chapter [see 5.3] there is discussion on which methodologies were considered as options for the study and

why alternative possibilities were excluded. A particular consideration was the alignment of chosen methodology with the researcher's perspective or world view. Within the prequel to methodology, I suggest that some methodologies may resonate with a researcher more than others, however, it would be unwise to suggest that it is as simple as certain 'styles' suit certain individuals. On the contrary, an openness to the advantages and disadvantages of differing methods can help identify the correct one for a particular study and help utilise understanding of others into the work where necessary, for example, aspects of feminist methodology helped to highlight the influence of gender with the study, despite Heideggerian phenomenology making little reference to it. For research to be worthwhile, it needs to be undertaken responsibly and ethically so that the route to the development of meaning is clear to all. This means that from the beginning of the research, reflexivity and rigour need to be evident and the underlying philosophy of interpretive phenomenology integral throughout the work (Cresswell 2007), beginning with the initial design. De Witt and Ploeg (2006:215) refer to this as '*balanced integration'* starting with design and going through to a similar balance between participant's voices and the philosophical underpinnings.

Rigour in quantitative studies relies upon sampling and statistical analysis to prove validity and reliability, however, as Malterud et al (2016) suggest, within qualitative research, the sample should be about 'information power' in that the sample is sufficient to address the research question. Although a range of tools and ideas have been used to evidence rigour through credibility, trustworthiness and transferability, these were devised as a direct response to criticism from the scientific community familiar with quantitative data and often include positivist language (Cresswell 2007). Arguments about triangulation, data saturation, coding and bracketing, all refer to the idea of an absolute truth – incompatable with interpretive phenomenology, as either a philosophy or a way of working. McManus Holroyd (2007) considers hermeneutics as 'learning experiences' moving our perspective of what we

previously understood to be truth. It seeks to 'illuminate' common experience, not identify new information. It is about broadening horizons and does not claim generalisability nor argue that an identical study would produce replicable results. Instead it is an '*orientation that seeks outcomes that favour the individual experience but can inform quality for everyone'* (Thomson and Crowther 2019:5). This concept of informing quality highlights the applicability of Heideggerian phenomenology – the insight gained aids understanding to produce effects which can impact upon practice (Dibley 2020).

Rigour in interpretive phenomenology relies on research design and the individual attributes of the interviewer; their skill enables respondents to feel psychologically comfortable to share their experiences and to tell their stories themselves, whilst ensuring shared understanding. Within interpretative phenomenology, meaning is achieved through co-constitution. During the interview, questions are open prompts to encourage discussion aimed at addressing the research questions. Information is verified by reflecting back to the respondent to ensure there is shared understanding. This is not to seek further detail, which may imply the researcher particularly wants to focus on this aspect, however if a recurrent theme is initiated by respondents then encouraging that discussion may help development of meaning.

Multiple layers of data analysis, as seen in Diekelmann et al (1989) [Table 2] add rigour to a study, demonstrating the complexities that exist (Cresswell 2007). Analysis relies upon a cyclical, reflective method, and it is within both the explicit demonstration of the method [Table 4] and the researcher's thought processes that rigour is demonstrated (Diekelmann and Ironside 1989). To show this, there needs to be a clear audit trail clarifying the actions and rationale of the researcher together with the documentation to show confirmability (Lincoln and Guba 1985) [Chapter Seven]. Transparency of data and analysis allows other co-researchers or supervisors to review findings, further enhancing rigour. A reflexive diary can be helpful in showing the researcher's thought processes whilst the input of colleagues

unfamiliar with interpretive phenomenology can challenge thinking, to the overall benefit of analysis. De Witt and Ploeg's (2006) review identified features relating to both applicability of data – auditability, transferability and trustworthiness, as well as the content – richness and integration of philosophy used within interpretive phenomenology. Rather than the application of scientific criteria for analysis, persuasive reasoning is suggested (Sandelowski 1993b, de Witt and Ploeg 2006) for showing rigour in interpretive phenomenological studies. De Witt and Ploeg (2006) go on to discuss five 'expressions' when considering rigour within interpretive phenomenology, the first of which is the aforementioned 'balanced integration' and the second is 'openness', referring specifically to the researcher's interview skills in being attuned to both the respondent and the research question. The next two aspects relate to the writing and how it affects the reader: 'concreteness' is when the reader is able to situate the phenomena in their own life world, recognising the themes, whilst 'resonance' relates to a more emotional or intuitive understanding of the meaning. These both reflect van Manen's (1997b) discursive and nondiscursive understanding; concreteness concerns itself with 'do I understand what the text relates to?' compared to the more poetic resonance 'do I understand how that may feel?' This identification with the work by readers is what Munhall (1994) calls 'phenomenological nodding' or recognition that this interpretation is likely - van Manen (1997b) refers to it as 'phenomenological reverberation'. How findings are written is important within this, so that readers can 'hear' the voices of participants, illustrated by relevant quotes, and also follow the possible implications that the researcher is drawing from them. This involvement of the reader in following the research trail and engagement with resultant insight drawn from it, concludes the hermeneutic circle. Just as every section of the data adds to the whole and the whole is made up of the data, so every person who is part of the study (including the reader) is part of the meaning and the meaning is part of each contributer. The last of de Witt and Ploeg's (2006) expressions is 'actualization' which may

occur following the study, when it is used, considered or developed later; together these expressions demonstrate the legitimacy of the study. The persuasiveness of a study should lie in a valid theoretical claim, underpinned by examplers from participants, yet also acknowledging that other interpretations are possible (Reissman 2008).

12.2 Reflexivity

Within health and social care practice, reflection is used as a term for retrospectively considering an event to enable learning and is intrinsic in professional education and revalidation (Nicol and Dosser 2016, Wain 2017). Reflexivity, in contrast, is a more proactive, ongoing self-awareness in which a researcher aims to minimise negative bias and maximise the potential of positive bias (Finlay 2002a). It *'enables the impact of the research on the researcher and the participants to become visible rather than hidden and leads to rich insights'* (Allan and Arber 2018:2). Reflexivity is a central concept within qualitative research, ensuring that in all aspects of the research process - planning, methodology, methods and writing up - the researcher's self-awareness is transparent and integral to it (Mauthner and Doucet 1998, Seale 2002, Lambert et al 2010). Letherby (2015:41) refers to this as '*value explicit'* rather than *'value free'* and this recognition of the range of influences on results, both personal and external, is summarised as 'personal integrity' by McHaffie (2000). I found that reflexivity is about humbleness, in recognising that for all that is said or known, much more remains unsaid and unknown. When I started my PhD a colleague (who had just completed his PhD) drew a circle on the board and told me that that was how much he knew about his subject when he started, he pointed to the circumference and explained that was what he did not know. After his doctorate he knew much more and, drawing a bigger circle on the board, pointed out that the much greater circumference now reflected what he

did not know. In gaining insight it helps to remember that what it indicates is how much more we do not know.

A reflective interview may be undertaken prior to data gathering specifically allowing a researcher to consider and acknowledge their existing views to enable prejudgements to be constructively used as a research tool (Plested and Kirkham 2016, Kay et al 2017). This may be undertaken individually, reflecting Heidegger's forestructures, an activity I drafted following attendance at a Heideggerian hermeneutic phenomenology methodology course [Appendix 2] and recognising Heidegger's (1962) suggestion that it is hardest to see that which is closest to us. By putting thoughts into words, they became easier to manage. Ongoing reflexivity can be supported by the use of a research diary (Li 2018), a strategy I used to demonstrate development in my thinking, a focussed self awareness which aids the transparency of the research process and the researcher role within that (Finlay 2002b).

The acknowledgement of one's presuppositions or forestructures relates to Gadamer's (1976) concept of prejudice [see 5.4.4] which he describes as viewpoints made in overhastiness or by authority. In documenting one's thoughts and feelings 'as is', it may highlight areas where I may rush to judgement and, once noted, the validity of potential prejudice can be suspended and subsequent interaction considered more openly. However, a prejudice needs to be known as such to be reconsidered. The writing of our thoughts can be helpful in identifying our prejudice, but so too can be discussion with others or engagement with additional literature. Being alert to areas of prejudice needs to be an ogoing process, in that evidence of existing prejudice may address us at any point in the study – in the planning, background reading interviews or data analysis. In reading about prejudice, I found the prospect daunting, as if I had to question my every thought. Instead once I accepted that prejudice, or the necessity of making judgements, is a requirement of managing our lives – we have to be overhasty as we cannot consider every potential influence on every detail and we default to authority as being

in a better position to consider a situation – I found it more reassuring. It also helped to recognise that everyone, myself, but also participants and supervisors have their prejudices which can both add to or detract from interpretation and through questioning, both alone and with others our understanding increases (Spence 2017).

Two areas that I felt were significant were my personal history as a woman who fell pregnant very easily – and went on to have very easy pregnancies, labours and postnatal adaptation (although my career as a midwife has shown me that that is not the case for many women), and my professional background as an experienced midwife. I cannot imagine how it feels to want to have children and find it difficult to, despite having had friends in that situation, so I found that I was able to manage that by hearing their stories and acknowledging how that previous distress and underlying anxiety would influence their journeys in a way that was different from my own childbearing. As a midwife I am very aware that every woman's experience is different and that one's own personal experience is unique to one's self and separate from a professional perspective. An area that I had not previously considered was the difficult decisions about subsequent pregnancies. It was significant that all the couples had discussed this, despite the baby only being three months old and challenged me to reflect on my previous assumptions the baby would be a clear focus which lessened future considerations. I had not appreiated the additional challenges of cost, both financial and personal, that consideration of future pregnancies may bring. This may also be a consideration to those that have had previous difficult pregnancies or traumatic birth for whom personal psychological cost may be significant and is in contrast to those with spontaneous pregnancies who having had one child, assume another is likely.

My knowledge of the medical environment of obstetrics and gynaecology as an 'insider' alters my understanding and if I had experienced infertility, seeking help would have been within a different context to those who were not as familiar with the hospital environment,

healthcare professionals and the terminology. On occasions, a participant would apologise for criticising the NHS, hospital or service received as if I were a representative of that and I had to reassure them that I was outside of any organisation and wanted to know what they felt. Participants knew I was a midwife, as it was in the participant information sheet (Appendix 10) and appeared to assume I was a mother, although none asked directly; being a midwife appeared to provide them with sufficient rationale for my research. Within interviews, I tried to show an understanding of issues, by nodding and verbal cues, but found it a delicate balance to not respond if they seemed to be asking me for advice or affirmation. I was concerned that not providing feedback if required may affect the rapport between us, yet similarly did not want to be seen as leading the conversation. I found this a challenge when Carla was telling me about a particular 'add on' which she was certain was the reason her pregnancy was successful, I personally did not feel that this was likely, but I could accept her perception without accepting the premise.

