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**THE EVERYDAY LIFE OF GENDER, RELIGION,
AND MEDICINE: AN ETHNOGRAPHY OF AN
INFERTILITY TREATMENT CLINIC IN IRAN**

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**A thesis submitted in partial fulfilment of the requirement
for the degree of Doctor of Philosophy in Women and
Gender Studies**

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To all of those who enter the realm of uncertainty, pain and concern of infertility treatment clinics with hope

Declaration

This thesis is submitted to the University of Warwick in support of my application for the degree of Doctor of Philosophy. It has been composed by myself and has not been submitted in any previous application for any degree.

Abstract

Infertility treatment clinics are peculiar places. In them, social structures and norms are de-constructed and re-constructed; and complex relations, practices and feelings are negotiated. This thesis is a feminist ethnography of the everyday life of an infertility treatment clinic in Iran. Inspired by feminist studies of assisted conception conducted in Iran and beyond, as well as ethnographies of different clinics around the world, it examines the dynamic and complex intersections of religion, gender, and medicine in the clinic. Further, this thesis traces the relation between local negotiations of everyday life in these clinics and broader national and global forces.

In order to understand and analyse these intersections, I studied how men and women clinic users and staff negotiate the complexities of assisted conception and utilise strategies to normalise the complexities of assisted conception in their experiences and expressions. I use material collected over a 10-month period of fieldwork in one clinic in 2015-16; including observation and partial participation, informal conversations with over 50 clinic users, and also 13 and 17 formal interviews with clinic users and staff, respectively. My focus is on the representations of these complexities in the material and emotional life of the clinic and in religious regulations, and I demonstrate that the negotiation of these complexities is dynamic. This dynamism has multiple layers: within and between the triangle of religion, medicine and gender but also beyond the local and national changes, making the everyday life of assisted conception very unpredictable.

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Glossary of Arabic and Farsi terms

Bazaar – is both used to refer to an enclosed market place and the network of merchants, merchants and craftsmen which control all the financial transactions.

Fatwa – religious proclamation outlining which attitudes and practices are halal (permitted) or haram (prohibited); non-legally binding but authoritative Islamic religious opinion, offered by an Islamic cleric who is considered to be an expert concerning the Islamic scriptures and jurisprudence (Inhorn and Tremayne 2012, xii).

Ijtihad – religious reasoning

Mahram and na-mahram- these two categories determine social and sexual relations among Muslim men and women and women's veiling. Mahrams are not women's potential marriage partners, e.g. siblings, and close social contact with them is allowed. On the other hand, na-mahrams are women's potential marriage partners and therefore, close social interaction between them is forbidden (Tremayne 2009,147).

Marja al-taqlid – source of emulation, usually contracted to marja; Shia religious authority of the highest rank; Source of guidance for Shia Muslims (Inhorn and Tremayne 2013, xiii).

Nasab- is referred to the legitimate relatedness under Islamic law (Clarke 2008).

Sharia- is the Islamic law and mainly derived from two resources of Quran and Hadith (Prophet Muhammad's saying and lifestyle).

Ulema- Muslim scholars who are specialised in the Islamic sacred law and theology.

Zina – Illicit sexuality in Islam, including adultery (Inhorn and Tremayne 2013, xv).

Introduction

Prologue: One story among many

In the morning, I entered the clinic's garden and as usual saw many men and women clinic users, with spouses or on their own, who were sitting silently on seats or talking with other people. Others were walking or talking on their phones. Among the others, I noticed a lonely man who looked rather bored. I went and sat down on a seat next to him, introduced myself and asked whether he was waiting for his wife. He replied in the affirmative and then agreed to do an interview. At the beginning of the interview, I asked where his wife was and he said she was in the operation room for their children. As he pronounced the word 'our children', a very pleasant smile appeared on his lips as if he had just been given the news that he had just become a father. Later, during the interview, I realised that his wife was in the operation room for egg retrieval surgery. In actual fact, they were just at the beginning of their treatment trajectory! (Field notes, 3 May 2016)

This encounter reflects several important aspects of life in the clinic that I researched for this thesis. First, it highlights the clinic in its role at the intersection of organising/disciplining interactions between genders; while close female relatives would be permitted in part of the operation rooms (eg. recovery), men are banned entirely so this husband was sitting waiting in the garden. Second, this encounter highlights some of the intense emotions in the clinic; the man's immediate smile when he mentioned the words 'our children' signified his hope and emotional investment in the clinic enabling him and his wife to have a biological child easily and quickly, notwithstanding that they were only at the start of the process. Third, behind our conversation lay the tacit assumption that genetic fatherhood is the natural and normal role of adult men in Iran; none of this was said directly but these assumptions are what made our conversation intelligible. This research set out to understand such complexities, as they unfold in the everyday life of the clinic, from the operation rooms to the garden.

This man's treatment-seeking trajectory was one of many that I pulled together and draw on in this thesis to depict the everyday life of an infertility treatment clinic in

Iran. Seeking infertility treatment is not unusual in Iran; Abbasi-Shavazi et al. (2008) claim that there are an estimated 1.5 million infertile couples in Iran and according to Tremayne, (2018) they constitute 20% of married couples. This figure is far higher than the global estimate of 10–15%. However, this high prevalence of infertility is not restricted to Iranian society; it is higher across the whole Middle East. Among the many reasons for the higher prevalence of infertility in the Middle East, Inhorn (2004a) points to consanguineous marriage, environmental toxins in big urban cities, periods of long-term warfare, and the ingestion of high amounts of caffeine and tobacco among men.

The clinic I researched shares similarities with many other clinics around the world, as well as nuances related to ‘local considerations’ (Van Balen and Inhorn 2002, 16). Both clinic users and medical practitioners were trying to negotiate and find creative ways to accommodate the peculiarities of IVF (e.g. promises of pregnancy and a take-home baby, but low success rates) through the familiar, normative, and conventional frameworks available to them. The clinic was situated, by both practitioners and clinic users, among national and international forces. Against this backdrop, my interest in conducting this study derived from earlier research, as well as my own experience of being an Iranian woman living in post-revolutionary Iran. I will explain my intellectual and personal interest in conducting this study in the first section of this Introduction, followed by a brief overview of the Iranian religious context and Assisted Reproductive Technology (ART) revolution. Thereafter I discuss the framing of my research and use of selected concepts. The chapter ends by outlining the contributions made by this project and the structure of the thesis.

Conception of this research

My initial familiarity with the sociological significance of Assisted Reproductive Technologies (ARTs) commenced when I became involved in conducting a survey of Iranian public attitudes toward assisted reproductive technologies (Ahmadi and Bamdad 2017). We were interested in doing this survey because Iran occupies a distinctive position among the Muslim countries of the Middle East, in terms of the types of treatments that are religiously permitted. It was this distinction that established the complex association between religion and ARTs in Iran, as this thesis

will explain in detail. Indeed, when the de-territorialised technologies of assisted conception reached Muslim Middle Eastern countries, they were re-territorialised by Muslim religious leaders, in the form of fatwas – rulings based on Islamic law. The religious authorities, both Sunni and Shia [footnote], endorsed assisted reproduction as long as it was carried out between married heterosexual couples, using their own gametes. In the late 1990s, however, some Shia religious authorities in Iran went further, extending the religious permissions to include third-party donation [footnote]. Within this context, we wanted to know how ordinary people felt about these technologies. The survey findings suggested that public perceptions of assisted reproduction technologies did not fully reflect the fatwas. While it was widely accepted for couples to use their own gametes for IVF, third-party donations were less supported. Given the position of Iran’s religious leaders, I was intrigued to understand how clinic users and practitioners made sense of this contradiction.

As well as having an intellectual interest in the field, I also had a personal motive for carrying out this study. I was born and raised in post-revolutionary Iran, where religion was part of the lifestyle – a regulatory mechanism, as well as a personal exchange with God. To engage or participate in any activity categorised by the Iranian state as ‘against religion’ means going underground. We have underground music, underground parties, and even underground abortion clinics. Furthermore, this conservative approach of the post-revolutionary state in Iran led to the glorifying of traditional gender roles and implementation of compulsory hijab for women, as well as a systematic imposing of seclusion between men and women in the public sphere. It was therefore surprising when the religious authorities took a very liberal approach and came out in support of technologically assisted conception, particularly third-party gamete donation, it was not a socially accepted practice. The explanation for this unusual event can be found in the complex nature of assisted conception.

One dimension of this complexity that the present thesis will study and unpack is the association between religion and assisted conception. On the one hand, reproductive technologies work within the structures of religion in the sense that Islam ‘encourages the use of science and medicine as solutions to human suffering and is a religion that can be described as “pronatalist”, encouraging the growth of an Islamic ‘multitude’ (Inhorn and Tremayne 2012, 2-3). On the other hand, assisted conception, in particular the involvement of third-parties in procreation, undermines and violates Islamic

structures and discourses about protecting the ‘purity of lineage’ and ‘family’ (i.e. sexual relations) (Inhorn 2006b, 46-47). This complex and contradictory engagement with religious structures raised various questions, such as: How do practitioners and clinic users address the complexities of assisted conception in everyday practice? IVF is constantly evolving; every new technology developed in the field of human reproduction will introduce new complexities to negotiate. The flourishing number of IVF clinics in Iran, characterised as the ‘Iran ART revolution’ (Abbasi-Shavazi et al. 2008), coupled with the rapid development of new technologies, makes it extraordinarily important for researchers to study the way in which such complexities are negotiated in everyday practice.

At a personal level, as a woman of a certain age, I am always being asked by my family and friends when I am going to have children. The key role of biological parenthood in Iranian society has recently become increasingly relevant to my own life. The burden of childlessness is gendered; men and women experience it differently. In other words, infertility is considered universally as a woman’s problem and women usually suffer more than men socially (Abbasi-Shavazi et al. 2008, Van Balen and Inhorn 2002). Gender is therefore another important component framing my research. I became interested in understanding the gendered experience of infertility treatment trajectories because ‘reproductive technologies crystallise issues at the heart of gender, reproduction, and family relationships’ (Unnithan-Kumar 2004, 1). Moreover, as argued by scholars such as Throsby (2002) and Franklin (1997), the burden of the treatment is mainly on women’s bodies, regardless of the pathology of the infertility. Given that religion and medicine are two powerful sources of authoritative knowledge (Tremayne 2009), gender relations add a third dimension to this exploration of the complexities of assisted conception. I wanted to understand the experiences of medical practitioners and clinic users using reproductive technologies in the clinic. However, before embarking on the structure and framework of this research, it is important to explain briefly the religious context in Iran as it pertains to ARTs, with fuller details following in the main body of the thesis.

A dynamic religious context: the Iranian ART revolution

In the previous section, I briefly pointed to the distinctive position of Shia Iran among other Muslim countries of the Middle East in religiously endorsing all types of

reproductive technologies, including third-party donation. Sunni Muslim scholars, according to Inhorn (2006c), ruled out the practice of third-party donation on the grounds that marriage is a life-time contract between wife and husband, with the functions of sex and procreation and involvement of a third-party intrudes on these marital functions. Thus, third-party donation, from the Sunni Islamic point of view, would lead to ‘confusion in the lineage’ and would be ‘equal to adultery or incest’¹, threatening the foundation of the Muslim family (Inhorn and Tremayne 2012, 131).

While Sunni religious scholars have defined third-party donation as conception outside wedlock, some Iranian Shia religious authorities have legitimised its use, on the grounds that it gives stability and happiness to families through the birth of a child (Inhorn 2005, Inhorn and Tremayne 2012, Abbasi-Shavazi et al. 2008). In so doing, they have provided solutions to the claim that third-party donation breaks Islamic law concerning adultery and incest (Tremayne 2012b). But what mechanism in Shia Islam enables this position and how are the contradictions in Islamic law, as Sunni Islam would view it, resolved by Shia religious scholars?

The mechanism that resolves these contradictions is an alternative form of *ijtihad* exercised by Shia clerics. In Sunni Islam *ijtihad* constitutes a collective and unified opinion, whereas in Shia Islam *ijtihad* involves the practice of individual interpretation of Islam using intellectual reasoning². *Ijtihad*, as Moazami (2013, 70) delineates, ‘is an independent legal judgement based on interpretation of scriptural sources with the aim of fulfilling God’s will with regard to both religious and legal issues’. He further explains that *ijtihad* constitutes the ‘Shia institutional hierarchy’; those most qualified clerics reach the position of *Marja-taqlid*, ‘the source of Emulation’, with the authority to issue fatwas and be emulated by their followers (Moazami 2013, 71). Furthermore,

¹ For example, donation between siblings would be considered incestuous because they are forbidden to marry, they are mahram.

² *Ijtihad* is not a practice only known in Shia Islam. According to Moazmi (2013, 70) *ijtihad* has had ‘strong roots in Hanafi school of law and in the Ottoman Empire (...) yet from the eighteenth century on, *ejtehad* became the *usuli*’s (shia’s) rallying point and gave them a practical tool for exercising their acquired power through legal reasoning’.

this Shia institutional structure implies that at times there might be several clerics qualified as a source of emulation³.

Looking more closely at *ijtihad* and the plurality of authority it has produced is crucial when making sense of the regulation of ARTS in Iran, for several reasons. First, when lay people, *muqallidun* ('imitators'), are unsure of an action, e.g. whether pursuing or providing infertility treatment is religiously authorised, they need to turn for guidance to the *marja* they follow⁴ (Inhorn and Clarke 2011). Second, going beyond the relationship between *maraji* and lay people, as stated separately by Tremayne (2006) and Tappan (2012), it is religious endorsement of ARTs by *maraji* that constitutes the grounds for parliamentary legislation where it exists (on embryo donation) and decision making at the clinic level in its absence, eg by ethics committees. Third, the individual practice of *ijtihad* has led to a heterogeneity of opinions about and practices of ARTs in Iran (Abbasi-Shavazi et al. 2008, Tremayne, 2009). This ranges from complete disagreement with third-party involvement in reproduction (like their Sunni counterparts and on the same grounds), to the approval of some practices involving a donor (permitting egg donation and prohibiting sperm donation), to fully endorsing all types of third-party donation. In partially or fully endorsing third-party involvement in reproduction, religious scholars may rely on a Shia practice of temporary marriage (*mut'a*) between donor and recipient (for egg donation only), or on a reinterpretation of adultery/incest that must involve illicit sexual intercourse between the parties, not just exchange of gametes.

Against this diversity of views among Shia *marji*, egg donation has been widely practiced in Iranian IVF clinics since the late 1990s, while sperm donation is more contentious, its practice is restricted to a few clinics. Surrogacy has been practiced since 2002, with no specific law endorsing or prohibiting (Tremayne, 2009,

³ In post-revolutionary Iran, this institutionalisation of Shia is more complicated. As Clarke (2007a, 288) explains, the formal political system of Iran requires 'a religious specialist, the jurispudent (*faqih*, when used of the Supreme Leader of the Islamic Republic), who stands at the apex of the structures of political and legislative authority'. Hence, even though there might be several Shia *marja-al taqlid*, the Supreme Leader of Iran is both a religious (*marja al-taqlid*) and a political figure.

⁴ In delineating the relationship between *marja* and *muqallid*, Clarke and Inhorn (2011, 411) explain that 'while formally the *marja* speaks with binding authority on matters of which the *muqallid* is ignorant, in reality lay followers felt very free to comment on, critique, and even reject their chosen *marja* opinions (...) both clerical opinion and lay choices were limited by the "common sense" of the public'. Moreover, individuals could also change their allegiance to a *marja* whose opinion better fits their wishes.

Garmaroudi, 2012), and legislation concerned embryo donation was passed in Iran's parliament in 2003⁵. My interest in studying these practices in one particular clinic lies less in the *fact* of religious differences of opinion and more in how such differences are played out in the clinic's everyday life, for example, how donors/recipients and staff make sense of the fatwa of their marja.

The frame of this research: An overview

Although the original survey revealed a mismatch between religious sanctions and public perceptions, my research question could not be addressed simply by using another survey. Qualitative approaches to research were better placed to derive meaning from the complexities of assisted conception in the everyday life of a clinic. To prepare myself to carry out this study, I therefore retrained, studying to be a qualitative, rather than a quantitative researcher. I embarked on a 10-month feminist ethnography in the context of a popular, pioneering, and well-established clinic in Iran. Before beginning my fieldwork, I assumed that religion, medical knowledge/techniques, and gender relations were three separate viewpoints from which to look at daily life in the clinic. It was only during my fieldwork that I began to realise that they interact and intersect. Moreover, their interactions were much more complicated and inconsistent than I had expected them to be and the lines between them were more blurred.

In grappling with these complexities, I adopted the ontological stance that gender, religion, and medicine are all social constructs, intersecting in many ways to construct the everyday practices and processes of assisted conception. My framework is derived from the literature on feminist analyses of reproductive technologies. I have been specifically influenced by Sarah Franklin (1997) and Karen Throsby (2004, 2002), whose work I have used to gain insight into the 'doings' of IVF and the gendered understandings and experiences of assisted conception. Charis Thompson's (2001, 2005) work has helped me perceive how different actors normalise complexities of assisted conception in their everyday words and practices. I have coupled these analyses with ethnographic studies of infertility treatment clinics across the world to gain a better overview of the heterogeneity and situatedness of religion and

⁵ Since embryo is donated by a married couple to another married couple; therefore, it is considered as religiously permissible.

perceptions of gender and kinship relations, as practiced in different IVF clinics. This combination has enabled me to understand the layered complexities of assisted conception and the way in which its proliferating dimensions play out in actual infertility treatment clinics in different places.

A review of ethnographic studies of IVF clinics in various locations has highlighted the relationship between local understandings and the global flow of knowledge and technology. I am particularly interested in feminist research on the local and the global; for example, Topsy Ivry (2010, 2013) sees clinics as a space in which medical practitioners and religious leaders exercise and negotiate power. Marcia Inhorn (2003, 2006a, 2012) has examined local factors influencing the adoption and adaptation of ARTs in the Middle East; Soraya Tremayne (2009, 2012b, 2018, 2015b) focuses on inconsistencies in religious permissions and their implications in Iran.

In foregrounding the links between the local and the global, I have been inspired by Inhorn's use of the phrase, 'local in the global', which delineates the global spread of reproductive technologies at the level of particular nations (including Egypt); and Ginsburg and Rapp's more detailed definition (1995), which does not use geographical boundaries to define what is 'local': instead, 'local' 'is understood as any small-scale arena in which social meanings are informed and adjusted through negotiated, face-to-face interaction' (Ginsburg and Rapp 1995, 8). Looking closely at these two definitions, one could argue that the term 'local' in Inhorn's work refers to both a geographical location (a locality) and to any small-scale arena of meaning-making used by local actors. However, in Ginsburg and Rapp's usage, 'local' only signifies the latter.

A review of these two definitions suggests that there is a spectrum of understandings of the local and global. On this spectrum, the present study of the Iranian context is situated at the localising pole of global forms. Since this thesis depicts everyday life in one clinic, I follow Ginsburg and Rapp's usage of the term 'local'; the local arenas include staff meetings that set policies and guidelines, as well as discussions and conversations among and between staff members and clinic users. The term 'national' refers to national geographical boundaries, as a scale of analysis between (sometimes mediating) global processes and local arenas of meaning-making. All of these studies have inspired me to ask further questions about assisted conception in the Iranian

context, including the following: How do clinic users and staff members negotiate the complexities of assisted conception in the Iranian context? How do these local negotiations engage with national forces, such as population policies and local politics, as well as with global circuits of reproductive knowledge and technology?

