

# **Women's Experiences of Short Cycle In-vitro Fertilisation**

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### **Attestation of Authorship**

I hereby declare that this submission represents my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where acknowledged and referenced), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

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## **Abstract**

This research project explored women's constructions of their experiences of undergoing a short cycle protocol of in-vitro fertilisation for infertility treatment. A qualitative research design was used, utilising five face-to-face and two phone interviews with women who had undergone this type of IVF protocol, to explore their constructions of the experience. A synthesised, critical discursive psychology approach was employed for data analysis, revealing four main repertoires which women used to understand their experience of short cycle IVF. These included constructions of short cycle IVF as more natural, more manageable, a better investment and finally, representing a more informed choice. These repertoires served to position women in such ways that they exercised agency and choice throughout their IVF process, resisting the notion of a patient as passive and lacking control.

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## CHAPTER ONE: INTRODUCTION AND LITERATURE REVIEW

### *Infertility*

It is estimated that up to 80 million people are affected worldwide by infertility, with one in ten couples experiencing primary infertility (failure to conceive after 12 months of regular, unprotected sexual intercourse) or secondary infertility (the inability to conceive more than one child) (Cousineau & Domar, 2007). Other studies (Collins, 2009) place international infertility rates at up to 9%. In New Zealand, one in five couples attempting to achieve pregnancy will struggle with some aspect of conception (Fertility NZ, n.d.). The psychological impact of infertility can be potentially wide reaching, and Cousineau and Domar (2007) identify social stigma, mental distress and emotional suffering, isolation, ostracism and divorce as among its possible effects. Indeed, infertility is rated among the most stressful life events, similar in its impact to such stressors as a death in the family or the contraction of a serious illness such as cancer (Holter, Anderheim, Bergh & Moller, 2006). There are several ways in which fertility is seen to impact on people's lives, both in terms of the stress of infertility, and the stress of undergoing fertility treatment such as IVF.

#### **Infertility as a Developmental Crisis**

Erik Erikson's developmental theory holds that there are certain psychological stages individuals negotiate and pass through during various points within the lifespan. The stage of generativity versus stagnation refers to the psychological need to care for and give something back to future generations (Rothrauff & Cooney, 2008). For those who are unable to have their own children, there can be a perception of loss of control over one's life. This can often be experienced in terms of an inability to achieve the developmental milestone of having a child, and can lead to personal feelings of confusion and anger (Cousineau & Domar, 2007). As Van den Broeck, D'Hooghe, Enzlin and Demyttenaere (2010) identify, the conceptualisation of achieving biological parenthood as a key developmental task thus positions infertility as a barrier to completing this task. McQuillan, Greil, White and Jacob (2003) add that infertility comes as an extremely disruptive shock for those who had assumed parenthood would play a central part in their lives and identity.

## **Infertility as Identity**

In Western societies, a certain value is placed on parenthood and in fact parenthood is one of the most salient identities (McQuillan et al., 2003). The notion of pronatalism is prevalent in Western societies and motherhood is intertwined with meanings of womanhood and femininity, status and identity (Ulrich & Weatherall, 2000). The authors note that this discourse of motherhood has facilitated the belief that childlessness is seen as both pathological and unnatural. Conversely, having and raising children is considered to be central to psychological wellbeing and happiness (McQuillan et al., 2003). The failure to have a child may also be experienced as a failed self which interrupts the course of expected life milestones (Todorova & Kotzeva, 2006).

## **Infertility Defined**

Infertility has been defined in different ways, with some authors calling for a closer analysis of the socially constructed nature of the terminology (Greil, Slauson-Blevins & McQuillan, 2009). Greil et al. (2009) note that that infertility has become an increasingly medical, measurable definition within a biomedical context, and argue instead for a socially constructed perspective. “No matter how medical practitioners may define infertility, couples do not define themselves as infertile or present themselves for treatment unless they embrace parenthood as a desired social role” (Greil et al., 2009, p.141). A socially constructed definition takes a wider view of infertility which views the fertility issue as not necessarily located in the person, but in the context of wider societal meanings of parenthood. Sina, Ter Meulen and Carrusco de Paula (2010) take up this definition, commenting that the “biological, psychological and ethical dimensions of parenthood have become increasingly disengaged due to the exclusive attention in reproductive technology and biological factors” (p.1). Furthermore, Sina et al. (2010) note that often this view of infertility has the effect of reducing patients to nothing more than their various reproductive body parts and processes. It is argued that the development of assisted reproductive technologies (ARTs) have perpetuated the discourse of parenthood as biological, which has the effect of obscuring alternative discourses of parenthood (Ulrich & Weatherall, 2000). These options include adoption, fostering, choosing to be child-free (Greil et al., 2009; Sina et al., 2010) or in the New Zealand context, the practice of whangai .

This customary Maori practice involves the raising of a child by family members other than the birth parents (McRae, Nikora, Te Awekotuku & Rua, 2006). It is differentiated from adoption in the sense that kinship and whakapapa ties are maintained, and whangai practices are also characterised by an openness rather than the secrecy which may surround formal adoption processes (McRae & Nikora, 2006). However, in New Zealand currently open adoption practices are also an option (Child, Youth & Family, n.d.) In summary, while primary and secondary infertility are defined medically, Greil et al.'s (2009) stance that in fact infertility is a social constructed state provides an alternative way of understanding the problem.

### **Psychological Effects of Infertility**

Infertility, as an “uncontrollable chronic stressor” (Van den Broeck et al., 2010, p. 1472) has been established as a source of emotional and psychological distress within qualitative research traditions, yet quantitative studies remain more equivocal (McQuillan et al., 2003). Notably, there is twice the prevalence of depressive symptoms in infertile women as there are in fertile women (Cousineau & Domar, 2007). The authors also note that for the person in the couple who has been diagnosed with the fertility issue, the psychological distress is greater. Infertility has also been associated with feelings of loss, isolation, guilt and meaninglessness, as well as contributing to sexual and marital problems (Holter et al., 2006) and stigma, distress and social isolation (McQuillan et al., 2003). Among women with no children, biological or social, distress is both substantial and long term (McQuillan et al., 2003). Schmidt (2009) writes that infertility can either place strain on a couple's relationship, or have a potentially positive effect as partners are brought emotionally closer together, citing a study where around a quarter of couples reported high marital benefit. However, because the study recruited couples beginning fertility treatment, it is unclear what effect prospective treatment may have had on the results.

Separating out the effects of infertility and the effects of infertility treatment remains a problematic issue for many research studies. As Greil et al. (2009) argue, there is an effective lack of control group in relation to clinical studies which focus on women who seek treatment. In the United States, this represents up to half of infertile women whom little is known about. “Without a non-clinic comparison group it is impossible to untangle the

effects of infertility from the effects of infertility treatment on psychological outcomes” (Greil et al., 2009, p.143).

### ***New Zealand Context***

Assisted reproductive technologies such as in-vitro fertilisation (IVF) provide a chance for couples experiencing infertility issues to conceive. Currently, two cycles of IVF treatment are publicly funded in New Zealand according to relatively stringent criteria related to a woman’s age, body mass index and other lifestyle factors (Farquhar, Wang & Sullivan, 2010). In addition, there is a waiting period of up to five years, which accordingly impacts on the woman’s age and the success of treatment (Farquhar et al., 2010).

### ***IVF Protocols***

A long cycle IVF protocol is the treatment most commonly offered throughout fertility clinics in New Zealand. Long cycle IVF (also called long course IVF or conventional IVF) involves an injection of a human gonadotropin (GnRH) agonist drug on day 21 of the menstrual cycle, which causes the pituitary gland to release large amounts of follicle stimulating hormone (FSH) and luteinising hormone (LH), which in turn causes overstimulation of the pituitary gland and accordingly, it ceases to release FSH and LH (Fertility Associates, 2009). This stage is called down regulation and mimics the process of menopause. After this down regulation stage, FSH injections begin, which stimulate follicle growth and with careful monitoring of this follicle growth, another injection is given to stimulate final egg maturation (Fertility Associates, 2009). Following this, eggs are removed from follicles approximately 36 hours later. In summary, the body’s natural cycle is shut down, and then started up again with the same hormones that it naturally produces. The reasons for this process are given as twofold. Firstly, in its natural cycle, the number of follicles for ovulation is limited by the body to one, and this is achieved by a reduction in the release of FSH during the menstrual cycle, therefore; the use of hormones allows for multiple follicle production (Fertility Associates, 2009). If the body’s own levels of FSH are low, this in turn has a negative impact on the effectiveness of FSH injections (Fertility Associates, 2009). Secondly, the GnRH agonist administered controls ovulation, so that the body cannot trigger ovulation by itself. It is seen as more useful to limit this process (which involves egg collection) to

convenient times (Fertility Associates, 2009). Overall, long cycle IVF protocols involve three weeks of agonist GnRH hormone treatment and up to two weeks of daily FSH injections as well as frequent clinic visits for hormone evaluation and ultrasounds (Collins, 2009).

The development of various IVF protocols, including short and long cycle IVF treatments, has created some confusion in the clinical treatment regarding what constitutes a short cycle IVF protocol, leading to proposals for terminology in order to ensure consistency of research and clinical practice (Nargund et al., 2007). A short cycle IVF protocol involves the use of GnRH antagonist drugs in combination with fewer FSH injections. Daily injections of FSH begin on the second day of a woman's menstrual cycle, but these are overall much less than with the long cycle protocol, and a GnRH antagonist (such as cetrotide) is administered on Day 6 (Fertility Associates, 2009). FSH is administered at lower doses and for a shorter period of time than with the long protocol (Nargund et al., 2007). Follicle growth is stimulated and a GnRH antagonist is used to control ovulation. Fertility Associates (2009) note that this short course may be more expensive, and result in lower pregnancy rates. However, Nargund et al. (2007) believe this method is set to increase and potentially even replace long cycle IVF protocols in future, due to concerns about emotional and financial burden to couples and the reduction of medical complications such as ovarian hyperstimulation syndrome (OHSS) which are more common with long cycle IVF (Fauser et al., 2010).

### ***IVF Discontinuation Rates***

As many as 54% of patients discontinue IVF programmes, and the most common reason for dropping out is cited as psychological burden, even when treatment is fully funded (Olivius, Friden, Borg & Bergh, 2004; Cousineau & Domar, 2007; Pennings & Ombelet, 2005).

However, psychological burden in Olivius et al.'s 2004 study was a broad category encompassing such factors as late miscarriage, previous treatment for infertility and seeing different doctors on each visit. As such, it could be argued that the high rate of discontinuation due to psychological burden was due to a study design which may have defined this too widely. In addition, the methods used in this study to determine the reasons for couples dropping out of IVF appeared somewhat inconsistent: in a sample of 288 couples, over 200 were not posted questionnaires to express their opinion about the

reasons for discontinuing; instead, their medical records were viewed and the main reason for discontinuation was inferred from this information (Olivius et al., 2004). Only for those remaining couples from whose medical records their reason was not apparent, were questionnaires posted directly to them asking them to make comments about their experience of treatment and decision to leave treatment (Olivius et al, 2004). Despite the fact that their reasons for leaving treatment may have been obvious, it appears that much of the study dealt in assumptions about why dropout occurred, which seems a lost opportunity to integrate knowledge and comments from a larger sample.

Psychological burden is the also main reason for discontinuation of IVF treatment in other studies. A study in the Netherlands, where IVF costs are covered by insurance, reported a drop out rate as high as 62% after three treatment cycles (Cousineau & Domar, 2007). Results from an Australian study indicated that despite funding being available for up to six IVF cycles, the average uptake was for 3.1 cycles, with reasons among those women who had not had a baby given as emotional cost (64%) and “I had had enough” (66%) (Hammarberg, Astbury & Baker, 2001). A recent US study examining the causes of patient discontinuation among insured patients (thus ruling out financial burden as a reason for dropout) also concurred that the most common reasons were psychological burden and needing to take a break from treatment, which represented a combined 39% of participants (Domar, Smith, Conboy, Iannone & Alper, 2010). However, this study had quite a low response rate of 34% and the authors note that the responses they received may not have been representative of the sample, as those who withdrew from treatment due to psychological burden may have been either more, or less likely to respond (Domar et al., 2010).

A Belgian study of 25 women also revealed psychological burden as the main reason for discontinuation of IVF treatment (Van den Broeck, Holvoet, Enzlin, Bakelants & Demyttenaere, 2009). Finally, a six year study of couples in the United Kingdom, who were funded for up to three cycles on the National Health Service, revealed that of those who did not achieve pregnancy, the main reason for dropout was lack of success and psychological stress (59%) (Rajkhowa, McConnell & Thomas, 2006).

As Aanesen (2010) points out, such high dropout rates are concerning, because if patients stayed in treatment, they may eventually achieve a successful outcome through repeated IVF cycles. However, it also needs to be kept in mind that IVF will not be successful for all couples (around 50%), regardless of time frame (Heijnen, Macklon & Fauser, 2004.) The tension of maintaining hope versus accepting and coping with infertility is one that needs to be carefully managed. The unclearly delineated end of treatment can give the impression that IVF protocols could go on for an unlimited period of time, which Verhaak et al. (2007a) describe as a potentially complicating factor in couples facing up to the long term reality of being childless. Indeed, sometimes dropout from treatment is a healthy psychological decision which could be interpreted as a self protective measure (Van den Broeck et al., 2009). Notably, across all studies examining discontinuation from IVF treatment, there was a lack of transparency and consistency about how constructs such as 'psychological burden' were defined and understood. For instance, in some studies psychological burden referred to clinical criteria of anxiety and depression, whereas in others it was defined as stress.

### ***Long Cycle IVF Protocol***

#### **Physical Effects**

Perhaps the most obvious negative effects of long cycle IVF protocols relate to the physical impact on patients. First of all, the stimulation and development of many follicles can result in Ovarian Hyperstimulation Syndrome (OHSS) (Collins, 2009). Heijnen, Eijkemans, De Klerk, Polinder & Beckers et al. (2007) highlight OHSS as the most serious physical risk associated with long cycle IVF protocols, as it is potentially life threatening. While the risk of death is rare, at one in 400 000-500 000 stimulated cycles, it represents a serious risk nonetheless (Devroey et al., 2009). Other physical side effects of long cycle IVF treatment include symptoms such as hot flushes, and breast tenderness (Wilkins, Walker & Serrano, 2010). Abdominal discomfort is also associated with this type of protocol and there is little known about longer term risks, such as ovarian cancer (Verberg et al., 2009). Women in a study investigating the effects of ovarian stimulation on their lives stated concerns about the long term use of ovarian stimulation drugs (Brod, Verhaak, Wiebinga, Gerris & Hoomans, 2009). Pennings and Ombelet (2007) also identify lower back pain, headache and muscular pain as side effects of GnRH agonist protocols.

## **Emotional and Psychological Stress**

Mental distress is identified as one of the common negative impacts of long cycle IVF protocols (Barri, Tur, Martinez & Coroleu, 2010; Devroey, Aboulghar, Garcia-Velasco, Griesinger, Humaidan et al., 2009). This can be related to unsuccessful IVF cycles, the side effects associated with down regulation and the effects of the hormone injections (Devroey et al., 2009). Where infertility stress relates to the denial of parental roles, McQuillan et al. (2003) note that treatment protocols may add a significant distress. "Treatment involves the repetitive raising and dashing of the hope of pregnancy, perhaps resulting in an increase in the saliency of parenthood identity and heightened sense of distress in the face of failure to attain parenthood" (McQuillan et al., 2003, p.1009). However, it can be difficult to make direct links between emotional affect and specific aspects of the IVF process as each component has its own impact. de Klerk (2008) writes that the process of IVF itself is both stressful and demanding, with many stages, such as oocyte retrieval, experienced as invasive by the patient. In one study of 391 patients, more depressive symptoms were reported by those undergoing a long cycle IVF protocol during the week before stimulation than those undergoing a short cycle protocol which did not include down regulation (Devroey et al., 2009). In contrast, the women in the short cycle group reported higher levels of negative affect at the time of oocyte retrieval than the respondents in the long cycle group.