The subjectivity which comes from previous experience can be a benefit, as both participant and responder are joined in a shared understanding (Lambert et al 2010). This combination of allowing the respondent's voice to be heard whilst recognising one's own perspective, both personal and professional, require reflexivity (Miller 1998), but there is a balance to be achieved otherwise reflexivity and the focus on self can become counterproductive, focussing on the researcher at the expense of the participant and the research (Hennink et al 2011). The centrality of the participant experience is important as individuals are disclosing their personal and private perceptions to become public knowledge by publication. The demonstration of how we have achieved the findings is as important as what or why – reflexivity being required for each question (Tuval-Mashiach 2017), this ensures research is relevant, '*neither self indulgent emoting nor dry and dissociated'* (Finlay 2017:121).

In common with Mounce (2018) I initially thought my experience with midwifery reflection would be beneficial with reflexivity however, I needed to develop my understanding in recognising that I was charged with representing not just my own perspective but equally that of my participants and that the focus on self awareness does not overpower the centricity of participant experience (Finlay 2002a). Plested (2014) in her article on 'mindful midwifery' considers the similarities in using phenomenology both within research and in midwifery practice. She relates the skills of listening to women in practice to interviewing participants, what Bondas (2011:9) calls '*epistemological humbleness'*. Within the interview an ongoing awareness of bioethics is necessary to ensure ethical practice (Haahr et al 2014), not just in understanding the principles but in interpretation. The role of interviewer potentially causes blurred boundaries, particularly for those used to a professional role in a given situation - myself as community midwife or those who are researcher/practitioners (Arber 2018, Tapson 2018), or at times of distress for respondents. Dahlberg (2011) argues that we must always be open to another's world view whilst retaining awareness of our own, and trying not to assume quick understanding – this can be challenging, as we are all interpretative beings (Koch 1995). This relates to all roles and experiences, for myself: the role of midwife, mother and novice researcher, and including all that I read. The wide review of the literature, helped to provoke thinking, leading me to reflect upon previous assumptions. Large sections of these chapters have since moved to the 'deleted' file, a situation which I once saw as a negative but now see differently; all my reading has shaped this work and prompted thinking (Smythe and Spence 2012). This is summarised by Lovitt (1997) in his translation of Heidegger's work,

For Heidegger true thinking is never an activity performed in abstraction from reality..... Informed by recollection, it brings forth into awareness and efficacy whatever is presented to it to know. (xiv)

12.3 Recommendations

Within research there is a responsibility to share learning gained. Marsden-Hughes (2019) cautions against the broad application of hermeneutic phenomenological research findings within clinical settings as it is not designed for widespread application, is not applicable to all and is relevant only at that point in time. Instead it is a methodology which seeks to gain insight, prompt reflection and to reveal previously un-noted phenomena rather than establish definitive findings which lead to conclusive changes in actions. However that revealing may alter a focus or attitude with *'a phenomenology of practice* (that) *operates in the space of the formative relations between who we are and who we may become, between how we think or feel and how we act'* (van Manen 2007:26).

12.3.1 Recommendations for Practice

Within figure 13, understanding is highlighted as a key nursing intervention within the Meleis et al (2000) model, summarised by Sandelowski (1999:18) as *'understanding is the foundational intervention in nursing practice, without which no other intervention is possible'*. Sandelowski was writing from the perspective of nurses working in assisted reproduction, however Kralik et al (2006) similarly highlight the importance of healthcare professionals understanding transitions within health in which relationships and connectedness are central. This is further developed by Miles et al (2013) who conflate the concepts of being in the world (Dasein) and an individual's relationships within that (Sorge) to the midwifery principle of being 'with woman' as we develop understanding with the women we care for. A more phenomenological shift for midwives has implications beyond caring for couples who have undergone IVF and embraces the individual situations of all women and couples commencing pregnancy. In addition, as Plested (2014) concludes phenomenology encourages a self awareness that helps us to move on from previous

assumptions to a more open-minded engagement with others. It may be helpful for midwives to reflect upon the conceptual basis of their practice, particularly in the contemporary environment of a more medicalised approach to pregnancy and childbearing, where psychosocial aspects of wellbeing may be usurped.

- **Woman-centred care**

Whilst the concept of holistic or woman-centred care should naturally encompass understanding, within UK midwifery holistic care is often conflated with continuity of care, with Fontein-Kuipers et al (2018b) highlighting that woman-centred care has both a philosophical and pragmatic meaning for midwives. Intrinsic within this understanding is recognising that couples in this study are expectant parents looking forward or caring for their first child, yet the experience of infertility and IVF remains hovering in the background. The philosophical concept of woman-centred care reflects a more existential aspect of midwifery which Crowther et al (2020) refer to as 'spiritual midwifing'. In this we engage with women primarily on a human level as we enter into a relationship with them which embraces our professional role as midwife. Continuity of care promotes that trusting relationship as mother and midwife get to know and understand the other (Sandall et al 2016, Warmelink et al 2016a) enabling a recognition of the specific influence of a couple's previous history.

- **Differing points of 'returning to the path'**

The point at which that balance between feeling that they are an IVF pregnancy (and 'different') and the point at which they feel they are where they envisaged being several years before ('normal') is different for each couple; this is the moment of 'returning to the path'. It is likely that within couples this juncture itself differs between them, however in focussing on the couple as an entity of itself, this difference may be masked. Similarly, as in any change or adaptation model, it is rarely a steady progression from one point to another with couples

feeling both ‘normal and different’ as they adapt to pregnancy and parenthood, what Warmelink et al (2016a) refer to as the paradox of wanting to be normal, yet feeling they need additional support. In recognising this it may be beneficial to offer additional appointments to women who have undergone infertility treatment, as their experience of care immediately prior to transfer to maternity services is characterised by frequent monitoring. Whilst not specifically indicated for physiological reasons, it may demonstrate emotional support (Toscano and Montgomery 2009) and provide a structure and a recognised professional acting as co-ordinator of care as they move towards becoming parents, a proposal also considered by Younger et al (2014) and Warmelink et al (2016a). The recognition of being ‘not just a normal mum’ is highlighted by Meredith et al (2017) in their study of pregnancy following pregnancy loss in which participants particularly appreciated being cared for by a specialist team because they understood that the experience of pregnancy for those with previous loss was intrinsically different than for other mothers, as it may also be argued it is for IVF parents.

For midwives and healthcare professionals recognising that there are differing points of returning to the path and various factors which may influence this return may be helpful. For Claire and Daniel whose first attempt was successful and went on to have a ‘textbook’ (their words) pregnancy, the return to the path occurred much sooner than for the other couples. Acknowledging the influence of previous pregnancies - for Carla and Jakub the previous miscarriages, and for Karen and Adam the unsuccessful IVF attempt - is important in recognising the lingering anxiety the experience causes throughout the next pregnancy. This mirrors findings by Dann et al (2016) who highlight how women with previous miscarriages or repeated IVF attempts were reluctant to disclose their feelings to the midwife, using silence as a coping strategy. In common with others (Sandelowski 1995, Smorti and Smorti 2012, French et al 2015, Dann et al 2016) couples had difficulty in looking forward, despite

going through the motions of preparing the physical environment there was a holding back which necessitates a sensitivity in midwives in seeing beyond the apparent. This was evidenced by Karen, who despite being someone who 'liked to have a clear plan' identified that once the baby was born, she'd given no thought to whether she was going to breastfeed or bottlefeed her baby.

- **Recognition of gendered responsibility**

In common with existing research, (Miller 2003, Pawson 2003, Silva and Machado 2010), the women felt a sense of responsibility for both the previous infertility and the success of the pregnancy – an emotion heightened by their body's previous failure to conceive (or carry) a pregnancy. Reassurances by midwives that everything was going well did little to ease their feelings, instead an acknowledgement of understanding was more helpful to them. This resonates with Wright (2008) who considers the importance of acknowledgement of suffering that others may have been through or still are experiencing. In this context in recognising the previous stresses and demands of infertility and IVF, as well as the increased anxieties of the pregnancy. Similarly, the support of immediate family is important in validating the experience (Dibley et al 2019). This quiet support was evident in the expectant fathers who did not refute their partner's anxieties but instead tended to nod their heads and explain to me how hard it was for the women. For these women the significance of a 'good birth' was a powerful reassurance that they were natural mothers and it was 'meant to be'. For midwives, recognising the potential of birth to be an empowering response to counter a technological conception is important. This is not necessarily a natural birth or the birth that was planned, but a birth in which they always felt that they and the baby were safe (they all remembered the reassurances of staff telling them the baby was fine) and one in which they both trusted staff caring for them and felt involved in decisions. Again this mirrors good midwifery care – IVF parents need what all parents do, but also the recognition and sensitivity to the

additional concerns of a tentative pregnancy (which will be similar for other discreet groups, including those with previous perinatal loss, preterm delivery or known congenital abnormality).

- **Ongoing infertile identity**

The recurrence of an infertile identity when considering future children needs to be recognised by those caring for families with an IVF child. This acknowledgement of previous history may be around discussions on contraception or recognising that couples may not be a one child family by choice. Difficult decisions around justifying the cost – both financial and personal, in the known stresses of treatment, can mean that the well-meaning questioning around subsequent children may be painful. This highlights the importance of awareness of individual situations, as Karen suggested *'I wanted them to read my notes really carefully'.* This similarly may be pertinent in discussions around contraception, whilst Karen later recognised that although health professionals should talk to new mothers about contraception she suggested '*they could do it in a different way'*- this again links back to individualised care.

12.3.2 Recommendations for Research

As highlighted in the literature review and by Allan et al (2019a) there are few qualitative studies of non-donor IVF couples and instead a reliance on self reported survey, which fail to identify subtle nuances. This has since been partially addressed by Allan et al (2019b).

- **The male perspective**

The decision to use couple interviews for a couple experience remains appropriate, however the data suggests that there may be gender differences and further research is needed to explore this in detail. Separate interviews of the couple may help address the male perspective

of IVF, pregnancy and of parenting roles following IVF (Obst et al 2020) and indicates an area for further research (similarly identified by Allan et al (2019a)).

- **Social factors influencing support**

Despite generally normative transition, areas which arose as being worthy of further study include decision-making around telling or not telling others of IVF treatment and how that may influence support. The identification of factors which may help couples in returning to the path may be of value, with social support gained from others or additional midwifery input potentially influential.

- **Decision-making around subsequent children**

Currently the bulk of the research on IVF families relates to the first child, the recognition of the challenges of decision-making around subsequent children identified here and by Allan et al (2019b), which resonates with Sandelowski's (1995) lingering infertile identity is an area for further investigation, particularly considering the contrasting influences of improving success rates for those with a previous live birth (Cameron et al 2017) and NHS policy which will not fund further IVF attempts for those with a child.