To answer these research questions, I will portray negotiations of the complexities of assisted conception and processes of meaning-making in the clinic through an ethnographic window. Time and again, perceptions of assisted conception were deconstructed and reconstructed in the actions and conversations of clinic users and practitioners. The trajectory of this study and the data it generated were influenced by the ups and downs of the treatment trajectories of clinic users, as well as the daily and annual cycles of the clinic. Observation and partial participation were inseparable methods for understanding these processes. This thesis documents my experience of participating in the conversations of clinic users, guiding them through the busy life of the clinic, asking them to tell me about their treatment stories, and following some on their treatment journeys. I explore the perspectives of clinic users and staff members on the everyday life of the clinic. Although their conversations cover daily struggles and coping and normalising strategies, the issues they cover are not limited by the physical boundaries of the clinic. Rather, both groups strategically and actively justify their stances by referring to national and transnational issues. The empirical chapters in this thesis analyse such issues in depth.

This thesis uses various terms to refer to the technologies of assisted conception. According to Throsby (2004), the term, 'New Reproductive Technologies' (NRTs), in its broad sense, mainly denotes 'medicalised interventions into reproduction ranging from contraception and ultra-sound scanning to the technologies of conception'. It is worth noting that 'new' is relatively imprecise; interventions in reproduction date back to ancient Egypt, through herbal medicine. Even medicalised interventions have been in use for decades. Given the whole range of methods and technologies known as 'NRTs', this study uses terms that refer specifically to technologies of conception, although, as Throsby (2004) points out, technologies of conception (assisted conception) cannot be not separated from the processes and practices assembled under the umbrella of NRTs; contraceptive pills, for example, are used to start the process of ovarian stimulation and ultrasound scans are used to monitor that process.

To distinguish technologies of assisted conception, scholars often use alternative terms, such as Assisted Reproductive Technologies (ARTs) or *In vitro* Fertilisation (IVF), which emphasise scientific and technological involvement in reproduction. Although I have used these terms interchangeably throughout the thesis, on some occasions, I have cited specific technologies. For example, IVF is a broad term for the constellation of practices that involves fertilising eggs or sperm outside a woman's body (in the laboratory) and transferring the resulting embryo into her uterus. IVF therefore covers varied processes of fertilisation, such as intra-uterine insemination (IUI) and intracytoplasmic sperm injection or micro-injection (ICSI), which were widely practiced at the clinic. This definition also includes fertilisation using a third-party reproductive substance. Since third-party involvement in procreation is broadly prohibited by Sunni Islam, as well as by some Shia religious authorities, this paper distinguishes between IVF and third-party donation. In explanations of Islamic discourses permitting or prohibiting these technologies, 'IVF' refers only to the mixing of an infertile couple's egg and sperm in the lab. In the clinic, the practice of 'IVF' excluded the involvement of a third party. In Farsi, clinic users referred to IVF as *kasht*⁶, meaning 'implantation'. IVF and *kasht* both refer to a similar process. However, while IVF amplifies the fertilisation happening outside the body, *kasht*, quite interestingly, foregrounds the assisted transfer of the embryo. The way in which clinic users redefined medical terms show that their usage is not universal or fixed. Rather, it changes, based on broader social and cultural elements in different localities.

Studying the everyday life of the clinic: contributions and structure

Different perceptions of the term IVF in the clinic, as I mentioned in the previous section, demonstrate an example of medicine as lived in the expressions of users. By redefining medical terms, clinic users fit the practice of assisted conception into their routine frameworks. It is the everyday negotiations that interest me the most, operating in the fields of religion and gender, as well as medicine. By focusing on these everyday negotiations, I want to shift the attention to gender, religion, and medicine as they are lived in the clinic, analysing their interactions as they are expressed and experienced

⁶ *Kasht* can be translated literally as 'to plant something'; it generally refers to planting a seed.

in the everyday lives of clinic users and staff members. My interest is more in the people's lived experiences of religion, gender, and medicine, portrayed through their usage, invocation, and everyday appropriations, than in official regulations, scientific procedures, or cultural assumptions. Nevertheless, official religion, gendered assumptions, and medical protocols/procedures are also part of the picture.

Using an ethnographic gaze to portray intersections of lived religion, gender, and medicine contributes to knowledge through a close examination of the complexities of IVF in the Iranian context. Developing an understanding of the ways in which Iranian men and women clinic users and staff members negotiate the everyday practices and processes of assisted conception, reveals the distinctive nature of Iranian IVF clinics in the global context – their differences and common ground. In post-revolutionary Iran, the Islamic state has created a specific relationship between religion and medicine (science). This study also contributes to the wider academic debate on the global spread of IVF, as a transformative global technology. According to Franklin and Inhorn (2016), IVF remains less studied than other influential technologies, such as the Internet or Facebook. Overall, this research contributes to an understanding of local, national, and global relations within the ongoing process of adopting and adapting reproductive technologies.

I wish to position my study as a contribution to sociological analysis of the interactions between religion, medicine, and gender that make IVF possible in Iran. Using detailed empirical evidence, it looks at many instances in which religion (as a system of regulations and a system of belief), gender relations, and medical knowledge have competed and/or cooperated. It also contributes to the studies looking at IVF from the inside out, illuminating the dynamic relationship between everyday activities in the clinic and broader cultural and social aspects of life in Iran. Exploring this dynamism reveals both the complexity of clinic practices and the heterogeneity and messiness of Iranian society.

In terms of structure, the thesis consists of seven chapters; it is structured as follows. The first chapter explores structures that assisted conception impacts and is shaped by, as discussed in the social science literature. Focusing on studies that address the complexities of assisted conception, I review the many different ways in which medical practitioners and users of these technologies re-normalise complexities of

using technologies and re-naturalise human reproduction. This chapter covers gender, kinship, religion, and the local/global in various contexts, focusing on research that depicts the complex nature of assisted conception in Iran. This overview of IVF in Iran and beyond generates further questions.

Chapter 2 presents the research design and explains how this study was conducted, from the first visit to the final exit. It explains why I chose to examine assisted conception through a feminist, clinical ethnographic gaze and how I selected the fieldwork site. Although negotiating with gatekeepers to gain access to the clinic was a long and complex procedure, it gave me insight into the everyday life of the clinic. The methods I used to generate data included observation and partial participation, informal conversations and formal interviews, and the collation of documentary resources. As an Iranian Muslim woman, I experienced a strong and complex emotional investment in this research and faced dilemmas in representing my country to a Western audience.

Chapter 3 discusses the underlying factors that made it possible for Iran to adopt Assisted Reproductive Technologies (ARTs). Using a historical and political lens, I look at changes in Iran's population policies and the state's reasons for seeking these modern technologies. To a lesser extent, I draw on fieldwork data to empirically substantiate some claims presented by the state, as well as situating the clinic within the Iranian ARTs landscape.

In Chapters 4, 5, and 6, I analyse the ways in which staff members and clinic users negotiate the complexities of assisted conception, in relation to the three main themes of this study. Even though each chapter discusses different subjects, I have looked at them through similar angles of: religion, gender politics/ideologies, and medical knowledge/techniques. Each empirical chapter uses a specific framework to contextualise an analysis of ethnographic data. The amount of text used to discuss context is shorter in some chapters and longer in others, allowing me to refer to the national and global context, while also explaining the micro-specificities of everyday life in the clinic.

Chapter 4 focuses on visible complexities in the spatial organisation of the clinic. It analyses how the space is shaped and experienced by men and women clinic users, exploring the implications of this layout on treatment. The chapter shows that, even

though clinic users seek medical treatment and staff members offer it, gender politics is subtly present in the details. However, looking at the space of the clinic does not cast light on the broader cultural and religious context. Thus, in chapter five, I analyse religious regulations as they are lived in the clinical life.

Chapter 5 includes discussions about the ownership of children born with third-party assistance in procreation and questions about the legitimacy of the act of donation. This chapter reviews the history of gamete donation in the clinic, recounting the tensions that this practice has generated among practitioners. It showcases the way in which practitioners, recipients, and egg donors make sense of gamete donation, in part by assigning gendered roles to reproductive substances.

The sixth chapter returns to the life of clinic, focusing this time on its emotional aspects and the meanings that people attach to the space. It discusses emotional representations of the complex nature of assisted conception and presents several case studies of individual people to highlight their complex treatment trajectories which might have been glossed over in previous chapters. The chapter details the coping strategies that staff members and clinic users develop to manage emotions resulting from the gap between the promises made by proponents of medical technology and the actual high rate of failure and disappointment. Chapter 7 concludes the thesis by summarising the research findings. It uses examples to explain the layers of dynamism in negotiations about the complex features of IVF. I then use IVF as a lens to look more deeply into the structures that have made it possible to adopt and adapt ARTs in the Iranian context.

Having outlined the structure of this thesis, I return to my encounter with a man clinic user at the beginning of this chapter. I remember his distinctive smile, as sadness was the prevailing mood of the clinic. Many men and women entered hoping that the clinic would bring happiness and stability to their married lives. Like this man, many clinic users assume proximity to having a (biological) child. But in reality, the IVF trajectories of many infertile couples would never reach an ending.

Chapter 1

Dimensions of Complexity in Technological Conception: Gender, Kinship, Religion, and the Local/Global

A sociologist in the clinic

In April 2016, after interviewing a couple of midwives, I decided to ask the clinic's senior andrologist for a formal interview. I began by introducing myself as a doctoral researcher in sociology, at which point he suddenly asked, '*why is a [medicalised] treatment relevant to sociology?*' It was a difficult question to answer, despite the fact that reproductive technologies have generated extensive and controversial sociological debates. I am not the first and will certainly not be the last social scientist with an interest in researching assisted conception. So why have reproductive technologies, in particular IVF, attracted so much academic interest? What is it about technologically assisted human reproduction that continues to fascinate social scientists – decades after its invention, when more than five million 'miracle' babies have been conceived around the world?

According to Franklin, forty years of practicing procreation technologies 'confronts us with a paradoxical legacy...IVF has rapidly become more routine and familiar, while at the same time also becoming, as Alice might have said, "curiouser and curiouser"' (2013a, 1). IVF was first invented to form families modelled on conventional patterns of reproduction; i.e. heterosexual parents with their own biological children, in line with traditional structures that attached femininity and masculinity to parenthood. However, a close examination of IVF casts light on its complex dimensions and capacity to reshape the very same norms that once drove its

invention. The present study draws on the work of various scholars to shift the research focus from technological aspects of ARTs toward understanding ‘the workings of IVF as a complex or cultural form [which] requires an account of how it works in and through other systems’ (Franklin, 2013a,9); these systems include technologies of gender and kinship. IVF provides a window through which to examine ‘older structures of sociality, including marriage and kinship’ (Franklin 2013a), to see the ways in which technologies of gender and kinship accommodate and resist both the potentialities of IVF and the tensions and disruptions it produces.

The complex nature of assisted conception typically makes those undergoing treatment feel ambivalent about their treatment trajectories. Drawing on her first book on IVF, published in 1997, Franklin (2013a) has argued that, ‘in vitro fertilisation is not a simple process of steps leading to potential success – it is a confusing and stressful world of disjointed temporalities, jangled emotions, difficult decisions, unfamiliar procedures, medical jargon, and metabolic chaos’ (Franklin 2013a, 7). Given the complex character and impact of IVF, this chapter investigates how people make sense of such complexities in four different dimensions: gender, kinship, religion, and globalisation.

First I will show how the complexities of IVF have created dilemmas for feminist scholars and activists, as they respond to the relationship between gender and reproductive technologies. Within the dimension of kinship relations, IVF plays a paradoxical role, both disrupting and at the same time reinforcing genetic/biological parenthood. I am particularly interested in how people strategically re-naturalise and reconstruct their kin relations. The intersections between gender, kinship, and assisted conception technologies unfold against a broader background that includes politics, the economy, government policies, and religion. This layer of analysis adds a third dimension: the role of religion in forming and enabling IVF. According to McKinnon (2015, 465) ‘as the new reproductive technologies are rooted in domestic ideas about paternity, maternity, marriage, and descent, it is evident that these ideas are essential to specific religious and national understandings of generativity and identity’. Thereafter, I will take the reader on a journey to different clinics around the world to understand how people negotiate the complexities of gender and kinship in ways that are mediated by religion; this section has a particular focus on the Muslim countries of the Middle East. Investigating IVF practices in different societies provides a basis

for exploring the fourth dimension of complexity: the local/global interface. IVF is both a globalised technology practised throughout the world and a localised technology, subject to social influences, such as religion. Finally, I will review studies of assisted conception in Iran, drawing on dimensions of complexity outlined in the broader literature. My research questions will advance social science research on ARTs in general and the Iranian context in particular.

Feminists making sense of the complexities of IVF

Charis Thompson (2002b) ends her chapter in *Infertility Around the Globe: New Thinking on Childlessness, Gender, and Reproductive Technologies* by identifying infertility and reproductive technologies as fertile ground for feminist scholarship and activism. Why should this be the case? Feminist scholars argue that many social, economic, and political stratifications affecting women's bodies and selves are embodied in the development, provision, and use of these technologies (Franklin 2013a, Thompson 2002a, Nash 2014). Since the 1980s, feminist literature and analyses of reproductive technologies have addressed the tension between resisting or aligning with new developments; that is, between rejecting technological interventions in reproduction as bad for women or cautiously accepting them, while scrutinising their side effects and ramifications.

According to Franklin, 'feminist scholars were among the first to begin to seriously engage with the implications of bioscience and the new genetics, through the lens of reproductive biomedicine' (2013a, 189). Feminist stances on reproductive technologies in various texts have often been characterised as radical or liberal – as well as either anti- or pro- technology⁷. I agree with Franklin (2013a) that the feminist literature cannot be so neatly or easily polarised. Adopting her approach, this section teases out aspects of the relationship between women and reproductive technologies, which feminists have identified as complex and ambiguous, particularly in relation to IVF. It also considers the extent to which feminist analyses of reproductive technologies and associated political stances have changed over time. I should note

⁷ More detailed descriptions of the categorisation of feminist ideas (and their epistemological standpoints) are provided in many texts, including Farquhar (1996), Sawicki (1991), Steinberg (1997), Thompson (2002a), and Wajcman (1991).

that the literature focuses on the development of feminist IVF research in largely Anglo-American contexts. While this has become the founding story of the field, the story might be told differently in other contexts. This issue is discussed in the third section of the chapter.

Early feminist positions on reproductive technologies⁸ were not unified. They ranged from strong opposition to such technologies, as a form of patriarchal control over women's bodies, to positions of ambivalence (doubting the logic of a male drive to control), and the belief that such technologies could potentially meet women's need for family formation and identity. For example, Corea (1988) argues that the reproductive technology industry manifests a biological male drive to control women; Oakley (1987) analyses the power relations between doctors and their women patients, arguing that the hierarchical relationship turns women into reproductive objects. Elsewhere on this spectrum, Stanworth (1987) calls for an informed and critical appraisal of reproductive technologies, rather than their blanket acceptance or rejection. Similarly, Petchesky (1987) argues that these technologies can benefit individual women, even though techniques such as ultra-sound scans separate a woman from her foetus. Petchesky's ambivalent position is echoed in Rothman's (1988) analysis of pre-natal screening (amniocentesis), in which she argues that, despite expanding women's choices and possibilities, such tests close down other possibilities. For example, women undergoing prenatal testing have a very hard time evaluating what kinds of foetal abnormality (physical and mental) might be serious enough to make a life not worth living, justifying termination.

During the 1980s, a group known as FINRRAGE (Feminist International Network of Resistance to Reproductive and Genetic Engineering) launched collective feminist activism in response to reproductive technologies. Sarah Franklin, a British member of this group and thus an insider, has argued that FINRRAGE's position is presented reductively in the literature, as a unified, unequivocal, single voice accusing reproductive technologies of embodying patriarchal values. She has pointed out that not all members of the group supported this position; in fact, a severe conflict arose because some members felt that FINRRAGE's political stance ignored the experiences

⁸ In earlier texts, reproductive technologies are called 'New Reproductive Technologies' (NRTs). As they have now become relatively mundane, I refer to them in this chapter simply as reproductive technologies. (New) Reproductive Technologies encompass a wide range of techniques, including prenatal screenings, visualisation techniques, and technologies to assist conception.

and difficulties of infertile women. What was missing, according to Throsby (2004), was an analysis that could ‘accommodate and address the ambivalence and ambiguity that many women experience in the context of reproduction... and how women make sense of their own experiences’. This critique triggered a longstanding tradition in feminist analyses of paying attention to women’s experiences, in this case of IVF (Franklin 2013a, 200-206).

Women’s experiences of technologically assisted conception, as documented in several studies, reveal as much about the social organisation of gender as they do about the technology itself. One of the very first studies was Crowe’s (1987) research on Australian women, entitled *Women Want It: In Vitro Fertilization and Women’s Motivations for Participation*. For these women, the decision to undergo treatment was a complex configuration. While remaining childless had its own consequences, potentially threatening conjugal life and/or generating feelings of social exclusion in the company of mothers and couples with children, women undergoing IVF felt that they had to ‘centre their lives’ around reproduction and put off other goals, such as pursuing or continuing paid work, even though IVF treatment had a low success rate (Crowe 1987, 91). Here the quest for ‘compulsory motherhood’ took up women’s time and energy and held them back, in addition to being frequently unsuccessful.

Studying British women’s experiences of IVF⁹ and the embodiment of treatment, Franklin (1997, 102) has likewise argued that IVF was a ‘way of life’. IVF not only shaped a woman’s lifestyle, through its physical, emotional, and psychological demands, but also mirrored wider social organisation, through its gendered division of labour. Not only was IVF ‘emotionally traumatic’ and an ‘intense program’ for women, involving unanticipated physical and physiological demands (Franklin 1997, 111), it was also a form of unpaid reproductive labour that women compared to their paid work. In response, women tried to manage this intensity, for example by organising support groups.

Women’s reproductive labour during IVF, and their strategies for managing it, are highlighted in Throsby’s (2002) insightful study of women’s experience of injecting

⁹ Franklin (1997, 130) insightfully argues that a full understanding of women’s experiences of IVF requires being attentive to differences in the intensity of three stages of their experience: entering the program, undergoing treatment, and leaving it either successfully or unsuccessfully, given that experience is a ‘process’ and not ‘static’.

hormonal drugs to stimulate the ovaries, as part of their infertility treatment. Her focus on this IVF drug regimen is significant in two respects. First, in the dominant representation of IVF, the process (a bodily experience) through which eggs are obtained is erased, even though it is arduous work for women. Second, because ‘IVF is something that people *do* rather than *have*, this activity and its consequences are profoundly gendered¹⁰’ (Throsby 2002, 63). The gendered distribution of work in IVF is not just physical (injecting hormonal drugs) but also mental (women’s ‘explanatory work’). Women tend to push and pull at the boundaries between public workplace and private domain. They try to manage how much information they disclose to their co-workers to avoid judgemental comments (e.g., doubting the likelihood of success because of a woman’s ‘advanced’ age). They develop strategies to manage further questioning, for example by drawing colleagues’ attention to the painful injections and ‘practicalities of the IVF process’, as opposed to its emotional burden (Throsby 2002, 70). From a feminist perspective, the justification for women’s explanatory work is the ‘enduring association of motherhood with “natural” womanhood’ (Throsby, 2002, 75).