There are also increased anxiety levels for patients following IVF treatment: one study found an increased prevalence of subclinical anxiety and depression in those patients who did not achieve pregnancy (de Klerk, 2008). IVF treatment is also identified as a psychological stressor for traumatic depression (Cousineau & Domar, 2007) where unsuccessful outcomes and the threat of failure both contribute to considerable psychological distress (Verhaak et al., 2005). There is also some evidence to suggest that a GnRH agonist protocol contributes to depression and anxiety (Pennings & Ombelet, 2007; Wilkins, Warnock & Serrano, 2010). Finally as Collins (2009) notes, emotional distress is the primary reason for drop out of IVF protocols, which the author attributes to the onerous nature of time commitments, discomfort and possible complications.

In a study of 47 women which focused solely on the effects of ovarian stimulation, the results showed universally negative psychological effects of the procedure, particularly in relation to daily injections (Brod, Verhaak, Wiebinga, Gerris & Hoomans, 2009). "The injections were a constant reminder that they had fertility problems and added to their feelings of shame, that something was wrong with them or that they were being punished" (Brod et al., 2009, p.394). Verhaak et al. (2007a) in a review of studies which looked at emotional adjustment following IVF treatment, found that one of the most consistent findings related to elevated depression levels was in women who had completed one or more unsuccessful treatment cycles, thus indicating a relationship between length of treatment and psychological effect. Several months after treatment, those who had been successful in achieving pregnancy returned to low or decreased levels of depression, whereas those who were unsuccessful showed no recovery after several months (Verhaak et al., 2007 ). The short follow up period in this study reflects a limitation as longer follow up measures may have provided more information in relation to the ongoing effects of IVF treatment. It is also difficult to assess whether the depressive symptoms were as a result of IVF treatment or related to a realisation and coming to terms with childlessness. In contrast, Brod et al.'s (2009) study indicated that pregnancy outcome did not have any effect on the way the participants recalled their experiences – regardless of whether or not they achieved pregnancy, the majority of women identified negative perceptions of ovarian stimulation. However, this could be related to the different conceptualisations of psychological distress in terms of whether it reached clinical thresholds or not.

Redshaw, Hockley and Davidson's (2006) qualitative study investigating women's experience of infertility identified a number of key themes from the responses. One theme, which referred to emotional pain, found that women often took up a deficit position when diagnosed as infertile, and this created a tension between the artificial nature of the treatment and for what was framed in their eyes as a natural process: becoming a mother. Women spoke of the emotional rollercoaster of treatment which was invasive and controlled many aspects of their lives. Lack of certainty or control was another theme emerging from this study. "Going through treatment is like going into a dark tunnel. You have no idea where you are going or how long it will take and once it commences it is all consuming and you have to keep going" (Redshaw, Hockley & Davidson, 2006, p.298).

The limitations of this study relate to the fact that the participants were on different IVF treatment regimes. In addition, many of the women (75%) had paid for their own treatment, and this may have coloured their perceptions and expectations of the treatment process in a different way to fully funded or subsidised treatment. Interestingly, however, all of the women in this study had successfully become pregnant so it might be expected that they interpreted their infertility treatment through a more positive lens; yet certainly a number of detrimental effects of treatment emerged through the analysis.

A systematic review of over 700 studies looking at the psychological effects of IVF treatment, including anxiety, depression and general distress found a relationship between unsuccessful treatment and depression (Verhaak et al., 2007a). Notably, the symptoms of depression returned to low or decreased levels when a successful outcome was achieved, leading the authors to conclude that negative emotions related to treatment disappear with positive outcome (Verhaak et al., 2007a). Put another way, this implies that women can tolerate the emotional distress of treatment provided the end result is worth it.

Hammarberg, Astbury and Baker (2001) found similar results at long term follow up – that is, the negative emotions associated with treatment disappear with the arrival of a baby. The authors concluded that treatment stress is mainly related to fear of failure, noting that IVF treatment in itself does not result in emotional distress. However, for those women whose treatment did not result in having a baby, lowered life satisfaction was still present three years following treatment (Hammarberg, Astbury & Baker, 2001).

### **Couple / Marital Stress**

Long cycle IVF protocols can also place significant stress on a couple's relationship. Peddie, van Teijlingen and Bhattacharya's (2005) qualitative study of women's decision-making at the end of IVF treatment identified pressure on couples' relationships in the form of financial stress and balancing the demands of the IVF regime with everyday work and social lives as a key theme. Many participants also found that periods of depression resulted from the couple conflict in their relationships. However, it should be noted that the study asked women for their reflections and thoughts at the end of unsuccessful IVF treatment and as such this perceived failure may have negatively influenced their responses.

It is also difficult to separate out the effects of infertility versus the effects of treatment in establishing a link. Cousineau and Domar (2007) found that studies considering the effects of IVF on marital stress were inconclusive: one study found marital distress increased for those couples who failed to conceive during the first year; however, overall marital adjustment was stable. The authors note however that the effects of IVF on couples' sexual intimacy was disruptive, as sex needed to be scheduled around specific times and days, causing it to become somewhat mechanical. Women in another study referred to IVF treatment as "testing their relationship to the limit" (Redshaw, Hockely & Davidson, 2006) with ultimate effects such as separation and divorce. However, other studies found that when women recalled their experience of IVF two to three years after their treatment, they noted no long lasting negative effects on their marital relationship and 38% actually stated that treatment had had a positive influence on their relationship – although 59% identified an extremely negative or somewhat negative impact on their relationship (Hammarberg, Astbury & Baker, 2001). However, results were not differentiated in terms of which participants had experienced successful treatment and which had not, making it difficult to interpret these figures meaningfully, as it could be imagined that the desired result of a baby would have a positive impact on the marital relationship. In addition, the responses were allocated into two groups in order to indicate percentage impacts: extremely negative and somewhat negative, and no impact with positive impact, which seems an unusual pair to group together given that these determine two very different responses. The effect of combining these responses into one category may have obscured some relevant results.

A longitudinal study following couples through their first IVF treatment at different stages found that 59% of couples felt treatment had affected their relationship for the better, while just 10% thought it had worsened the relationship (Holter et al., 2006). The study included men's and women's responses to the treatment, which provided a more contextual picture, however the responses supplied were very limited, such as better, worse or no change and no further information was gleaned in this regard. The time frame was also relatively short in this study, and as previously mentioned only focused on the first IVF treatment, thus not reflecting the possible cumulative effects of continuing treatment.

### **Social and Professional Opportunity Costs**

Participants in the study mentioned above (Peddie et al., 2005) also noted that IVF procedures often made it difficult at work and socially. Participants spoke of their life being on hold, of having no social life and being unable to take opportunities of promotion at work because they were unsure of their future (Peddie et al., 2005). Cousineau and Domar (2007) also state that once beginning treatment, changes to lifestyle inevitably occur, including postponed career opportunities. Likewise, participants in Brod et al's (2009) study stated that ovarian stimulation impacted on their daily lives in negative ways, including disruptions at work in terms of having to use annual leave for appointments, anxiety about performance at work and the rearrangement of work schedules and possible lack of promotions. Respondents in Hammarberg's (2001) retrospective study felt that undergoing IVF treatment had an impact on their work and professional life, including a negative influence on their careers, with 53% reporting an extremely negative or somewhat negative impact in this area. This perceived negative influence was higher in the group who did not achieve a successful pregnancy (Hammarberg, Astbury & Baker, 2001). Women in another study identified that managing the conflict between work and treatment was often problematic, with time off for appointments leading some women to feel they had no choice but to disclose their treatment, which resulted in a lack of privacy (Redshaw, Hockley & Davidson, 2006).

### **Financial Costs**

As previously stated, two IVF cycles are currently publicly funded through certain clinics in New Zealand, provided that patients meet certain criteria. However, if couples wish to undergo further IVF beyond this, the cost of IVF is expensive and prohibitive for some. Barri et al. (2010) identify the high financial cost of long cycle IVF as a drawback and Alper and Penzias (2000) also state that the high cost acts as a major obstacle to treatment. Heijnen et al. (2007) also define treatment costs as expensive. In New Zealand, the estimated cost for one IVF treatment cycle is approximately \$9,215 (Fertility Associates, 2010) or \$9,509 (Repromed, 2010). Discourses which emerged from one qualitative study revealed however that the high costs were framed as the price to pay for resulting children who were then constructed as a 'prize' and well worth any fee (Redshaw, Hockley & Davidson, 2006).

However, for lower income families the cost of IVF treatment may well preclude them from seeking treatment.

### ***Short Cycle IVF***

#### **Fewer Symptoms and Side Effects**

There is some evidence to suggest that a short cycle IVF protocol is associated with fewer side effects than a long cycle IVF regime. In a study of over 400 women, which compared a short cycle protocol (which utilised mild ovarian stimulation with a GnRH antagonist medication) and a long cycle protocol (ovarian stimulation with a GnRH agonist long protocol), Heijnen et al. (2007) found that the two groups experienced similar levels of overall discomfort, despite the fact that the short cycle group underwent more IVF cycles than the long cycle group. In addition, the authors note that discomfort recorded in the former group tended to be more stable over time than in the latter group, whose discomfort levels increased with each treatment cycle. Another study involving 359 patients in two groups: short cycle IVF and long cycle IVF, found that more physical discomfort was reported in the short cycle group during their last week of down regulation (de Klerk, Heijnen, Macklon, Duivenvoorden & Fauser et al., 2006). This physical discomfort related to aspects such as headache, backache and muscle pain; however the effect sizes of the differences between groups were relatively small (de Klerk et al., 2006). Another study, which asked patients to reflect on their experience of either short or long cycle IVF protocols post treatment via questionnaires, found that very few women in the short cycle stimulation group thought that the side effects associated with their treatment were severe or unacceptable, in comparison with more than half of the women in the standard IVF group (Hojgaard, Ingerslev & Dineson, 2001). A reduced chance of developing OHSS, a reduced number of daily injections and fewer days of monitoring with ultrasound have also been identified among the benefits of a mild treatment protocol, as has the overall lower dose of GnRH (Muasher & Garcia, 2009).

#### **Emotional Impact**

In de Klerk et al.'s (2006) study above, women in the long cycle IVF group reported higher levels of depressive symptoms than women in the short cycle IVF group. Likewise, a

qualitative study conducted by Garel et al. (2009) found that women in the short cycle IVF group reported less psychological strain and less emotional stress as well as reduced anxiety and depression. However, both groups in this study reported high levels of emotional distress. Other studies have also shown a reduction in depressive symptoms experienced by those undergoing a short cycle IVF treatment protocol which was unsuccessful in comparison to an unsuccessful long cycle protocol (Hojgaard, Ingerslev & Dineson, 2001). The authors infer that this effect could be due to GnRH agonists being linked with depressive symptoms, and the short cycle protocol uses less hormones overall, hence the lower levels of depressive symptoms. Medical literature also draws the link between certain GnRH agonists with psychiatric side effects. Several studies have indicated that between 75-80% of patients using GnRH agonist medication exhibited depressive symptoms using the Hamilton Depression Rating Scale (Wilkins, Warnock & Serrano, 2010).

### **Success Rates**

The question of how to define success in an IVF context remains problematic. As Devroey et al. (2009) comment, wider definitions of success have taken into account the risks in terms of multiple and premature births, but for patients, the most important factors are pregnancy and live birth rates. A high risk of treatment failure may be the most pressing concern for many patients (de Klerk et al., 2006). Heijnen, Macklon and Fauser (2004) argue that successful IVF outcomes should be conceptualised not only as a healthy baby, but also encompassing the health care and interests of the couple. The authors conclude that this understanding of success will encourage “patient friendly stimulation protocols with less stress and discomfort, fewer side effects and chance of complication such as the ovarian hyperstimulation syndrome” (2004, p.1937). Others have argued that the creation of terminology around different protocols has been a clever marketing exercise, with terms like ‘patient-friendly IVF’ suggesting that other forms of treatment are unfriendly or hostile and thus influencing consumer perceptions, along with success rates (Flisser, Scott & Copperman, 2007).

Devroey et al. (2009) note that with long course GnRH agonist protocols, a greater number of oocytes are retrieved in comparison to a short cycle IVF approach. However, several studies have indicated that there is no significant difference between the two protocols in

terms of live birth odds ratios. In addition, there is some evidence to suggest that although a lower number of oocytes are retrieved with short cycle stimulation protocols, these oocytes may be better associated to result in pregnancy (Hohmann, Macklon & Fauser, 2002). Two meta analyses found the odds of a live birth to be very similar (OR: 0.82-0.86) for both a short cycle and a long cycle protocol (Devroey et al., 2009). In a study comparing both types of protocols, the one year cumulative proportion of live births was 43.4% for the short cycle IVF group and 44.7% for the long cycle IVF group. As the results indicate, the likelihood of a live birth was very similar, although more IVF cycles were completed overall for the short cycle group (444 in 205 patients, compared to 325 in the 199 long cycle patients) (Heijnen et al., 2007). The authors explain that although there is a reduced chance of achieving a live birth when comparing the two types of protocol cycle to cycle, taken over a one year period, the results are nearly the same. In addition, Heijnen et al. (2007) argue that the mild protocol should also be seen in the context of its advantages, namely reduced physical risks, shorter protocols, less expense and reduced drop-out rates.

In a randomised comparative study, overall similar pregnancy results were found in the long cycle group compared to the short cycle group (21% per started cycle) (Hohmann, Macklon & Fauser, 2002). The authors also concluded that a low rate of oocyte retrieval in the short cycle protocol may result in oocytes more likely to achieve pregnancy. This may be because short cycle stimulation has been found to have a more beneficial effect on oocyte and embryo quality (Fauser et al., 2010). A recent randomised study found that in terms of clinical pregnancy rate per cycle, there was no significant difference between those in the mild stimulation group and conventional group (37% versus 31%, respectively) but a trend towards higher pregnancy in the mild group (Karimzadeh, Ahmadi, Oskouian & Rahmani, 2010).

Pennings and Ombelet (2007) also comment that current IVF practice has an exclusive emphasis on success rates and effectiveness, which has considerable disadvantages in terms of understanding and addressing the psychological burden on patients as well as financial implications. In a climate where IVF success rates are used as marketing tools for internet aware consumers, Fauser and Devroey (2005) note that private clinics are reluctant to risk even slightly reduced success rates.

### **Dropout rates**

Dropout rates from IVF are considered a relevant factor in the consideration of which type of protocol represents less of a patient burden, as couples who drop out after one or two failed cycles are deprived the opportunity of future cycles and a possible successful outcome. The main reason patients give for dropping out of treatment is related to psychological burden (Devroey et al., 2009; Olivius et al., 2004). Heijnen et al.'s (2007) study found that the dropout rate for the short cycle treatment group was lower than in the long cycle group. However, these figures were only able to take into account drop-out rates after the first and second cycles, and close examination of the data reveals that numbers of treatment drop out due to burden of treatment were equal in both groups (Heijnen et al., 2007). Others support the notion that short cycle IVF could be associated with lower drop-out rates (Verberg et al., 2009). In addition, response to failure has been better tolerated in women receiving short cycle IVF, which may be another factor connected to lower drop-out rates (de Klerk et al, 2007). That is, women on a mild protocol may be more inclined to persist with treatment, increasing their eventual likelihood of having a baby.