12.3.3 Recommendations for Policy

There is within midwifery a challenge between the statutory autonomous role of the midwife, who should determine provision of care through identification of perceived need and the current service constraints, which seek through local policy to manage limited resources.

- **Additional support for additional need**

Those with a 'tentative' pregnancy may be a group requiring additional support however absence of obvious vulnerability may restrict provision of additional support. This study

clearly identifies how couples with an IVF pregnancy, despite appearing physiologically low risk are more likely to have increased levels of anxiety and a psychological withholding of expectation until they can feel 'normal' – a point which occurs at different stages along the childbearing journey for different couples. Those with an IVF pregnancy may not disclose this spontaneously to the midwife. Continuity of carer (as recommended in the National Maternity Review, Better Births Improving Outcomes of Maternity Services in England 2016) or an identified midwife who can recognise the additional concerns of these mothers may be of benefit in reducing anxiety through both acknowledging concerns and providing a clear link between specialist and routine care. Additional appointments to enhance wellbeing may be beneficial, particularly in the first 20 weeks (Younger et al 2014, Warmelink et al 2016a). Couples would have been seen frequently in the ACU prior to confirmed pregnancy and for previously infertile women the initial lack of visible evidence of pregnancy in a body that previously failed them, increases the stress they feel.

- **Recognition of qualitative data and its validity**

Within policy, the reliance on NICE guidance and the predominantly quantitative approach, in particular the perceived gold standard of the randomised control trial leads to an undermining of women's own experiences. An appreciation of phenomenology as an appropriate means of gaining understanding relevant to wider application (Dibley 2020) as well as it's client centered focus can help to develop policy which recognises individual circumstances and promotes empowerment of individuals which may better aid their involvement in individual decision-making. This however requires a shift in endemic doctor-patient power-holding as together they seek to find an appropriate response utilizing both existing clinical evidence and a patient's individual perception of a situation.

12.3.4 Recommendations for Education

Increasing numbers of IVF cycles within the UK (HFEA 2020) mean that midwifery students are increasingly likely to care for those requiring IVF, heterosexual couples wih infertility issues, same sex parents or those with genetic conditions. Each of these groups are likely to have differing needs – addressed by individualised, woman-centred care.

- **Influence of psychological factors**

Education on infertility and the need for IVF helps students to gain an introduction to psychological factors which may affect parents and encourage them to think more deeply on the influence of past experiences on current issues.

- **Influence of sociopolitical factors**

The influence of sociocultural, political and media influences on the NHS and UK healthcare can be areas which students struggle to engage with. The specific example of IVF provision provides midwifery students with an area that they can relate to which exemplifies the contemporary nature of evolving biotechnology and the role of the state.

12.4 Strengths and Limitations

Within hermeneutic phenomenology, limitations are less relevant because there is no concluding point to the knowledge we were seeking to gain. Findings are not supposed to be representative; there is always more to understand, and results prompt more questions. However, there are factors which if addressed more clearly may have enhanced the quality and/or volume of the data, and thus maximised emerging results. This includes the number of couples who participated. Although this would not necessarily strengthen the trustworthiness of emerging findings which is evidenced through the very thorough process of data analysis, more couples may have enabled greater insight into the transition to parenthood of couples

with an IVF pregnancy. However, the nine interviews did produce 187 pages of transcript, with a further 54 pages of diary entries and produced sufficient raw data with which to address the research question. Malterud et al (2016) refer to 'information power' which means that the volume of data is sufficient to answer the research question for the study bearing in mind the study aims, methodology used, quality of data and depth of analysis. It is a strength of the study that couples, once recruited, remained in the study with both partners involved in all three interviews.

The close examination of the transcripts necessary for turning them into crafted stories demonstrated areas where my phenomenological interviewing style could have been improved. Although I tried hard to keep the questions open and have a well-developed listening style in the use of body language and affirmative interjections, there were times when a 'midwife' style rather than 'phenomenological researcher' were apparent. This reflected my own forestructures; as a healthcare professional, I want to 'help' others and as a midwife, I have significant experience in caring for couples during the childbearing process. Similarly, the couple's own forestructures may have influenced their expectation of myself as a midwife and researcher. Although I tend not to didactically advise or 'educate' couples, instead preferring a family partnership model (Davis and Day 2010) which suggests options for women, or couples, to consider, I still found the role of researcher more difficult as I often wanted to reassure the woman or couple from a professional perspective. In recognising 'how' I undertook the interviews, I also needed to recognise 'how' I undertook the analysis. The adaptation of a recognised model (Diekelmann et al 1989) provided the structure, but the grouping and naming of themes was my own. I could find no other study that had used crafted stories from couple interviews nor one that had used both longitudinal and time point data together and although I have explained and justified their use within the work, my own inexperience may have affected emerging insight.

The couples themselves were a fairly homogenous group in that they were all white European couples, aged 29/30 and living in a specific local area (this was a pragmatic decision, based on convenience). This homogeneity reflects both those most likely to undergo IVF (HFEA 2019) and those most likely to respond to research studies (Beresford 2013). Areas of further study would include the experience of Black and minority ethnic (BAME) groups and those with donor egg IVF. The interviewing of couples together, whilst justified in 6.5.2, may have led couples to portray a united front, minimising differences. However, there are both advantages and disadvantages in interviewing couples separately or in focussing on just mothers or fathers. Heideggerian phenomenology highlights how in revealing one aspect, another is concealed, thus in showing how couples together construct meaning, the independent adaptation of just mothers, or just fathers are concealed. A study of parents interviewed separately would equally be a worthwhile study, but it would be a different study; difference as much as a limitation, should be acknowledged, but does not undermine emerging insight.

The risk that these limitations might restrict transferability is offset by the correlation with other studies (Sandelowski 1993a, Allan et al 2019b) and the universatility of the concepts suggest that they will have resonance for other first time IVF parents and with the midwives caring for them.

12.4.1 The research participants

In considering why I struggled to gain participants, I think my reluctance to 'push' recruiting midwives and their pressure of work was important. Conversely, I needed to consider why the participants chose to respond. For Claire and Daniel, their return to the path had already occurred, as they told me several times in that first interview – we're a normal couple now. Consequently, for them the ongoing anxiety and wariness in seeing too far forward that can affect those that conceive through ART was less evident – they were happy to share their

experiences as they saw the issue as in the past. For Karen and Alex, it was Karen's job that had led to her responding, as she said herself *'I'm a research assistant for human resources so.....yes, data's important'*. In her discussion, she would initiate responses related to the research aims stated in the patient information sheet in a way that others did not. I felt that for Karen, it was less easy to discuss it with me, particularly in the antenatal period as she was so anxious and possibly an ongoing sense of stigma remained. For Carla and Jakub, the couple appeared more limited in nearby family and friends with whom they could talk about it and being sociable and open appeared pleased to be able to share the experience with me. For all the couples there was a sense of wanting to help others in a similar situation.

12.5 Personal Learning and Reflection

I commenced this PhD following several years of encouragement by my line manager. I had always been interested in the transition to early parenting and those who had experienced IVF provided a discrete group on which to focus, a group which anecdotally found the transition more challenging. In retrospect I commenced the study hesitantly, I didn't tell friends and family that I was doing it for the first couple of years, partly because I was unsure if I had the ability and partly because I couldn't 'see' myself with a doctorate. I spent the first couple of years reading extensively around the subject whilst revising versions of ethical approval. Despite successful NRES ethics approval, it was not until I had my upgrade viva that it felt real. In supporting other students, regardless of academic level, something that I have learnt is how you can feel like an imposter in a role and it takes a while to feel like a legitimate scholar, and this may be particularly pertinent for those from less academic backgrounds, for whom university is not a family or cultural norm. My experience has taught me the importance of being able to identify with students; it is much easier to relate to a student's disappointment with their feedback when you have just received some yourself!

Although the search for a methodology was advantageous in helping my overall research development, earlier adoption of hermeneutic methodology would have helped the structure of the work, my approach to it and overall cohesion. In future work and in supporting others I would suggest putting much more thought into methodological structure and it's applicability to a particular study, before actually commencing it – whilst the learning was useful, the pressure on time was not. I clearly remember first reading in detail about Heidegger and hermeneutic phenomenology and after having struggled for direction with my thesis thinking 'yes, I think like that' and subsequent attendance at the methodology course helped my understanding of Heideggerian terms. The realisation that hermeneutic phenomenology aligned with both my way of thinking and how I felt about the study reassured me that it was the appropriate choice. This has recently been enhanced by the publication of two articles by Smythe and Spence (2019, 2020) in which they discuss the experiences of their doctoral students. The parallels between their experiences and my own, and the recognition of similar 'aha' moments has reassured me that I am a hermeneutic phenomenologist. The addition of a supervisor experienced with the methodology was hugely helpful, but this was balanced by my other supervisors who were able to maintain an equally critical perspective, whilst remaining open to new understanding. Their questioning pushed me to clarify concepts and terminology within the work and within my own thinking which were beneficial in this study, but also helped me maintain a balance in recognising the benefits of other methodologies. Earlier adoption of hermeneutic phenomenology would have enabled a reflective interview focussing on my presuppositions which I feel would have been helpful, particularly if undertaken by an experienced colleague. Although I did address this myself [Appendix 2], being pushed on my thinking by another would have been beneficial; as discussed previously [see 12.2] if unaware of a prejudice it may be difficult to manage, and probing by an experienced other may reveal more hidden prejudice (Spence 2017).

Within the university community and within healthcare I became frustrated by a perceived bias against qualitative research in general and hermeneutic phenomenology in particular. Although recognising that it may be my own lack of experience in drafting abstracts or designing posters when applying to events, it would appear that the kudos lies in more quantitative work. Even within areas exploring personal experience, where one would assume in depth interviewing and interpretation would be most appropriate, there is often a reversion to scientific norms of statistical analysis, which are perceived as a concrete results and consequently more credible than emerging insight, irrespective of whether the methodology matches the research aim. Within maternity care this has recently been highlighted by Thomson and Crowther (2019) who argue how a focus on broad clinical evidence (although important in clarifying 'best practice' for the majority) minimises the experience for individuals.