The above research on women’s experiences points to the heavy, gendered, physical and emotional burden of IVF. This heavy burden complicates the promise that IVF can assist with reproduction (Throsby 2004, Franklin 1997) . However, as the title of Crowe’s work makes clear, women still want IVF and find it difficult to give up on the technology, even after several failed attempts¹¹. In trying to explain why women find it so difficult to give up IVF, Franklin (2013a, 216) refers to Sara Ahmed’s (2010) account of objects as ‘happiness means’ or ‘happiness pointers’, arguing that ‘if IVF offers a promise of happiness, then to follow the path of IVF is precisely to move toward that which is not yet present, and thus to associate oneself with the happiness

¹⁰ Even if a woman is physiologically fertile (experiencing infertility as a result of male pathology), it is she who must undergo various medical procedures. Each of these medical procedures, such as hormonal injections and obtaining eggs under anaesthesia, carries a level of risk for women. Judith Lorber (1989) argues that fertile women who undergo IVF on behalf of their infertile husbands should not be seen as acting out of love or altruism because women and men are unequal in most heterosexual relationships and women’s treatment choice is a ‘patriarchal bargain’ (Lorber 1989, 31).

¹¹ This feature of IVF, according to Franklin (1997), complicates the concept of women’s choice in the context of IVF. In the words of Crowe (1987, 93), undergoing or giving up IVF is not a ‘real choice’ for women.

that is presumed to follow, even if the object of feeling never materializes'. In their accounts of undergoing treatment, the women Franklin interviewed felt that they had to try IVF, 'to ensure no avenues of possibility are foreclosed' (Franklin 1997, 177). However, in every cycle, 'once proximity to pregnancy is physically and emotionally experienced¹², the more offered by simply knowing you have tried everything is no longer enough' (Franklin 2013a, 218). Faced with this situation, many of her subjects tried IVF again. To make sense of the 'complex appeal of IVF' (Franklin 2013a, 216), women in Franklin's (1997) study affirmed their faith in IVF as a form of scientific progress; this belief allowed them to transfer hope to another cycle, despite their awareness of previous failed cycles. In Throsby's (2004) study, women responded to an unsuccessful IVF cycle by adopting normalising strategies and denying how desperately they wanted a child.

While it is mainly women who shoulder the demands of infertility treatment (in most cases, men's involvement with reproductive technologies, regardless of the pathology of the treatment, is restricted to providing a sperm sample¹³), a gendered approach must consider how men make sense of IVF. Few studies have addressed this question. The relative absence of men's experiences in studies of reproductive technologies can be partly explained by women's central role in reproduction (Inhorn et al. 2009) and partly by the 'pervasive naturalisation and normalisation of motherhood for women' and 'relative infancy to fathering and fatherhood in academic writings' (Throsby and Gill 2004, 333). The lack of attention from social scientists has rendered men the 'othered' or 'second sex'¹⁴ in reproduction (Inhorn et al. 2009, 6). Only since the 2000s has this gap been addressed.

¹² By proximity to pregnancy, Franklin (2013a) refers to the moment when, for example, a woman undergoing treatment sees that her eggs have been fertilised with her partner's sperm and potentially viable embryos are transferred to her womb.

¹³ It is mainly women's bodies that are subject to surveillance and invasion in infertility treatment. Only recently, in cases of male infertility in which no sperm are present in the ejaculate, has infertility treatment been embodied by men. In such cases, surgeries including microsurgical epididymal sperm aspiration (MESA) and testicular sperm extraction (TESE) provide a means of 'invasively removing sperm from the testicles' (Van Balen and Inhorn 2002, 13).

¹⁴ Reflecting on Simone de Beauvoir's book, *The Second Sex*, Inhorn and her colleagues (2009, 1) argue that while women's role in reproduction and their relationship with positions of power have been frequently debated by second-wave feminists, men's role in reproduction remains unexamined by social scientists. In other words, men are viewed as the 'second sex in reproduction'.

Contributing to a growing body of literature, Throsby and Gill (2004) analysed men's accounts of involvement with infertility treatment and illuminated their contradictory and ambivalent attitudes towards IVF. On the one hand, in comparison with technologies such as gene therapy and cloning, men constructed IVF as low-tech and 'just another way of doing what nature does'. On the other hand, they viewed IVF as a scientific last resort – leaving no other options if it failed. While the men were confident that future IVF-related technologies would improve on current low success rates, they were uncomplimentary about low-tech approaches to infertility treatment, such as changing their own diet to enhance fertility.

Throsby and Gill hypothesised that men's reluctance to change their lifestyles might reflect tacit awareness of their own potential infertility – a reluctance shaped and mediated by 'hegemonic masculine culture, which equates "real masculinity" with the potency or virility indexed by fathering a child' (Throsby and Gill 2004, 344). Similar assertions have been made in other studies involving assisted reproduction, including Goldberg (2009), Gutmann (2009), Moore (2009), Tjørnhøj-Thomsen (2009), and Thompson (2005). Among other findings, these studies show that many men find it difficult to provide sperm samples, due to the interplay of masculinity, sexuality, and reproduction. They feel worried and anxious about the quality and quantity of their sperm because sperm is inherently gendered as a marker of proper masculinity. However, this interconnectivity between masculinity, sexuality, and reproduction is not fixed or static. As Inhorn et al. (2009, 6) contend; it 'is not seamless and is contested, renegotiated, and sometimes resisted in various cultural settings around the globe'.

Despite their complexities and ambiguities, procreative technologies are becoming increasingly normative and popular globally; they are often aligned with gender norms, such as those attaching 'real' womanhood to motherhood and 'real' manhood to viable sperm. Moreover, as Franklin (2013b), has pointed out, people seek assisted conception not only to have a child but, more importantly, to achieve aspects of procreation that are intertwined with social identity: 'as a means of strengthening their [couples'] conjugal, affinal or kinship relations' (p. 749). At the same time, assisted conception complicates the very same kinship norms, as I discuss below.

Kinship and IVF: Deconstruction and Reconstruction

While the original purpose of IVF was to help infertile couples have their own biological children, assisted conception, and specifically third-party involvement in procreation, has introduced various ambiguities to conventional notions of kinship. To map out these complexities, this section begins by briefly summarising the conventional understanding of relatedness in Euro-American contexts.¹⁵ It then shows how these have been disrupted by reproductive technologies. The popularity of IVF, as Franklin (2013b) notes, has led to the re-making and re-crafting of kinship .

Reproduction is as much a biological phenomenon as a social one, and kinship connects its biological and social dimensions. According to Strathern (1992), kin relations are constructed either as the outcome of procreation (blood relationships) or through social arrangements, such as marriage, with the prospect of procreation. She explains that, in the Euro-American kinship system, this overlap is repeated in individual kin roles. In other words, the woman in whose uterus a child is conceived and who gives birth to it (biological/natural relatedness¹⁶) also nurtures that child.

Assisted conception challenges this system by fragmenting these overlapping kin roles; by separating gestation and birth, it makes a distinction between ‘social’ and ‘biological’ parenthood – and particularly motherhood (Strathern 1992, Franklin 2013b, McKinnon 2015, Taylor 2005, Ragoné 1998). Blurred boundaries between the biological and social dimensions of kinship have resulted in new categorisations of parenthood. Ragoné (1998, 193) argues that ‘motherhood, which was once a unitary role, can now be seen as three distinct roles, genetic, gestational, and social. Similarly, fatherhood is now defined as two distinct roles, genetic and social’. This breakdown of the previously assumed (even taken for granted and invisible) unity of ‘natural’ parenthood signifies a new assemblage of kinship.

To emphasise that two dimensions of kinship are being assisted and recrafted, Marilyn Strathern (1992, 20) uses the term ‘doubly assisted’, positing that while ‘the natural

¹⁵ Here, again I should note that the bulk of canonical literature on kin relations and reproductive technologies is Anglo-centric. Although this literature frames itself in general and apparently universal terms, I contend that it would have developed differently in a non-Anglo-American context. Place and culture matter.

¹⁶ Strathern (1992, 19) argues that, ‘in twentieth-century culture, nature has increasingly come to mean biology. In turn, this has meant that the idea of natural kinship has been biologised’.

facts of procreation are being assisted by technological and medical advances, the social facts of kin recognition and relatedness are being assisted by legislation'. In other words, as a result of assisted conception, human reproduction has been both de-naturalised (through the process of separating natural and cultural aspects of kinship) and re-naturalised (by foregrounding the domination of *intended parents* when legally determining criteria for identifying the 'real mother'¹⁷) (McKinnon 2015).

Alongside legislation, which has redefined and readjusted the notion of kinship, research has highlighted the extensive work done by infertile couples to establish and disambiguate relatedness. In her ethnography of an infertility clinic in the US, Thompson (2001, 2005) has detailed the multiple ways in which women, during egg donation and gestational surrogacy procedures, engage in a process she calls 'strategic naturalisation'. These women, both agentially and strategically, 'drew on deeply rooted and familiar ways of forming and claiming kin' to substantiate their maternal claims while, simultaneously, 'distribut[ing] the elements of identity and personhood differently' (Thompson 2001, 171). In one case study, an Italian-American woman disambiguates kin relations in egg donation. This woman asked an Italian-American friend (from the same ethnic group) to donate her eggs. In reconfiguring kinship, she extended her reference to the genetic inheritance component of 'natural' reproduction to include a person with whom she shared some history. Yet, she made visible her gestational role (her blood) to confer kinship in the absence of a genetic connection, by saying that the child developed in her body.

Strategic naturalisation, as analysed in Thompson's ethnography, also appears in the accounts of gestational surrogates in Ragoné's US research (1998), although here gestation denies, rather than confers, kinship. Ragoné reports that most of the gestational surrogates in her study preferred to be matched with couples from a different racial background. This allowed them to make visible racial identity and the racial difference between the surrogate mother and child, in order to create boundaries and de-emphasise the surrogate's biological role in gestation. Even in traditional surrogacy, one adoptive mother, in the absence of genetic ties with the child, emphasised 'conception in the heart' as a form of 'mythical conception', when she

¹⁷ McKinnon (2015, 468) narrates a controversial 1990 court case in the US, in which the court ruled that 'intention', as opposed to biology, determined claims to maternity. In this ruling, actors re-naturalised maternity strategically, making one biological claim to maternity (e.g. gestation) visible, while another aspect (e.g. genetics) became invisible.

said: ‘Ann is my baby, she was conceived in my heart before she was conceived in Lisa’s body’ (Ragoné 1994, 126).

In the above cases, technology enabled what Thompson (2001, 198) has called ‘the choreography between nature and culture [that] is managed flexibly by ordinary people’. Harrington (2008) and her colleagues have discussed another innovatively built donor-gamete kin system mediated by technology. During interviews they conducted with recipients of donor eggs/sperm in the US, they found that couples relied on chance and potential paternity as their strategy for ‘undermining conventional concepts of kinship (e.g. blood and genes), while continuing to rely on normative, popular-science concepts’ (Harrington, Becker, and Nachtigall 2008, 401). In one example, a couple who received donor sperm remediated these biological and foundational structures through the ‘mechanism of chance’. In revealing the donor conception to their child, they told her they had intercourse after the donor insemination, making it possible that her social father was also her genetic father. In other words, the mother used ‘the concept of potential paternity to normalise donor paternity’, pushing the boundaries between the child’s legitimacy or illegitimacy (Harrington, Becker, and Nachtigall 2008, 402-405). Harrington and her colleagues used this case to confirm that meanings attached to relatedness are not fixed, but rather ‘are thoughtfully and consciously created’ (Harrington, Becker, and Nachtigall 2008, 411).

Reproductive technologies are not just a means of producing heteronormativity; they also open new doors for the ‘democratization of child-birth and queer family building (same-sex and single parent family)’ (Lie and Lykke 2017, 1, Lewin 2005, Mamo 2007). Queer family building has been enabled by reproductive technologies. However, queer family building using reproductive technologies challenges the very norms those technologies were designed to promote (giving nature a helping hand) because reproduction within lesbian or homosexual relationships or by single women is seen as deviating from the ‘naturalness’ of reproduction; it therefore requires ‘discursive work of negotiating normality’ (Throsby 2004, 55). In this re-naturalising of kin relatedness, same-sex couples and single parents also ‘queer the forms and

modes of reproduction and relatedness'¹⁸ (McKinnon 2015, 471). These users of reproductive technologies engage creatively in renaturalising kin relations. For example, lesbian mothers may choose to make visible their genetic or gestational roles (Mamo 2007). Clinicians discursively construct the producer of sperm as the 'donor' and not the 'father' (Adrian 2017). Gay fathers may choose to mix their sperm to assume equal roles in paternity or choose a surrogate mother from their own ethnicity to build families in familiar forms (Smietana 2017).

What is very interesting in all this research is not only the way in which kin relations are reconstructed, but also the ways in which the old co-exists with the new. In Strathern's words (1995, 384), 'in some cases, old practices lie in wait, with their questions and doubts. In other cases, displacement may be radical: if new knowledge takes away old assumptions, it will have to put new assumptions in their place'.

So far, the complexities, disruptions, and transformations brought about by reproductive technologies have been discussed mainly in Anglo-American contexts. Although reproductive technologies are globalised, their normalisation, as Lie and Lykke (2017) have argued, takes different forms in different contexts. To highlight the various assemblages of ARTs and normalisation mechanisms, the next section will journey to several IVF clinics around the world, focusing, in particular, on the role of religion as a wider social force that shapes and is shaped by IVF.

Religion and IVF: another layer of complexity

Technologically assisted conception, as discussed in the previous sections, is co-constructed with gender and kinship relations. At the same time, it disrupts and deconstructs the norms that foreground it. Although these complexities relate to gender politics and kin connections, they can also be analysed in relation to larger social structures, such as religion, which mediate both the practice of ARTs and the system of kinship and gender relations. Few Anglo-American studies have explored the role of religion in mediating the complexities of reproductive technologies,

¹⁸ Lie and Lykke (2017, 1) assert that 'it is an inevitable paradox of the contemporary, neoliberal and globalized world in which ART policies and practices are performed, that ART have created new possibilities for some people as recipients of gametes, cures, and gestational labour, whereas others, in particular women in precarious situations, have become the providers'; see, for example, Pande (2010) on commercial surrogacy in India.

perhaps because their current regulatory system (e.g. HFEA in the UK) is assumed to be a secular entity. Inhorn (2003, 170) notes that anthropologists working with IVF-seeking couples in Britain and the United States rarely consider the role of religion: ‘western discourses of hope invoke beliefs in technological process and scientific authority, but seem to be devoid of religious references that might be still expected there’. Franklin has shown how gendered Christian norms were cited in some early, official accounts of IVF in the UK. Drawing on extracts from parliamentary debates, Franklin (1997, 201-203) suggests that the media portrayal of women’s bodies can be compared to religious terms and rituals and that these poignant debates helped to overcome opposition to IVF in the 1990s. In one of the extracts that Franklin analyses, a Member of Parliament describes her visit to an IVF hospital in Cambridge. Although the MP did not witness a take-home baby¹⁹, she describes the devotion of a woman who was pregnant following IVF, noting her suffering, dedication, and faith in medical technology. Franklin argues that the MP’s experience of visiting women in the IVF hospital was a form of public testimony, more effective than the abstract language of moral duties and ethical principles.

Religion figures in official debates about the permissibility of IVF and is also invoked in various ways by users and clinicians; as a result, it has become a central focus of much academic research on ARTs beyond the UK and the US.

Religious prohibition of IVF: Ecuador and Greece

Although the Catholic church has unequivocally condemned IVF, Roberts (2006) has found the presence of God in Ecuadorian IVF clinics. The Vatican’s reasons for condemning IVF are twofold, according to Roberts (2006, 2010). First, the destruction of embryos, an integral part of IVF practice and research, is seen as the destruction of human life. Second, assisted conception involves human interference in procreation, which should occur only under the dominion of God. The striking point in Roberts’s study is the fact that, even though Ecuadorian practitioners considered themselves Catholics and were aware of the Church’s condemnation of IVF, they not only practiced IVF but also enmeshed spirituality into their practice. To comfort patients,

¹⁹ At the time of her visit, the woman had been hospitalised in her 25th week of pregnancy, after two failed IVF pregnancies.

they stuck pictures of the Virgin Mary on their microscopes to bless the eggs and sperm, made silent prayers when putting eggs and sperm together, and invoked God during the stages of IVF when they had less control over the process (for example, following embryo transfer). Roberts argues that Ecuadorian practitioners and clinicians strategically invoked the divine in their everyday practices to remind themselves and others that they were not responsible for creating life. This enabled them to legitimise their practice in the face of condemnation from the Vatican.

To explain such complexities, embedded in IVF practice in Ecuador,²⁰ Roberts refers to a historical analysis of the Enlightenment project in Latin America, arguing that enlightened 18th century Catholics were more engaged in rationalising the Catholic state than in separating church and state. This engagement of religion in modernity led to a distinction between baroque and enlightened²¹ Catholicism. The majority of Ecuadorian IVF practitioners affiliated themselves with baroque Catholicism, focused on ‘outwardly personal exchanges with God and Saints, with relatively little attention paid to church doctrine’ (Roberts 2006, 513). Both patients and practitioners in Ecuador invoked God as a form of personal expression, without referencing institutional forms of Catholic religiosity; they described themselves as ‘anti-fanatics’²². The secular and modern primacy of science over religion is not at stake in Ecuadorian IVF clinics. Rather, as Roberts (2010, 145) details, practitioners involved in biomedicine posit a new local formulation for modernity, as ‘not always the formation of the secular or the banishment of enchantment from the realm of natural law’.

Religious iconography also plays a role in mediating between IVF and Greek Orthodoxy, taking on highly gendered forms. Like the Catholic Church, the Greek Orthodox Church opposes assisted conception. However, as Paxon (2006) has discussed, in her study of an Athenian IVF clinic, Orthodox believers rely on elements

²⁰This complexity is encapsulated in the entanglement of religion/spirituality with secular scientific knowledge, as well as in practicing a technology condemned by the Vatican while asserting Catholicism.

²¹ For the purpose of her analysis, Roberts (2006, 513) argues that enlightened Catholicism denotes a cultivation of the individual self as inwardly focused, temperate, and rule-oriented’.

²² In discussions of abortion or homosexuality, Ecuadorians frequently used phrases such as, ‘I am not a fanatic. I don’t go to Mass’ (Roberts 2006).

of belief to normalise or even naturalise IVF practice. To naturalise IVF, Athenian women make visible one aspect of motherhood, gestation, which is familiar to them and grounded in Orthodox culture. Women's emphasis on the role of gestation in making kin connections originates in the image of the Holy Mary holding Christ in her arms. In fact, the Orthodox Church stresses childbirth rather than conception²³. The blood, pain, and suffering that a woman endures during gestation and birth are represented by religious icons, helping to make IVF a socially acceptable endeavour. Thus, by conflating the struggle of IVF (the pain of injecting hormones and the surgical operation to retrieve eggs) with religious ideologies, women perceive themselves as 'exemplary mothers' and 'heroines' in the eyes of other women (Paxon 2006, 487). Moreover, Athenian women and their partners exercise their own agency by asking clinicians to be godparents of their IVF babies (spiritual kin work), another way of making assisted conception consistent with Orthodox values. As clinics in Ecuador and Greece illustrate, clinic users and clinicians strategically invoke religion and weave it into the everyday life and practice of IVF, in opposition to official religious discourses. This active invocation of religion by infertile couples and clinicians takes a different form in ultra-Orthodox Jewish contexts, where IVF is religiously endorsed.

Religious permission for IVF: Judaism in Israel and New York

In contrast to Christianity, reproductive technologies are permitted in Judaism. However, rabbis have concerns about the appropriate use of assisted conception, which must be aligned with the Halakhic (Jewish legal) perspective. According to Kahn (2006), many rabbis reconcile this tension by exercising conceptual and pragmatic flexibility to make the technology available and acceptable to observant Orthodox Jews. For example, one of the primary Halakhic concerns involves the incestuous or adulterous relationships created by the use of donor sperm. To ensure that artificial insemination by third-party donors does not breach religious rulings,

²³ Paxson (2006, 486) notes that, contrary to Catholic doctrine, in Orthodoxy 'Mary is hailed as the Bearer of the Christ', with less focus on how she was impregnated.

rabbis have permitted its use as long as the donor is a non-Jew²⁴. The integration of religion with biomedicine goes beyond its permissibility, from an official religious perspective. Like Orthodox Christians, Orthodox Jewish patients and practitioners create familiar religious frameworks through which to make sense of the treatment and its outcomes.