### **Financial Cost**

The medication costs of a short cycle IVF protocol were similar to long cycle costs when compared over a one year period (Fauser et al., 2010). Despite short cycle using less GnRH gonadotrophin, the current cost of 3-5 doses of GnRH antagonist is equal to the cost of one agonist (Fauser et al., 2010). In New Zealand, drug medication cost breakdowns also indicate similar costing structures between the two protocols (Repromed, 2010).

### **Disadvantages**

Because short cycle IVF involves a shorter treatment duration and less dosage of GnRH, there is an associated possibility of decreased ovarian response and subsequent cycle cancellation (Barri et al., 2010; de Klerk et al., 2007). Accordingly, an increased cancellation rate can lead to emotional distress for patients and 25% showed mild or moderate levels of depression following cycle cancellation (Aanesen et al., 2010). More cycles are generally required in a short cycle protocol in order to achieve pregnancy, and this could create more treatment stress for patients as they may have to tolerate more treatment failure (de Klerk

et al., 2007). However, Hojgaard et al.'s 2001 study indicated that the burden of treatment rises more with long cycles in comparison to short cycle protocols. The authors also comment on the possibility that those patients who selected a short cycle protocol might experience some regret if this treatment approach failed, but this was weighed up against the reduced stress and discomfort of the mild protocol and the results indicated that regret was not experienced by those for whom treatment failed.

### ***Impact of Stress on IVF Outcome***

Despite a number of studies considering the impact of stress in terms of IVF outcome, the results have remained somewhat inconclusive (Lintsen, Verhaak, Eijkemans, Smeenk & Braat, 2009; de Klerk et al., 2007; Anderheim et al., 2005; Smeenk et al., 2001). While IVF treatment is acknowledged as a stressful experience, the connection or impact of this stress on actual pregnancy outcome is unclear (de Klerk et al., 2007). As Smeenk et al. (2001) note, determining the relationship is clinically relevant in terms of assisting patients and guiding psychological intervention which may have an impact on alleviating distress, and therefore outcome, if a stress – outcome relationship is clear.

No association between anxiety or depression and IVF outcome was found in one study by Lintsen et al., in their 2009 prospective study across seven IVF clinics in the Netherlands, which involved 783 women in their first IVF/ICSI treatment. The psychological status of women was measured using the State Anxiety Inventory at two intervals, once to measure baseline levels two months prior to treatment and then again one day before oocyte retrieval (Lintsen et al., 2009). There was no difference in state anxiety between pre-treatment and oocyte retrieval for those who were pregnant and those who were not (Lintsen et al., 2009). However, in a different multi-centre study, also in the Netherlands, with a lower number of participants (358), an association was found between state anxiety and pregnancy outcome. The study took into account both state and trait anxiety, which were measured prior to the commencement of GnRH treatment during the women's first IVF cycle. The authors concluded that state anxiety may explain some of the variability in pregnancy rates (Smeenk et al., 2001). Another study by de Klerk et al. (2007), which investigated a sample of 391 women, again in the Netherlands, found that when general psychological measures were used (the Hospital Anxiety and Depression Scale), no

association between distress and pregnancy outcome was found. However, when the Daily Record Keeping Chart (DRK), a measure which consists of common emotional reactions of women undergoing IVF, was utilised, a small but significant effect was found between DRK scores and live birth rates (de Klerk et al., 2007). Interestingly, the association was between low levels of expression of negative affect and a lowered likelihood of term live birth, while those women with moderate levels of negative affect were more likely to have a term live birth (de Klerk et al, 2007).

Lintsen's (2009) study also found no association between depression and IVF outcomes. The study carried out by Smeenk and colleagues (2001) found that depression variable, when combined with other biological factors such as age and number of previous pregnancies, had a negative correlation with pregnancy. The results of a smaller study of 166 women by Anderheim, Holter, Bergh and Moller (2005) also found no relationship between psychological wellbeing and pregnancy outcome.

Another study considered the impact of stress across several specific domains, including marital stress, personal stress and social stress, as well as taking into account male partner stress and the potential effects of this on IVF outcome (Boivin & Schmidt, 2005). Utilising the Fertility Problem Stress Inventory as a measure, 818 couples beginning a new course of treatment participated in the Danish study. The results indicated that marital fertility problem stress in particular had an association with successful outcome: women who did not become pregnant reported they experienced significantly more marital related stress than those who did (Boivin & Schmidt, 2005). Male stress was also shown to have a role in treatment outcome, but not as much as female stress (Boivin & Schmidt, 2005).

Overall, the results in this area of research remain equivocal. However, it could be perhaps that studies which have utilised more general psychological psychometric tools do not have the specificity to pinpoint salient stress factors in the same way as fertility specific measures. It could be speculated that given the specific nature of the stress associated with infertility and IVF procedures, a more sensitive psychometric instrument is required to gain meaningful results, as was indicated in de Klerk et al.'s (2007) study.

The majority of studies also only investigated women or couples undergoing their first treatment cycle in IVF, however many patients go on to complete more IVF cycles and the

effects of cumulative stress which they might incur could also be explored as it may differ from those on their first IVF cycle. de Klerk et al. (2007) hypothesise that a possible reason for their finding that low expression of negative affect was linked with lower likelihood of live birth could be that women undergoing IVF often employ psychological defence mechanisms such as repression or denial, in order to manage the emotional toll of treatment. As these authors also point out, underreporting of stress and distress in IVF research is not uncommon, with many women feeling as though they may “jinx” the outcome, or be dropped from treatment if they fully expressed their negative emotions.

Culturally, it is interesting to note that the majority of studies investigating the link between psychological distress and IVF outcome are based in Northern European countries, where cultural norms around the expression of stress and negative emotion may limit the generalisability of the study results. For instance, the authors of one study carried out in Sweden noted the Swedish tendency to underreport negative emotions in a questionnaire format versus a verbal interview (Anderheim et al., 2005). It is interesting to reflect on the potential effects that this difference in method could have on results.

Finally, as Lintsen et al. (2009) point out, by the time couples have reached the stage of their first fertility treatment, they often feel positive and hopeful and this too could have an influence on results. Finally, selection bias cannot be ruled out of these types of studies, as for those women who elected not to participate, stress could have played a role in this decision.

### ***Gaps in the Literature / Locating the Study***

While there are a number of articles and comparative studies in the clinical literature relating to quantitative analysis and comparison of long versus short cycle IVF outcomes, there seems to be a significant gap in in-depth, qualitative studies which document and explore the experiences of couples undergoing short cycle IVF. Qualitative studies in this area have generally taken a more structured form of approach in the form of questionnaires and structured interviewing (for example, Hojgaard et al., 2001; Redshaw et al., 2006) or thematic analysis (Garel et al., 2009). In particular, my search found there are no local studies which explore the experience of short cycle IVF from a more critical discourse

analytic approach. As such, and combined with the current trend in some clinics towards employing mild stimulation approaches to IVF, it seems timely to explore women's experience of short cycle IVF from a qualitative perspective in order to attempt to gain insights into their constructions of their experience. It is hoped that the results of this study may help inform women's decision-making processes around IVF procedures as well as aid clinicians working in this area to best meet the needs of couples in their treatment programmes.

## CHAPTER TWO: METHODS

### ***Theoretical Framework***

Qualitative research seeks to understand meaning and the ways in which individuals make sense of their worlds, rather than the more quantitative research based goals of identifying cause and effect through the manipulation of variables (Willig, 2001). Within the qualitative research paradigm, there are a number of different methodologies which sit within a social constructionist epistemology. Social constructionist approaches are concerned with the way that language constructs people's social reality (Tuffin, 2005). The language used by individuals to convey experiences is viewed as not only as a description, but as an actual construction of their social world (Wilkinson & Kitzinger, 1995). Burr (2003) writes that while there is no single definition of social constructionism, there are several key assumptions that the approach is built on. Firstly, there is a focus on critical appraisal of knowledge and truths which are presented as universal and unquestionable (Burr, 2003). In addition, social constructionism holds that all knowledge is historically and culturally bound to time and place (Burr, 2003; Tuffin, 2005). It is also concerned with people's understandings of the world as created and constructed through social interaction (Phillips & Jorgenson, 2002). It is through this principle that qualitative methodologies experienced a 'turn' to language and a burgeoning of methods related to this, including discursive psychology. The final tenet that a social constructionist position holds is that with different constructions of negotiated understanding come a variety of corresponding social actions (Burr, 1995). "Descriptions or constructions of the world therefore sustain some patterns of social action and exclude others" (Burr, 1995, p. 5).

### ***Discursive Psychology Background***

Discursive psychology sits within a social constructionist paradigm in that it holds that language and interaction are built in and by language (Tuffin, Rouch & Frewin, 2010).

Specifically, discursive psychology is focused on the psychological tasks and actions people are invested in while living their everyday lives (Wiggins & Potter, 2008). As Tuffin (2005) identifies, the approach regards people as advanced language users, who utilise language to achieve things and take care of everyday psychological tasks. Language and how people use it is a vital concern for discursive psychology. "Language does not act like a mirror faithfully

reflecting the world and most importantly for psychology, there is no easy route through self description to the true nature of worlds and minds beyond” (Wetherall, 2007, p. 663 ). Discursive psychology takes the view that people’s descriptions and accounts of their world are not neutral, but instead utilised to construct certain realities, which serve a particular function for them as individuals (De Kok & Widdicombe, 2008). For instance, a description of how someone lost their job may justify the action, attribute blame, or manage responsibility, all of which serve differing purposes in how the individual makes sense of the event. The way in which they tell this story may also shift according to time and place. How they achieve this through linguistic and discursive resources is the focus of discursive psychological practices.

### ***A Synthesised Approach to Discursive Psychology***

Wetherall (2007) notes that two traditions have emerged from the domain of discursive psychology. One approach is more focused on a fine-grained, conversational analysis of interaction and talk as it occurs in natural settings while the other is less bound by the limitations of a conversational analytic approach “around the object of study” (Widdicombe, 2007, p. 665). The latter approach (sometimes called critical discursive psychology) often employs both micro and macro techniques to analysis, sometimes combining other methods such as psychoanalysis to add to the process (Widdicombe, 2007). Wetherall, one of the founders of the discursive psychological approach, has also argued for a more synthesised approach to analysis which encompasses both the fine grained focus on linguistic talk and text, as well as engagement with Foucauldian or social postmodernist notions of discourse analysis in relation to power and social discourse (Wetherall, 1998; Wetherall et al.,2001). Certainly, one of the criticisms in relation to the fine grained type of discursive psychological approach has been the loss of subject in accordance with the sole analytic focus on what is going on ‘in’ the text (Willig, 2008). A dual focus which combines this with an understanding of subject position and engagement with wider social discourse should be the goal of any comprehensive discourse analysis, argues Wetherall (1998). For the purpose of this study I am using a synthesised critical discursive psychological approach to analysis as outlined above and followed by Wetherall and others (Edley & Wetherall et al.,2001; Wetherall, 1998; Seymour-Smith, Wetherall & Phoenix, 2002; Wetherall, Taylor & Yates, 2001). The reasons are as follows:

In constructing their experiences of fertility and IVF, women engage in a number of psychological tasks considered suitable for this type of analysis: evaluation of the IVF protocol in particular, but also issues around responsibility (i.e. of their bodies) attribution (in the sense of failed IVF attempts), justification (of their decision making process around protocols) and identity (as related to issues around parenthood and the desire for children). In particular, negotiation of an identity or subject position in relation to fertility issues seemed pertinent and I was interested in how this complex process was managed by participants, particularly in relation to medical specialist – patient positioning in an IVF setting.

Left without a gendered analysis, I felt that a discussion about fertility and women's bodies (as a site of reproduction), could be seen to be devoid of relevant context, particularly from a feminist perspective. This is one of the reasons for the adoption of a synthesised approach to analysis, in order to make sense of why and how particular discursive resources were shaped and drawn upon. It is also considered that a synthesised approach could provide deeper information, in the sense of a micro consideration of linguistic devices utilised and set against a background of wider social and institutional frameworks. Indeed, Wetherall's (1998) argument for a more eclectic, synthesised approach to discourse analysis includes the fact that more insights are generated by using a twin approach than either method in isolation.

### ***Participants***

Participants for this study were recruited through a larger study on IVF through purposeful sampling methods utilising patients of IVF clinics in Auckland and participants recruited via the Fertility NZ website. Participants who met the research criteria of having undergone a short cycle IVF protocol were sent a letter from the clinic inviting them to take part in the study, which included the information sheet. If they were interested in taking part in the research, they contacted the head researcher at AUT directly, who arranged interview times and schedules. Participants were invited to select their preferred location for interviews, as it was considered that giving them this option ensured their comfort and privacy. Many participants chose to be interviewed in their own homes. Consent forms were given and collected, explaining the study and the participants' rights. There was no obligation to take part in the research and participants could withdraw at any time prior to data completion.

In total, seven participants took part in this research project, although the wider study is currently ongoing with approximately 18 interviews completed. The seven transcripts analysed for this study included five interviews which I conducted and a further two interviews conducted by the head researcher. Participants aged in range from 32-42 and were predominantly from a New Zealand Pakeha background with the exception of one participant from the United Kingdom.

### ***Interviews***

Semi-structured interviews were used, alongside an interview protocol in order to guide the interviews where necessary. As Di Ciccio–Bloom and Crabtree (2006) point out, the use of an individual semi-structured interview format can facilitate an in-depth focus on social and personal issues. Semi-structured interviews are one of the most popular data collection methods for qualitative methodology, as the transcribed data can then be analysed in a number of different ways (Willig, 2008). The interview format has been criticised in some methods of discursive psychology, such as the conversation analysis tradition, for its unnatural context and problems related to production and analysis of this type of interview (Wiggins & Potter, 2008). However, there are both ethical and practical considerations to obtaining naturally occurring talk and text which inhibit the gathering of data in this way, and many researchers utilise the semi-structured interview as a source of data collection (Willig, 2008). It is considered that the use of semi-structured, open-ended interviews is a context within itself, and provided this is acknowledged and described in a reflexive sense, including the interviewer’s comments (Willig, 2009) then this too provides a context for the co-construction of a particular reality. A potential disadvantage of this is that participants orientate themselves to the context specific to a research interview, which may differ from their everyday construction and management of these issues (Willig, 2009). For instance in the context of this study on IVF, this may have had implications for the way in which participants may have perceived an interview with a health researcher.

Di Ciccio-Bloom and Crabtree (2006) identify certain stages in the qualitative interview process which aid the development of rapport, which is defined as “trust and respect for the interviewee and the information he or she shares” (p. 316). The first stage is described as apprehension, followed by exploration, cooperation and participation (Spradley, 1979, cited in Di Ciccio-Bloom & Crabtree, 2006). The authors note during the first phase of

apprehension, there is uncertainty due to the unknown context of the interview and a focus on broad, open-ended questions is recommended. The interview guide which I utilised adopted a broad first question about participants' experience and decision to explore IVF, in the context of their fertility issues, in order to help participants warm up to the interview process. This seemed to work effectively in that participants all had a story of how they had come to IVF and talked at some length about this process. Di Ciccio-Bloom and Crabtree (2006) also recommend the reflection of the participants' key words at this point, to encourage further rich description without leading the participant. This technique was useful in eliciting further information from participants as well as I believe giving them an experience of being heard. I also used reflective summaries for the same purpose.