A particular frustration was the lack of participants and I recognised that identification with the community midwives (a role I previously had myself) meant that I was reluctant to add to their pressures by frequent reminders to them. In retrospect I should have been more assertive, recognising them as the gatekeepers I needed and returning to them regularly, with a range of reminders. This also reflects the common limitations of lack of time, which influenced both myself and the midwives as gatekeepers, combined with my lack of experience. Once involved in the study, I was pleased that couples continued to welcome me into their homes and to speak with me; this reflected my expectation that my experience in community midwifery would help, I was at ease in the environment and was familiar with building relationships. However it may also have been a disadvantage, as I was used to providing support and asking questions to help that; it is possible they saw me as midwife and expected to answer questions rather than just tell me of their experience [see 12.4]. Whilst I acknowledged my forestructures as a midwife, they also had their own understanding of what

a midwifery researcher was and wanted. In my interview style I tried hard to avoid leading questions and to use minimal prompts, but at times my enthusiasm to respond to an interesting point may have influenced the direction of a conversation. In looking back over the transcripts I can identify areas where I interviewed 'well' and other areas where my interest prompted additional questions which reflect what I thought was interesting rather than what they thought was worthy of telling. In retrospect, practising a more hermeneutic interviewing style, may have helped in getting the balance between building rapport (not only for gaining the most from the current interview but also to ensure I'd be welcomed back for the subsequent ones) and allowing them to just tell their story. Practically, I wished I had recorded my own thoughts on tape as soon as I came out of each interview, this would have left them more coherent than my jotted down notes.

In the writing up stage, I initially struggled with what to include and what not to, as I felt I wanted to do justice to all my thoughts. I was reassured when one of my supervisors told me that I could not cover everything. This also recognises the uniqueness of any hermeneutic phenomenological study which represents the combined perspective of participants, the researcher and then the reader. One of the learning points I've gained is to recognise my work as mine (and the participants) – different researchers, different participants, different geographical areas or points in time may have identified differing points, but that does not negate my own findings.

My IT literacy was limited, yet in retrospect I'm wondering if my 'way' of working is actually conducive to hermeneutic phenomenology in that it slows you down and forces you to think through what you're writing. Similarly, the tactile nature of the data analysis made the 'dwelling in it' easier as I was visually surrounded by it and mulling over the data felt easier, I could not have had the same engagement with if it were on a computer screen. However, I recognise that this might be more challenging with a larger data set and co-

operation with others on larger projects would require adoption of data management software. When I first commenced my PhD, my then supervisor suggested that my only degree, BSc Professional Practice in Midwifery, was a potential disadvantage as I had no 'pure' academic background. However, I feel that it may have left me more open to a range of ideas, to sociology, psychology and philosophy. I've learned to listen to the voice in my head that makes me jump to an apparently unrelated thought, particularly odd lines from songs or poetry or from novels that I'll read, which prompts a link to a Heideggerian concept.

On a personal level, it has helped me to realise the depth of distress couples go through when struggling to conceive and throughout the study I have wondered whether it is a disadvantage not to have personally shared the experiences of my participants. None of the participants asked me, but it may have been a different study if I did have personal insight. In retrospect, I think back to friends who had difficulties conceiving and feel embarrassed at my lack of support of them at the time. The ongoing challenges were brought home to me when I went to see the actress Maxine Peake (who herself had undergone IVF) perform the play, Avalanche, which focuses on the writer Julia Leigh's experience of IVF treatment. I asked a close friend, who herself had undergone unsuccessful IVF attempts 20 years previously, if she would like to go with me. I thought I understood her hesitation, but the question she asked me was 'Did either Leigh or Peake have successful IVF?' Neither did - Peake had three attempts, Leigh several more - and on hearing this she felt able to come with me. I had known my friend throughout her IVF attempts and thought I was being supportive, I thought the adoption of her children would lessen the IVF experience for her and I thought that time healed. The ongoing challenges that recurred for the couples in this study in considering future children remain and remained in Allan et al's (2019b) study. Having one child does not take away the fact that they wanted more (even if, as they suggest, it makes it a different conversation) neither does having children by adoption negate the fact that you wanted those that were

biologically your own. What I hope I have learnt through undertaking this study, is to be much more empathetic in recognising the long-term effects of unexpected loss – whether that is loss of expectation or of something more tangible such as perinatal loss.

In the process of undertaking this PhD I have learnt much about research, both theories and the practicalities of undertaking a study and of mistakes made and lessons learned. I have learnt much about the experience of IVF, how it is portrayed and represented in society, how that influences those requiring it and how those families formed seek to assimilate the experience and its ongoing influence. For myself, I have learnt more about how I work independently, and I have enjoyed learning from others: my supervisors, speakers at research events, other colleagues and participants themselves. I have gained pleasure in the reflective mulling of ideas that hermeneutic phenomenology encourages and the broadening of horizons which that offers. When commencing this study, I was unfamiliar with philosophy (moreover I would have avoided it) but I have gained an appreciation of its value in encouraging us to think more deeply. Heidegger himself suggested that '*even if we can't do anything with it, may not philosophy in the end do something with us, provided that we engage ourselves with it*?' (2000:13).

12.6 Contribution to Learning

This study has highlighted how for couples with an IVF pregnancy, the point of 'returning to the path' or being 'normal' can influence their experience of pregnancy, birth and early parenthood and this point differs for individual couples and this knowledge may be relevant for those supporting and caring for couples with IVF pregnancies. It demonstrated a generally normative transition to parenthood, as expected from previous quantitative data, with parents describing a pleasure in parenting their child, emphasised by a united approach as a couple and supported by friends and family. The study contained similarities in the findings of Allan

et al (2019b), in particular highlighting the resurgence of concerns in contemplating future children. Strengths in the study come from the longitudinal approach, unusual in Heideggerian phenomenology but applicable when considering a transition. The smaller numbers allowed for detailed data analysis which when fused with Heidegger's work was able to highlight the ongoing influence of gender, the uncritical acceptance of biotechnology and the significance of social support in assimilation into the role of parent.

12.7 Conclusion

This concluding chapter has summarised the learning from the study and considered its applicability to practice and policy and has identified areas for further research. Potential limitations have been identified which can be linked to areas for development in the researcher. However personal learning went beyond retrospective reflection on how the study may have been better conducted and embraced changes in understanding of research, philosophy and self. The aim in Heideggerian phenomenology is an increase in horizons of understanding, accepting that there is no definitive end to that. The hope is that the reader will recognise the combined meaning created by participants and researcher and reflect upon it to enable their own expansion of horizons.

This study set out to gain an understanding of the meaning of transition to parenthood for couples with an IVF pregnancy using a Heideggerian phenomenological approach. This methodology has revealed subtleties of experience not evident in more quantitative work. It highlights how confirmation of pregnancy is not a 'solving' of a problem but a new direction down a similarly stressful route towards parenthood; a route where couples are wary of looking too far forward. Mothers, in particular, feel a sense of responsibility that can heighten anxiety and which could be eased by sensitivity and acknowledgement from a midwife, aided by more frequent appointments and continuity of carer. That increased anxiety eases at

different times for different couples. A generally normative transition to parenthood is aided by social support which can be promoted by healthcare professionals' awareness of local antenatal and new mother support groups and local activities. This study also supports earlier work by Sandelowski (1995) of a lingering infertile identity and newer work by Allan et al (2019b) in which that identity reoccurs in contemplation of subsequent children. These factors highlight an ongoing vulnerability in these couples which midwives and healthcare professionals need to be alert to in caring for them.

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Appendix 1

	Study	Objective	Methodology	Method	Results	Conclusion
1	Parental mental representations during late pregnancy and early parenthood following assisted reproductive technology Journal of. Perinatal. Medicine 37 (2009) 320–327 Agostini, F, Monti, F, Fagandini P, De Pascalis L, La Sala GB, Blickstein I Italy	To evaluate the relationship between assisted reproduction technology (ART) and parental mental representations during late pregnancy and early parenthood	None stated Longitudinal study Semi-structured interviews which were coded onto a 5 point scale for 7 dimensions, enabling statistical analysis	Women (n=25) following ART pregnancies were compared with their partners (n=23) and with women following spontaneous conceptions (n=39).Subjects were interviewed on mental representations at late gestation and three months postpartum.	ART women tend to decrease scores of intensity of investment from before to after delivery. During pregnancy and postpartum, ambivalent representations were more often present and well integrated representations were less often present among ART women as compared with non-ART women. ART women had significantly more ambivalent representations that persisted at three months postpartum, and men had more disengaged representations.	A greater desire for pregnancy exists in ART women which might not always coincide with a desire for maternity. ART men, however, manifest greater disengagement from the entire child project
2	Transition to parenthood after successful non-donor in vitro fertilisation: The effects of infertility and in vitro fertilisation on previously infertile couples' experiences of early parenthood Health (2019) 1-20 DOI: 10.1177/1363459329891215 Allan H, Mounce G, Culley L, van den Akker O, Hudson R UK	to explore heterosexual. non-donor IVF couples' transition to early parenthood	None stated Small qualitative interview study interviewing couples together. Transcripts were coded and analysed thematically	Couples (n=16) with one live singleton conceived with non-donor IVF was interviewed 3-18 months post birth. Unstructured interviews commencing' 'tell me about when you became a parent for the first time? how did you feel?'	Three themes emerged: 'preparing for parenthood' which was perceived as a stressful time, 'becoming a parent' which whilst positive, caused them to reflect on their journey, support from each other, friends and family aided adaptation, and 'considering a sibling' in which the anxieties of infertility re-emerged.	The transition to early parenthood can be as complex and provisional as in other newer forms of family making. Their family making is shaped by their experiences of infertility and IVF and their ability to integrate it into their identity as a parent. Considering a sibling causes them further uncertainty and anxiety

3	Family interactions in IVF families: change over the transition to parenthood Journal of Reproductive and Infant Psychology, 2012, Vol.30(1), p.5-20 Cairo, S. Darwiche, J. Tissot, H. et al Switzerland	Examine couples who conceived through IVF during pregnancy and after childbirth, in order to evaluate changes in the family alliance, marital satisfaction and parental attachment to the foetus and baby over the transition to parenthood and test the prenatal factors as predictors of the postnatal family alliance	None stated Mixed methods-Observational studies and descriptive statistics	Recruited 31 nulliparous couples from a fertility centre before they began IVF and who were successful within a year. They were seen at 5/9 and 9/12 postpartum. Each assessment moment included observed interactions and self-reported questionnaires. Recognised tools used and statistical analysis.	Family alliance, marital satisfaction and parental attachment scores in the IVF sample were all similar to or higher than those in the reference sample during pregnancy. However, at nine months postnatally, the family alliance scores were lower. While marital satisfaction decreased over the period and parent–baby attachment increased, the family alliance scores were unstable, as no association was observed between the pre- and postnatal scores. In addition, neither prenatal marital satisfaction nor parent–fetus attachment predicted the postnatal family alliance.	The change in the family alliance over the transition to parenthood appears to be specific to our IVF sample. Given that postnatal family functioning could not be predicted by prenatal family functioning, our observational data underline the importance of offering postnatal support to these families.
4	Silence as strategy for women who have had recurrent in vitro fertilisation treatment The Practising Midwife 2016 Vol 19(8) p18-22 Dann L, Payne D, Smythe L New Zealand	To investigate the experience of repeated IVF treatment and the impact on first time mothers pregnancy and early motherhood.	Heideggerian hermeneutical phenomenology (analysis using van Manen's framework	A phenomenological study of seven women who had at least three IVF cycles before becoming mothers Interview 28/40 + 8/52	Silence was the dominant theme, sub-divided into 'sharing online',' sharing at home' 'becoming obvious to others' and 'expectations and fear'. This silence continued into the postnatal period	These women's coping mechanism was silence or 'mask-wearing'. Allowing the silence may be what gives women the courage to break it, enabling a therapeutic relationship.