In her ethnographic study of a fertility clinic in New York, Kahn (2006) has explored the integration of the sacred and secular in the everyday life and practice of IVF. A very common practice among Orthodox Jewish patients was numerology²⁵ (juxtaposing scientific knowledge and traditional/folk knowledge), which helped to make the treatment consistent with common beliefs about conception. Such practices originate from the principle of obligatory effort, *hishtadlus*. In this approach to fertility treatment, the individual was required to maximise personal effort in accordance with Halakhic guidelines, although the ultimate success or failure of the process was understood to be in the hands of God. Kahn has argued that Orthodox Jews actively developed such strategies, derived from the framework of the Torah, to ensure that their reinterpretation and appropriation of scientific knowledge continued to centre around their religious cosmology – a negotiation which otherwise can be ‘daunting, overwhelming, and alienating’ (Kahn 2006, 473).

While Kahn (2006) has described the belief systems of Orthodox Jews in New York and the legal restrictions imposed by rabbis to define the appropriate use of reproductive technologies, Ivry (2010, 2013) has investigated another form of religious intervention in infertility treatment. In her ethnographic study of ultra-Orthodox clinics in Israel, she distinguishes between this setting and other contexts in

²⁴ According to Kahn (2006, 470), a child conceived using sperm from a non-Jewish donor is considered Jewish because ‘Jewishness is conferred through the matriline’. However, surrogacy is only permitted if the surrogate is Jewish, as gestation (the womb) determines Jewishness, rather than the egg. Furthermore, using a non-Jewish sperm donor does not breach the prohibition on masturbation among Jewish men, from the Halakhic vantage point (Kahn 2006).

²⁵ To explain numerology, Kahn (2006, 471-472) cites the clinic doctor: ‘According to rabbinic tradition, the world was built with 72 letters. The letters correspond partially to the human chromosomes. There are 23 male chromosomes and 23 female chromosomes – that equals 46 – if you add the numerological equivalent for the name of God, which is 26, you get 72. That’s how we know that there are three partners in the creation of a child: man, woman and God’. In other words, numerology is used strategically by ultra-Orthodox Jewish couples to invoke God in their IVF treatment journey.

which IVF requires religious endorsement. Whereas, in other settings, the opinions of religious experts shape only the legal frameworks constraining reproductive technologies and not daily clinical practice, in Israel, Orthodox Jewish religious experts intensely engage with bio-medical knowledge and practice through an institution entitled FLOH²⁶. Although the rabbis in FLOH have no formal medical education, they give religious (halachic) consultations to religious couples on a wide range of reproductive issues, review patients' medical information, offer medical consultations, and negotiate with medical practitioners about suggested treatment protocols. FLOH's involvement in the treatment procedure, Ivry argues, challenges the hegemony of medical knowledge in a clinical setting and transforms relations in the clinic from doctor-patient relations to doctor-rabbi-patient relations. Rabbis not only examine the extent to which technologies conform to rabbinic law, which Ivry calls 'the medicalisation of rabbinic law', they also attempt to transform biomedicine, bringing it into accord with rabbinic law: the 'koshering'²⁷ of medical care'²⁸.

This level of intervention has implications for both religious women and doctors. In their consultations, FLOH rabbis provide emotional support to religious women at risk of feeling 'othered' in Israel's non-religious, overloaded medical system. The rabbis also refer these women to experts, resolve their halachic issues, and negotiate with doctors over their courses of treatment. On some occasions, however, when the rabbi's opinion clashes with the doctor's proposed treatment, the conflict between these two authorities (rabbinical and medical) can put exceptionally heavy pressure on women clinic users.

Indeed, rabbis often breach the boundaries between biomedical and religious knowledge and between practice and authority, producing 'asymmetric permeations

²⁶ FLOH (Fertility in the Light of Halacha), according to Ivry (2010), is a Jerusalem-based, not-for-profit religious Zionist institution.

²⁷ According to Ivry (2010, 663) kosher is 'a concept primarily used to designate the kinds of food that Jews may eat: those whose ingredients have been selected and are prepared and presented according to the dietary and ceremonial restrictions of rabbinic law'. Here, 'kosher' is used to designate medical procedures that have been rabbinically appropriated and validated.

²⁸ An example of koshered medicine is the Halachically kosher condom. As Ivry (2010, 669) describes, this condom is a halachic solution to the rabbinic concern about wasting sperm while masturbating for the sperm analysis test. During this process, 'the man ejaculates the sperm during sexual intercourse with his wife into a Halachically kosher condom that is then brought to the clinic to be checked'. Among doctors, however, this practice is widely considered an unreliable means of generating a good quality sperm sample.

into biomedical and rabbinic professional domains' (Ivry, 2013, 208). Medical professionals, most of whom are secular, generally accept FLOH's interventions because of their own lack of religious knowledge. Another rationale for collaborating with religious experts is that the rabbis map out medical services for religious couples; the doctors therefore see them as necessary gatekeepers of clinical access to such couples. However, when a medical professional shows competency in rabbinic law, the rabbis attempt to maintain the asymmetry of power by accusing that doctor of lacking medical competency (Ivry 2013). Ultra-Orthodox religious authorities have sought to claim ownership of the reproductive technology domain. Similar claims by religious authorities can be found elsewhere in the Middle East, often depending on whether the dominant form of Islam in a region is Sunni or Shia.

Diversity in IVF permission and practice: the Muslim Middle East

Two years after the birth of the first 'test-tube' baby in England, as Inhorn (2011) has reported, the Grand Shaikh of Al-Azhar University in Egypt issued initial religious permission, a fatwa, to allow medically assisted conception. Six years later, the first IVF centre opened in Egypt. The original fatwa has been upheld by other fatwas, issued since 1980; from the late 1980s onwards, the Middle Eastern ART industry has flourished and grown rapidly. However, in adopting these technologies, Muslim religious leaders, like rabbis, have striven to adapt technological conception to fit religious rules.

It is clear that these technologies are not only being *adopted* by recipient countries, they are also being *adapted*. As Inhorn (2003, 15) has argued, ARTs are not 'value-free', 'inherently beneficial', or 'immune to culture'. They cannot necessarily be 'appropriately transferred and implemented anywhere and everywhere'. Instead, assisted reproductive technologies are adapted as they are taken up, based on 'local formulations, perceptions and actual consumption'(Inhorn 2003, 15).

It should not be surprising that the practice of ARTs is facilitated in Islam; as Inhorn and Tremayne have pointed out (2012, 2-3), 'Islam encourages the use of science and medicine as solutions to human suffering and is a religion that can be described as "pronatalist", encouraging the growth of an Islamic "multitude"'. Mechanisms in

Islamic jurisprudence that have made it possible to adopt and adapt assisted conception have been thoroughly discussed by many scholars, including Serour (1996); Serour and Dickens (2001); Eich (2012); Houot (2012), and Mahmoud (2012). Notwithstanding the richness of these studies and their controversial debates, which have illuminated the role of official Islamic discourses (defining Islam as a system of rules and regulations) in the reception of reproductive technologies in the Middle East, the present study focuses on the enacted use of Islam in the practice and process of assisted conception. Its complexity has been researched mainly and extensively by Inhorn, through her ethnographic fieldwork in Egypt, Lebanon, and more recently the United Arab Emirates²⁹ (UAE).

In one of her very first works on the subject, *Quest for conception: Gender, Infertility, And Egyptian Medical Traditions*, Inhorn (1994) researched the experience of infertility among urban lower-class Egyptian women, at a time when IVF was newly introduced and available only in some major public hospitals (1988 and 1989). Her monograph illuminated the connections between womanhood and manhood on the one hand and motherhood and fatherhood on the other, arguing that infertility was considered to be a woman's problem. Infertility imposed immense social pressure and stigma on women, who were known as *Umm Il-Ghayyib*, 'mother of the missing one'. Inhorn reports that these women described their lives as 'boring' and 'unaccomplished'³⁰ (Inhorn 1994, 4). Infertile women were unable to fulfil their desire for motherhood through adoption, which is prohibited in Islam. Biological parenthood was thus their only option. However, the concept of biological parenthood was also perceived differently than in the West, where the child belongs equally to both parents. Many poor Egyptian adults saw children as 'being "created" primarily by their fathers' (Inhorn 1994, 5).

This perception of procreation has its own implications for gender relations; Inhorn has (Inhorn 1994, 5) argued that the patriarchy was legitimised in large part by 'the

²⁹ The United Arab Emirates is a hub for reproductive tourism; see Inhorn (2015).

³⁰ These feelings of boredom and lack of accomplishment, according to Inhorn (1994), were partly due to the absence of alternatives to motherhood and domesticity for these women. Inhorn has tied the stigmatising effect of infertility partly to the rapid rural-urban migration of the time, which reduced women's contribution to the household economy. Women lost their productive roles in urban parts of Egypt because men of their social class perceived women's work outside the home as 'shameful' and 'degrading'.

perceived procreative potency of patriarchs, or men whose familial supremacy comes by virtue of their fatherhood'. She has further explained that the advent of semen analysis in Egypt led to the recognition that men could be infertile too. However, most Egyptians continued to perceive women's reproductive bodies as the more complicated site of numerous potential problems – a view promoted through Western biomedicine, as practiced in Egypt. Despite this, Inhorn found that poor, urban, infertile Egyptian women were active and agentic in their quest for conception and made many difficult moral decisions. For example, they underwent drug regimens and surgery despite understanding the side effects – and pawned their wedding rings to raise funds to undertake treatment that they knew could fail. They constantly sought new doctors and healers and sometimes challenged the biomedical system by refusing to comply with unpleasant treatment regimens or by seeking a second opinion³¹.

A decade later, in 1996, when Inhorn returned to Cairo, Egypt was in the midst of what she calls the 'IVF boom period': the massive reproductive technology transfer³² and privatisation of IVF centres (Inhorn 2003, 23). In this study, she focused on the experiences of infertile elite couples in Egypt, arguing that poor, urban Egyptian women were not the only women to suffer from the burden of infertility. Infertility also took a physiological toll on highly educated career women, even when caused by a male pathology. One of the most interesting findings of Inhorn's study involved conjugal connectivity³³ in the age of ICSI³⁴ in Egypt. She argued that male infertility was also stigmatised in Egypt, threatening men's sense of masculinity. However, the

³¹ Inhorn (1994, 7) has argued that Egyptian women's action and agency in their quest for conception contradicts 'orientalist stereotypes of Middle Easterners as inordinately fatalistic and prone to immobilising predestination beliefs'.

³² Inhorn (2003, 3) notes that 'in 1986, Egypt was one of the two nations in the region to open an IVF centre...by 1996, there were already ten Egyptian IVF centres in full operation or development out of thirty-five IVF centres in the Muslim Middle Eastern region as a whole'.

³³ Inhorn (2003) focuses on the way in which conjugal connectivity and commitments shape and are shaped by IVF. Her emphasis on marriage contributes to the Western feminist literature on ARTs. She asserts that 'little attention has been paid to the empirical reality of infertile women's lives *as lived with their husbands*' (p. 222, original emphasis).

³⁴ Intracytoplasmic Sperm Injection (ICSI) is a method that enables men with very poor sperm profiles or few sperm to be biological fathers, as long as 'a single viable spermatozoon can be retrieved from a man's body, including through painful testicular aspirations and biopsies, this spermatozoon can be injected directly into the ovum under a high powered microscope. What ICSI requires is high-quality ova, despite low quality sperm' (Inhorn 2006c, 422-423).

introduction of ICSI to Egyptian hospitals and clinics allowed men, even those with only a single viable sperm, to attempt an IVF cycle with their wives. In the absence of adoption or third-party donation³⁵, ICSI became their only hope of genetic fatherhood. ICSI sometimes caused tension in the lives of older married couples, in which the once-fertile wife was childless due to male-factor infertility; ICSI gave the husband a chance to ‘prove manhood’ by replacing his wife with a younger, still-fertile woman. Inhorn has revealed such paradoxical features of ICSI in the Egyptian setting. Although the technology may enable some women to have children and save their marriages, it has also become, ‘a mixed blessing’, ‘a sad twist’, the ‘salvation of masculinity for some and destruction of femininity for others’ (Inhorn 2003, 239).

Inhorn (2004a, 2009, 2012) has produced a considerable body of work on masculinities and infertility in Egypt, and more recently in Lebanon. Looking at the small but growing literature on Middle Eastern masculinities, she argues that IVF is doubly stigmatised among infertile men in Egypt. First, male infertility is considered a crisis of masculinity, since, as Ouzgane (1997) has argued, hegemonic masculinities, particularly in the Middle East, make for a ‘homosocial competition between men in the realms of virility and fertility, which are typically conflated’ (Inhorn 2004a, 170). At the same time, IVF engenders moral anxiety because of the fear of (un)intentional mixing of sperm during the process, which is a sin, haram, in Islam³⁶. In other words, the stigma and secrecy surrounding male infertility are mixed with religion and technological stigma. However, the fact that this phenomenon was less pronounced among Lebanese men in 2003 than among Egyptian men in 1996 suggests that IVF is being normalised over time. The normalisation of IVF is linked to a transformative picture of Middle Eastern men, whereby men take responsibility for infertility, actively seek diagnosis, and willingly undergo different types of surgeries. As Inhorn (2012, 2009) has argued, this picture enacts the ‘emergent masculinities’ of ordinary Middle Eastern men, allowing them to critique local gender norms, refuse to

³⁵ Third-party involvement in reproduction and adoption is strictly banned in Sunni Islam, see, for example, Inhorn (2006a).

³⁶ The prohibition on mixing the reproductive substances of people who are not legally married, according to Moosa (2003, 23; cited in Inhorn and Tremayne 2012, 3), ‘stems from the fact that Islamic law has a strict taboo on sexual relations outside wedlock (zina). The taboo is designed to protect paternity (i.e., family), which is one of the five goals of Islamic law, the others being the protection of religion, life, property, and reason’.

automatically blame their wives for infertility, and reframe their own role in reproductive health.

Amidst all these changes, the fear of sperm ‘mixing’ and, to a larger extent, the opposition of infertile Muslim couples to gamete donation and surrogacy still exist. As Inhorn (2003, 2006a, 2005) reports, this concern originates in part from Islamic imperatives about ‘pure’ lineage. Tying family formation to religious teachings, she notes (2006a, 95) that ‘Islam is a religion that privileges – even mandates – biological descent and inheritance’. Hence, family formation and parenthood, especially in Sunni Islam, are limited to biogenic relatedness. Despite this religious constraint on technological options and adoption in family formation, infertile Egyptian couples perceive this limitation as ‘a moral good’; both IVF physicians and patients closely follow the Islamic Sharia (Inhorn 2003, 121) .

Inhorn’s findings in Egypt cannot be generalised to all Muslim countries in the Middle East. To elaborate on this ‘heterogeneity of local religiously based moral systems in the Muslim world’ (Inhorn 2006a, 96), I have studied two other Muslim countries: Turkey and Lebanon. Using these two examples, I will show that local religious considerations and perceptions of ARTs, specifically gamete donation, are shaped not only by Islam and its two main sects, Sunni and Shia, but also by other factors, including the country’s negotiation of its position vis-a-vis other nations.

In her fascinating book chapter, ‘Assisted Reproduction in Secular Turkey: Regulation, Rhetoric, and the Role of Religion’, Zeynep Gurtin (2012a) analyses ARTs in Turkey, a secular country with a Sunni majority population. Her study begins with ethnographic observations made during an international conference³⁷ held in Turkey in 2006. She noticed that conference presenters sought to highlight the rapid advancement of ARTs in Turkey, while also representing Turkey ‘as a modern, secular nation whose progressive characteristics set it apart from its Islamic neighbors’ (Gurtin 2012a, 289). However, this modern, secular and progressive rhetoric was challenged by a competing view. A Belgian bioethicist delegate questioned Turkish regulations restricting the practice of ARTs, for example by prohibiting the use of

³⁷ This conference was the second international Science and Moral Philosophy (Ethics) conference held in Istanbul. Around 400 international clinicians, embryologists, scientists, ethicists, theologians, and social scientists discussed philosophical, legal, and social issues arising from developments in assisted reproduction (Gurtin 2012a).

donor gametes and restricting ARTs to married couples, could not be justified except in religious terms. This comment and the debate that followed raised broader concerns about 'Turkey's identity and its international position'. The Turkish delegates sought to ground the restrictions in 'cultural, social and traditional values', rather than religion (Gurtin 2012a, 290). Through a close examination of Turkey's ART regulations, she has argued that, although banning third-party donations and restricting IVF to married couples represent a norm in the Middle Eastern Sunni Muslim world, 'progressiveness' and 'restrictiveness' can be mapped in various ways. For example, some Turkish practitioners pointed to ARTs procedures that were banned or controversial in some European countries: e.g., limiting the number of transferred embryos or generating 'saviour siblings'. As no such bans existed in Turkey, some might claim that Turkey was 'ahead' and Europe 'behind'. Moreover, Turkey's highest religious authority had established its own hospital to provide treatment within the 'framework of our religion', presenting Islam as 'permissive and progressive' in comparison to Catholicism (Gurtin 2012a, 292-298). Of particular interest here is Gurtin's argument that the Turkish ART legislation cannot be viewed as either 'secular' and 'liberal' or 'religious', 'Islamic', and 'restrictive', but must be considered from various political, religious, and moral vantage points.

Lebanon provides a marked contrast to Turkey, offering the full spectrum of available ART services. Inhorn (2006a) attributes this to Lebanon's multi-sectarian population: a religiously mixed community with a significant population of Catholics and Sunni and Shia Muslims. Gamete donation was specifically promoted through a fatwa issued by Ayatollah Khamenei in Shia Iran in the late 1990s; an endorsement of third-party donation led Shia Muslims in Lebanon, particularly members of Lebanon's Hizbullah party, to press for gamete donation (Inhorn, Patrizio, and Serour 2012). Inhorn's study has examined the attitudes of childless men undertaking IVF towards gamete donation;³⁸ she found that Shia Muslim men accepted it, referring to the fatwas issued by Shia religious authorities. They stressed that in 'scientific' and new things' they followed Iran's Ayatollah Khamenei (Inhorn 2012, 115). Interestingly, these favourable views of gamete donation were not confined to the Shia men in her study; a small group of Sunni men, highly educated professionals who had spent a

³⁸ The majority of men in Inhorn's study resisted social parenthood on religious grounds, arguing that donor conception was equal to adultery. They perceived that a child born of donor gametes would not be their own child and were concerned about 'the mixture of relations' (Inhorn 2006a, 104).

considerable amount of time outside Lebanon, were willing to discuss or entertain such alternative forms of family formation. In their narratives, these men challenged the orthodox Sunni prohibition on gamete donation, using phrases such as ‘behind the times’ and ‘behind in science’ to describe Islamic legislators. Although they were prepared to use egg donation out of love and respect for their wives’ desire to become mothers or to preserve their marriages, they did so secretly (Inhorn 2006a, 108-109).