The second phase in the semi-structured interview is defined as the phase during which the participant starts to engage in a deeper discussion, and Di Ciccio-Bloom and Crabtree (2006) note that this is characterised by "learning, listening, testing and a sense of bonding and sharing" (p.317) between the interviewer and interviewee. This phase is followed by a cooperative phase, where the interviewer and interviewee have reached a level of comfort with each other which allows for questioning and clarification. Finally, the participation stage is defined by a deeper level of rapport, with the interviewee leading the interviewer. Reflecting back on many of my interviews, I can identify the different stages outlined by Di Ciccio-Bloom and Crabtree (2006) and this seemed to follow a natural process as I got to know my participants.

The use of an interview guide helped to provide an overall frame for the interview, yet it was still flexible enough to allow participants to focus on their own experiences and topics within the area of research. While I was aware of needing to cover certain content areas, I was also interested to see what emerged from each participant's experience in terms of what was salient and relevant for them. The use of silence and space within interviews was an attempt to provide space for participants to do this.

The topic of IVF procedures and infertility is potentially an emotional and sensitive topic for research. Johnson and Clarke (2003) define sensitive topics to include the "exploration of deeply held personal experiences...and issues sacred to the individual" (p.421). The wish to become a parent and the often difficult journey which leads to the decision to pursue IVF

treatment is considered sensitive in this context. The desire to become a parent is strongly tied to identity and sense of self for many individuals and as previously noted in the literature review, the struggle to conceive can be very psychologically distressing (Cousineau & Domar, 2006).

A number of issues have been identified through researching sensitive topics, including effects on both the interviewer and the interviewee (Johnson & Clarke, 2003; Dickson-Swift, James, Kippen & Liamputtong, 2007). The impact on participants needs to be carefully considered, as it is noted that often the nature of an open-ended or semi-structured interview can lead participants to disclose information they may regret later (Dickson-Swift et al., 2007). Likewise, other authors have argued that the trusting relationship cultivated during an interview may lead to an obligation to participate on the part of the interviewee (Johnson & Clarke, 2003). "There is the argument that by 'being friendly' in order to obtain data, researchers risk being exploitative in the field" (Johnson & Clarke, 2003, p. 422). However, the advantages for the participant of taking part in an interview also relate to getting the opportunity to tell their story in a way that perhaps they have not had the chance to do previously. In addition, Reisman (1976, cited in Johnson & Clarke, 2003) notes that participants can also feel happy in sharing their stories to help others, calling this the "helper-therapy" principle. However, this assumption is arguably open to debate as the experience of talking about a sensitive topic is often distressing (Johnson & Clarke, 2003). Overall, as a researcher I felt a responsibility to create an interview space which enabled participants to disclose to a level they felt comfortable, while also facilitating a genuine, transparent atmosphere.

Other challenges which researchers have faced in the area of sensitive research include role conflict, inexperience, unpreparedness and confidentiality (Johnson & Clarke, 2003).

Issues in relation to role conflict in this study included not being able to reciprocate and a discomfort with some of the research boundaries during the interview process. Researchers in Johnson and Clarke's (2003) study expressed difficulty when participants disclosed misinformation or misunderstanding in relation to their medical treatment. As I am not a medical professional, I did not encounter this type of difficulty. However, I did experience at times a blurring of the role between researcher and psychologist, and this is another

concern which was raised by participants in Johnson and Clarke's study (2003). Ultimately, however I was more concerned with drawing on the listening skills gained in my counselling psychology training and this did not create any serious role conflict for me.

From my own perspective, as a beginning researcher, I could certainly identify with some of the anxiety about inexperience expressed by researchers in the above study, particularly just prior to conducting my first interview. However, I also found that my training in counselling psychology had in some ways equipped me to talk about sensitive issues but as mentioned above, this potentially could have led to a feeling of role conflict.

I felt secure that concerns about confidentiality were managed carefully and appropriately. Another issue raised in Johnson and Clarke's (2003) study was that of researcher isolation and in particular, the need for supervision. I found my research supervisors invaluable in talking through issues and debriefing after the interviews.

In Dickson-Swift et al.'s study (2007) of 30 health researchers who had undertaken research on sensitive topics, there was a tendency to self-disclose to participants in order to facilitate rapport, show respect to participants and also to attempt to even out power relations between the researcher and participant. In my interviews, I also found that I was more inclined to disclose personal information than with previous research I have been involved with, and on reflection this was related to the private and sensitive nature of the interview and the fact that I wanted to reciprocate in a genuine way. One example was in response to a question related to whether I myself was a mother or planning a family. This was towards the close of one of my interviews, so I considered it both appropriate and necessary to respond as it did not interfere with the interview process nor 'take over' the participant's story. As this was my first interview, I consequently felt more prepared to deal with the issue of self-disclosure during following interviews.

Due to the funding limits of the study and the need to interview some participants who lived outside of the Auckland area, there was a need to utilise telephone interviewing for one of the participants. As Sturges and Hanrahan (2004) identify, telephone interviews for qualitative interviews is not usually a particularly common method because of questions about the suitability of this format to the task. Their study investigated the influence of mode of interview on the quality and quantity of data collected by analysing 43 semi-

structured interview transcripts (21 face to face, 23 phone interviews). The authors found that the two methods yielded similar results in terms of quality and quantity of interview data. In fact, several advantages of telephone interviewing were noted, including the suitability of phone interviewing for sensitive topics, as it afforded participants a degree of anonymity and distance not experienced with face-to-face interviews. Even the lack of visual cues during telephone interviews can be addressed by being alert to non-verbal cues such as hesitation and hurried answers (Sturges & Hanrahan, 2004). The authors conclude that telephone interviewing can be utilised successfully for qualitative interviews.

### ***Method of Analysis***

Braun and Clarke (2006) argue that thematic analysis can be utilised as a beginning method for many types of qualitative analysis. Thematic analysis refers to a method for locating and analysing themes within data (Braun & Clarke, 2006). It is considered that an initial thematic analysis helps the researcher to be familiar with the data as well as organise it into main themes. The steps recommended by Braun and Clarke include firstly a familiarisation with the data, involving a close and repeated reading in a search for patterns and meanings, followed by the generation of initial codes from the data. The following phase involves searching for themes in the data, by sorting codes into broader themes; these themes are then reviewed and refined, defined and named (Braun & Clarke, 2006). The final phase involves writing up the themes and analysing them with an emphasis on going beyond description to the construction of a concise argument which relates to the initial research question (Braun & Clarke, 2006). The advantages of undertaking an initial thematic analysis included the identification of similarities and differences across the data set, as well as a deep familiarity with the data as required for the next step of analysis.

Following the initial thematic analysis, a synthesised critical discursive psychology approach was used for a closer analysis of extracts of transcripts identified as belonging to salient themes across the data. This type of enquiry seeks to understand how “experience is constructed in and through language” (Tuffin et al., 2010, p. 487). First of all, coding of the transcripts involved close reading in relation to the initial research question: how do participants construct their experience of mild IVF? All sections of the transcripts which referred to this were coded for analysis (Willig, 2008). The coded transcripts were closely re-read to identify resources, metaphors and other instances of figurative language, as well

as the already identified themes within the transcripts. Similarities of constructions of mild IVF were identified and noted as well as differences and variation within the transcripts, as this often indicates that something of interest is happening in the text (Tuffin, 2005).

Widdicombe (1993) recommends looking at the way things are said in relation to how they solve a problem for the speaker. The task of analysis is then to “identify the problem and how what is said constitutes a solution” (Widdicombe, 1993, p.284). Questions the analyst asks of the excerpt can include: “What interactional business is being attended to? How do speakers demonstrate their orientation to this business? What strategies and procedures seem to inform this orientation” (Widdicombe, 1993, p.284). As Tuffin writes (2005), language gets things done – “what is being achieved and how is this being accomplished?” (p.?). As part of this process I compiled a list of questions identified from discursive psychology researchers to help guide and focus my analysis.

*“Why do people invest in some particular subject positions or discursive identities rather than others, and repeat these over time?” (Wetherall, 2007, p. 666).*

*“What is this participant doing here? Why this utterance/phrase / action now?” (de Kok & Widdicombe, 2008, p. 1085)*

*“What is said? What effect does the text have? What language resources are used in this particular description or account? What is achieved by this text? How do these achievements come about? How does the account work in terms of plausibility? How does it manage to seem fair, balanced and reasonable?” (Widdicombe, 1993, p. 284).*

*“Why am I reading this passage this way? What features of the text produce this reading?” (Potter and Wetherall, 1987, cited in Willig, 2008, p. 100).*

*How are subjects and objects constructed? How do such constructions vary across contexts? What are the consequences of these constructions? (Willig, 2008).*

Particular attention was paid to sections of transcripts which dealt with the psychological tasks of responsibility, attribution, evaluation, justification and construction of identity. Following de Kok and Widdicombe’s (2008) method of analysis, transcripts were read closely

to identify patterns in relation to content as well as the actions and tasks being achieved within the participants' accounts.

### ***Interpretive Repertoires, Ideological Dilemmas and Subject Position***

Analysis was also guided by three core concepts relevant to critical discursive psychology: interpretive repertoires, ideological dilemmas and subject position (Reynolds & Wetherall, 2003). The term 'interpretive repertoire', refers to the way an account, story or explanation is put together to seem reasonable and realistic (Tuffin, 2005) or more specifically, "systematically related sets of terms, often used with stylistic and grammatical coherence, and often organised around one or more central metaphors" (Potter, 1996, p. 116). Reynolds and Wetherall (2003) write that interpretive repertoires are the "building blocks through which people develop accounts and versions of significant events and through which they perform social life...(they) consist of what everybody knows about a topic" (p. 496). Seymour-Smith, Wetherell and Phoenix add that interpretive repertoires are both the "commonplaces of everyday conversation" and "recognisable routine of arguments, descriptions and evaluations" (p. 255).

Research findings on interpretive repertoires have found a high level of inconsistency and variability, which can be understood through the construction of different repertoires in different contexts, for different demands, which in turn, gives rise to the concept of ideological dilemmas, as individuals struggle to make sense of these inconsistencies (Reynolds & Wetherall, 2003). Finally, the term subject position refers to the flexible nature of identity as dependent on opportunities and resources related to talk and interaction (Reynolds & Wetherall, 2003). Seymour-Smith, Wetherall and Phoenix (2002) comment that interpretive repertoires often serve to highlight subject positions. "Common to discursive and social constructionist research is the claim that identity (personhood) is constituted and reconstituted through discourse and is thus flexible, contextual, relational, situated and inflected by power relations." (p. 255).

Close analysis of linguistic features of the transcripts involved identification of various devices such as metaphors, analogies, extreme case formulations, disclaimers, graphic descriptions, and direct quotations, as recommended by Willig (2008). Likewise, paralinguistic features were also noted in the transcripts and also by notes I made while

listening and transcribing to the participants. These types of features include laughter, tears and other aspects such as hurried or rapid speech and particular stress or emphasis on certain words or phrases. Transcription was completed to include these features of the interview.

Finally, it should be noted that an analysis of this type is never “complete” as the number of discourses within a text is unlimited, and detailed analysis requires a certain focus and specificity in relation to the research question (Willig, 2008).

### ***Ethical Considerations***

Ethical approval was sought and granted through the Northern Regional Ethics Committee. This smaller study came under the ethical approval of a wider study on IVF which interviewed patients and health practitioners.

### **Informed and Voluntary Consent**

Four participants were recruited through Repromed Auckland and identified through patient records as having undergone short course IVF treatment. Three participants were recruited through an advertisement placed on the Fertility NZ website. Potential participants were then contacted via a mail out or phone call from Repromed Auckland with information and if potential participants were interested they contacted the researchers directly. Prior to the commencement of interviewing, a consent form was signed by participants (see Appendix A).

### **Respect for Rights of Privacy and Confidentiality**

Any identifying information presented in analysis has been removed to ensure confidentiality. Participants' audiotaped recordings and hard copies of transcripts will be kept in a locked filing cabinet and retained for six years and then either returned to participants or destroyed. Computer files containing personal and identifiable information were password protected and will be deleted after six years.

### **Minimisation of Risk**

Participation was voluntary and women were able to withdraw from the research at any time. Infertility and undergoing IVF treatments can be a stressful and psychologically

burdensome experience, and as such, provision was made for couples to undertake follow up counselling either at AUT or for those who were IVF Repromed clients, should they feel emotionally distressed following the interview process. Every effort was made to create an emotionally supportive interview environment and participants were reassured that they need not discuss anything which they did not feel comfortable talking about. Participants were also advised that they could end the interview at any time they wished. Also, participants had the option to be sent their transcript for verification and/or amendment as they deemed appropriate. One of the participants elected this option.

### ***Reflexivity***

Reflexivity is a vital component of qualitative research which seeks to understand the researcher's influence on the research findings (Willig, 2003). Malterud (2001) recommends that qualitative researchers explore the following areas in addressing their reflexivity: motives, background, perspectives and preliminary hypotheses.

#### **Motives**

My motives in relation to undertaking this research project are first and most realistically, to complete the requirements for my Master of Health Science (Psychology) degree. However, my other motivations relate to my own passion for women's issues and women's psychology, and a desire for women to be empowered in their health treatment choices by a wide body of research, which adds voice and depth to quantitative studies. The women who directly participated in the study will access this through a summary report of my thesis, or a full copy should they desire. It is also hoped that by writing and submitting a corresponding journal article for publication, women will access the findings in this way. A final aim is to write an article for publication in either the local magazine market, or for websites such as Fertility NZ. The rationale behind this stems from my own feeling that in some ways journal article and academic research become inaccessible to those who may benefit most from the information.

## **Background**

I am a 35 year old Pakeha New Zealand woman and particularly relevant to this study, I am not yet a mother, nor have I undergone or experienced IVF treatment. However, during the course of my thesis year, I became pregnant and was in the early stages of pregnancy while conducting some of the interviews. This definitely had an influence on a number of levels: for instance when interviewing women who were pregnant, I felt I could identify with them and when hearing their stories and struggles to become pregnant, I was aware of being quite emotional. In fact, while transcribing many of the interviews I found them very moving to listen to. Discussion of my emotional reactions with my supervisors was necessary and useful in dealing with these reactions. During actual interviews, I was aware of holding a researcher-participant boundary and not disclosing my pregnancy (particularly during the first three months). I was particularly aware that my own pregnancy was not as a result of IVF treatment and so while in some ways I felt connected to participants there was also a sense of difference as I had not experienced the same path to pregnancy. During later interviews, I felt it was necessary to let participants know that I was pregnant prior to arranging an interview in order to give them a choice of another interviewer from the wider study.

Several members of my extended family have undergone IVF treatment in the past, and my perceptions beginning the research project were certainly of how difficult and challenging this process had been for them, particularly in an emotional sense. I think this gave me a small understanding of the IVF process, but at the same time I was aware of being open to alternative stories.

Falling into a similar age group as many of my participants was also a commonality which I felt helped to build a natural connection with participants.

## **Perspectives**

As previously stated, I situate myself in a social constructionist epistemology and I am particularly interested in feminist perspectives. As Wilkinson and Kitzinger (1995) note, discourse analysis perspectives and the turn to language are in many ways aligned with feminist concerns, particularly in relation to the availability of certain discursive resources.

### **Preliminary Hypotheses**

Following completion of my literature review, my preliminary hypothesis was that short cycle IVF protocols may be less stressful and invasive for women, yet offer a similar likelihood of achieving pregnancy as long cycle protocols. Naturally, this may have influenced my expectations around findings, and shaped my own analysis and interpretation of data. To some degree, these expectations were met when I reached the final stage of analysis and write up, but overall, it became clear to me that constructions of IVF, both short and long cycle, were far more complex than to fit solely into defined categories.