5	Prenatal Expectations in Transition to Parenthood: Former Infertility and Family Dynamic Considerations Couple and Family Psychology: Research and Practice, 2011, Vol.1(S), pp.31-44 Flykt, M, Lindblom, J, Punamäki, RL et al Finland	Examined how maternal and paternal Prenatal expectations of the relationship with the child predicted 1st-year parenting stress and whether these expectations were violated over the transition to parenthood. They further examined how former infertility affected these associations	None stated Quantitative study: prospective, comparative longitudinal Descriptive statistics	367 ARTand 378 SC couples completed a questionnaire of family representations during pregnancy and when the child was 2 and 12 months old and a Parenting Stress Index at 2 and 12 months postpartum	The hypothesis of moderately high expectations predicting the lowest level of parenting stress was substantiated only concerning paternal expectations of own autonomy with the child. Generally, however, negative expectations of own and spouse's relationship with the child were linearly associated with higher parenting stress. Postnatal representations were more positive or equal to expectations, except for negative violation occurring in maternal expectation of the father–child relationship, especially among normative mothers	Results suggest that former infertility is not a risk factor for more dysfunctional aspects of parenting and representational world. History of infertility may even produce resilience, displayed in less evident negative representational change concerning spouse's relationship to the child in ART mothers Because of their long, preparation for parenthood, ART parents may also be able to find their parental roles sooner and possibly share child care duties more equally.
6	What Explains Violated Expectations of Parent–Child Relationship in Transition to Parenthood? Journal of Family Psychology, 2014, Vol.28(2), pp.148-159 Flykt, M, Palosaari, E, Lindblom, J et al Finland	This study models the role of parent-, delivery- and infant-related underlying mechanisms for violated expectations. It further compares parents with ART and SC, and primi and multiparous couples.	None stated Quantitative study: prospective, comparative longitudinal Descriptive statistics	The couples (n=743) separately filled in questionnaires concerning their AN expectations and 2/12 PN representations of intimacy and autonomy in the relationship with their child, a negative or positive discrepancy indicated violated expectations.	Results show that among mothers, the associations were mostly indirect and mediated via mental health problems. Among fathers, the associations were direct, marital problems most crucially predicting VE. ART fathers were less susceptible to VE resulting from infant-related problems than SC fathers, but (ART fathers) more susceptible to VE	Considering factors that contribute to VE is important when working with couples in transition to parenthood.

					resulting from delivery problems. Delivery- and infant-related factors also predicted VE differently among primi- and multiparous mothers.	
7	Psychosocial adjustment during the transition to parenthood of Portuguese couples who conceived spontaneously or through assisted reproductive technologies Research in Nursing & Health, 2010 (a), Vol.33(3), pp.207-220 Gameiro, S, Moura-ramos, M, Canavarro, M C, Soares, I Portugal*	To examine the psychosocial adjustment of 35 Portuguese couples who conceived through ART and 31 couples with a SC during their transition to parenthood (pregnancy and 4 months postpartum).	None stated Longitudinal, prospective comparative study Aim = to describe the psychosocial adjustment SPSS gave statistical data	Couples completed self-report questionnaires regarding their perceptions of pregnancy and parenthood, psychological distress, quality of life, marital relationship, and parenting stress.	Compared with parents who conceived spontaneously, parents who conceived through ART perceived pregnancy as being more risky and demanding, reported a decrease in their psychological quality of life. ART fathers perceived themselves as being more competent than fathers who conceived spontaneously	Healthcare professionals should be aware of need of couples in their efforts to adapt to the individual and relational challenges associated with the transition to parenthood
8	Social Nesting: Changes in Social Network and Support Across the Transition to Parenthood in Couples That Conceived Spontaneously or Through Assisted Reproductive Technologies Journal of Family Psychology, 2010 (b), Vol.24(2), pp.175-187 Gameiro, S, Boivin, J, Canavarro, M C et al Portugal*	Based on the convoy model (Kahn & Antonucci, 1980) perspective of close relationships, we examined changes across the transition to parenthood in the social networks and support of men and women that conceived spontaneously or through ART.	None stated Longitudinal, prospective comparative study Aim = to describe the psychosocial adjustment SPSS gave statistical data	31 women and 22 men (22 couples) that conceived through ART and 28 women and 24 men (24 couples) with a spontaneous conception provided data on social network and support from nuclear family, extended family, and friends twice: at 24/40 and 4/12 postpartum.	Results demonstrated that, regardless of method of conception, during the transition to parenthood new parents showed a strong nesting movement towards their nuclear family, perceiving increasing levels of nuclear family support across time. Extended family seemed to have only a secondary role on the social nesting movement and a withdrawal from friends was also observed	Considering the primary role nuclear family members seem to have on providing effective support to child-rearing, a greater emphasis on the importance of parents' relationship with their own parents and siblings could be made and social and working policies that prevent the displacement of families geographically also should be considered

9	Congruence of the Marital Relationship During Transition to Parenthood: A Study with Couples Who Conceived Spontaneously or Through Assisted Reproductive Technologies Contemporary Family Therapy, 2011 (a), Vol.33(2), pp.91-106 Gameiro, S, Moura-Ramos, M Canavarro, M C et al Portugal*	The study examined the congruence between partners' perceptions of their marital relationship during the transition to parenthood and the effect of depression during pregnancy on couples' congruence during the early postpartum period	None stated Longitudinal, prospective comparative study Aim = to describe the psychosocial adjustment SPSS gave statistical data	31 couples who conceived spontaneously, along with 35 who conceived through ART, provided data on their marital relationship and depression at 24/40 and 4/12 postpartum.	All couples reported a decrease in marital congruence. Couples who conceived through ART reported lower marital congruence. For these subjects, women's depression was associated with lower congruence.	Interventions that focus on strengthening the marital relationship across the transition to parenthood should assess and promote couples' congruence
10	Network support and parenting in mothers and fathers who conceived spontaneously or through assisted reproduction Journal of Reproductive and Infant Psychology 2011(b) Vol. 29(2) p170–182 Gameiro S, Moura-Ramos M, Canavarro MC, Soares I Portugal*	This study examined the role of perceived network support on parenting stress and investment in the child in parents who conceived spontaneously or through ART, during their transition to parenthood	None stated Longitudinal, prospective comparative study Aim = to describe the psychosocial adjustment SPSS gave statistical data	The previously identified couples completed self-report questionnaires regarding perceived emotional and instrumental support from their social network at 24/40 and regarding parenting stress and investment in the child at four months postpartum	Regardless of method-of-conception, instrumental support from the nuclear family was positively associated with maternal investment in the child and emotional and instrumental support from the extended family were positively associated with paternal stress while support from friends was negatively associated with it.	Results suggest that parents who conceive through ART and spontaneously are alike in that their adjustment to parenthood and the quality of the care they provide to their children depends on perceived support from nuclear and extended family and friends

11	Psychosocial adjustment of couples to first-time parenthood at advanced maternal age: an exploratory longitudinal study Journal of Reproductive and Infant Psychology, 2014, Vol.32(5), p.425-440 Guedes, M, Canavarro, M C Portugal	This study aimed to describe the psychosocial adjustment of primiparous women of advanced age and their partners compared to their younger counterparts (comparison group) and to explore the psychosocial adjustment of the older group, depending on infertility history.	None stated Prospective, comparative study Aim= psychosocial adjustment SPSS gave statistical data	58 couples (≥35 years at the time of delivery) and 41 couples in the comparison group (20–34 years) Both partners responded to recognised questionnaires during the third trimester of pregnancy, at 1/12 and 6/12 postpartum. Couples also completed visual analogue scales to assess parenting difficulty, competence and gratification.	The psychosocial adjustment of the advanced maternal age group and the comparison group over time was more similar than different. Within the AMA group, perceived parenting difficulty decreased over time for previously infertile couples but remained stable for previously fertile couples	Healthcare providers should avoid stereotypical views and normalise the psychosocial adjustment over the transition to first-time parenthood at AMA. Antenatal psychoeducational interventions should promote realistic expectations about the demands of early parenting, especially among previously infertile couples.
12	Early post-partum adjustment and admission to parenting services in Victoria, Australia after assisted conception Human Reproduction, 2009 Vol.24(11) p. 2801–2809 Hammarberg, K, Fisher J, Rowe H Australia	The aim of this study was to characterize early post-partum psychological functioning and the rate of, and risks factors for, admission to Residential Early Parenting Services in women conceiving with assisted reproductive technology (ART).	None stated Prospective, longitudinal Control group were national statistics Questionnaire. SPSS	166 women completed postal questionnaires at 3 months postpartum which included a new measure of the degree of difficulty involved in conceiving, the Burden of Infertility and Treatment (BIT) scale.	8% of participants had already been admitted to a REPS within 3 months, (Norm = 5% within 12 months).Compared with community samples of new mothers, there was no difference in rate of depression. A higher proportion reported dysregulated infant behaviours (P , 0.0001) and a smaller proportion was breast feeding exclusively(P, 0.0001). Greater difficulty conceiving was associated with lower maternal confidence.	Clinical care of the increasing group of women who conceive with ART should include explicit assessment of early postpartum psychological functioning and early intervention if difficulties in managing infant behaviour are reported.