Meanwhile Clarke’s interviews with ARTs practitioners in Lebanon (2009) highlight the fact that, despite requests from infertile couples and the willingness of some practitioners to offer gamete donation, doctors were generally reluctant to carry out the procedure, given the lack of a clear regulatory framework in Lebanon. Although doctors understood that gamete donation was religiously endorsed and not illegal, the lack of protection in civil law made them feel vulnerable, not least because gamete donation was not socially accepted – ‘society is more conservative than religion’ (Clarke 2009, 170). At the same time, some doctors did provide IVF with donor gametes, stressing that they offered a ‘scientific procedure’ and referring its religious/moral aspect to the patients themselves (Clarke 2009, 165).

Theorising the global and the local

As shown in the various ethnographic studies of ARTs reviewed above, the spatial distribution of reproductive technologies is, according to Knecht et al. (2012), a feature of their globalisation. Globalisation refers to processes through which ‘specific arenas of knowledge and power escape the communities of their creation to be embraced by or imposed on people beyond those communities’ (Ginsburg and Rapp 1995, 9). The globalisation of IVF can be understood as a flow of biomedicine and technology from the Western countries where IVF was first introduced toward the rest of the world. This process is often read as a ‘modernist narrative that presumes Westernization as the inevitable outcome’ according to Ginsburg and Rapp (1995, 9), who stress that modernity does not always unfold according to a singular narrative.

Narratives of modernity, beyond focusing on the range of perspectives through which they can be defined and disturbed, encompass both a method of categorisation³⁹ and also a normativity or project that nations aspire to and attempt to align with. However, if the globalisation of ARTs is described as ‘the extension of modernity beyond nation-states’ (Franklin, Lury, and Stacey 2000), how do different localities accommodate it? How can this global spread of ARTs be theorised? The literature on global flows suggests that the spread of ARTs around the world can be theorised using two inter-linked perspectives: techno-scientific and cultural dynamics.

From a techno-scientific perspective, the current spread of ARTs can be formulated as ‘technological know-how, money, persons, commodities and images ceaselessly chasing each other around the world’ (Gurtin 2012b, 85). In this formulation, technology is perceived as value-free, with the potential to decontextualise and enter cultural voids (Inhorn 2002) through a ‘unidirectional model of technological transfer’ (Gurtin 2012b, 83). Although ARTs do have some standardised features globally⁴⁰, this model overlooks the local parameters that shape their application, so well delineated in many of the ethnographies reviewed above. Techno-scientific flows are in fact ‘pluridirectional exchanges between multiple contexts that dislocate and relocate these practices [of ARTs]’ (Gurtin 2012b, 83). An example from Italy illustrates the role played by local factors in generating innovations and improvements. Catholicism prohibits the discarding of embryos. For this reason, in 2004, Italian practitioners invested in the development and improvement of oocyte cryopreservation (Gurtin 2012b).

Notwithstanding the role of local parameters in shaping techno-scientific transfers, does the globalisation of ARTs suggest the formation of a global and homogenising culture? Appadurai (2008) has argued that, although globalisation involves the use of various instruments of homogenisation (e.g. language hegemonies and clothing styles), the globalisation of a culture is not the story of its homogenisation. Rather, as Franklin, Lury, and Stacey (2000, 3) have pointed out, uniformity resulting from

³⁹ Elaborating on modernity as a categorising device, Mirseppasi (2000, 4) has asserted that, ‘modernity as both an intellectual and a political project has a long history of differentiating, excluding and dominating the non-Western parts of the world’.

⁴⁰ According to Knecht et al. (2012), standard practices include ISO norms (international standards), cryopreservation protocols, medical statistics, and universal concepts of international bioethics.

globalisation depends on ‘the exportability of local differences, and above all on the interrelations of local diversities within global flows’. The body of ethnographic work suggests that reproductive technologies, viewed as a global flow, are incorporated, revised, or resisted actively in every context, in accordance with the cultural logics and social relations of local people (Inhorn 2003). Similarly, Knecht et al. (2012, 12) have argued that reproductive technologies⁴¹ are never used ‘in a social or economic vacuum. Instead reproductive technologies become part of emergent national styles of reproductive governance shaped in interaction with local understandings of kinship, the role of biologies and the biological, legitimate family forms, prevalent gender asymmetries and economic considerations’. In other words, in every context in which ARTs are practiced, the local is interwoven with the global.

This entanglement of the local and global is encapsulated in the concept of ‘assemblage’, suggested by Collier and Ong (2005) and Collier (2006), as an alternative to the categories of local and global. Global phenomena such as ARTs ‘are not unrelated to social and cultural problems. But they have a distinct capacity for decontextualisation and recontextualisation, abstract ability and movement, across diverse social and cultural situations and spheres of life’ (Collier and Ong 2005, 11). The concept of global phenomena is used to define an ‘assemblage’ as ‘the actual and specific articulation of a global form’⁴² (Collier 2006, 400). In fact, ‘IVF and other related medical technologies constitute a global form, an assemblage of knowledge and technologies, that is enacted in quite diverse social and cultural contexts; that is used by a range of actors for quite divergent purposes; and that raises different questions for different actors’ (Knecht, Beck, and Klotz 2012, 25).

The interweaving of the local and the global manifests itself in the demarcation of ‘sameness and difference’ as the central feature of global culture today (Appadurai 2008, 59). For example, Gurtin (2012b), in her ethnography of IVF clinics in Turkey, found that clinicians assessed and compared local IVF practices with those in Western or European locations, assessing IVF practices in Turkey as ‘superior, matching, or

⁴¹Reproductive technologies, despite their globalisation, are not evenly distributed. To emphasise uneven access to reproductive technologies, Ginsburg and Rapp (1995, 3) deploy the term ‘stratified reproduction to describe the power relations by which some categories of people are empowered to nurture and reproduce while others are disempowered’.

⁴² According to Collier and Ong (2005, 12) ‘global implies broadly encompassing, seamless, and mobile; assemblage implies heterogeneous, contingent, unstable, partial and situated’.

inferior' (Gurtin 2012b, 100) on a case-by-case basis. When comparing scientific components, Turkish practitioners argued that they were keeping up with cutting-edge developments; when it came to doctor-patient relations, Turkish clinicians considered themselves different from their Western colleagues because their interactions with patients were more personalised, often leading to pseudo-kinship relations. Using Appadurai's (1996, 2008) model of cultural dynamics of globalisation, it can be argued that ARTs as a global form in each locality are punctuated, interrogated, and domesticated by the local moralities (micronarratives) of that context. Thus the norms attached to ARTs (such as gender and kinship) are rewritten, forming various notions of modernity in different contexts.

IVF in Iran: when the four dimensions of complexity meet

Research conducted in the Iranian context⁴³ confirms other studies of the Muslim Middle East in illuminating the gendered stigma of infertility and assisted conception, as well as the role of religion in adopting and adapting reproductive technologies. Abbasi-shavazi et al. (2008) conducted in-depth interviews with two groups of infertile women in Tehran: poor women referred to public health centres and users of an infertility treatment clinic. Like Egyptian women, the Iranian women acknowledged the stigma of childlessness, their fear of losing familial support, and insecurity in their conjugal lives. Most of them burst into tears while talking about their experiences of infertility. I have not found any study that explicitly analyses the conflation of virility, fertility, and masculinities in the Iranian context. However, Tremayne, in her book chapter 'The Four Faces of Iranian Fatherhood' (2015a) describes Iranian culture as 'predominantly patriarchal', reinforced by *Sharia* law and Iran's constitution after the revolution. She explains that 'fatherhood symbolises an

⁴³ A quick look at the section on existing studies in the Iranian context reveals that most of the literature on Iran is dedicated to studies published in English-language articles or books. This does not suggest that the present study undermines research published in Farsi. Instead, it reflects the fact that most Iranian scholars who share my research interests live in the diaspora. The canonical literature in Farsi mainly explores the legal and official religious debates on ARTs, rather than focusing on the everyday life of IVF clinics or trajectories of treatment in Iran⁴³. Even among social science scholars in Iran, there is a preference for publishing in English-language journals. According to Ministry of Higher Education guidelines, an article published in an English language journal is equal to several articles published in a Farsi-language journals, when research scores are calculated for academic promotions.

overall figure of control and authority, whose powers over his family are unlimited and assumed' (Tremayne 2015a, 338). This figure of 'control' and 'authority' resonates with Inhorn's account of Arab masculinities and patriarchy: 'in Arab families men assume patriarchal power in the family, not only with advancing age and authority, but through the explicit production of offspring, who they love and nurture, but also dominate and control' (Inhorn 2004a, 170). Thus, the connection of fatherhood with manhood and power may suggest a similar association between virility, fertility, and masculinity in Iran, leading to stigmatisation of male infertility.

I have already mentioned the religious endorsement or fatwa of ARTs in Iran, which has facilitated a rapid expansion of services. What makes Iran so distinctive in the Middle East is the fact that some religious authorities have permitted the involvement of third parties in reproduction, through egg, sperm, and embryo donation, as well as gestational surrogacy. However, Iran's religious endorsement of third-party donation has one paradoxical feature that distances it from other countries, both regionally and globally. According to Tremayne (2018) all other Muslim countries (apart from the Shia in Lebanon) have strictly prohibited third-party involvement in procreation. However, the use of gamete donation in Iran is restricted by Islamic law (Sharia) to heterosexual married couples only. In other words, the range of people with access to gamete donation is very limited in comparison to other countries that permit third-party donation.

The practice of third-party donation in Iran has introduced various complexities. Tremayne (2012b, 2009) has argued that the fatwas endorsing gamete donation conflated the notion of lineage in Islamic law⁴⁴. She has noted that 'Islamic law is clear about lineage, and Sharia meticulously defines the relationship of the kin group. In this system, a child belongs to his or her father' (Tremayne 2009, 147); in Iranian culture, the notion of kinship refers to biological forms of relatedness (Tremayne 2018). As the fatwas have not established any clear parameters for donation, infertile couples often approach same-sex or opposite-sex siblings; thus, 'a new form of consanguinity is emerging, which potentially, could profoundly affect the relationship between the members of the kin group' (Tremayne 2018, 92). Although some couples

⁴⁴ The Islamic notion of kinship and fatwas endorsing gamete donation are explained in more detail in Chapter 5.

do use gametes donated by unknown strangers, they keep it a secret, even within the family, so as to be viewed as the child's genetic parents (Tremayne 2015b).

According to Tremayne, gamete donation in the context of Iran's patriarchal practices and culture engenders many problems for women recipients and reinforces patriarchal values regarding reproduction (Tremayne 2012b). To illustrate this point, she narrates the story of an Iranian woman who travelled to England in 1988 with her husband for infertility treatment. The woman subsequently became pregnant and gave birth to triplets, who were blond and did not resemble their father at all. Once back in Iran, where it was obvious that he was not the children's biological father, the husband accused his wife of having slept with the doctor in England. He was violent and aggressive to her and the children for years, calling them 'bastards' and 'Christians' and making it difficult for the children to be admitted to schools. Twenty years later, the woman sought asylum in the UK; subsequent investigations at the infertility clinic revealed that her husband had been informed about – and had consented to – the sperm donation at the time⁴⁵. Clearly, he had planned to keep it a secret even from his wife, pretending to be the children's biological father to prove his fertility. Tremayne emphasises that male infertility and sperm donation are particularly stigmatised in Iran, causing men to 'hide or deny' their infertility. They may 'ask their wives to take the blame of infertility', while the secret use of sperm donations may lead men to inflict serious violence on their wives (Tremayne 2012a, 73).

Egg donation is relatively common in Iran and the role of religion in facilitating or hindering infertile Iranian women's perceptions of egg donation has been researched extensively. For example, in a study comparing a private clinic and public health centre in Tehran, Abbasi-Shavazi et al. (2006) drew on semi-structured interviews with 30 women, reporting that most women in both facilities initially found the use of donated eggs to be problematic from a religious point of view. Later, following clinic consultations and opportunities to learn about the religious endorsement of egg donation, they had 'moderated' their views and accepted egg donation. Research by Eyzadyar et al. (2014), based on semi-structured interviews with 11 infertile women unable to use their own eggs, found that most participants identified the religious permission for egg donation as playing an important role in their decision to undergo

⁴⁵ The husband was in charge of all the negotiations with the clinic, as the woman could neither comprehend nor speak English.

treatment using donor eggs. Mehrabi (2017, 189) refers to the normalisation of egg donation in Iran as a multi-layered process, whereby ‘Islamic doctrine and socio-cultural realities of biological relatedness, egg donation technologies, and bodily materiality *co-construct* one another’ (original emphasis). For example, she points to shared milk⁴⁶, blood, and the womb as ways of establishing relatedness in Islam. Many of her informants used those bonds to create biological kinship with children conceived through egg donation. Despite being aware of the lack of genetic relatedness, some informants sought kinship with their children by selecting similar characteristics (such as skin colour or facial appearance) in their donors.

Gestational surrogacy is also religiously permitted in Iran and has been analysed from the perspective of Shia thought and practice in Garmaroudi-Naef’s (2012a) book chapter, ‘Gestational Surrogacy in Iran: Uterine Kinship in Shia Thought and Practice’. Garmaroudi-Naef is struck that Iranian surrogate mothers seeking to make sense of their practice use the same rhetoric of incest and adultery found in fatwas to justify and permit gestational surrogacy. She argues that the rhetoric of incest does not follow a universal grammar, such that mixing siblings’ bodily substances would always be considered incestuous. In fact, in Shia jurisprudence, adultery is not referred to as the ‘biological act that occurs through the contact and transfer of bodily substances. It depends on the illegitimate physical act that occurs through illicit sexual intercourse between a man and a woman’ (Garmaroudi Naef 2012a, 158). In practice, therefore, a woman who gestates another couple’s embryo, even if she is the intended mother’s sister, can assert that neither incest nor adultery has taken place because conception occurred in the lab. Such women claim that the act of gestation confers parenthood, as opposed to their own physical proximity to the developing foetus. They insist that they are just ‘carrying the child’, who really belongs to someone else. Gestational mothers also construct their act as altruistic: helping another woman to become a mother and possibly saving a marriage. In cases where the husbands of surrogates expressed objections to surrogacy in this study, they were generally worried about their wives’ health and did not see gestation as an illicit act.

⁴⁶ Shared milk or breastfeeding in the Islamic legal texts establishes kinship relations ‘prohibiting marriage between nurse, nursling and a further, defined set of relatives’ (Clarke 2007c, 288). I have discussed milk-kinship in more detail in chapter 5.

It is clear that religion has played a significant role in promoting the use of technological conception in the Iranian context; however, the relationship between religion and technology is not unidirectional. The use of ARTs has helped to transform what is religiously permissible. Tremayne (2009), during her participant observation of private infertility clinics in Tehran, reported that there was a big TV screen in the clinic waiting area, displaying the process of egg fertilisation. Although Islam prohibits people from looking at intimate parts of women's bodies in public, many men and women were watching the TV. Contrary to her expectations, Tremayne observed no reaction of surprise or aggression towards this public display. She concluded that, 'in the minds of the audience, the entire operation belongs to the realm of scientific knowledge and medical technology'⁴⁷ (Tremayne 2009, 154). Staff members at the clinic described the process of familiarising infertile couples with biological facts as 'creating a culture' (Tremayne 2012b, 137); this culture was established as a consequence of the introduction of the global technology of assisted conception.

Given that social scientists have researched the complexities of ARTs in all four layers, what further questions need to be addressed in the Iranian context? Although IVF treatment in Iran clearly shares many features with the treatments offered in other localities, the literature highlights its specificity. Religion, in the form of fatwas, has affected the way in which Iran has adopted and adapted procreative technologies (Abbasi-Shavazi et al. 2008, Tremayne 2009, Inhorn and Tremayne 2012) As the cases of clinics in Ecuador (Roberts 2006, 2010) and Greece (Paxon 2006) illustrate, religion can be *unofficially* present and *strategically* invoked by clinicians. Even in localities where religion is *flexible* in endorsing assisted conception, the role of religion in practice is complex and *negotiated* by different actors. For example, in Lebanon, Clarke (2009) has highlighted the disparity between religious regulations and what clinicians believe and practice; in Israeli, Ivry's (2010, 2013) study has shown that the role of religion in practice may not be *visible* to those who simply examine official policies. Iranian studies of assisted conception tend to pay less attention to aspects of religion that do not involve in setting *official* formulations.

⁴⁷ Having scrutinised the video, Tremayne (2009, p. 162) notes that, 'it occurred to me that this was general Western software that does not show the actual operation being performed on that woman, but a general one used to explain the procedure. However, the patients in the waiting area do not know this'.

Gender certainly features in Iranian research, through the gendered dimensions of infertility, the patriarchal character of reproductive medicine, and the ways in which women users make sense of their experiences (Abbasi-Shavazi et al. 2006, Abbasi-Shavazi et al. 2008, Eyzadyar et al. 2014, Tremayne 2012b). However, much less attention has been paid to the daily making and remaking of gender within the context of infertility clinics. Moreover, while Throsby's (2004) UK studies and Inhorn's (2009, 2004a, 2012) research in Egypt and Lebanon have highlighted the extent to which men are involved in negotiating and *normalising* the complexities of ARTs, little is known about how men make sense of these complexities in the Iranian context. Kinship also features in Iranian research; here, social scientists have focused on the (gendered) making and remaking of kinship in the context of ARTs. At the same time, most studies have examined the negotiations among clinic users, rather than clinic staff members (Tremayne 2018, Mehrabi 2017, Garmaroudi Naef 2012b, a) and have not assessed how kinship is negotiated between the two.

The local/global dimension is perhaps the most under-developed area in the literature. Most studies depict Iranian clinics as having a unidirectional connection with Western, modern biomedicine, both as recipients and as adaptors of these technologies. Little is known about the way in which Iranian clinic users and practitioners negotiate national and international forces, or how Iranian clinics position themselves on a global scale, given that they endorse a wide range of practices, including third party donation, despite being theologically conservative. Overall, most sociological work on ARTs in Iran has featured only the clinic user's perspective; few studies have explored the perspective of practitioners, and none have analysed both sets of perspectives.

I hope therefore to make a contribution to illuminate the assemblage of ARTs in an Iranian clinic in its everyday practices and processes. I want to explore how the complexities of ARTs are negotiated and managed by different actors (infertile couples, clinic staff members, and donors/gestational surrogates). I am interested in how these actors relate to the fields of knowledge of gender, medicine and religion, and seek to interpret and reconcile this intersection (gender, medicine and religion) in their everyday practices, as well as how they relate to one another. I am also keen to explore how clinic practices in Iran are accommodating, revising and resisting ARTs as a global form. My main research question is the following:

How do staff and clinic users, given the intersection of gender, religion and medical technology, negotiate processes and everyday practices of assisted conception in the Iranian context? More specifically, how are the complexities of assisted conception negotiated, reproduced, minimised, and hidden by many men and women staff and clinic users? How are these local negotiations influenced by national forces and global flows of knowledge and technology?

Epilogue

Returning to the clinic andrologist's question that began this chapter, I responded at the time that reproduction was not just giving birth to a baby – it also involved many cultural factors. I gave this answer instantly and without much thought, conscious that many men were waiting outside the consultancy room to see him. The andrologist seemed puzzled by my reply but agreed to take part in an interview, as long as I gave him more information about the relationship between sociology and reproduction. I tried to provide a more sophisticated answer to his initial question, referring him to Inhorn's (2003) and Kahn's (2000) books on the Middle Eastern experience of ARTs. However, I wished that I could refer him to a monograph that would explain how Iran was similar to other contexts in its ways of negotiating the complexities of reproductive technologies, while also describing the nuances of Iranian practice that differed from those of other contexts, given Iran's culture, religious practices, and relationship with the world. To understand both the common and unique aspects of assisted conception in Iranian clinics, I had to immerse myself in the everyday processes and practices of assisted conception at the clinic. IVF clinics are dynamic spaces, in which practitioners and users deploy different strategies that change over time to normalise complexities of treatment, both during the treatment trajectory and across different types of treatment. The next chapter details my methodology and research methods, accounting for the choices I made as I sought to conduct research that could lead to such a monograph in future.