## CHAPTER THREE: ANALYSIS

The analytic process worked closely with the interview transcripts of seven participants in relation to their experience of a short cycle IVF protocol. The interpretive repertoires which emerged from close reading and interacting with the transcript texts included the overall construction of short cycle IVF as a manageable protocol to cope with alongside their daily lives. In addition, a repertoire was identified which understood and aligned short cycle with natural reproductive processes, in comparison to long cycle IVF. Complex and sophisticated evaluations of IVF protocols through a cost-benefit economic lens revealed the interpretive repertoire that short cycle IVF represented a better overall investment for participants, particularly in relation to time and elements such as quality of reproductive eggs. A final interpretive repertoire which emerged from the analytic process was related to constructions of medical professionals as 'experts', as opposed to women being informed consumers of their own healthcare. These two positions were utilised with variability, with participants frequently drawing on both repertoires to frame their evaluations of IVF, and in particular adopting a more informed consumer stance following their experience of short cycle treatment. These four interpretive repertoires are relevant in that they serve to set up certain subject positions for women in relation to their choices and decision making around fertility treatment.

### ***Short Cycle is More Natural***

A short cycle IVF protocol uses antagonist medication for ovarian stimulation and avoids the process of 'down regulation' common in long cycle IVF. Down regulation halts a woman's natural ovulation process prior to administering ovarian stimulation drugs to trigger ovulation of multiple follicles. As such, it overrides a woman's natural hormonal cycle, whereas short cycle eliminates the need for the down regulation process by using stimulation medication within a woman's natural cycle.

Short cycle IVF was often constructed as more natural, which was seen not only as more beneficial in terms of less drugs and intervention, but also as more effective. Belinda felt that the closer the IVF process was aligned with natural reproductive processes, the better.

*But my doctor explained that it was more within your natural cycle, which made huge sense to me, so anything you can do to um try and bring this treatment as close to 'mother nature' as possible, because that's obviously the best science of all, or the most effective, and for most people in the world. I think it's a good thing.*

The participant is investing in a natural discourse around pregnancy and reproduction, constructing short cycle IVF as lending a helping hand to 'mother nature', i.e. in what is seen as an ultimately natural and biological process. This can be seen in the metaphor of 'mother nature' being the best science of all, and that bringing the medical-technological process as close as possible to 'mother nature' was seen as more effective. The use of superlatives – 'most', 'best' serves to underscore her understanding of this. There is also reference to the fact that reproductive processes are taken for granted as normal and natural, which is understood through Belinda's reference to most people in the world. This functions as a reminder that she positions herself as different from this group, in that nature alone has not been successful for her, and yet at the same time similar, as using the best that 'mother nature' has to offer.

For Millie, the decision-making process around choosing a short cycle protocol was also informed by the repertoire that this option was more natural.

*Um so for me I thought well why would you take you know, drugs to put yourself into menopause and then have to some more to stimulate yourself if, if they can just do it straight with a short cycle and work with your own, the beginning of your own cycle. Um and have, a much shorter treatment with the same potential um success rate. ... Yeah and the amount of, drugs that you were having to do, what you were having to do to yeah. To do the treatment. So um, it really wasn't a hard decision, to be honest.*

Millie's use of a rhetorical question here, 'why would you...' achieves the purpose of relating to a wider interpretive repertoire of a collective common sense. Equipped with the facts, she frames this as a very straightforward choice between the two protocols. Again there is the reference to working with one's own cycle, which employs the discourse that short cycle is more natural and compatible with a women's natural reproductive process. Added benefits of a short cycle form the remainder of Millie's construction of her decision, working hard to justify this choice in her mind which is described as an easy decision. The use of her expression 'to be honest' has the result of adding validity to her claim and the underlying feeling that faced with the evidence, there was really no other decision to be made. This has

the psychological function of both evaluating and justifying her decision to do short cycle, with evidence presented to support the fact that this was the correct and appropriate decision for her.

In comparison, long cycle was constructed as unnatural, which also supported the repertoire that short cycle was in turn, more natural. For some participants, this was directly connected to the actual process of down regulation, part of the long cycle protocol.

*...it's just to me makes sense because it, it's not natural to put a woman into menopause. Which is essentially what it does. Putting a woman into menopause is stopping her fertility. And so what you're doing is you're stopping a woman's fertility, to then super charge it. ...Well it's like anything, it's a car battery. Like a car battery goes dead, and you put some clamps on it and it doesn't necessarily get going, you know straight off the bat, sometimes it takes a while to warm up and to get into it again. And I just think that if you, that if you can just kind of you know, jump start a car when it's running, you, you know, um it's not necessarily a very good analogy, but do you know what I mean?*

The repetition evident in this excerpt is utilised by Belinda as convincing to support her claim, or belief that long cycle is not natural. Use of passive language reinforces the objectified position of 'being put' into a menopausal state. This piece of work is concise, and finishes with the idea of the woman's body not only being put into this state, but 'super charged'. The implication is interference with natural fertility processes. The implied contradiction in this formula is understood as counterintuitive and incongruent with the concept of pregnancy and Belinda works hard to convince of the validity of her statement by employing the metaphor of a car battery to illustrate her point. The use of this metaphor could be interpreted in different ways: the process of passively 'being done to' rather than actively 'doing' certainly resonates in part with long cycle IVF. Belinda's construction of long cycle as unnatural rejects the discourse that the female body is passive, inanimate and machine-like. This in turn positions her as able to engage with a sense of control and agency by selecting a short cycle protocol to work alongside her natural cycle.

Also utilising the natural versus assisted discourse but in a different manner, was Lily, who constructed in particular the daily injections as a reminder that for her and her husband, this process was not natural.

*...there's nothing worse than injecting yourself in the stomach, like you know it doesn't hurt, but it's just a reminder you know that this is really shit and some people just have sex to have a baby and sex is supposed to be fun, and sex actually isn't fun after a really long time of trying (laughs) so knowing it's short and quick makes quite a big difference.*

Lily's understanding of the injections is that they do not hurt physically, but the rest of her account works to tell us that emotionally and sexually, they are painful because of the loss which they represent. This loss is couched in terms of the absence of a 'natural' sex life and is constructed as removing the joy of this process to naturally conceive. Lily employs humour and light heartedness to soften the sadness of what she is saying, as can be seen in the laughter utilised in her account. Finally, short cycle IVF is constructed as short and quick, with this being understood in the context of what she has just said, as accordingly less emotionally painful. This also relates to the construction of time investment in short cycle IVF, which is discussed in the next section. It is also understood that while short cycle is constructed as more natural, it is still not completely natural in the sense that assistance and intervention is required to help facilitate a 'natural' process – conception.

Psychologically, Lily uses this repertoire to offer a comment on the unfairness of living with fertility issues.

### ***Short Cycle is More Manageable***

Frequently short cycle was described by participants in their interviews as easier to manage in relation to their everyday lives. Psychologically, physically and relationally, short cycle IVF was constructed as less intrusive and more manageable than either their perceptions of long cycle, or actual experiences of it.

### **Physical and Psychological Side Effects**

Sometimes, the experience of short cycle was constructed against a context of the different experience participants had of long cycle, in particular, the down regulation process.

Belinda's excerpt gives a sense of the experimental and uncontrollable aspects of down regulation with the drug buserelin, which is the name of the down regulation drug taken during long cycle IVF.

*Whatever anyone needs to down regulate varies from one person to another, so they're giving you something and then they have to monitor and adjust it and everything like that so you can be on it, at one stage I was on it for five weeks. My buserelin. You know that was just...I think that must have been my third one, and that's why my fourth one was...yeah that was just, you know it was awful really. I'm surprised I'm still married actually.*

References to monitoring and adjusting have the effect of invoking an experimental and non-exact drug regime which culminated in Belinda having to take the down regulation drug for five weeks, which is understood to be a lengthy period of time. This explanation of the variation in how individual women respond to the drug gives a sense of the unpredictability of this aspect of the long cycle process. We also understand from her comments about this being her third or fourth one that she positions herself from an experience of authority to comment on this drug. In her final comment it is clear that the down regulation process was difficult emotionally, in fact so difficult that she expresses surprise that her marriage has survived the process. In this way, the gravity of down regulation is conveyed with clarity in terms of what was at stake and the unpredictability of the emotional journey alongside is implied.

In contrast, Candace found her short cycle protocol easy to manage.

*I didn't have any side effects. I think probably because I was so excited about it as well as being worried, but I didn't really think I had any emotional side effects. I didn't have any of the pain or discomfort that some women get with the follicles growing.*

Although Candace acknowledges that she experienced some worry throughout the process, this is not constructed as an emotional or psychological side effect of the short cycle protocol. Instead, her excitement is expressed in such a way that it counterbalances the worry. Neither were physical side effects constructed as an issue for Candace, indicating the overall ease with which she constructs her short cycle experience.

Lily described one of the benefits of short cycle as being less unpredictable as well as involving less medical intervention on the whole.

*I think the short cycle they give you a better indication of what day your egg pickup will be whereas with long cycle it just goes on and on and with the long cycle you have so many bloody blood tests whereas with short cycle you only have maybe two at max. And that's significant. That's really heaps better, 'because the ladies are lovely, but you don't want to see them anymore.*

Lily's mode of comparison of the two cycles in this way expresses a strong contrast between the two protocols, with short cycle experienced as less intrusive and demanding on her life. The use of the language 'bloody blood tests' constructs a sense of how tiresome and tedious these tests became. Lily highlights how significant this is, by emphasising it and drawing a real life frame for this in which staff are constructed and the audience is invited in this way to reflect on what it might be like engaging with such intervention on a continual basis. Finally, she makes it clear how difficult it is to go through by implying how awkward it has become to engage with 'the ladies' and what they represent.

For Meg, the more targeted treatment of a short cycle following a previous long cycle made a positive difference.

*I did like the shorter cycle and part of it would be because from the first cycle they were able to gain information on how my body responds to the drugs, so it was a lot more kind of set out, like the doses were just start at this high dose, no building up and see how that goes and scans. It was just like start high and continue the way through so that I found a little bit easier than the hanging around, waiting to see, you know, there's this blood test result what are you going to do tomorrow with the dose.*

Similar to Lily, Meg experiences the more refined, targeted treatment of this short cycle as easier to manage and more predictable. She constructs a more consistent treatment regime without the uncertainty and added intervention of increased monitoring by way of scans and blood tests. From her use of the language, 'hanging around', and 'waiting to see' there is also a sense of lost time, and this is a separate repertoire which is discussed later in the analysis.

Short cycle was made sense of as emotionally manageable and for Millie, as opposed to the unpredictable process she had perceived it might be prior to beginning her IVF cycle.

*I know there was a couple of days where I ended up in tears and it might have been just something triggered me, but it wasn't, I guess because I had read some stories*

*and heard of you know women that have had you know, like and they do even say in the brochure look it can be a bit of a roller coaster ride. So I had sort of prepared myself that it's possible that you know you can have some quite emotional and hormonal ups and downs but to be honest I didn't find it that, that dramatic. Um, I don't know why particularly, why I was different maybe to some women. Um, but no I didn't find it, I mean my husband might tell you I was a little bit moody, maybe you can ask him that (laughs) but I don't think I was too bad.*

Millie constructs herself as being well prepared for the emotional ups and downs of undergoing IVF by reading material. However, her experience is understood as different, by way of being less emotionally taxing than others. The task of invoking her husband as perhaps offering a different opinion serves the function of allowing for the possibility that she was in fact emotionally more affected by the short cycle than she had understood, but this is done with humour, indicating that Millie draws on her husband to support rather than contradict her stance.

Natalie also draws on her husband's voice to present a reasonable account of her emotional state during her short cycle.

*If you probably talked to my husband, you'd get a different story (laughs) again. I don't remember it being too bad actually. I don't remember having too many highs and lows. I think the lows were kind of with the injections and, this is sore and I'm sick to death of this and there was a few you know whys, why...you know why? This is not fair. Why is this happening to us? You know. There was a bit of that towards the end of it. And yeah that was just a purely, this is not fair. You know, why have we been chosen?*

There is the invitation, couched in humour, to ask her husband the same question which invokes a 'reliable other' to act as a witness for emotional states. Natalie works to weave her emotional lows as more related to a wider sense of unfairness around the struggle to conceive, as well as some specific aspects of the short cycle regime, including injections and physical pain. Natalie's use of repeated rhetorical questions about 'why us?' gives more of a sense of this wider questioning to understand and struggle to makes sense of the situation she and her husband experience. This is conveyed as more psychologically challenging work than the actual short cycle itself and provides an insight into the difficulty in drawing a clear delineation between the emotional effects of IVF protocols and the emotional impact of broader fertility-related issues.

This positioning of short cycle IVF as less emotionally taxing allows for women to resist the common stereotype that IVF makes them emotionally 'crazy', or turns them into 'nutters' or 'psychos' as some participants in the study expressed fears about. In this way, they are not seen as being on the uncontrollable emotional rollercoaster that IVF is often understood to be. Short cycle IVF may facilitate women remaining themselves, emotionally speaking, to a greater degree than long cycle protocols.

### **Relationships**

In terms of relationships, short cycle was constructed through the eyes of some women's partners as less emotionally fraught.

*For him it was definitely, I mean he still says if we have to go through it again we will never do another long course again (laughs). Yeah just because I think the emotional side of it is longer. He still says that, ohhhh yeah cringes at that. You know never again kind of. He said that at the time too, he was like oh we should have done the short course. I think he was more worried about it than I was. Yeah and of course he has to pick up the pieces really.*

In this excerpt, Kyla positions her husband as the one who is reliable to comment on the effects of long cycle IVF on their relationship. Her use of the extreme case formulation 'never' and emphatic language such as 'definitely' in describing his account in reference to doing this type of cycle again leaves the audience with no doubt of his conviction. Wry laughter is employed at the end of this sentence by Kyla to confirm this position. This is attributed to the extended emotional aspect of a long cycle, and the use of 'never again' is repeated in the extract and language such as 'cringe' serves to evoke a strong physical image as a negative reaction. Kyla's task here is convincing the reader or listener of the emotionally taxing experience of long cycle IVF, which she finishes with by use of the expression 'picking up the pieces', a strong image by which we come to understand clearly metaphorically refers to her emotional state but also the emotional pieces of the relationship. This is implicit in Kyla's partner's comment that they should have done the short course. This use of her husband's voice lends validity to the claim that she is making by positioning someone else's observations as evidence for how difficult the long course protocol was.

Belinda constructs the effects of cumulative rounds of long cycle IVF as taking their toll on her relationship with her husband.

*...you know like I said, we spent a year where my husband and I separated for a period of time and you know, we were in counselling and things like that and that put a big, that was probably a gap of about 18 months that um so...So my husband will tell you that short cycle all the way! (laughs).*

Her husband's voice is utilised here to add weight to her claim that short cycle is emotionally easier, and thus easier on the relationship. In this way, we understand that he is constructed as a reliable witness for Belinda's emotional state. The use of the expression 'all the way' provides an extreme case formulation which gives a sense of just how strongly her husband would recommend the short cycle. Positioning short cycle in this way has the effect of making it seem more manageable. By contrast, long cycle is understood by Belinda to almost have ended her marriage. Her use of humour here lightens the discussion of an emotionally distressing topic, whilst at the same time signalling the boundary of how far she is willing to talk about this subject. In both of these excerpts there is also the construction that husbands are those closest to the women, and consequently tend to bear the brunt of their emotions. In this way, they are drawn into the manageability repertoire, as we understand the wider effects on them and the relationship, thus short cycle is constructed not only as more manageable for the women, but also for their husbands or partners.