13	The Early Postpartum Experience of Previously Infertile Mothers Journal of Obstetric, Gynecologic and Neonatal Nursing, 2015, Vol 44(3) pp, 370-379 Ladores S, Aroian K USA	The study aimed to explore the lived experience of becoming a new mother from the unique perspectives of previously infertile women	Descriptive phenomenology sample size resulted from meeting data saturation Mothers of singletons and multiples were included as phenomenology focuses on the essential experience explored regardless of subgroup differences.	Face-to-face interviews were conducted twice with 12 first-time, previously infertile mothers age 27 to 43 years. Recorded interviews were transcribed verbatim and analyzed using Colaizzi's approach. 10/12 women were interviewed a year after delivery. – memory bias?	Two main themes emerged : (a) lingering identity as infertile and (b) gratitude for the gift of motherhood. Participants reported that their lingering identities as infertile and immense gratitude for the gift of motherhood propelled them to establish unrealistic expectations to be perfect mothers. When they were unable to live up this expectation, they censored their feelings of inadequacy, guilt, and shame.	Findings from this study may help to sensitize health care providers to the difficulties faced by previously infertile women during their transition to motherhood.
14	Pregnancy-specific anxiety, ART conception and infant temperament at 4 months post-partum Human Reproduction, 2013, Vol. 28(4), pp.997-1005 McMahon C, Boivin, J, Gibson F et al Australia	To assess if anxiety focused on the pregnancy outcome, known to be particularly salient in women conceiving through ART, is related to difficult infant temperament	None stated Longitudinal cohort design (subgroup of large prospective study) SPSS	Longitudinal cohort design Nulliparous women conceiving through ART (n=250) and SC (n=262) completed three anxiety measures (state, trait, pregnancy specific) in third trimester and a measure of infant temperament at 2/12 and 4/12 postpartum. Variables were recorded and controlled for in analyses.	In pregnancy, ART women reported lower state and trait anxiety, but higher pregnancy-focused anxiety than SC counterparts. Hierarchical regression analyses indicated that while trait anxiety in pregnancy predicted more difficult infant temperament , pregnancy specific and state anxiety did not. Mode of conception predicted infant temperament; with ART women reporting less difficult infant temperament than their SC counterparts	Trait anxiety in pregnancy is associated with difficult infant temperament and suggest that pregnancy-specific anxiety is not implicated. These findings are reassuring for women conceiving through ART whose pregnancies may be characterized by particularly intense concerns about the wellbeing of a long sought after baby

15	Depressive symptoms during late pregnancy and early parenthood following assisted reproductive technology Fertility and Sterility 2009 Vol. 91(3), p851-857 Monti F, Agostini F, Fagandini P, La Sala GB, Blickstein I Italy	The study aimed to evaluate the relationship between assisted reproduction technology (ART) and depressive symptoms during late pregnancy and early parenthood.	None stated Mixed methods EPDS interviews of maternal/paternal representation at 32/40 and 3/12 not reported)	Case–control longitudinal study of women who conceived by ART compared with men and compared with women following spontaneous conceptions. 48 ART (25 mothers, 23 fathers; response rate of 30%) and 39 non-ART mothers were evaluated by the Edinburgh Postnatal Depression Scale (EPDS) at 30–32/40and at 1 week and 3 months after delivery.	Sociodemographic and obstetric characteristics were similar between groups. EPDS scores were higher in ART women compared with non-ART women during all assessments and higher during the third trimester of pregnancy and at 1 week postpartum compared with ART men. The prevalence of depressed subjects was significantly higher in ART women compared with non-ART women during antenatal assessment.	ART pregnancies are more frequently associated with depressive symptoms that may persist after delivery, suggesting a greater emotional vulnerability of these women. The risk of depression during and following ART pregnancies needs monitoring to avoid adverse effects of PND on the mother–infant relationship and infant's psychologic development.
16	Effects of assisted reproductive technology and of women's quality of life on depressive symptoms in the early postpartum period: a prospective case-control study Gynecological Endocrinology, 2015; Vol 31(5): p374–378 Monti F , Agostini F , Pasterlini M , Andrei F, De Pascalis L , Palomba S , La Sala GB Italy	This study explored the influence of both assisted reproductive technology (ART) and reduced quality of life (QoL) during pregnancy on postpartum blues	None stated ANOVA used	63 ART and 72 SC were in this prospective study. At 22/40 and 32/40 women completed the EPDS and SF-36 to investigate depressive symptoms and QoL, respectively; EPDS was again used at 15 days after birth	Higher EPDS scores and lower mental well-being scores (SF-36) significantly predicted PPB. The number of previous ART cycles emerged as the strongest predictor, whereas no significant effect was observed for the conceiving method.	The results suggest the usefulness of assessing QoL during pregnancy and considering previous ART failures in preventing PPB.

17	Anxiety and psychological wellbeing in couples in transition to parenthood Clínica y Salud, March 2016, Vol.27(1), pp.29-35 Moreno-Rossett C, Arnal-Remon B, Antequera-Jurado R, Ramirez-Ucles I Spain	The aim of the study was to analyze the impact of anxiety and psychological well-being of couples in the transition to parenthood	None stated MANOVA and ANOVA used	256 participants was divided into five groups: 54 “not seeking pregnancy”, 50 “infertile that did not get pregnant” 50 “infertile that achieves pregnancy”, 50 “natural pregnancy”, and 52 “fertile with children”. State-Trait Anxiety Inventory (STAI) and Psychological Well-being in Couple Scale (EBP in Spanish) were used	The “infertile group that achieves pregnancy” gets the highest state-anxiety levels, even though regarding the anxiety-trait the group that is “not seeking pregnancy” shows the highest levels. Regarding psychological wellbeing in couples, the “natural pregnancy” group shows the lowest scores.	The results demonstrate the possible functional role that anxiety-state in non-clinical levels can play in getting pregnant and confirm that psychological well-being in couple's relationship decreases only during pregnancy.

Appendix 2

Presuppositions or Forestructures

(April 2018)

Forehaving – I am a midwife with a particular interest in early parenting. My study is on couples with infertility and IVF pregnancy, although not my personal experience I have friends who have had infertility and assisted conception. I'm a mother myself but found it easy to conceive and found pregnancy, birth and early parenthood easy and enjoyable. I was a caseload midwife and believe in the importance of continuity of care and promotion of normal birth. I've worked with vulnerable clients and have a commitment to equality.

Following this exercise and the HP course in Aberdeen, I reflected and recognised the influence of my role as lecturer – in particular supervising students in their dissertations and the notion of evidence based practice.

Foresight – I have a positive perspective on life, assuming that all people do the best they can and that the future is positive (an aspect of myself I've only recently become aware of after it was highlighted to me by a friend) I think that all individuals have the potential to parent well. I believe in support rather than guidance, but I'm concerned that the process of infertility may lead to a reliance on a medical model in birth and parenthood.

Foreconception – I expect birth to be a positive affirmation, but that expectation may be higher than for a spontaneous conception. I'm concerned that society and media may increase the pressure on parents.

Appendix 3

Appendix of Heideggerian Terminology

Brought to light – something shows itself or is revealed

Thrownness – the situatedness of how we find ourselves in the world, largely a pre-determination

Present at hand – an object, its description and assumed use

Ready to hand – equipment which only in its use is proved valid

Historicity – culture, tradition and history into which one is born or socialised

Temporality – constant connections between one's own past, present and future

Technology – manipulation and gathering of natural resources, including beings

Semblance – showing itself to be something which it is not, misinterpretation

Dasein – there being

for-the-sake-of-which –why we do something

Being-in-the-world – that everything we are conscious of is because of our existence here and now

Authentic – thoughtful, reflective engagement

Absence – the lack of reference to, which points to something significant

Announcement – confirmation of something that is

Mood – underlying sense of how something is

Attunement – the feeling, sensing or adaptation to a mood

Ereignis – event or appropriation in which understanding may be reviewed

Das man - the 'they', everybody but nobody specifically

Safeguarding – our relationship with the natural world, it's making and letting it be

Dwelling – the manner in which we feel at home in the world

Inauthentic – the unquestioning everyday going through the motions

Being-with – that we perceive of ourselves as having reference to others

Leaping in - inauthentic response which closes off options for others

Leaping ahead – authentic response which creates possibilities for others

Uncanniness – the sense of feeling out of place

Solicitude – the way in which others matter to us

Idle talk – average intelligibility, every day getting by chatter

Appendix 4

NHS
Health Research Authority

NRES Committee South Central - Berkshire B
Whitefriars
Level 3, Block B
Lewins Mead
Bristol
BS1 2NT
Telephone: 01173 421383

12 February 2015

Mrs Elizabeth Gale
[redacted]

Dear Mrs Gale

Study title:	**Parental expectations and the perceived reality of parenting in the first four months following IVF pregnancy**
REC reference:	**15/SC/0002**
IRAS project ID:	**144978**

Thank you for your letter responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this favourable opinion letter. The expectation is that this information will be published for all studies that receive an ethical opinion but should you wish to provide a substitute contact point, wish to make a request to defer, or require further information, please contact the REC Manager, Miss Lauren Allen, nrescommittee.southcentral-berkshireb@nhs.net. Under very limited circumstances (e.g. for student research which has received an unfavourable opinion), it may be possible to grant an exemption to the publication of the study.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database. This should be before the first participant is recruited but no later than 6 weeks after recruitment of the first participant.

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to request a deferral for study registration within the required timeframe, they should contact hra.studyregistration@nhs.net. The expectation is that all clinical trials will be registered, however, in exceptional circumstances non registration may be permissible with prior agreement from NRES. Guidance on where to register is provided on the HRA website.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only)		
GP/consultant information sheets or letters [Briefing Letter for GPs and Health Visitors]	1	09 December 2014
GP/consultant information sheets or letters	V2	29 January 2015
Interview schedules or topic guides for participants [34-40 weeks]	1	09 December 2014
Interview schedules or topic guides for participants [6 weeks PN]	1	09 December 2014
Interview schedules or topic guides for participants [4 months PN]	V2	29 January 2015
IRAS Checklist XML [Checklist_11022015]		11 February 2015
Letters of invitation to participant	1	09 December 2014
Other [CV- John Foster]		
Other [Letter to say baby has been born]	V1	29 January 2015
Other [Lone Worker Guidance]	V1 for IRAS (V4 for Trust)	03 February 2014
Participant consent form	V2	29 January 2015
Participant information sheet (PIS)	V2	29 January 2015
REC Application Form [REC_Form_16122014]		16 December 2014
Research protocol or project proposal	1	09 December 2014
Summary CV for Chief Investigator (CI)		
Summary CV for supervisor (student research)		
Summary, synopsis or diagram (flowchart) of protocol in non technical language [For Participants]	1	09 December 2014
Summary, synopsis or diagram (flowchart) of protocol in non technical language [For Researcher]	1	09 December 2014

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:
http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/

HRA Training

We are pleased to welcome researchers and R&D staff at our training days – see details at http://www.hra.nhs.uk/hra-training/

15/SC/0002	Please quote this number on all correspondence

With the Committee's best wishes for the success of this project.