Chapter 2

‘Patient’, ‘Spy’, Confidant, Ambassador? Conducting a feminist ethnography at an infertility treatment clinic in Iran

First visit

I first visited the clinic on Sunday 25 Oct 2015 to discuss the practicalities of conducting fieldwork there. The clinic’s physical location was far from the main street, which made access difficult for those using public transportation. I shared a taxi with three other women who were all heading to the clinic as users. The woman next to me asked how many times I had been to the clinic and I told her it would be my first time. She assumed that I was a new clinic user and explained her medical diagnosis without hesitation, suggesting that I ask for a particular gynaecologist, whom she described as one of the most competent doctors. This was my first introduction to the plurality of treatment trajectories and to the willingness of many clinic users to share them with others.

Upon arrival, I was shocked by the number of men and women standing, waiting, and wandering around in the clinic garden. When I entered the building, I found it extremely busy. Many people were moving in different directions. I could hear various names being paged over the loudspeaker. Some of the clinic users seemed silent, tired, and helpless, while others were asking the people next to them questions about their treatment journeys. Everyone seemed to crave information. Clinic staff members moved quickly among the crowd, from one section of the clinic to another; some appeared to be avoiding the clinic users. My first impression was that the clinic had a precise and orderly medical process, while at the same time it looked very messy and chaotic. The everyday life of the clinic seemed more complicated and contradictory than I had imagined. I was left wondering how it would be possible to understand and

analyse all of this complexity, and how this complexity might manifest itself during the research process.

This chapter details my research design and the experience of conducting an ethnography of the clinic. The first section explicates why ethnography, in particular a feminist ethnography, enabled me to understand the complex nature of IVF. I then describe the process I used to negotiate with gatekeepers and obtain access, including methodological tools, the trajectory of my research, and the ethical issues involved. In the final section, I seek to situate myself in the clinic, considering the perspective of both clinic users and staff members; I also discuss the dilemmas I faced in representing aspects of my own country (Iran) to Western audiences.

Studying the complexities of assisted conception in Iran

My literature review shows that IVF, as a global form, has spread across the world and been adopted and adapted by local cultures. IVF has a complex character; although it is constructed based on social norms, it simultaneously disrupts those norms. This level of complexity sometimes gives IVF a contradictory quality. Practitioners and clinic users across the world try to negotiate the contradictions in order to normalise the everyday processes and practices of IVF. This research notes that Iran, as a context receiving and adapting this technology, has not been sufficiently studied, particularly at the intersection of medicine, religion, and gender in the everyday life of IVF. Undertaking such a study requires a way of knowing that is sensitive to meaning-making and positionalities, as well as a methodology capable of providing an in-depth understanding of peoples' actions and accounts. I propose that these aims can be achieved using a *feminist clinical ethnography*.

I chose to adopt clinical ethnography because infertility treatment clinics are not merely locations where practitioners offer various types of treatments to infertile couples, separate from the larger cultural setting. Rather, they are places in which 'broader social and cultural processes are played out' and beliefs and practices become 'reinterpreted' and 'restructured' (Van der Geest and Finkler 2004, 1996-1997). Cussins (1998, 68) argues that clinics are 'dynamic cultural sites' and places to 'examine the ways in which processes of normalization, naturalization, and

routinization conspire to produce a real world replete with moral, social, technical, and intellectual texture'. Conducting a clinical ethnography is the best way to address these processes, through which the social and cultural norms of infertility treatment are constructed and reconstructed. As Long et al. have explained, ethnography is 'uniquely placed to interrogate the complexity of clinical environments' (Long, Hunter, and van der Geest 2008, 74). Despite its various traditions, ethnography is commonly defined as a set of methods that emphasise the understanding and meaning-making of social and cultural worlds in their everyday contexts (Hammersley and Atkinson 2007, Coffey 2018).

Studying these interfaces during an ethnographic endeavour *in situ* – within the infertility treatment clinic – provides access to practices as they are being performed. Rather than producing an analysis based on people's accounts, provided under conditions set by the researcher (such as interviews or questionnaires), ethnographic research offers a way of focusing on 'talking' and 'doing', enabling the ethnographer to explore both 'action and meaning' (Coffey 2018, 12). Through observing, listening, asking, and interacting, I was able to investigate the 'dialogic' and 'interactional' world of the clinic. The complexities, contradictions, and processes of IVF practice are easier to understand through talking and doing (Coffey (2018), when the researcher has a deep and prolonged engagement with the research setting.

Producing data over a 10-month period enabled me to reflect on a wide array of issues. An IVF clinic is a focus of intense anxiety and hope because of the contradictory demands of IVF, as Franklin (1997, 191) has pointed out: 'to hope enough but not too much' and to try 'to make sense of the unexplained'. She argues that ethnography provides a way to approach this intensity. In her account, IVF is not just an intense technique and process, but a rite of passage, given 'the unexpected ways in which IVF "takes over" and becomes "a way of life"' (Franklin 1997, 168). According to Long and her colleagues (2008), couples undergoing infertility treatment are first detached from the normative categories of manhood and womanhood; they enter IVF clinics as liminal spaces (Allan 2007) and must improvise strategies to make sense of complex treatment processes and to reintegrate themselves into normative categories constructed by society. Seeing, talking to, and interviewing people over a sustained period, accompanying them around the clinic, and being present when they received diagnoses, gave me important insights into the intensity of their treatment journey, and

its variations in different parts of the clinic. I was able to glimpse the peaks and troughs of their hope and despair, their lives beyond the immediate clinic encounter, and their strategies for coping.

In exploring the everyday practice of IVF, this research takes a feminist approach. I have been inspired specifically by two features of feminist methodology. The first is its potential for insight into gendered social lives. Applying this feature of feminist methodology to my research helped me attend to the gendered asymmetries of the treatment processes and how participants make sense of them. The burden of assisted conception, as I discussed in the previous chapter, falls mainly on women's bodies, regardless of the pathology of infertility, and women's bodies, according to Throsby (2004, 43), 'become the intense focus of medical surveillance'. Responses to these gender asymmetries in ARTs vary among scholars. However, rather than stressing the inherently empowering or disempowering features of ARTs for women, my main focus in this research is on giving voice to women (and men) as '*users*, whose engagement with IVF is not characterised by passive compliance, but fundamental in the production of technologies and their range of meanings (Saetnan et al. 2000, cited in Throsby 2004, 47). Given the gender inequality around ARTs, I examine how reproductive technologies are perceived by participants in the Iranian context, with its own particular gender structure and politics. In other words, taking a feminist approach not only facilitates nuanced understandings of gender inequalities in treatment but also illuminates the complexities of these asymmetries when played out in different contexts.

The second feature of feminist methodology that inspired this research is its focus on the production of knowledge, including positionality and power relations between the researcher and the researched (Ramazanoglu and Holland 2002, Skeggs 1994, Maynard and Purvis 1994). This feature of feminist methodology has been influential in my work; it promoted reflexivity as I sought to immerse myself in the clinic to gain a more in-depth knowledge of everyday life there. I was situated differently from the study participants; more importantly, my position changed in relation to theirs during the course of the ethnography. This influenced my decision making during the process of knowledge production. This reflexive approach was not restricted to producing knowledge in the field. As my study involved investigating everyday practices and experiences of IVF in a non-Western context, I faced dilemmas when considering how

to represent the clinic and its users and staff members, in part because I was interpreting them for a Western public audience that readily ‘others’ Iran and its people. A feminist approach helped me to think through these dilemmas and address them productively. I will give a full account of my role in the clinic, from the perspective of both staff members and clinic users, as well as the dilemmas I encountered in representing them, later in this chapter.

Applying the principles of feminist methodologies to the ethnographic method produces a feminist approach, defined by Skeggs as:

conducted over a *prolonged period of time*; utilizing different research techniques; conducted *within the settings* of the participant, with an understanding of how the context informs the action, *involving the researcher in participation* and observation; involving an account of the development of relationships between the researcher and the researched and focusing on how experience and practice are part of wider processes (Skeggs 2001, 426).

A feminist ethnography is a way of doing and seeing, attentive to processes and power relations and to how the everyday makes up the social. I have already addressed the issue of my prolonged period of time in the field and will now consider other aspects of Skegg’s quotation, starting with my participants’ setting, the clinic, and how I selected it. As Hammersley and Atkinson (2007) have argued, the setting plays a significant role in developing research questions. The following sections describe how I became involved in the life of the clinic and formed relationships with my participants; they also detail my research techniques (participant observation, conversations, interviews, and document collation).

Searching for an appropriate clinic and negotiating access

Having decided to conduct a feminist ethnography of a clinic, I had more than 60 to choose from in Iran. Although they share some similarities, these clinics are differently situated in the landscape of IVF clinics in Iran, with different types of culture and organisation. Some are small private clinics managed by one obstetrician, with a limited number of clinic users. Others are units in public hospitals, directly supervised by the Ministry of Health and with a relatively large number of clinic users. A third group consists of hybrids; categorised as private but with elements of public clinics.

They are large in terms of physical space and numbers of users and staff members, but not under the direct supervision of the Ministry of Health.

I deemed many of the private clinics too small and decided that the practicalities of gaining access to public clinics would be overly complex and time consuming. It was likely that my research would be curtailed if it took place under the strict, direct supervision of the Ministry of Health. I therefore chose two clinics from the hybrid category to start negotiating access to, in order to see which one would be more viable. These two had the further advantage of being research centres/institutes, familiar with research and accustomed to hosting researchers. In addition, they were both among the most popular, famous, and pioneering IVF clinics in Iran, holding a distinctive position, both nationally and globally.

Having obtained ethical approval from the University of Warwick through the upgrade process, I initiated access negotiations with these two clinics, addressing their ethical protocols. As insufficient information was available online, I had to return to Iran to investigate the process of ethical approval in each clinic. I was aware of discussions in the literature about gaining access to infertility clinics in Western and non-Western contexts. As various researchers made clear, negotiating access requires careful preparation; the process mirrors broader social and cultural values associated with the practice of assisted conception⁴⁸. I understood the need for such preparation and had the privilege of being introduced to the head of one of the two clinics I had ‘shortlisted’ by a famous Iranian scholar, who had already conducted some collaborative research with him. Although the Iranian scholar sent several pieces of correspondence to the first clinic, my exchanges with the head of that clinic suggested that he had doubts about my research topic and reasons for choosing Iran, possibly suspecting that someone else had designed this research project for me. Presumably, he thought I

⁴⁸ For example, Franklin and Roberts (2006) describe the increasing number of ethical approval protocols required by a hospital ethics committee, including patient information sheets and consent forms, that had to be stratified prior to conducting ethnographic fieldwork on Preimplantation Genetic Diagnosis (PGD) at large teaching hospitals in London and Leeds. Their access was dependant on guarantees concerning the privacy, confidentiality, and freedom of participants. By contrast, when Inhorn was granted access to research an infertility clinic in Egypt in 1996, this was obtained through ‘the politics of patronage’ in the Egyptian medical world (Inhorn 2004b, 2100). She resorted to a classical Middle Eastern patronage pattern known as *wasta*. In other words, a pioneer obstetrician mediated, introducing her to the head of the clinics in which she conducted her fieldwork. These two examples indicate that the process of gaining access is shaped by the culture of each locality.

might be a UK agent or, in Aberese-Ako's (2016, 13) words, 'a native insider as a distrusted spy'. So I decided not to pursue access negotiations with this clinic⁴⁹ and approached the second clinic instead, despite having no one to introduce me.

In the second clinic, obtaining access initially seemed easy and straightforward, but it became more challenging towards the end of the process. I relate the two-month process in some detail here, because it sheds interesting light on a different academic culture, and also on the field itself. The process illuminated clinic hierarchies and the extent to which staff members made assumptions on the basis of those hierarchies, generating various misunderstandings. The story begins where this chapter began, with my first visit to the clinic.

Through the crowd, I spotted a helpdesk in a corner of the main hall of the clinic. Once I had explained the purpose of my visit, the woman at the helpdesk directed me to one of the Research Departments, where I met Dr Parsa, an academic staff member. She welcomed me warmly, asked to see my research proposal, and said that she had also received her PhD from a Western university several years ago. She was fully aware of the obstacles faced by those studying in the West, while carrying out research in Iran, including gatekeepers suspicious of the researcher's motives and identity. Looking at my proposal and the research support letter written by one of my supervisors, Dr Parsa agreed to facilitate and explained the official procedures for gaining access, which included⁵⁰ the following: signing a Memorandum of Understanding (MOU) between the clinic and the University of Warwick, gaining approval for my project from the Research Department of Dr Parsa's clinic, and winning approval from the clinic's ethical committee. Since the draft MOU was not ready, at Dr Parsa's suggestion, I presented my research proposal to her research department instead.

Once I had presented my research aims, the General Practitioner (GP) who headed this research department said, '*You may see people sleeping in sleeping bags outside the clinic. This is what you may not observe in clinics in other parts of the world*'. He

⁴⁹ Later on I realised that I had benefited from this decision, as the architecture of his clinic did not include many waiting areas. It actually distributed clinic users into so many sections that it seemed like a private clinic. The second clinic was structured more like a public hospital in Iran. As a researcher, I could move freely from one place to another among the crowd, which helped me engage with participants and collect data.

⁵⁰ Understanding the obstacles faced by Iranian researchers with Western affiliations was not Dr Parsa's only reason for helping me. During my fieldwork, I had the chance to get to know her better; I realised that it was part of her character to assist people, particularly young people.

constructed the clinic as globally distinctive and noted that its users were from lower income groups, unable to afford the cost of treatment. He seemed to assume that, despite being Iranian, I had lived all my life in the West and was unaware of the specific condition of Iranian IVF clinics or the general financial status of Iranians. Gaining the department's approval gave me unofficial access to the field, where I was restricted to making observations and having informal conversations with clinic users. This informal access proved invaluable, allowing me to orient myself and get to know the clinic's architecture, characteristics, and daily rhythms. It also allowed me to work while navigating the major hurdle of getting a draft MOU agreed between the clinic and the University.

The MOU was designed to be signed by Dr Parsa, as a representative of the clinic, and my supervisors, representing the University of Warwick. It included commitments that suited Iranian, but not British, academic culture. For example, the MOU required the university and the clinic to be represented as co-authors in any publications forthcoming from my research, with the clinic to be named on all such publications. By contrast, the university understood that my work had to be sole-authored. My supervisors were not authorised to sign the MOU on behalf of the whole institution. To tackle this problem, one of my supervisors had a meeting with Warwick Graduate School and a University legal representative; this resulted in a revised draft MOU being presented to Dr Parsa, with a letter from the Chair of the University of Warwick's Graduate School, explaining the British system. This draft MOU was designed to be signed by me as a doctoral researcher and Dr Parsa at the clinic, as the researcher I would liaise with locally. It committed me to co-authoring a paper for publication with an academic staff member of the clinic on a subject allied to, but not the same as, my thesis. The clinic representative signed the revised MOU promptly to facilitate my formal access to the clinic.

At this point, I became aware of murmurs of discontent from clinic staff members. Dr Parsa had to intervene to alleviate their concerns. People were unhappy mainly because, in drafting the MOU, Dr Parsa's research department had undercut an administrative department whose role included drafting MOUs and contracts. In other words, her research department had not conformed to the clinic's hierarchical structure. The administrative department claimed that, since my research had a Western audience, the research department did not have enough knowledge or

information to preserve the clinic's rights. As a precautionary measure, Dr Parsa advised me not to visit the clinic for several days. She was also asked to write a letter to the clinic's Research Deputy, explaining the reasons for her department's disobedience.

Following Dr Parsa's letter and her informal meeting with the clinic's Research Deputy⁵¹, which took a week, I regained my informal access. In the meantime, I prepared to present my research proposal to the clinic's Ethical Committee to get formal access and approval to conduct formal interviews. This meeting was usually held every two months. Those present at the meeting were: Dr Parsa, the head of her research department, the head of the clinic⁵², the Deputy Director of Research, the Deputy Program Manager, an embryologist, the head of the administrative department opposing my access, the Head of the Genetics Laboratory, and myself. In presenting the research proposal, I did not provide a full account of my research aims: I restricted the presentation to general ideas, in the hope of minimising defensiveness among clinic authorities at the prospect of their workplace being analysed by an outsider. In the event, however, they were still defensive and asked me many questions⁵³.

They asked how I was going to choose my sample and its size, why I had chosen only one clinic, as I was planning to include both Sunni and Shia perspectives, how I would guarantee confidentiality for staff members and protect the personal information of clinic users, and how I was planning to depict the private life of the clinic for my public audience. As I answered these questions in full and tried to convince committee members of the integrity of my research, Dr Parsa and the Head of the Research Department were on my side as advocates. Even though I had first approached the clinic alone, with no one to mediate my access, I now had mediators who were part of the clinic. Their support may have partly reflected their awareness of the importance

⁵¹ Later, I realised that the clinic's research deputy and Dr Parsa were close colleagues and that the research deputy had always honoured and respected Dr Parsa. I assume that it was their close collaboration that resolved the misunderstanding between these two departments.

⁵² The Head of the Clinic, the Deputy Director of Research, and the Deputy Program Manager are known as 'The Three Musketeers' among staff members, reflecting their close collaboration since the foundation of the clinic.

⁵³ Scholars have argued that one explanation for the lack of hospital ethnography is the defensiveness of hospital authorities when it comes to having their workplaces studied by researchers (see for example, Van der Geest and Finkler (2004) and Zaman (2008)).

of carrying out a sociological analysis of IVF processes in the clinic. The Head of the Research Department addressed the committee members, pointing out that researchers in Iran were rarely willing to take on the challenge of conducting an ethnography. He may have flagged up the need for an in-depth, prolonged study of the life of the clinic to help me negotiate access. In addition, the journal article I had agreed to co-author and publish in English might boost the ranking of the clinic (and Dr Parsa's department) in and beyond Iran. Eventually, the Head of the Clinic approved my access on 17 January 2016. The process of negotiating access to the clinic gave me an insight into the hierarchical organisation and life of the clinic. I remained sensitive to this issue during my fieldwork, not only when requesting access to various domains, such as laboratories and operation rooms, but also when recruiting staff members for interviews.

Conducting fieldwork in the clinic

My fieldwork started on 31 October 2015, when I was granted unofficial access to the clinic; I left on 16 August 2016. During this period, I spent 101 days (roughly 500 hrs) conducting fieldwork. I went to the clinic four days per week, on average, and each day was distinctive. In fact, every day that I spent in the clinic opened a new window of understanding, into myself as well as everyday clinic life. During this 10-month ethnography, I used various methods to produce data⁵⁴, shaping my approach to fit the clinic's annual and daily cycles.

Processes of observation and partial participation

The clinic had multiple floors and various sections. Every day on my way to fieldwork, I decided which waiting area/s to spend the day in; this decision was driven mainly by the amount of information I had so far obtained from each section. As soon as I arrived, I headed to a specific section and chose a seat where I could watch interactions and

⁵⁴ Ramazanoglu and Holland (2002, 154) use the term 'data production' in place of data collection, arguing that 'information gathered by the researcher is produced in a social process of giving meaning to the social world'.

listen to conversations among and between clinic users and staff members.⁵⁵ After every few hours of observation, I went to the clinic garden to make notes. On many occasions, there were no empty seats available and I was forced to choose another section to observe.