### ***Short Cycle is a Better Investment***

The ways women spoke about short cycle IVF often drew on wider notions of understanding the costs of it in relation to their time investment, (actual length of regime, as well as time spent undergoing medical intervention) weighed up against factors such as success and outcome, as well as economic concepts such as quantity and quality of eggs. A broader scientific discourse which either positioned specialists as 'experts' who know best versus a position of being an informed medical consumer also commonly featured in participants' talk about IVF and this will be discussed in more depth later as a separate repertoire. However, there is considerable overlap in some of the excerpts in relation to this theme, connected with time; therefore, some comments are noted in this section where relevant.

## Quality versus Quantity of Reproductive Eggs

A shift in understanding that the short cycle protocol might produce a lower number of eggs required a negotiation in meanings for several participants, which engaged in a strong discourse of quality over quantity of the eggs produced in a cycle.

*I don't know why there's all this emphasis on quantity. I don't understand why. I think that shouldn't we be looking for quality eggs? Quality IVF cycles. And a quality IVF cycle to me is a quality experience for the woman going through it, is a quality of embryo at the end of it, it's a quality of egg, it's a quality of embryo, it's a quality of transfer, it's a quality of pregnancy.*

Belinda is invested in arguing for a focus on quality over quantity in this excerpt. The concept of quality at all levels of the IVF process is engaged with. Arguing from this position allows her to speak emotively and strongly in the form of advocacy for women going through IVF. In her repeated use of the word quality, Belinda draws on a discourse which evokes a sense of the business end of the bargain: IVF is a product and service in the health marketplace, and the use of the word quality, which we might associate with other 'products' such as chocolate, or shoes, for instance, is here drawn on in the context of a reproductive experience. This economic positioning allows for a wider lens of understanding to the IVF process, not simply applying it up to the stage of embryo implantation and pregnancy test, but arguing and calling for a longer term relationship with the IVF process. This commodification of IVF has implications for the way women engage with IVF services in relation to their expectations around quality delivery and outcome. Belinda's use of repetition of the word 'quality' at the end of this excerpt also underscores this argument for a wider consideration of quality at all stages of the IVF process, from egg production to pregnancy.

However, the disappointment of getting lower numbers of fertilised eggs was difficult to manage for Natalie and was framed in economic terms as a potential loss of investment, both in terms of time and money.

*...oh my gosh you know all of those eggs, all of this and there's only two. And there's a little bit of that was um that I um that obviously we wanted it to work so bad and more always seems better and there's also the aspect of, well what if we don't have any to freeze? What if it doesn't work and we don't have any to freeze, you know?*

*And then it ended up that we had, so there was two on the first day, and then another three did actually fertilise but they didn't progress, develop, you know do whatever they do. Um so we ended up with I think two, that they kept and then there was only the one that they re-implanted and um the rest of them weren't worth keeping. So and it was that real feeling of well, if this doesn't work, we have to start all over again. We have to um a) go through all of that again and b) pay for it all again.*

'All of those eggs, all of this' conjures up a sense of a gruelling process with in their eyes, not much to show for it. Here, the outcome of short cycle IVF is constructed as a potential loss of investment, in the context of considering the possibility of failure. The discourse drawn on here is one of 'more is better', and the implications of this relate to having a sense of back up or insurance, as opposed to fear at not having extra eggs in the bank. In turn, this is understood as having clear economic implications. This positioning leaves the couple in a risky and vulnerable position, without back up, and one can see the mental adjustment necessary to reframe the quantity versus quality of eggs debate in order to provide security for couples undergoing short cycle IVF who might have differing expectations around the number of fertilised eggs they can expect as a result of this type of protocol. The emphasis on 'all over again', which was also spoken in a slow pace with enunciated emphasis on each word, constructs and references a difficult process. This is interesting in light of its variation with other parts of Natalie's transcript, which construct short cycle as more manageable, particularly in terms of her perceptions of long cycle. Variation in interpretive repertoires is understood to be common in this type of analysis, allowing for different discursive positions to be taken up. Here, Natalie has constructed her account in past time and place and against the context of imagined failure, so it differs from her other context of having experienced success in the here and now.

### ***Short Cycle as Efficient Time Investment***

For Lily, the short cycle was constructed as a quicker process, which was relevant in that it afforded women more time to complete further cycles in a condensed time frame.

Understandings of time within the context of fertility treatment are multilayered, from the day to day experience of hours to more of a lifespan context of time.

*Yeah. Yeah. Definitely and I sort of tried to think just about the difference between that short and long cycle. Anything you can do to speed up the whole thing. And just take some of the time pressure off is a much better thing. ... And it would mean, if you had more money, you could do more cycles in a year. Which I know is terrible, but a girlfriend of mine did five IVF pickups in one year. Short cycle. In Australia. I mean, God, how the hell she got out of bed in the morning, I don't know. But... you know you couldn't possibly do that (with long cycle) and that means it's a year of her life for the time of you know, it's so much quicker, maybe it's that year, done, that's it.*

In this way, short cycle was constructed as giving participants more time, in particular this understood as more time to have another short cycle and another chance of having a baby, or undergoing more short cycles in a shorter time frame. Her references to speeding up and time pressure point towards a wider discourse and awareness of the 'biological clock'. Lily works to frame this as an advantage to the short cycle, and yet there is still considerable acknowledgement that undergoing five cycles in a year, as her girlfriend has done, would be a taxing experience. Nonetheless, the choice and sense of agency this offers women puts them in a position of having options and Lily's implication seems to be that the opportunity to deal with IVF in a shorter timeframe overall allows for more choice. The way she talks about her friend's IVF experience suggests that her life was on hold for a much shorter timeframe as a result of being able to undergo multiple short cycles.

Belinda also understood time as precious in relation to a woman's age. This draws on a broader implied discourse which acknowledges a woman's limited window of fertility.

*...you know, your first big drop (in fertility) is 35 years of age. Your next big drop is 40. I think any woman who is getting to that upper age should not be doing a long cycle. They should not be doing a long cycle. Because you know timing becomes the issue, your down time between your buserelin cycles that your body has to kick back in, the emotional, you know if you want to do it...(more cycles).*

Set against the context of age and reproductive factors, time is seen as highly relevant: a short cycle gives women more opportunities to undergo further cycles within a certain time frame. Belinda presents the facts regarding drops in fertility at different ages, which positions her as knowledgeable and then emphatic, as she offers her opinion which is then repeated for impact. Like Lily, her evaluation gives a sense that due to the emotional and hormonal effects of taking a down regulation drug, time is lost between IVF cycles, and accordingly, this takes away options and ultimately decreases the chances of a successful

IVF outcome. By comparison, short cycle is understood to provide more options in relation to time.

It was also understood that the actual length of treatment afforded more time to participants in terms of their everyday lives, whether this was related to work, socialising or getting on with life. For these women, short cycle IVF provided a solution in integrating the IVF regime into the lives in a more manageable fashion.

Lily's account of how short cycle meant less medical intervention illustrates how this in turn translated to less obligation and interference, particularly in the context of work.

*It's less reminders yeah and it's less places that you've got to be and it's less excuses that you've got to make and you know you're going along for a scan and it can be anytime between eight and nine and I get to work at 8.15am and then I've got every second day an appointment at 8.45am so every second day you're rocking up for work an hour late.*

Lily uses a list, repeating the word 'less' for emphasis to evoke a sense of the times and places she has to be when undergoing a long cycle protocol. The sense of obligation and regime around this is constructed as inflexible and this is seen as clashing with work commitments and daily routine. This is evidenced by Lily's repeated use of specific times to highlight the obligations associated with IVF, culminating in the final result which we understand as being consistently late for work. Lily positions herself in this account as a good employee, who wants to be on time, and there is the sense that this creates conflict for her when coupled with being late for work.

The shorter length of time of the short cycle protocol was also constructed by participants as beneficial in a number of ways, particularly in the sense of reduced waiting periods. This was in particular relevant for Kyla, who had undergone both types of protocol, and presented the long cycle down regulation process as lost time.

*Yeah if we'd had to do it again, I would have, we would have insisted on the short cycle - Just because that down regulation, it felt like, without being rude to the doctors, it felt like a waste of time...even though I'm sure it wasn't. There was a perfectly good scientific reason why we were doing it. Um yeah, the two weeks of taking all the down reg stuff it was just like tapping your foot, kind of waiting, the time really, really dragged.*

Kyla takes care here not to discredit doctors and by association, the medical profession, by the use of the disclaimer, ('without being rude'), and then presents her experience of down regulation as a waste of time. She is also quick to utilise a repertoire of 'medical specialist as expert', so we can see her conflicted construction here between wanting to draw on this medical discourse whilst at the same time wanting to present something completely different through understanding her own experience and giving voice to that. Interestingly, the broader scientific discourse is alluded to rather than the reason explicitly stated, as it implies that the audience is well aware of this scientific reason and there is therefore no need to mention it directly. Kyla moves between these two positions throughout the extract, finally presenting metaphors to support and lend credibility to her own experience.

A further strand in which time was understood by participants related to long cycle, particularly in regards to waiting, which then translated into heightened anxiety.

*We'd started with the shorter cycle, so when we came to the long cycle, it just felt so long, it was...honestly, I mean I look back now and know it wasn't really you know that much time, but at the time oh my gosh, I just it was terrible and that's when I left work. ...so much anxiety, like the anxiety would grow, because the other course happened so fast, you don't really have enough time to really get so anxious about what the results are going to mean, but all of a sudden I was starting to worry about each blood test, about how I was going to respond 'cause there is like a week or so in between each one.*

Kyla's frame of comparison for the long cycle was her initial short cycle protocol which she constructs as making it seem that much longer. Drawing on the notion of hindsight, she constructs the long cycle as feeling extremely long and 'terrible', with the consequence being that she had to leave her job. Kyla also describes growing anxiety she experienced with the long cycle as directly associated with the length of time of this protocol. As such, it is implied that a short cycle is beneficial in reducing waiting time and therefore in Kyla's case, reducing anxiety.

Perceptions of time in terms of the actual length of the protocol also played a role in the way women constructed their decision making process to undergo short cycle.

*We sort of felt that we couldn't see the point in doing the long cycle, you know, the stats were the same, you know the outcomes were the same, from what our doctor said they were on par. Yes, it's not as tested but how do we know that, you know we*

*both thought well what's the point spending something like, I think it's three months or something isn't it, for long cycle. As opposed to a month or six weeks, so we both, it sort of wasn't really a decision, to be honest.*

Words such as statistics, outcomes and 'on par' draw on a particular resource of statistical validity in order to justify Natalie's decision making process. Her use of listing of these items strengthens her position. Positioning both long and short cycle side by side in terms of length of time and outcome provides a comparison in which short cycle is the clear winner. In this way, the decision to do short cycle is understood as grounded in logic and fact. At the same time, there is the concession that short cycle is not as tested, again drawing on a statistical validity discourse, but this is followed by expression of uncertainty and the possibilities that short cycle could offer: 'how do we know...' that Natalie also constructs the decision, jointly made by her and her husband as indicated by the pronoun 'we', as so easy that it was not even really a decision. This short phrase is telling, in that it conveys the surety and conviction of their decision and at the same time frames it as straightforward and obvious. Once again, the use of the phrase 'to be honest' lends authenticity and integrity to Natalie's claim. There is also variation in the construction of her account of the decision making process: on the one hand it is implied that the decision was easy, yet this is not to be interpreted as a decision taken lightly, as Natalie also works up the process as a measured weighing up of benefits and cost, as indicated through use of the listing of different variables and language such as 'on par'. Ultimately, the decision is framed in terms of the shorter time frame associated with the short cycle option and this is understood as more desirable.

This was echoed later in her interview when the aspect of time made the short cycle more manageable, particularly with a shorter time frame of stimulation injections.

*Um and you I remember, like I did start getting, like my belly started getting sore and I started to kind of almost, I remember and I remember thinking it a lot during it, I don't know how people do this when they're doing long cycle you know. I don't know. Because you always knew that there was an end in sight. Like it was only ever the twelve days or fourteen days-ish...*

Natalie starts this excerpt by acknowledging some of the physical discomfort associated with her short cycle, but this is quickly minimised in light of her comparative reference to those undergoing long cycle. Relatively speaking, she frames her discomfort in this context

of time in order for it to become more bearable. Imagining the long cycle protocol as much longer makes her experience of the short cycle by comparison, easier to tolerate as she invokes others who have to do injections for much longer. Repetition here of 'I don't know' illustrates her emphasis of how difficult she imagines the length of the long cycle might be. Natalie's use of the expression 'an end in sight' shows that she constructed the experience as short, and therefore manageable because she never felt far from completion. Her final reference to the actual number of days breaks the short cycle down further into a manageable timeframe.

### ***Short Cycle as Informed Choice***

A repertoire which was often drawn on throughout the interview was one which positioned women as 'informed consumers' of their own healthcare, versus a construction of specialists and the medical team as 'experts' who knew what was best for women. Both of these positions were utilised at different stages for different psychological purposes.

Prior to completing the short cycle protocol, Belinda notes that she probably would have done whatever her specialist recommended, particularly after having undergone four unsuccessful long cycle rounds and experiencing a loss of hopefulness.

*And so I thought fine, you know great, I was really prepared thinking, oh it's not going to make that much of a difference, you know, I just thought well, I'll just give it a go. As I said, I had complete and utter faith in him, that he could have recommended anything to me and I probably would have gone, yeah that's the most appropriate thing to do.*

Here, Belinda presents her doctor as worthy of her trust in him in order to know what is best for her. In this way, her doctor is constructed as 'expert' versus a sense that she conveys of herself at this point as a little worn down and jaded from repeated rounds of unsuccessful treatment. This is in contrast to Belinda's position after completing a successful round of short cycle, where she positions herself as 'pro'-short cycle and even willing to undergo future rounds of this type of protocol.

*And um let's get through having the baby first, don't get me wrong, but I would possibly consider another round of IVF because I can do a short cycle. I can tell you, that I would not do another long cycle. ... But I definitely think that um as an*

*experience it was, it was like night and day. I don't understand why anybody now would recommend a long cycle.*

Belinda clearly emphasises that the only reason she might possibly contemplate the notion of further IVF is because the short cycle option is available to her. The emphasis on 'I can tell you' creates conviction around her statement that she would not do another long cycle. She constructs the two experiences as sharply contrasting: 'like night and day' for the reader or listener to understand the polarities of her experience around each form of IVF. Her final statement can be read as a kind of challenge to IVF specialists as it is understood that by use of the verb 'recommend', she is referring to this group within the medical profession as they are positioned as the experts who recommend courses of treatment. In doing so she is also drawing on an interpretive repertoire which challenges the construction of 'medical specialist as expert' versus her own understanding, experience and expertise in making decisions related to her IVF course.

Lily constructs herself as someone who only dabbles in being informed about IVF, whereas in contrast her doctor is constructed as an expert, particularly in short cycle IVF.

*...and the thing is, yeah our doctor, he far, far, far prefers short cycle. And he you know lives this every day and he reads every single bit of research, whereas I only read bullshit stuff on the internet that maybe is taken out of context. ...How can I possibly know nearly as much as the specialist who lives it and breathes it?*

Lily is strongly invested in her doctor as an expert and this is attributed to the level of his knowledge, research commitment and the fact that his 'life' is IVF as understood through references to 'every day' and 'every single bit of research', creating an image of someone who literally lives and breathes IVF. Her reference to only reading 'stuff' on the internet is by comparison, understood as amateur and the proviso is given that it might be wrong (taken out of context). Lily's positioning of her doctor in this way may serve to build her own confidence and trust in him as her specialist, allowing her to think of him as all-knowing and offering the best possible expertise. Interestingly, and aligned with discursive psychology's approach to language as constructive and performative (Willig, 2007), Lily's comments shortly after this part of the interview offer a variation on this understanding of her doctor, swinging the power and decision making back into her hands.