Yours sincerely

[redacted]

Dr John Sheridan
Chair

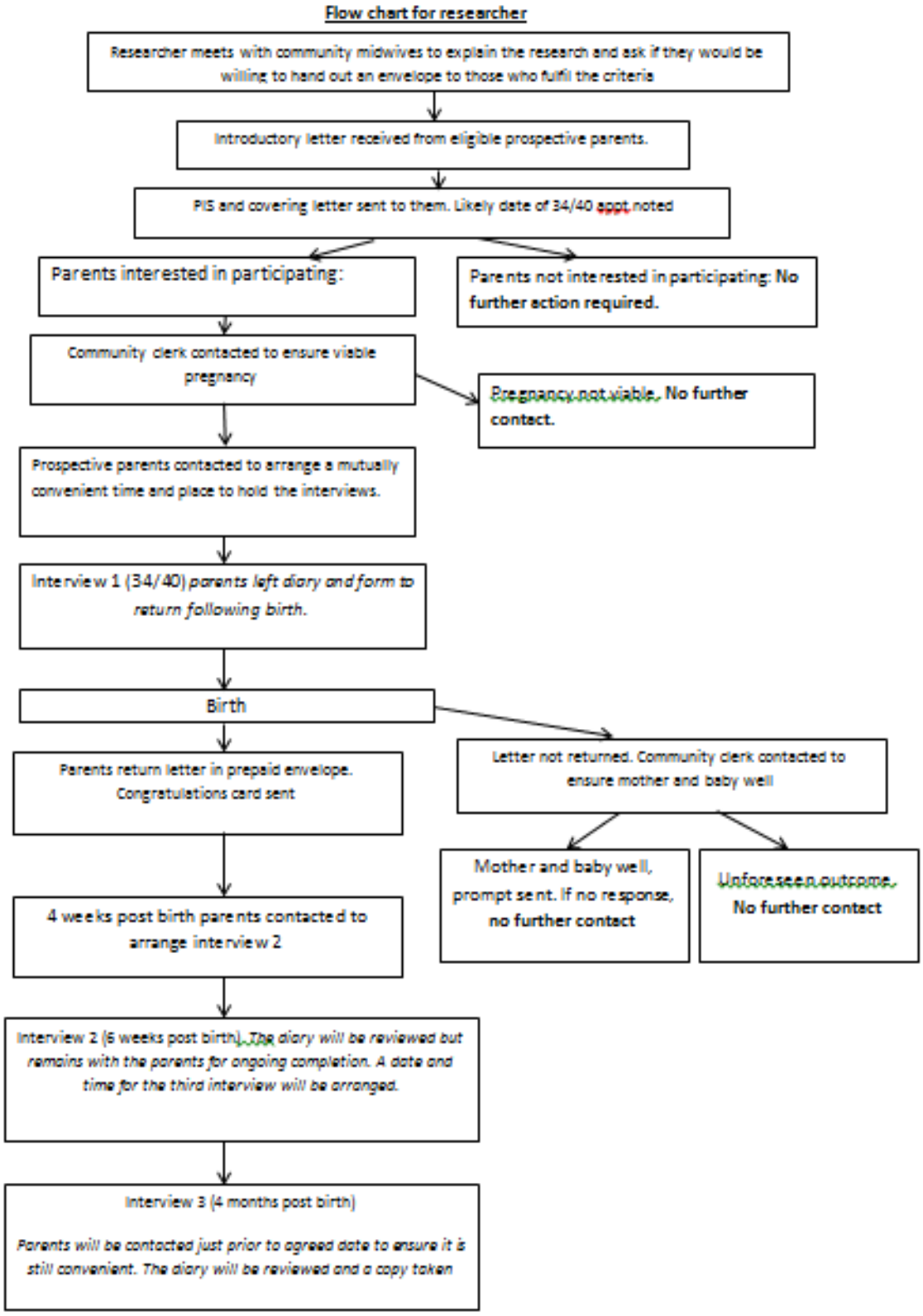
Email:nrescommittee.southcentral-berkshireb@nhs.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: [redacted]

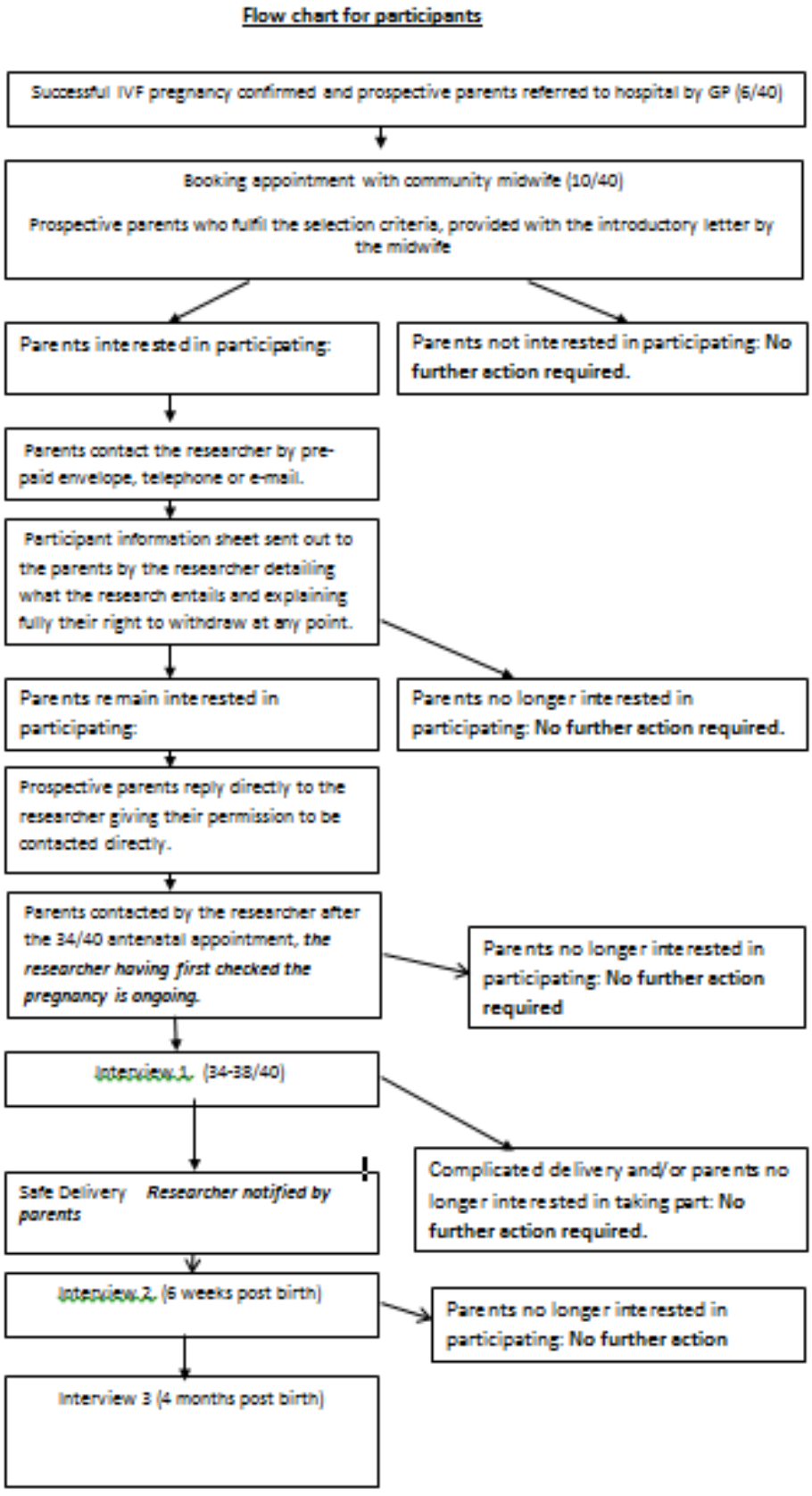
Appendix 5

Flow chart for researcher



Appendix 6

Flow chart for participants



Appendix 7

Briefing sheet for Midwives

Dear Colleague,

I am undertaking research looking at the transition to early parenthood for those with an IVF pregnancy for my PhD study; Dr Karen Cleaver at the University of Greenwich is my main supervisor.

I would like your assistance in passing on a letter to eligible respondents to ask if they wish to be involved in the study.

The parents will need to be expecting a baby conceived by IVF (including ICSI) and also:

- Primipara (may not be a primigravida)
- Singleton pregnancy
- English speaking

If they participate, prospective parents will be interviewed at 34/40, 6 weeks postpartum and again when the babies are at 4 months old. In addition parents will also have the option to complete a diary, as and when they feel they want to, recording how they feel and their experiences of late pregnancy and early parenthood. Ethical approval has been obtained through the National Research Ethics Service (NRES), and the Trust's Research and Development Department. Debs McAllion/Helen Knower, Head of Midwifery as has also given me permission to undertake the study.

Handing out the letter does not mean your patient is committed to either respond or participate in the study – it is just an invitation for them to get in touch with me to find out more if they wish to. They can also withdraw at any point.

I will make it clear to participants that clinical care remains the responsibility of their clinical team but, with the mother's permission, I will inform you directly of anyone who needs additional support.

Please feel free to contact me if you have any queries or wish to discuss the study further. If you have any concerns about the study please feel free to contact my supervisor (email address below). Thank you for your co-operation

Yours sincerely,

Liz Gale

Senior Lecturer Midwifery

e.a.gale@greenwich.ac.uk 0208 331 8020

k.p.cleaver@greenwich.ac.uk

Appendix 8

Letter of introduction

Dear

Please let me introduce myself. My name is Liz Gale, I was previously a local midwife, and I currently work as a midwifery lecturer at the University of Greenwich, where I am also studying for a PhD. Your community midwife has given you this letter as I'm hoping you will be able to help me with a research study, which I am completing as part of my PhD studies.

I am looking at the transition to early parenthood for couples with an IVF pregnancy. I'm interested in your experiences of becoming parents and the first few months with your baby, and whether you feel well supported or if there is more that we can do.

If you are interested in the study and agree to participate, it would involve you in being interviewed by me 6 weeks prior to your delivery, and again six weeks and four months post delivery. Our discussion will be confidential and all information will be kept anonymous. I would also give you an optional diary to complete which, if you wish, you will be able to keep at the end of the study. If you were to agree to participate you would have the right to withdraw at any time and your inclusion in the study would have no effect on your clinical care.

If you would like to find out more about the study, please return the slip below to me in the prepaid envelope.

Thank you, and congratulations on your pregnancy.

Kind regards

Liz Gale

e.a.gale@gre.ac.uk

0208 331 8020

Appendix 9

Patient information sheet covering letter

Dear

Thank you for contacting me to find out more about the 'Transition to parenthood' study.

Please find enclosed a participant information sheet which tells you more about the study.

If you are still happy to be interviewed, you do not need to do anything more. I will contact you just before 34 weeks of pregnancy to ask if you are still happy to meet with me and arrange a time and place convenient for you both.

As a matter of courtesy I will let your GP know that you are taking part in the study, but I will not be requesting any information from your doctor.

Please feel free to contact me if you have any other questions about the study; if you do not wish to take part or change your mind at any time, please let me know.

Kind regards,

Liz Gale

e.a.gale@gre.ac.uk

0208 331 8020

Appendix 10

Participant information sheet

PARTICIPANT INFORMATION SHEET

Study Title

Transition to Parenting after IVF Pregnancy

Invitation to take part

My name is Liz Gale and I am a midwifery lecturer at the University of Greenwich, I am undertaking this study as part of my PhD. I worked as a midwife locally for many years and I am particularly interested in the adaptation of women and men in becoming parents

I would like to invite you to take part in my research. I would like to interview both of you as the experience may feel different to each of you. To help you decide if you would be interested and willing to participate I have provided information about the study in a question and answer format. Please take time to read this information carefully and talk about it with other people if you wish.