The focus and intensity of my observations shifted over time. During the first couple of months, in addition to watching the actions and listening to the conversations of staff members and clinic users, I was also exploring clinic life and paying attention to people's movements. I was interested to know who was permitted in different rooms and who was denied access. Moreover, since I had not been formally introduced to clinic staff members, many assumed that I was a clinic user. As a result, I was able to ask receptionists about clinic procedures, both to obtain information and to perceive how clinic users were addressed.

My mode of participation in the everyday life of the clinic changed over time. Wind (2008, 79) uses the term 'negotiated interactive observation' rather than 'participant observation' to describe ethnographies in clinical settings. She argues that, in clinics, where and how the observation and participation will and will not take place is constantly being negotiated. The results depend on how the ethnographer is perceived and interpreted by clinic staff members and users. In my fieldwork, with the consent of some of the women clinic users I came to know, I accompanied users from one section of the clinic to another, partially participating in their everyday lives. Other opportunities came only with time; halfway through my fieldwork, having established rapport with staff members through daily interactions and interviews, I was permitted to observe egg retrieval surgery and to see part of the IVF lab. However, I never observed the men's operation rooms⁵⁶ or staff members meetings.

⁵⁵ My permission to observe interactions between staff members was restricted, as I was not allowed to take part in staff meetings or to be present during their tea/lunch breaks.

⁵⁶ Operations in the clinic are performed on the private parts of men's and women's bodies. According to Islamic law, only the spouse and the physician are permitted to see those parts; I did not have either of those roles. However, being a woman made it easier to negotiate with staff members to gain access to the women's operation rooms. Strategically, I never asked for permission to visit the men's operation rooms.

Informal conversations and formal interviews

During my fieldwork, I conducted informal conversations and formal interviews with both clinic users and staff members. The process of recruiting clinic users as interview participants was necessarily lengthy and convoluted, usually beginning with conversations, as I sat among them in the waiting areas. Sometimes I tried to introduce a relevant topic to start a conversation; at other times, women clinic users asked me questions that led to a chat. At first, they perceived me as another clinic user, as they had seen me around the clinic, wearing clothes that were similar to their own. However, at the beginning of each conversation, I demarcated my role by informing them that I was a student and a researcher.

I had informal conversations with more than 50 women clinic users throughout my fieldwork. Some led to an exchange of telephone numbers; in a few cases, I followed a woman on her treatment journey fully or partially; I also conducted formal interviews. In other cases, the women clinic users were too tired to talk. A few exchanged numbers and seemed enthusiastic about discussing their treatment journeys but either never responded to follow-ups, or actively withdrew from participation. Sometimes an interview was interrupted, either because the participant was called by the clinic or because she wanted to leave. Conducting interviews in the clinic setting was certainly challenging. Would-be participants often had no free time; during the interviews, I was always half-listening for their names to be paged, to make sure they didn't miss their appointments. At the same time, this process of getting to know clinic users and negotiating their participation generated valuable insights about their clinic journeys and the pressures they were under, even when it didn't result in a full interview.

When arranging interviews, I first sought verbal consent. Before the interview started, I also asked for written consent. The written consent form was divided into two sections (see Appendix 2). The first section began by giving the participants some information about me and my study: my name, research field, hometown in Iran, and the study's potential impact on the wider community of infertile couples. After this general information, the form invited each potential participant to take part in an interview, mentioning its approximate length and my ethical responsibility for preserving their confidentiality and anonymity. The form asked for permission to record the user's voice and explained that she or he could request access to the

transcript. In the second section, the participant signed to confirm that her/his participation was voluntary and that she/he understood the process. I signed the form to affirm my commitments as a researcher.

Although Dr Parsa booked me a private room in the endocrinology clinic to conduct interviews in, the room was only available in the afternoons; it was also located on a floor that few clinic users visited, making it impractical for those who were waiting for appointments. Halfway through my fieldwork, I mentioned to the clinic andrologist how difficult it was to interview participants because of the room's location. He immediately arranged access to his consultancy room in the mornings, when he didn't need to use it; that became a much more successful venue.

Recruiting men clinic users to take part in this study was particularly challenging, due to gendered norms of segregation reinforced by the Iranian regime. When I asked a man to participate, I either had to find a seat in a row behind him or leave some empty seats between us, so as not to breach social norms. Men were also cautious about being seen interacting with a young woman. On one occasion, I introduced myself, asked if the man would be willing to participate, and pointed to the original interview room. He said that it would create problems for him to be interviewed in that room in private; he was willing to describe his experiences, but only in his wife's presence. This sensitivity about our interactions became less challenging when I was able to use the clinic andrologist's office. In that space, both men and women were more willing to participate. The men were familiar with the room because they had been examined there and associated it with their treatment. It made sense to tell their stories in that room. The women were keen to see the room where their husbands had been treated. In the end, I managed to formally interview 11 clinic users in the clinic setting, and 2 outside the clinic⁵⁷. Three of the interviews were with men clinic users, seven were with women clinic users, and three were with couples (in two of these cases, the wives joined halfway through the interview). I also followed half of my interviewees throughout their treatment cycle/s, as described in the next section.

⁵⁷ Two of my interviewees were keen to talk about their experience as clinic users, but we could not arrange a day for interview during the time they were in the clinic. In fact, one was a clinic user whose husband was infertile. When they visited the clinic, her husband always saw the andrologist, so I could not access the interview room. The other was an egg donor whom I just met before her egg retrieval surgery; she did not visit again during my fieldwork.

Although interviewing staff members also had its challenges, the hierarchical structure I had observed in the clinic gave me some insight into how to go about it. I started with the Head of the Midwifery and Nursing unit, on paper, the third most important person in the labour hierarchy, but the most important in the running of day-to-day clinic activities. On two later occasions, she helped me recruit clinic gynaecologists to interview. Although I followed a similar procedure to seek consent, interviewing staff members was a more systematic process than interviewing clinic users, whose interviews took many different shapes, reflecting their concerns at the stage of treatment they were in. I began by asking staff members about their roles and ended by discussing anything they found dis/satisfactory in their roles and reflecting on the clinic users' experiences with staff members. The majority of staff members emphasised that nobody from outside had ever before been involved in the everyday life of the clinic. When asked about their colleagues, most staff members suggested that I contact the next member of staff to ask for her/his participation. I conducted the bulk of staff interviews immediately before and after the Iranian New Year, when the clinic was much less crowded. In total, I completed 17 staff interviews, two with men and the rest with women, in positions ranging from the head of the clinic and medical practitioners to a receptionist and a cleaner. I have provided a brief biography of each participant (both clinic users and staff members) using pseudonyms in Appendix 1.

Documentary sources

As well as participant observation and interviews, various documentary sources also informed my research. The staff were engaged in producing brochures, booklets, and books about various sections of the clinic and the services it offered; in other words, the clinic was 'self-documenting' (Hammersley and Atkinson 2007, 121). Some written materials (analysed in Chapter 6) presented the clinic as being at the cutting edge of infertility treatment, emphasising scientific progress, while others focussed more on the psychological aspects of infertility, including ways to help infertile couples develop good communication skills. Some brochures that addressed the psychological aspects of IVF were only made available at particular times of year. For example, I noticed that a one-page brochure suggesting ways for infertile couples to manage their emotions was deliberately made available right before the Iranian New

Year holidays (Nowruz), when people are expected to visit one another and infertile couples can expect questions about when they are going to have a baby.

Generally, brochures and booklets on the psychological aspects of treatment were briefer and less evenly distributed throughout the clinic than those covering the latest treatments; this may have been symptomatic of the overall tenor of the clinic as a centre of scientific excellence. The way that these two types of documents were produced and distributed also reflects the structure of power and ongoing tensions among the clinic's staff members, as this thesis will explore. It was particularly striking that no documents authored, published, or circulated in the clinic emphasised religious endorsements of assisted conception. The absence of religious information may have been due to the plurality of fatwas issued. However, it may also suggest that the clinic did not wish to disseminate religious information officially, maintaining that clinic users were responsible for seeking this information themselves.

The clinic also had various documents that functioned as part of its internal processes, such as consent forms for various procedures (e.g. cryopreservation) and contracts between donors and gamete recipients or surrogate mothers and commissioning couples. Medical and legal terms permeated these documents, confusing me as well as the clinic users. Although I do not analyse these documents here, they have informed my insights. To situate the clinic in the wider context of debates about assisted conception, I collated official documents, including the embryo donation law and the parliamentary discussions that introduced it. Using all of these different methods of producing data for this ethnographic study made me the primary tool of data collection (Coffey 2018, Hammersley and Atkinson 2007). I was observing, listening, and interacting with many men and women in the clinic; as an ethnographer, I formed relationships with the men and women clinic users and in establishing these relationships my role was often more than a company. I was also their confidant and advisor.

Ethnographic self and ethnographic other: Being a companion/confidant

Her hands were trembling. She looked nervous and stressed. The seat next to her was the only empty seat I could find in the waiting area between the Donation Clinic and the Men's Operation Rooms. I sat there but didn't know when or how to start a conversation with her (Field notes, 19 Jan 2016).

The excerpt above is an early example of my struggle to start conversations and develop relationships with clinic users. The woman I was sitting next to looked nervous and I was not sure if starting a conversation would benefit her or make her feel worse. Even if it could benefit her, I didn't know how to start. At the same time, as a researcher, I wanted to learn more about her experiences. Having conquered an internal battle and put my hesitations aside, I looked at her and gently asked if her husband had had surgery. She affirmed that he had and told me that it was her first time in this clinic. I then introduced myself as a researcher in Sociology who had been in the clinic for a while and was interested to know about clinic users' experiences. Just as I finished my sentence, she said that when she was given the paper to take to the Discharge Unit, she had no clue where to go. At this moment I realised that I could be helpful and volunteered to direct her. It turned out that she had been given, not just a discharge paper, but also a bottle containing her husband's testicle biopsy to take to a laboratory on another floor of the clinic.

We went up and down between different floors of the clinic several times with this biopsy and on the way, I was constantly concerned about somebody mistakenly pushing her on the crowded stairs such that she dropped it. Then, the surgery, pain, and money would all have been in vain. It was even too difficult for her to pronounce the word testicle biopsy⁵⁸ in front of the lab's receptionists, and she asked to me to do it for her (Field notes, 19 Jan 2016).

In accompanying this clinic user, I was able to assist her in a small way and to experience a small part of her journey in the clinic. We then exchanged numbers and I told her that she could count on me if she faced any problems in the clinic. Later that evening, she rang me, expressed gratitude, and asked whether I knew anything about embryo donation. She perceived me not only as a companion, but also as a confidant, who could help her to navigate the complex, ambiguous, and unknown world of assisted conception.

Indeed, many other clinic users sought my guidance and I undertook to help them to the extent of my knowledge. Many of the clinic users' questions remained unanswered

⁵⁸ There is no exact Farsi equivalent for the word biopsy.

in the busy life of the clinic and they saw me as an educated researcher who had spent several months in the clinic and had talked to many other clinic users. Women showed me their husbands' semen analysis test results and asked for my diagnosis. They asked for lay-person's definitions of medical terms they had heard in consultations: follicle, hyper-stimulation, and the difference between IUI and IVF⁵⁹. When someone asked a question, I usually asked her to draw a picture of her reproductive organs on a piece of paper; I then explained conception and showed her pictures of reproductive substances in the clinic pamphlets. Most of them became very excited and wanted to know more. Questions from clinic users were not confined to the medical aspects of IVF. For example, egg donors asked me questions about the religious endorsement of donation and whether the resulting child would belong to them. On one occasion, after a long conversation with a donor who was waiting to see the social workers, we exchanged numbers and she told me that she had saved my name in her telephone as 'Doctor Sara'.

Through observing, interacting, supporting, and accompanying clinic users, I not only became familiar with their concerns and experiences as the treatment journey progressed, but also experienced those issues emotionally. Perhaps because I was not a family member, neighbour, or friend, they felt they could trust me with their stigmatised, private experience of assisted conception, sharing their stories, tears, fears, and anger. One egg donor even asked me to keep her clinic paperwork and gown, as she was concerned about the repercussions if her family found out that she wanted to donate her eggs.

Ethics of care

When I decided to accompany the woman, whose husband was having surgery in a different part of the clinic, I had not considered that being a companion, advisor, and confidant could be a potential method of inquiry in my fieldwork. Rather, I sought to support and provide emotional care to clinic users within the complicated world of the clinic, seeing it as a way to reduce the potential for exploitation, challenging the power relations between us. Various scholars have highlighted the incompatibility of

⁵⁹ For the majority of these terms there is no Farsi equivalent.

ethnography with feminist methodologies, given the relatively high risk that participants could be manipulated or exploited (Stacey 1988, Abu-Lughod 1990). In this case, the clinic users were able to make use of me, not only as a companion/confidant but also as a source of assistance. For example, because of my constant presence, some users asked me to book their appointments and check with the pharmacy on the availability of their drugs. By engaging in this way in the ebb and flow of users' everyday experience of the clinic, I gained a deeper, expanded understanding of the complexities of assisted conception. So, there were advantages on both sides. Nonetheless, this depth of connection left both sides vulnerable; it required careful consideration of the ethics of care highlighted by scholars positing friendship as a method of inquiry (Owton and Allen-Collinson 2014, Tillmann-Healy 2003).

As my role as companion/confidant also became a research method, I was investing in the clinic users. When some actively withdrew from interviews after I had accompanied or assisted them, were cold to me, failed to respond, or disappeared, I was left feeling hopeless, helpless and disappointed. In other words, their behaviour towards me could make or ruin my day. It was only through time that I learnt to develop 'realistic expectations' in my interactions with the participants, as Kirsch (2005, 2170) recommends. Immersion in the clinic users' everyday lives added an additional layer of emotional experience to my research (feelings of sorrow, sadness, or anguish). In fact, our interactions were shaped by age, education, their feelings and demands, and many other factors.

Listening to stories of treatment failure and families' unmet expectations from clinic users who were crying and in obvious pain constituted what Mounce (2018, 133) has described as a form of 'emotional risk'. Most of the time, I either swallowed my sadness or cried with them. However, just as Mounce recounts, when withdrawing from some of her sad participants to protect herself from being overwhelmed, there were some occasions on which I chose not to accompany clinic users or did not call them. Furthermore, when I did accompany them, as previously mentioned, they sought advice from me – and particularly, medical advice. Being an advisor raised questions about my qualifications and competency in medicine. On these occasions, even though I told them that I did not know very much about infertility treatment, I did not want to disappoint them in a clinic where help and medical advice were extremely scarce.

Some clinic users shared secrets with me, recounting how they had undermined the clinic's policies or deceived the clinic's social workers. In such situations, I maintained full confidentiality, even when it was difficult. I was aware of my responsibilities and also knew that egg donation was a much-needed source of income for some users. On other occasions, I wrestled with ethical dilemmas about my own motives for offering support and the implications of my interventions. For example, I wrote the following in my notebook:

I understand how much they [an infertile couple] want a baby; I'm also aware of their very poor financial status. They can't afford the treatment. I introduced them to a charity I knew for financial help. But was what I did ethical? Did I introduce them to this charity to gain their trust or lead them to a potential source of happiness? If they give birth to a baby, what would be the future of that child be, considering their financial status? (Field notes, 10 Aug 2016).

The couple described above were very poor and had gone through multiple failed IVF cycles. However, each time I met them in the clinic, they emphasised that their wider family expected them to have a child. Although I introduced them to this charity, when the charity responded to their request, I began to question my decision. At the same time, my role as a companion/confidant in the stigmatised world of infertility was time-limited; as I ended my fieldwork and returned to the UK, I withdraw myself as a potential source of support and care for clinic users.

Marginalised statuses: me in the clinic and Iran in the West

Just as clinic users perceived various roles for me, treating me variously as just another patient, a student/researcher, and a companion and confidant, staff members also assigned me various roles, viewing me as a patient, a spy likely to abuse their trust, and a researcher/student; these roles varied, based on the staff member's hierarchical position. My relationship with almost all the staff members I conducted interviews with, apart from one social worker⁶⁰, remained at a professional level. I had little opportunity to develop a rapport with staff members, as I was not a practitioner and

⁶⁰ I interviewed one this social worker once at her home and the second time in a restaurant, at her request, as she said that she was too tired at the end of the day to be interviewed and often left the clinic with a headache. She was the only staff member who thought that my interviews could make staff members rethink and revise their reactions to clinic users. Moreover, she told me several times that my persuasiveness in conducting my fieldwork had made her feel more enthusiastic about playing a more active role in the social life of the clinic.

therefore not permitted to take part in events or staff meetings. By and large, the clinic staff members framed my involvement in the field as a ‘marginal or peripheral member’ (Coffey 2018, 66).

During my first two months of informal access to the clinic, I had concerns about whether the staff members, particularly the receptionists and security guards, recognised me as a non-patient. I took on a ‘novice role’ (Hammersley and Atkinson 2007, 82) and asked many questions⁶¹ that any clinic user might have asked (which I would not have asked had they known I was a researcher). None of them ever asked who I was or why I was constantly in the clinic.⁶² They seemed too busy and tired to be suspicious and their reactions to my questions were similar to those given to other clinic users: rather indifferent and sometimes inaudible, often with no eye contact. But during fieldwork, I became familiar with three of the receptionists and one woman cleaner. They were always very warm and welcoming.

By contrast, the Head of the Midwifery and Nursing Unit recognised me from the beginning. She was aware of my role as a researcher and commented on it more than the other staff members did. After my second encounter with her in the clinic, I wrote in my diary:

Yesterday, I was sitting in the waiting area of the second floor when she [Head of the Midwifery and Nursing Unit] passed. She looked at me and I said hello. Then she asked if I had been sitting to interview someone and I replied ‘No, I am...’ She didn’t let me finish my sentence before saying, ‘*Oh, I see. You are figuring out what is happening, right?*’. I just smiled. Then she saw me again today and said, ‘*Oh, hello Khanom inspector*’ (Field notes, 2 Feb 2016).

In Farsi, ‘Khanom’ is commonly used to refer to a woman who is either married or unmarried⁶³; however, it can also express sarcasm or anger. Although she identified me as a ‘Khanom inspector’, for her I was just a student who would conduct interviews with staff members and patients and then leave the setting.

⁶¹ These questions were usually about how to book an appointment with the clinic, expenses and insurance coverage, and the possibility of mixing the egg and sperm of strangers.

⁶² I am not entirely sure why staff members were not informed of my presence. It may have been a consequence of the considerable number of staff members and the busy life of the clinic.

⁶³ The equivalent of ‘Khanom’ in English is Miss or Mrs.

The clinic staff members whom I didn't approach for an interview generally perceived me as just another patient⁶⁴. The ones I introduced myself and presented consent forms to had various other perceptions of my role. A few staff members did seem to trust me from the start; one clinic midwife told me so when I asked whether I could to record her voice. The clinic andrologist introduced me as Khanom Doctor to his receptionist and considered me a potential future colleague. However, most staff members saw me as a person who could record their voices and later abuse their trust. They were suspicious even after I assured them that I would use the recordings only for the purposes of my research. As an example, as I was resuming an interrupted interview with a gynaecologist, she started questioning the purpose of my study:

She suddenly raised her voice and responded, *'I don't know how it's going to help you? What do you want to know of this? I don't understand. This is not an interview for psychological purposes.* I was shocked to hear the bombardment of her sentences and I felt I couldn't carry on (Field notes, 30 April 2016).

Practitioners were generally too tired and busy to schedule an appointment. They were also worried about any potential problems they might face if they shared their own experiences or those of anonymous clinic users with me. As my time in the clinic advanced, I began to be increasingly framed either as an incompetent researcher or as a spy. Below are some of the comments from staff members, as our paths continually crossed in the clinic:

'Don't you have a life? You're always here. Don't you think your research has taken too long?'