*I would have walked through that door and if my doctor hadn't suggested doing a short cycle I would have said I'm bloody not taking that pill. Yeah, you're going to have to come up with something that means I'm not taking that pill 'cause I'm not.*

Here Lily constructs herself as firm and resolute in knowing clearly what she was not willing to go through in terms of her next IVF round. This is indicated through her use of quite defiant language ('I'm bloody not taking that pill') and the use of 'have to' to convey the ultimatum that she would have delivered to her specialist. She clearly places the onus on the doctor to find a viable alternative. In this sense, she understands herself to be an informed consumer as a result of her lived experience of previous rounds of long cycle IVF. This repertoire has implications for the way Lily engages with healthcare, and while not necessarily incompatible with her previous construction of 'specialist as expert', gives the sense that her experiential knowledge is valued.

As a result, future short cycle rounds become available to Lily, who had previously said that that before beginning her first short cycle that it would be her final round.

*Yeah. Um yeah you would I mean the thing is when we go back next time, when, (laughs) I'd be quite keen to do the same again and I've, you know told him (the specialist) just how great that short cycle is.*

The emphasis on the word 'when' and its repetition in this excerpt, along with Lily's laughter is significant in that it tells us that by selecting this word (rather than 'if'), Lily has in some way already made a decision to engage in further treatment. Through her experience and construction of 'how great' the short cycle protocol was has made this option available to her. Furthermore, Lily positions herself as in control by her expression of preference to the specialist in telling him her opinion of the short cycle.

Likewise, Candace constructed her specialist in an expert position in relation to decision making, but once again there was variation in this positioning.

*We felt that because she, yeah she was the specialist; we'd just basically do what she recommended. Um I always wondered and I'm because I'm not a doctor I have no idea if when they harvested the eggs, because we only ended up with nine, there were quite a few small follicles, I always wondered what would have happened if she had of waited another day or two, if they might have developed a bit further. And if we had of might've ended up with a couple frozen. Who knows?*

The first part of Candace's account draws on the 'specialist as expert' who knows best stance. However, there is a slight questioning on her part as to whether decisions which were made fully maximised the chances of having extra eggs to freeze (which also relates to the economic discourse mentioned previously, regarding having insurance or back up eggs 'in the bank', so to speak). The use of the word 'always' informs that this is a careful and well thought out consideration. The use of her rhetorical question 'who knows' provides for a sense of the impossibility of answering this question. This questioning is made possible by Candace's quick disclaimer that not being a doctor, her opinion is somewhat discredited, which allows her the space to wonder without being perceived as critical. Therefore, these competing repertoires give Candace reassurance and faith in her specialist while at the same time allowing for a critique and questioning of decisions made within the process.

She continues on to expand this theme.

*Um yeah I'd always been really cautious about um taking drugs. I never if I could help it never took any um chemical things for colds or anything. Um but I just put that at the back of my mind and thought I have to do it so yeah. Didn't think about it too much. [Pause] I didn't give a lot of thought to how it was working with me. Um I just sort of this is what I have to do, this is what I was told to do, so I'm, I'll do it.*

This extract draws on both the natural discourse discussed earlier, in that Candace indicates a preference for not taking medication, even for common ailments such as colds and a cautious approach around medication in general. This is contrasted with her experience of IVF, in which this part of her belief system was in some ways put in the background in order for her to be able to comply with the pharmaceutical nature of the protocol. Instead, what is placed in the foreground here is a reliance on her specialist as expert, as we see she constructs herself as a compliant patient who does what she is told. Again, the variation in Candace's construction indicates that something quite important is going on in the text (Tuffin, 2005) This positioning gives rise to an ideological dilemma (Reynolds & Wetherall, 2003) in that only by putting to one side her beliefs about taking medication is she able to undergo short cycle IVF.

Being an informed consumer meant that for some participants, they were more able to exert control over what is essentially experienced as a random and uncontrollable process.

Millie experienced her proactivity in seeking complementary natural healthcare alongside her short cycle as empowering and positive.

*So the first time (injecting) I was a little bit nervous um about it but really from there I was, I think in my mind emotionally and mentally and you know physically I was just so ready for it and I felt so positive and I, I'd had um, some other alternative health care to support me um, my naturopath was obviously you know, giving me some natural remedies to support my system. I had regular chiropractic care um, I was also started and I can't remember if was right at the beginning or just after I started acupuncture as well so I was really ready for it and felt really positive. So I was just like, totally happy to, to do whatever was necessary. So I didn't find it, apart from that first sort of initially one really that difficult.*

Her management of her short cycle treatment is understood in a way which brings natural medicine alongside the IVF, and the way Millie constructs this is through her proactively undergoing these natural remedies. These are framed as helping her to feel positive and by explaining her choices in this way, she positions herself as an informed consumer of natural health whilst also gaining the benefits of conventional medicine at the same time. In addition, Millie also constructs short cycle as more manageable (as discussed in the earlier repertoire section) and part of this is attributed to her readiness and psychologically positive state of mind during the protocol.

The subject position set up by this wider discourse around 'informed consumer versus specialist as expert' is one of informed choice as Belinda demonstrates in this excerpt.

*I think at the end of the day, it's like anything medical, if I had cancer tomorrow, I'm relying upon my doctor to give me information on all of the options that are available to me. To give me options, the pros and the cons of everything that is available. And then I should be allowed as a patient to make a decision, and I don't see why that's any different with IVF. I think if there is a short cycle available, then you should be given the option to have it, and you should be allowed to be given the pros and the cons, be told that this is what the pros of having a long cycle are and this is some of the statistics and this is the pros and cons of having a short cycle, and these are some of the statistics.*

Belinda utilises other examples from the medical field to support her recommendation that all choices are presented to women contemplating IVF treatment. This adds to the seriousness of what she is saying, by calling for all the information to be presented in terms of advantages and disadvantages. Belinda draws on weighty comparisons by mentioning

cancer, which is understood to be a serious illness and as such, represents high stakes around the patient being informed and positioned as in charge of their own treatment decisions. The specialist is seen as the vehicle by which this information reaches the patient, as opposed to an all-knowing expert. Belinda also utilises wider discourses around statistical probability, pros and cons which are all pieces of information understood to form part of the process in making an informed choice.

Meg felt there was little choice around which protocol she might prefer and once again this was made sense of by constructing her doctor as the medical expert.

*Yeah no I I didn't feel like there was any choice. Um and I guess I could have debated about which one to do but I think, oh I tend to think well they know what they're doing, so I'll go along with that.*

The clinical team are identified as knowing what is best, and Meg's use of the expression 'go along with that' indicates perhaps not a whole-hearted agreement but more of a passive understanding that there were not too many other options available to her.

In contrast to this, there was also a strong flavour of Meg being an informed consumer, which once again implies variation in the text and highlights the way in which she positions herself at different times for different discursive purposes.

*Yeah yeah, I think I keep myself well informed too in that um I like to get books out of the library and yeah, reading stuff on the internet is not always very scientific, so I've printed out some studies and stuff about um sperm oxidation things which I've talked about with my doctor and she's been open, she hasn't said 'oh why are you reading those studies?' She's been really good and been saying well yes there is evidence about DNA and she actually suggested that my husband have some more DNA testing on his sperm so I thought oh well that's quite good. I liked going in and knowing something that I could actually say well how about this you know? Um do you think that could be an option for us?*

In this excerpt, Meg takes responsibility and gains satisfaction from constructing herself as well informed about the IVF process. There is the understanding that she does not rely solely on the internet, as this is potentially discreditable, but Meg goes further in accessing scientific studies and in doing so, positions herself as proactive and discerning of information and studies in this area. This proactivity and informed stance are constructed

as affording Meg more options for treatment as she is able to discuss these with her specialist, who is constructed as open-minded and supportive of this type of discussion.

### ***Chapter Summary***

Participants in this study constructed their short and long cycle IVF experiences in complex ways as understood by the emotionally difficult backdrop of fertility issues. Four main repertoires became apparent during the analytic process in relation to how short cycle IVF protocols were experienced and understood by the women in this study.

Firstly, short cycle was considered to be a more natural form of IVF which was appealing to several participants as it was understood to work more within the natural female reproductive cycle. A wider discourse in relation to understanding reproductive processes was demonstrated to be at work here, with the belief that bringing the medical, technological aspects of IVF procedures closer to nature would yield more effective results.

Secondly, through their accounts, participants also centred on short cycle as a more manageable process overall, particularly in relation to psychological, physical and relational domains of their lives.

In addition, short cycle was constructed as a better investment, both in terms of elements of time and economic notions of producing higher quality reproductive eggs. Time was understood to be relevant as it related to the above repertoire of making short cycle more manageable on a daily basis, but also in the context of lifespan issues around time and fertility opportunities.

Finally, the last repertoire to be identified engaged with women's stance around knowledge of IVF protocols and procedures, culminating in a position of 'informed consumers' and thus frequently locating women in a place of knowledge and power in terms of their interactions with medical specialists.

## CHAPTER FOUR: DISCUSSION

This research into women's experience of short cycle IVF explored participants' use of four main interpretive repertoires or discourses in their constructions of the short cycle protocol. Identification of these repertoires in turn leads to the set up of particular subject positions which carry their own set of implications and possibilities for these women.

Firstly, drawing on the repertoire which situates short cycle IVF as more natural than long cycle IVF is underpinned by a wider essentialist discourse around reproductive biology, which posits that reproduction is natural and straightforward (de Lacey, 2002). Falling pregnant and having a baby are thought of as natural and normal lifespan processes (Throsby, 2003). Participants in this study constructed short cycle IVF as closer to natural reproductive processes in various ways, including the way the protocol worked within their own natural reproductive cycle, and the understanding that less drugs and intervention were required as part of a short cycle regime. This result is similar to a theme identified in a qualitative study on short cycle IVF which described the process as similar to natural processes (Garel et al., 2009) and to comments made by Fauser et al. (2010) about women believing that it is more natural to conceive within their normal cycle. By constructing short cycle IVF as more natural, participants emphasise the natural elements of the protocol while at the same time backgrounding or giving less salience to its bio-technological elements. This positions them as being able to resist a medicalised view of infertility, where medicalisation is understood as the "process by which human experiences are redefined as medical problems" (Becker & Nachtigall, 1992, p.456). Throsby (2003) argues that the pathologisation of infertility can result in the wider pathologisation of the female body, which can lead to an individualised view of health and illness whereby individual responsibility is assumed for health problems. By engaging with an interpretive repertoire which constructs short cycle IVF as a more natural treatment option, it is possible that women engage with more normative standards of reproduction and resist the notion that they, or their bodies, are deficient in some way. Throsby (2002) also argues that constructing IVF as natural allows for women to legitimately engage with the technology of IVF. Participants in her study considered IVF as assistance to do something that was natural (Throsby, 2002). Throsby (2002) cites Franklin (1997) in identifying a 'helping hand'

discourse which constructs nature and technology to be interchangeable. By aligning short cycle IVF with more natural processes, it may be that participants experience psychologically less feelings of abnormality around their fertility issues, coupled with less invasive procedures and indeed, less amounts of medication. Valuing of a natural repertoire in relation to reproductive health may facilitate a sense of agency by providing more space to choose a protocol which might fit with more holistic individual beliefs around fertility. In addition, this understanding also may serve a protective function, as the long term effects of drug protocols associated with IVF are yet to be clearly determined (Throsby, 2002). Engaging with understandings of short cycle IVF as more natural may include the attribution of IVF failure as natural also, which as Throsby (2002) notes, could be a useful coping strategy. Finally, I suggest that understanding short cycle IVF as more compatible with natural processes may also provide more IVF options for natural health consumers who may have previously rejected IVF outright due to the perceived nature of its level of intervention.

The second repertoire which participants drew on understood short cycle IVF as a manageable experience relates to it being a less psychologically stressful process across different life domains. This was in keeping with the results of several existing studies, although perhaps offers some more specific understandings around the manageability of IVF alongside everyday life. Existing literature is mainly focused around reduced psychologically distressful effects of short cycle IVF in comparison to long (de Klerk et al., 2007; de Klerk et al., 2006; Verberg et al., 2008). Fauser et al. (2010) identify one of the benefits of a short cycle protocol as a reduction in the amount of clinic visits which are necessary for the patient, which was a theme echoed in this analysis. Patient distress is also thought to be minimised by this type of protocol, due to lower and less frequent doses of gonadotropins (Fauser et al., 2010). Distress in relation to time and waiting and the perceived benefits of a short cycle in relation to this are discussed further below.

The third interpretive repertoire identified from the study was that of weighing up the benefits and costs of short cycle from an economic standpoint. Participants drew on a repertoire which constructed short cycle as faster on a temporal level as highly beneficial, as it provided for less emotionally taxing waiting for results. The waiting period for those

undergoing IVF procedures has been described as extremely stressful (Boivin, Scanlan & Walker, 1998) and the psychological burden associated with IVF treatment is well documented (Van den Broeck et al., 2009; Domar, et al., 2009; Olivius et al., 2004). In part, this could be connected to this waiting and protracted process. Psychological burden was identified as one of most common reasons cited for dropping out of IVF treatment in the above studies, often over and above financial reasons. Participants in this study mentioned the fact that they spent less time overall undergoing short cycle and this was interpreted as equating to less psychological stress. Likewise, their willingness to undergo future short cycles would seem to indicate a lower likelihood of dropping out of treatment. Heijnen et al.'s (2007) study indicated that short cycle IVF protocols had a 5.1% dropout rate after one cycle in comparison with a 9.1% dropout rate after the first long cycle. Reducing burden on patients is thus argued to be one of the most important factors in decreasing drop out from IVF treatment (Verberg, Fauser & Macklon, 2009). In summary, if short cycle IVF is perceived as less psychologically burdensome, it could be seen to lead to lower levels of dropout from IVF treatment, which may in turn lead to a higher amount of live births overall.

On a practical level, short cycle procedures took up less of participants' time in relation to their everyday lives. In this way, time is valued as an economic construct, and short cycle IVF allows less intrusion into the earning potential provided for by time. Brod et al.'s (2009) study identified interference at work as a result of having to attend IVF related procedures as a negative impact of treatment. Feeling forced into disclosing their treatment due to time off for procedures led to a loss of privacy for women in another study (Redshaw, Hockley & Davidson, 2006). As such, less impositions on time to attend IVF-related procedures could result in short cycle IVF being easier for women to manage in the workplace, with increased choice around whether or not to disclose to colleagues and superiors and thus retaining privacy to a greater degree.

A further strand incorporated into the repertoire that short cycle represented a better investment was in connection with an understanding of time as a precious commodity which was not infinite (Earle & Letherby, 2007). This is relevant in the sense that short cycle may offer the opportunity for women to undergo more cycles within a shorter period of

time, and be less emotionally taxing, so that they feel more psychologically ready to do so. As Simonds (2002) notes, time in this context can be understood as power (cited in Earle & Letherby, 2007) and the analysis from this study indicates that short cycle may help facilitate this type of power for women undergoing fertility treatment.