The study has full ethical approval from the Research Ethics Committee and from both Dartford and Gravesham NHS Trust and Lewisham and Greenwich NHS Trust

What is the purpose of this research?

My study is entitled 'Transition to parenting after IVF pregnancy'. Evidence suggests that the process of undergoing IVF can affect parents differently and the effects this can have is an under researched area. The purpose of the study is to gain an understanding of the experience of parenting following assisted conception and whether there are any areas where care can be improved. I am therefore interested in your experiences of pregnancy and early parenthood.

Why have we been invited to take part?

You are eligible to be included in the study as you are a couple currently expecting a baby conceived using IVF.

Do we have to take part?

No, you do not have to take part if you do not want to. If you agree to take part and change your mind you can withdraw at any stage without giving a reason. Should you decide not to take part, or take part then change your mind, this will have no effect on your clinical care in any way.

What will happen if we take part?

If you chose to take part, then I would arrange to interview you both. The interviews will last about 30 minutes depending on how much you both want to say. The interviews will take place at 34 weeks of pregnancy, again when the baby is six weeks old and finally when the baby is four months old.

I will conduct the interviews in whatever way you feel most comfortable, either both together or if you preferred, separately. If either of you decide at any stage that you no longer wish to participate but your partner is happy for you to continue participating then this is also fine. I anticipate the interviews taking place in your own home, but if you prefer we can consider a mutually convenient place.

What will we have to do?

I will be recording the interview on audio and the interview will be guided by some set questions. Neither of you have to answer any question you do not wish to nor there will be a need for your name or identifying details to be recorded.

When I first visit you, I will bring a small book for you to use as a diary. It would help me if you could write in this about how you are both feeling and what it is like being expectant and new parents. I hope that you will be able to do this if and when you feel you want to. When we meet for the 2nd and 3rd interviews I would, with your permission, like to review your diary with you. At the end of the 3rd interview I would like to take a copy of the diary as this will also be part of the anonymised data.

What are the possible disadvantages and risks of taking part?

Occasionally parents can become upset, as previous infertility can be emotionally difficult. As an experienced midwife, I am experienced in dealing with this and will talk to you about it to ensure that you are alright. I can also advise you on further sources of support if appropriate

What are the possible benefits of taking part?

I hope that you will enjoy looking back on the diary as a memoir of your early days with your baby. In the long term, it may be possible to identify potential ways of supporting new parents who have also undergone IVF.

What if we decide to withdraw after the interview has taken place?

You are free to leave the study at any time. With your permission any data already obtained will be retained for the study, but if you prefer otherwise I will destroy any data already collected.

Will our taking part in this study be kept confidential?

All information which is collected about both of you during the course of the research will be kept strictly confidential. The tapes will only be listened to by me, and I will write out in full what is on them. I may then discuss these transcripts with my supervisors who may read parts of them to help me with data analysis. I will analyse them for common themes and will write about the collected views of the parents interviewed. Occasionally a quote from a transcript may be used in the thesis, but this will not be identifiable to anyone.

All data from this study will be stored and presented to comply with the requirements of the UK Data Protection Act legislation. Any data stored on a computer or lap-top will be password protected. Only I will have access to this data. It will be disposed of securely at the end of 5 years.

If any information is disclosed to the researcher that could lead to safety concerns or has potential criminal implications then this will be followed up as appropriate.

What will happen to the results of the research study?

The results of the study will be used for my PhD and I also intend to produce these findings in papers read by researchers, academics and practitioners. Some of what you say may be put into the report and papers, but your name will not go into the report and you will not be identified. I will send you a research summary if you wish, on conclusion of the study.

What if there is a problem?

Any concerns about the study will be addressed. In the first instance, please contact me, my details are below.

If you feel that you do not want to speak to me then please contact my research supervisor, Dr Karen Cleaver. Her telephone number and email address are also below.

If you are still not happy, please contact Professor Pam Maras, Director of Research and Enterprise, Faculty of Health and Education

Further information can be obtained from:

Liz Gale

e.a.gale@greenwich.ac.uk

0208 331 8020

or Dr Karen Cleaver (my research supervisor)

k.p.cleaver@greenwich.ac.uk

0208 331 8075

Professor Pam Maras

p.f.maras@greenwich.ac.uk

0208 331 9627

Appendix 11

Consent form

Participant Identification Number:

UNIVERSITY of GREENWICH

CONSENT FORM

Title of Project: Transition to parenting after IVF pregnancy

Name of Researcher: Liz Gale

1. I confirm I have read and understood the information sheet dated [29/1/15] version [2] for the above study and had the opportunity to ask questions. ☐ ☐
2. I understand that my participation is voluntary and I am free to withdraw at anytime without giving a reason ☐
3. I agree to take part in the study ☐
4. I agree for the interview to be recorded and transcribed ☐
5. I agree that direct quotes, not directly attributed to me, may be used ☐
6. I understand that if I disclose any information which could lead to safety concerns or has potential criminal implications then this may lead to confidentiality being broken ☐
7. I would like to receive a copy of the research results. ☐
8. I agree that this form that bears my name and signature may be seen by a designated auditor ☐

_____	_____	_____
Name of participant	Date	Signature

_____	_____	_____
Researcher	Date	Signature

1 copy for participant; 1 copy for researcher;

Appendix 12

Briefing letter for GPs and Health Visitors

Dear Colleague

Re: (Patient Name & D.O.B)

I am writing to advise that your patient has agreed to participate in a research study. The study is examining the transition to early parenthood for those with an IVF pregnancy. The research involves interviewing parents who have conceived using IVF. Parents will be interviewed at 34/40, 6 weeks postpartum and again when the babies are at 4 months old. Ethical approval has been obtained from South Central - Berkshire B Research Ethics Committee.

For your information I am undertaking this study to fulfil requirements for my PhD, which is being undertaken at, and sponsored by, the University of Greenwich. If you have any queries about the study or its conduct please feel free to contact either myself as per contact details below, or my main supervisor, Dr Karen Cleaver as per the following details: e-mail: k.p.cleaver@greenwich.ac.uk or phone: 020 8331-8075.

Yours sincerely,

Liz Gale

Senior Lecturer, Midwifery

e.a.gale@gre.ac.uk

0208 331 8020

Appendix 13

Letter to say baby has been born

Liz Gale

University of Greenwich

Mary Seacole Building

Southwood Site,

Avery Hill Road,

Eltham,

London SE9 2UG

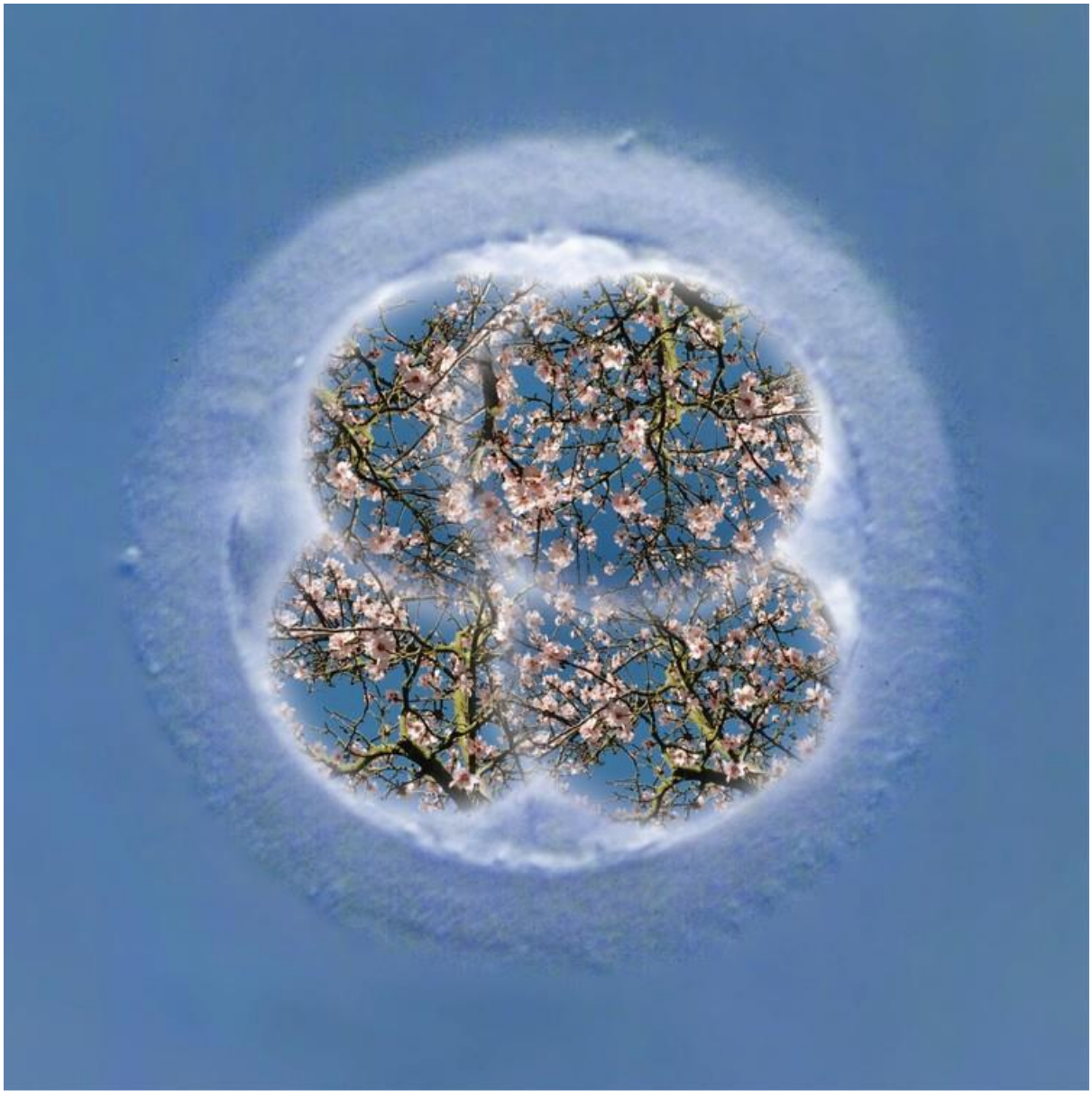
Dear Liz

We are pleased to tell you that our baby, ……. was born on the ……

This letter gives you permission to contact us for continuing involvement in the 'Transition to parenting following IVF pregnancy' study.

Yours sincerely,

……



Gina Glover Art in Art http://www.ginaglover.com/art-in-art-project-information