The other element to this economic repertoire was understandings in relation to the quality versus quantity discourse around a woman's reproductive eggs, utilising a marketing type terminology to frame understandings of the benefits of short cycle in creating a 'quality' IVF experience. The quality of reproductive eggs harvested with short cycle IVF was understood to be higher than those with the long cycle protocol, although more eggs (quantity) were often retrieved in long cycle. Consequently, the purpose of this repertoire of quality over quantity can be seen to frame short cycle IVF as a more effective process because it results in higher quality eggs. The psychological task of readjusting expectations to fewer eggs with the short cycle protocol was managed in terms of this quality versus quantity discourse, where quality was constructed as the better investment. Studies have shown that short cycle stimulation protocols produce a reduced number of embryos, but a higher number of chromosomally normal embryos (Nargund, 2008). Baart (2008, cited in Nargund, 2008) argues that because short cycle protocols work within a woman's natural menstrual cycle, the selection of follicles for release is not influenced by interference such as the hormone surges found in long cycle. Accordingly, higher quality follicles are released in short cycle protocols (Nargund, 2008). In summary, participants' understanding of the quality versus quantity debate demonstrates a high level of informed medical understanding, which not only assisted their understanding of their body's response to short cycle IVF but also sets up a subject position of 'informed consumer' as further discussed below.

Participants in this study frequently moved between understandings of their IVF specialist their specialist or themselves as an all-knowing expert in determining their optimum treatment protocol, versus one of patient as informed consumer. This informed consumer identity grew either out of women's experiences of undergoing a short or long cycle, or through research and review of literature in the IVF arena, or both. Engaging with both types of this identity served differing purposes at different stages of their fertility treatment. For some, constructing their specialist as an expert served the purpose of

reassurance that they were on the best IVF regime for their individual situation. Others positioned themselves as knowing what was the best option for them, knowledge which often grew out of their knowledge about what they knew they did not want, having completed an IVF round. By constructing themselves in this way, the women drew on an identity which challenged the traditional hierarchical nature of the doctor-patient relationship and empowered them to advocate for their own preferred treatment. Short cycle was on the whole constructed as a more informed choice, with participants utilising the economic repertoire above to justify this stance, along with the repertoire that short course was more manageable in general.

As Peddie, Teijlingen and Bhattacharya (2005) write, shared decision-making is increasingly becoming the model of choice for healthcare in an age of informed choice, which can be seen as reducing the traditional power imbalance in the doctor-patient relationship. The interpretive repertoires emerging from this study appear to indicate that IVF consumers are positioning themselves in such a way as to facilitate this type of shared decision making regarding treatment. de Lacey (2002) has reported that the higher the degree of perceived control and involvement in fertility treatment, the lower the tendency to experience depression. Given that loss of control over one's life is experienced as emotionally distressing for women undergoing IVF treatment (Cousineau & Domar, 2007), it is considered that assertion of control in the stance of 'informed consumer' may provide a way for women to redress and compensate for this feeling. The other repertoires also echo this increased control provided for by short cycle IVF – over their emotions, time and their own bodies.

As Neumann (1997) writes, IVF treatment can be defined as a product which increases the likelihood of conception, and couples seeking treatment are its consumers. One of the ways in which assisted reproductive technologies have been promoted is through a discourse around the politics of choice (Baker, 2004). Sulik and Eich-Kroh (2008) explain that patients-as-consumers have been defined as those "who play an active role in making informed choices about their health" (p.4). The authors argue that the assumption is that being an informed consumer leads to better healthcare, yet this view obscures structural barriers to access. Sulik and Eich-Kroh critique the notion that patients even want to

become informed consumers, and offer several cautions of the limitations of potential afforded by this position, including the fact that sources of information are constantly changing, and information itself is complex, specialised and highly specific. Another criticism of medical consumerism is that one of its consequences is for failure and self blame to be situated in the individual as they have taken total responsibility for their healthcare decisions (Sulik & Eich-Kroh, 2008).

In spite of these criticisms of an 'informed consumer' identity in relation to healthcare, it is considered that participants in this study were utilising more of an experiential or embodied knowledge about their IVF experiences, which positioned them as able to voice this experience in a collaborative decision making process with their specialist. If Sulik and Eich-Kroh's definition and understanding of the notion of informed consumer is considered at one end of the continuum, then there is also the possibility for different types of informed consumers to exist at other stages. It is considered that women in this study were flexible in utilising the informed consumer repertoire to put forward their experiences whilst at the same time utilising specialists as a vehicle for information.

Foucauldian notions of the 'medical gaze' in which the medical profession sees patients not as contextualised human beings, but as reduced to their medical condition (Davenport, 2000) are seen to restrict agency and free choice in the patient-doctor relationship. However, the possibility of becoming an assertive or informed consumer has been noted as a way of resisting this type of objectifying gaze (Malin et al., 2001). The 'assertive consumer' can be seen as one way for patients in this context to attempt to gain control in this uncertain area of treatment (Malin et al., 2001). However, the authors note that this position can be problematic because it runs counter to cultural stereotypes which construct women and mothers as passive and self-sacrificing (Malin et al., 2001).

### ***Limitations***

There were several limitations inherent in the study. Firstly, there were differences in the experiences of women interviewed in terms of whether they had undergone short cycle or long cycle IVF, or both. This undoubtedly coloured their experiences and for those who had not undergone a long cycle protocol, their perceptions of this may have been different.

Furthermore, while five of the women in the group had become pregnant or had a child as a result of their IVF treatment, one had not, and this variability may also have produced a certain position for their interviews. In fact, several participants made this explicit, referring to and emphasising that their successful experiences with IVF may have coloured their interviews in a positive light.

It may also be possible that due to recruitment methods through IVF clinics, participants felt a pressure to talk about or construct their IVF experiences in a positive way, either due to their positive outcomes as mentioned above, or the fact that they may return to the clinic for future treatment. While misperceptions that the study was linked with one particular clinic were clarified through communication with participants, there may nonetheless have been a perceived relationship or connection between the researcher and the clinic which could have influenced the shape of the interviews.

A further limitation which needs to be noted is the difficulty which lies in teasing out experiences of a specific form of IVF against a background of a number of other types of completed protocols. In this way, participants often spoke of IVF in a general sense rather than specifying a particular protocol. This was perhaps more a limitation of my interviewing technique. Another difficulty was in separating out experiences of fertility issues as opposed to specific issues related to IVF procedures. Clearly, the background for making sense of one's IVF experience is intimately connected to the experience of living with fertility issues.

Finally, my own situation and context have no doubt shaped the way in which my analysis has been formed and understood. Dowling (2006) writes about reflexivity from a feminist standpoint, noting that it is essential in this context due to the researcher's identification with participants and a thorough reflection on how the values and beliefs of the researcher may have influenced the research project. To this end, my own pregnancy throughout the data collection and analytic phases of this project certainly affected how I engaged with and related to my participants, particularly those who were pregnant at the time of interviewing. While this may have been helpful in building a connection with participants, I feel at times it also shaped the interviews in a certain way which may have precluded discussion of certain topics.

### ***Future Research***

I am aware of the large body of data collected for this dissertation and how much of it was unable to be used for this particular study because it fell outside the parameters of short cycle IVF. In particular, it was difficult to let go of data which seemed worthy of investigation and analysis, so it is hoped that it may be utilised further for others wider projects on IVF and fertility. Interviews with staff at fertility clinics could be integrated into analysis, and further research on the commodification of IVF practices in New Zealand could provide insight into issues around funding and private payment of IVF. Accessibility of short cycle IVF in New Zealand is another issue which may warrant exploration as currently, the clinic most commonly offering this type of protocol does not hold a contract for public funding. More localised outcome studies which compare the two types of IVF protocols would also add to understanding and informed debate around short cycle and long cycle IVF. Future research could also investigate and extend the theme of short cycle IVF being more manageable, not necessarily at the level of psychological distress, which has been investigated somewhat in existing literature, but in terms of the amount of intrusion into daily life.

### ***Recommendations***

The findings of this study could provide some tentative insights into guiding infertility treatment and practice. Unfortunately, the current practices across New Zealand clinics are not known, so it may be that clinics have already incorporating these recommendations into their approach. Firstly, helping to facilitate the patient's sense of control over their treatment is considered beneficial. Secondly, entering into a collaborative decision making model with patients is considered to be an option which may assist feelings of empowerment and control, particularly relevant in a fertility treatment environment. It is recognised that this is probably already in place, but the themes emerging from this study reinforce this model of practitioner-patient collaboration. Alongside this, a commitment to informed choice on the basis of presenting patients with a realistic and transparent summary of their treatment options and various success rates is obviously considered vital in the decision-making process. Once again, this philosophy is undoubtedly already informing fertility treatment practice and protocol in this country.

## ***Conclusion***

Fertility concerns represent a significant number of couples in New Zealand, with up to one in five couples of reproductive age experiencing some type of fertility issue (Fertility NZ, n.d.). Current options for treatment of infertility centre around assisted reproductive technologies and IVF procedures. Recently, a short cycle IVF protocol has been introduced into the New Zealand market, which eliminates the need for the down regulation process associated with traditional long cycle IVF. This down regulation process has the effect of inducing a false menopause and associated physical and psychological symptoms.

Participants in this study had either undergone a short cycle protocol or both long cycle and short cycle IVF. The findings suggest that in constructing their experience of short cycle IVF, participants drew on four main interpretive repertoires, namely understanding short cycle as more natural, constructing short cycle as more manageable overall, positioning short cycle as more economically beneficial in terms of time and quality, and also constructions of themselves as informed consumers in the doctor –patient relationship.

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## **APPENDICES**

### **Appendix I**

#### **The experience of mild stimulation IVF in New Zealand: A qualitative study**

##### **Interview guide for women and their partners**

Using semi-structured, in-depth interviews participants will be interviewed face to face in a location, and at a time, that is convenient for them. Participants will be asked to discuss the following topics:

➤ **Couples**

- Previous history of infertility
- Treatment history
- Where applicable, experiences (physical, economic, social and emotional/psychological) of conventional treatment
- Experiences (physical, economic, social and emotional/psychological) of mild cycle treatment
- Where applicable, main differences between conventional and mild IVF

# Participant Information Sheet



## Project Title

The experience of short cycle IVF in New Zealand: A qualitative study. (For Couples)

## An Invitation

We are researchers in Faculty of Health and Environmental Sciences who have a long standing interest in human reproductive technologies. We are inviting women, and their partners, who have undergone in either long or short cycle IVF, or both, in the last five years to take part in our study.

## What is the purpose of this research?

To date little research has been carried out into couples and practitioners' experiences of short cycle IVF. The purpose of this study is to identify and explore from both couples' and practitioners' perspectives: the physical, emotional, social and economic experiences of short cycle in comparison to long cycle IVF.

The findings of this study will be reported to Repromed Auckland, presented at national and international conferences and published in relevant health professional journals.

We would also like the opportunity for a postgraduate student, Sarah Balfour, who is undertaking a Masters in Health Science degree to also use the transcripts as data for her thesis. Sarah will be analysing the transcripts looking to identify the discourses or main ways in which short cycle IVF is spoken about. If you are agreeable to Sarah to have access to your anonymised transcript, please tick this box on your consent form.

## How was I identified and why am I being invited to participate in this research?

You have either seen our advertisement on the FertilityNZ website or Repromed has identified you as being a possible participant and has posted this Information Sheet on our behalf. Your participation in this study is voluntary and you have the right to refuse to take part or to withdraw at any stage of the data collection process. Your participation in the study is voluntary.

### **What will happen in this research?**

If you choose to take part in our study this will involve a face to face interview with one of the AUT researchers at a time and place that is convenient for you. The interview will take at the most ninety minutes. We will ask you to talk about your experiences of short and /or long cycle IVF. For example, we will ask you to describe your decisions regarding choosing short and /or long cycle IVF; what were the physical and emotional effects? If you wish, a member of your whanau may be present at your interview.

With your permission the interview will be tape-recorded. The interviews will be transcribed by a typist who has signed a Confidentiality Form. You will be given a copy of the transcript to read and verify.

### **What are the discomforts and risks?**

While we anticipate that there will be no physical discomforts or risks in taking part in this study, it may be that the interview will bring up events that were upsetting to you.

### **How will these discomforts and risks be alleviated?**

If this occurs you may request the interview to be either ended at this time, or stopped and then resumed at a later time. If you would like to seek further advice or support regarding your past experiences please let us know so that we are able to refer you to other agencies as appropriate. We will support you in whatever ways we can.

### **What are the benefits?**

We do not anticipate that there may be direct benefits for you if you choose to participate. It may be that you will gain some satisfaction in relating your experiences. We do hope that by disseminating the findings of this study that they may benefit the experiences of other women and their partners undergoing IVF.

### **How will my privacy be protected?**

We will ask you to choose a name you want to be known by for the interview. This will protect your privacy as it will be used in the transcripts as well as in any publications or conference presentations that we produce from the study's findings. This way the answers you give will not be able to be tracked back to you.

Only the AUT researchers (Deborah, Sonja and their research assistant) will have access to the copies of the transcripts. All copies of the interview transcripts will be stored in computer files with restricted access and/or in a locked filing cabinet at AUT University for six years. After this time they will be destroyed. Any material that may identify you will be deleted from the transcript.

The consent forms will also be kept locked in a filing cabinet at AUT University, separate from the tapes and transcripts.

### **What are the costs of participating in this research?**

The main cost of taking part will be your time. The interview will take up one to one and a half hours.

### **What opportunity do I have to consider this invitation?**

You will have at least two weeks or more to consider this invitation and to discuss the project with Family/whanau or a friend.

If you decide to take part in this research, you can:

Phone or email Deborah Payne, the principal investigator. Deborah's contact details are: (09) 921 9999 Ext 7112, or email: [Debbie.payne@aut.ac.nz](mailto:Debbie.payne@aut.ac.nz)

If you have not been able to contact us in about two weeks after receiving this Information sheet, depending on how you have found out about the study, either a Repromed Auckland staff member, or Deborah, will contact you to find out whether or not you'd like to take part in our study.

You will be asked to sign a Consent Form before the interview begins.

### **How do I agree to participate in this research?**

If you decide to take part in this study and contact Deborah, she will make a date and time most convenient for you to be interviewed. Before the interview starts we will ask you to sign a consent form. You will be given a copy of the consent form for your records.

If you decide to withdraw from the study, all relevant information including tapes and transcripts, or parts thereof, will be destroyed.

### **Will I receive feedback on the results of this research?**

If you request we will give you a summary of our findings.

We would also like to present our findings to national and international conferences, and possibly publish them in relevant health professional journals. The results of this study will also inform the development of future research.

### **What do I do if I have concerns about this research?**

In the first instance any concerns regarding the nature of this project should be notified to the Principal investigator, Deborah Payne, [Debbie.payne@aut.ac.nz](mailto:Debbie.payne@aut.ac.nz) , 09 921n 9999 ext 7112.

Otherwise your concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTEK, Madeline Banda, [madeline.banda@aut.ac.nz](mailto:madeline.banda@aut.ac.nz) , 921 9999 ext 8044.

If you have any queries or concerns regarding your rights as participants in this study, you may wish to contact an independent health and disability advocate:

Free phone: 0800 555 050

Free fax: 0900 2 SUPPORT (0800 2787 7678)

Email: [advocacy@hdc.org.nz](mailto:advocacy@hdc.org.nz)

**Whom do I contact for further information about this research?**

**Researcher Contact Details:**

Deborah Payne, Centre for Midwifery & Women's Health Research, AUT University,  
[Debbie.payne@aut.ac.nz](mailto:Debbie.payne@aut.ac.nz) , 09 921 9999 ext 7112.

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Guy Gudex, Repromed, 105 Remuera Road, Remuera, [guygudex@agg.co.nz](mailto:guygudex@agg.co.nz), 09 524 1232

**This study has received ethical approval from the Northern Y Regional Ethics Committee,  
ethics reference number: NTY10/03/023.**