'Why are you always here? Aren't you tired of here [the clinic]??'

'With other colleagues we saw you in the clinic garden yesterday afternoon and we all laughed at you. We said she comes here every morning and leaves after us'.

'We are getting used to your face. What would be the outcome of your study? Maybe, the Queen of England has sent you over here' (Field notes, May and June 2016).

⁶⁴ For example, at the end of May 2016, I went to look for a gynaecologist with whom I had arranged an interview in the gynaecologists' meeting room. As I arrived, the door opened and another gynaecologist left the room. I asked whether I could see the gynaecologist I was due to interview. The first gynaecologist replied that her colleague was praying; angrily, she added that patients were not permitted to see her here, locked the door, and promptly left.

Staff who believed that qualitative methodology involved conducting several interviews and then leaving the field thought that I was taking an unusually long time. Some of them laughed at me and others thought I had intentions other than simply collecting data to write a thesis, particularly as my university was in a Western country with a long history of intervening and interfering in Iran's internal affairs. Obviously, their suspicion was not an unfamiliar reaction; I encountered the same thing when I approached the first clinic to ask about fieldwork. Nonetheless, it reminded me of some of the dilemmas I had faced, even before I starting the fieldwork: How do I perceive my role as an author writing about (a clinic in) Iran and presenting it to a Western audience? Would the picture I was going to depict of Iran serve to fuel Orientalist representations of my homeland as backward and barbaric, or contradict them?

In describing the role of a researcher who translates her culture for an outsider, Shahnaz Khan (2005) uses the term 'the native informant'. According to her and other scholars she cites, I am a third-world native informant investigating my own culture and a 'cultural ambassador' under pressure to provide an authentic picture of Iran (Khan 2005, 2024). Writing about the intersection of religion and medicine for my Western audience could easily serve as a further criticism of my own culture, reinforcing existing stereotypes that associate Middle Eastern cultures with 'irrationality', 'superstition', and 'tradition' (Marcus 2001, 110). In terms of clinic users, my ethnography risked the creation of what Afshar (2008, 411) terms 'a modern-day form of Orientalism', presenting men and women in the clinic as 'suppressed' by the religious discourses that hindered or facilitated infertility treatment and/or 'exotic' because they adhered to religious norms. I was anxious to avoid self-representations that could fuel the existing fires of Islamophobia (Afshar 2008) or be used to justify and naturalise US military hegemony in the Middle East (Khan 2005, Arghavan 2018). I did not want my work used to reinforce a distorted picture of Iran. I was also reminded of my role as a cultural ambassador by the Head of the Clinic, who told me, as I was leaving the field, to be careful what I published about Iran.

Khan (2005) problematises and reconfigures the role of the native informant, arguing that it is possible to produce accounts that are accountable to the local and a challenge to Orientalism. In this reconfigured conversation about the native informant, and

following Mohanty's (1991) position on analysing accounts of women's oppression, Khan calls for an examination of the local in conjunction with the global. Specifically in the context of Iran, Arghavan (2018) cautions against post-colonial portrayals of Iran that are so preoccupied with disavowing Orientalism that they misrepresent the struggles of ordinary Iranians. Instead, he calls for an analysis that goes beyond the dichotomised Occident and Orient to focus on both the ongoing endeavours of Iranians resisting the oppressive practices of the local regime and national struggles over imperialism. For my part, I have sought to produce an ethnographic account of an infertility treatment clinic in Iran that neither exoticises nor demonises the society, recognising the similarities with other infertility clinics while acknowledging the differences posed by Iranian culture and politics. Considering these different layers not only reconfigures my role as a cultural ambassador, but also problematises my perceived position in Iran as an agent for the West.

Exiting the Field and Analysing the Data: A reorientation

Coffey (2018) suggests that leaving the field can be an emotional experience and even a relief. My experience of exiting the clinic combined feelings of loss and relief. It was emotional because I was leaving behind the relationships I had developed with clinic users. I wanted to remain in the field, accompany other women, and learn about their treatment trajectories, but my time was limited. At the same time, I wanted to escape the crowds, sadness, and staff members who avoided me and my questions and/or considered me a spy.

I gradually informed the clinic users whom I had been accompanying about my impending departure. In some cases, we agreed to keep in touch via text messages; I am still in touch with some of them today. I told all the staff members at the same time. On my final day in the clinic, I brought in a box of sweets to share with those I had interviewed. I was conscious that even this gesture could be misinterpreted by clinic users; normally, a woman passing through the clinic with a box of sweets had had a successful treatment and had come back to express her gratitude. Almost all of the staff members I'd interviewed were curious to know what the outcome of my prolonged fieldwork would be. I collected their email addresses so that I could send them a brief report after I finished writing up.

During my fieldwork, I tried to maintain an ongoing dialogue between data production and data analysis. Every day, after leaving the clinic and during my long journey back to my accommodation, I reflected on the events and conversations that had taken place. I also tried to transcribe my interviews as I went along. Due to the intensity of clinical procedures, however, on some occasions I was forced to schedule two interviews in one day or on two consecutive days, limiting my time for systematic analytical reflection on the data.

Having transcribed all of the interviews after leaving the field, I began to organise and reorganise my data, relying on fieldwork reflections and categorising the interviews and field notes into various groups. Each category consisted of two recurrent complex themes that clinic users or staff members were trying to make sense of (e.g. known or unknown donors). Having read the organised data in these categories several times, I came up with three overarching themes related to the intersections of religion, medicine, and gender. Through the process of analysis – systematic attention to the data, engagement with the literature, and thinking and reflecting – I gained a deeper understanding of the complexities of IVF-seeking in the clinic, as well as a ‘thick description’ of the field (Geertz 1993). In other words, although I was no longer physically present in the clinic, I got to know the field in a new way during the process of analysis. To quote Coffey (2018, 74-75), ‘there is a physicality to fieldwork, (...); ending fieldwork requires a reorientation’. Here, I should note that all the data I produced during fieldwork were in my native language, Farsi. Notwithstanding the significant influence of the language people speak on how they express themselves and make sense of their social worlds, I analysed all my data in Farsi⁶⁵. It was only during the writing-up process that I translated them. Following Temple (2009, 14), I see translation as ‘negotiation: a process of deciding how best to try to present people’s lives across languages’. For this reason, I kept some Farsi words that convey specific meanings in Iranian culture.

⁶⁵ Doing analysis in Farsi had other implications, as well. I could not carry out a computer-aided analysis. For example, with Nvivo, one can only work with seven user interface languages which do not include Farsi.

Concluding remarks: Plural identities in conducting fieldwork

This chapter has described how I produced and analysed material for a feminist clinical ethnography. My negotiation with the multiple identities that I adopted or was assigned in the field highlights the complexities of being a researcher and defines some contours of the broader relationship between Iran and the West, two themes that run through this thesis. These research data were not simply produced from one particular position. As Razon and Ross (2012, 495) have discussed, my research was the ‘by product of negotiations’ with my identity and a ‘dynamic process in which the identity claims of the researcher constantly move forward and back’.

Clinic users who saw me several times in various sections of the clinic assumed that my quest for conception had been unsuccessful. To them, I appeared to be an ally in their stigmatised experience of infertility treatment-seeking, with some familiarity with IVF procedures and clinic policies. However, my identity as a companion/confidant was also fluid; as my fieldwork progressed, some clinic users perceived me more as a confidant than a companion. For many clinic staff members, I was just another patient, with questions, ambiguities, and dilemmas that they didn’t have the time or knowledge to deal with. For those aware that I was a researcher, my affiliation with a Western university came increasingly to the fore; they associated the duration of my research with global politics and Iran’s confrontation with the West. Playing all these different roles made it extremely difficult for me to ‘work between the spaces of distance versus intimacy, or involvement versus detachment’ (Coffey 2018, 72). Despite ethical dilemmas and the questions I was asked about the various roles I played, Ribbens and Edwards (1988, 15) have said, I was ‘situated at the interface of the fluid edges between, and the combining of, public, private and personal lives’. The plural identities that I negotiated throughout this fieldwork highlighted local and global analytical issues. Furthermore, these multiple roles also indicated the way in which clinic staff members positioned the clinic and Iran. The next chapter analyses the role of the provision of infertility treatment in situating the clinic and Iran, both nationally and globally.

Chapter 3

‘Iran in microcosm’: Situating the clinic in its religious, cultural, and political context

The clinic: a microcosm of Iran

Halfway through my fieldwork, I interviewed, Mrs Fallah, one of the senior midwives who had worked in the clinic for more than 20 years. She worked in the ultrasound scan unit, along with 22 other midwives, explaining to around 200 women clinic users per day, the outcomes of their ovulation monitoring, and providing instructions on the dosage and timing of hormonal injections. These conversations were not restricted to the medical and physical aspects of treatment but also covered the pressures women clinic users experienced, their desire to have children, and the difficulties they encountered during the treatment trajectory. This midwife’s years of experience gave her a lens through which to critically evaluate clinic policies and ART practices in Iran, in particular, the implementation of third-party involvement in procreation. After interviewing her for 90 minutes, I ended the discussion by asking whether she wanted to add any last words. She replied, *‘Look at Iran and then look at this small clinic. This small clinic is representative of Iran’*. In her view, the clinic mirrored larger religious, cultural, and political conditions in Iran, an intriguing status that this chapter explores.

Throughout my fieldwork, I continued to be intrigued (I still am!) by the fact that Iran, a post-revolutionary conservative Shia state, has come to occupy a unique position in the Muslim world because it practices reproductive technologies, including reproductive donation in the Muslim World; Abbasi-Shavazi et al. (2008, 3) have called this phenomenon, the ‘Iranian ART revolution’. This chapter begins by attempting to explain the emergence and growth of ARTs in Iran, identifying various

historical and contemporary stepping stones that have marked the path toward legitimising these technologies. I begin with an account of the inception of IVF in the Middle East and Iran, emphasising mechanisms that enabled religious authorities in Shia Islam to permit the use of assisted conception. The introduction of these technologies also reflected Iran's political association with the West, a national interest in population size, and government efforts to comprehend the concerns and problems of citizens. The desirability of children and the consequent suffering caused by infertility in the Iranian culture are shaped in part by changes in the state's population policies coupled with economic and cultural factors. As this chapter will demonstrate, Islam, as interpreted and enacted by political and religious Iranian leaders, is not fixed. In this arena, it has been constructed by the larger political and economic circumstances that shape Iranians' reproductive lives.

This chapter's second purpose is to situate the clinic I researched within the wider Iranian ART landscape, introducing the clinic's key features, including layout, services, typical users, staffing, and finances. I explain infertility treatment trajectories in the clinic, focusing on whether particular technologies work on female or male bodies and how infertile couples are processed through clinic procedures. Defining this context descriptively, as well as analytically, provides a foundation for analysis in the following chapters.

An Iranian History of ARTs

After the birth of the world's first IVF baby in 1978, Assisted Reproductive Technologies (ARTs) spread globally, including to Muslim countries of the Middle East. According to Inhorn and Tremayne (2012, 2), 'Since 1986, a Middle Eastern ART industry has been flourishing, with hundreds of mostly private IVF clinics in countries ranging from the small, wealthy Arab Gulf states to the larger but less prosperous nations of North Africa'.

In Iran, as in other Middle-Eastern Muslim countries, physicians sought the opinion of religious leaders before taking the initial steps toward providing IVF. In explaining

how IVF was introduced in Iran⁶⁶, Tremayne and Akhondi (2016) have highlighted an obstetrics congress held in Iran in 1987, to which Professor Safaa Al-Hasani⁶⁷, a champion of IVF in Germany, was invited. His role in establishing infertility clinics and training local physicians in Iran became crucial to this research for two reasons. First, it illustrates the global flows of people in the world of assisted conception. Second, it shows the way in which local considerations and sensibilities have played a crucial role within these global flows of people. It is likely that Professor Al-Hasani was chosen not only because of his expertise in IVF, but also because of his Muslim background.

Iran's first IVF clinic was established in the central city of Yazd; subsequently, the first group of Iranian physicians was sent to Germany to be trained under the supervision of Professor Al-Hasani. Following several failures, Iran's first IVF babies were born in 1991 in Tehran. The clinic investigated in this study was responsible for some of the first babies born in Iran. Thus, the history of the clinic ties in with the history and development of reproductive technologies in Iran. Not only was it one of the country's pioneering early IVF clinics, its former Head also played a crucial role in persuading Iran to enthusiastically adopt procreation technologies, when he sought religious permission to carry out third-party (gamete and embryo) donation. To fully understand the success of ARTs in Iran, we must trace the historical associations between religion and medicine. Iran began to adopt modern medical science in the 19th century.

Iran encountering Western medicine: medical modernisation and religion

The relationship between religion and medicine in Iran has changed significantly over time. Ebrahimnejad (2002, 93) has argued that, 'the change in this relationship was the result of the institutional and theoretical modernization of medicine, as well as the evolution of the socio-political role of the Shia establishment'. To explain this shift, it is important to establish how religion and medicine were linked in Iran before the mid-

⁶⁶ This appears to be the only published resource to narrate the history of IVF in Iran. A summary is included later in this chapter.

⁶⁷ Professor Safaa Al-Hasani is a Clinical Embryologist at the Gynaecology and Obstetrics Clinic of the Medical Faculty of the University of Lübeck. A pioneer in Human Assisted Reproduction, he contributed to the birth of the first IVF baby in Germany in 1982. His CV suggests that he is Muslim and originally from Iraq.

19th century. According to Ebrahimnejad, Islamic medicine derives from the word *tebb*, which means healing, treating, sorcery, and magic⁶⁸. Prior to the second half of the 19th century, medicine and religion were intellectually and institutionally linked. The human intellect was thought to accommodate magical, religious, and astrological causes of health and illness. Faith healing was included in many medical books and written prayers were used to treat various types of diseases. During this period, both medical and religious sources referred diseases unknown to the doctors to God, requiring healing from the Quran. To reconcile religion with non-Islamic sciences, Islamic scholars mixed medical knowledge derived from Galen and Hippocrates with religion, producing a literature that linked sayings of the Prophet or Imams to humoral medicine. Traditional doctors not only used supernatural and spiritual treatments, but also interpreted *hadith* (sayings of the Prophet) in a way that attributed medical knowledge to clerics. It was not unusual in Iran for clerics to practice medicine; if a cleric was unable to provide medical treatment, he was asked to write a prayer to cure the physical illness.

In the 19th century (Qajar period), Iran encountered modern medicine, mainly through the presence of Western physicians (Ebrahimnejad, 2002). Medical reforms were initially introduced as a form of institutional and organisational reform, rather than an attempt to embrace new ideas. During this period, scientific texts combined spiritual, religious, and rational or secular science. This intellectual and institutional transition from traditional to modern medicine did not create any anti-Western backlash among scholars or the public because Iran, at that point, was outside the sphere of colonialism. Traditional doctors identified Western knowledge as neutral, disassociated from colonial domination and power. Medical modernisation loosened the control of Shia clerics over medicine, both institutionally and intellectually. Religion could not endorse new theories of disease, because the anatomy underpinning secrets of body had previously been known only to God. However, despite losing control of medical practice during this period, the Shia clerics became more powerful overall, as a result

⁶⁸ Islamic medicine does not have a Quranic root, but was established under the ruling of Caliph Mamun (813–17 AD) through the translation of Galen and Hippocrates (influential Greek physicians) into Arabic; it expanded through the enlargement of Islamic territories (Ebrahimnejad 2002).

of political and economic changes⁶⁹; this shift allowed medicine to be detached from religion.

As Ebrahimnejad (2002) has noted, the growing power of the Shia establishment allowed clerics, *mullahs*, to interfere in political affairs. In the absence of any lay institutions, mullahs organised popular movements and became the only party to oppose the authority of the state. Their efforts eventually culminated in the 1979 revolution, when religious authorities also became political leaders⁷⁰. This increase in the mullahs' social, political, and economic influence helped them revive and practice the principle of *ijtihad*⁷¹. This not only increased their authority, but also made human understandings of and intervention in *Sharia* (divine law) possible, in contrast to traditional or orthodox versions of Islam. As a result of this individualistic practice, Shia religious leaders are able to present different readings of the Quran and hadith (Ebrahimnejad 2002) and sometimes take opposing views, as discussed in the Introduction. Inhorn and Tremayne (2012, 9) contend that the 'individualistic practice of *ijtihad* has paved the way for the Shia to engage dynamically with most forms of biotechnology'. *Ijtihad* allows Shia Grand Ayatollahs to have multiple opinions on the involvement of third parties in reproduction (Abbasi-Shavazi et al. 2008, Inhorn 2005, Tremayne 2009, 2012b, Inhorn and Tremayne 2012).

Based on this flexible mechanism in Shia Islam, the Supreme Leader of Iran, Ayatollah Khamenei, issued a fatwa (religious verdict) in 1999 that permitted the use of donor technologies. Furthermore, the heterogeneity of opinions surrounding the religious

⁶⁹ Ebrahimnejad (2002) cites three historical factors that increased the autonomy of the mullahs (Shia clerics). First, the Shia establishment controlled both religious legitimacy and waqf (legal or religious endowments) after the fall of the Safavid dynasty (1501–1722 AD). The second factor was a series of 18th-century civil wars, which weakened the power of the state. Third, in the 19th century, mullahs became more financially independent by building a closer alliance with the bazaar, the centre of economic activity in Iran.

⁷⁰ The Iranian Islamic revolution in 1979, however, is not the first instance highlighting the role of the Shia ulama. Indeed, the Constitutional Revolution (1906-1911) demonstrates the relationship between the ulama and the state. According to Moazami (2013), institutionalisation of religion and recognition of ulama as a social class with clearly defined political rights started in the Qajar era (mainly around 1848). As he explains further, ulama provided 'ideological direction' during the Constitutional Revolution (1906-1911) and their involvement later shaped the Constitution (Moazami 2013, 78-79). In other words, the Fundamental Law which was secular and democratic changed into Constitutional Sharia through a coalition between religious figures and the authoritarian Qajar king, backed by Russia.

⁷¹ According to Ebrahimnejad (2002, 106), *ijtihad* is, 'the authority to derive new legal norms from the sacred law and was introduced around the 14th century... to ensure the relation between the community of believers and God in the absence of Imam'.

endorsement of reproductive technologies has led to diverse ways of using donor technologies across Iranian infertility clinics. As Inhorn and Tremayne (2012, 10) have noted, ‘through such liberties offered by the diversity of opinions among the Shia leaders, the users of third-party donation (i.e., doctors and patients) have been able to exercise a great degree of agency and control over actual clinical practices, thereby reinforcing independent understandings of what constitutes kinship and relatedness’. For example, despite the fatwa issued by Iran’s supreme leader affirming sperm donation, the clinic where I conducted my ethnography banned sperm donation, although other Iranian clinics practice it. Embryo donation is also permitted in Iran: on 20 July 2003, the Iranian Parliament (Majlis) ratified the Embryo Donation Bill, which was finally approved by the Guardian Council (higher-level clerics) and enacted into law, becoming fully operative in 2005 (Abbasi-Shavazi et al. 2008). In sum, *ijtihad* has ensured flexible interpretations and reasoning in Sharia among Shia religious leaders. At the same time, religion is not the only factor; important social and political forces are also in play. The Embryo Donation Bill debate, discussed in the next section, provides insight into this broader context.

Beyond religious factors: the politics of ARTs permission and development

The Embryo Donation Bill was discussed in the Iranian parliament three times between 2002 and 2003. According to the transcript, just as parliament members were about to vote on the bill during their last meeting, a Member of Parliament spoke in opposition to it. He argued that the Embryo Donation Bill is ambiguous and did not clearly address breaches in Sharia and notions of kinship as a result of this practice – issues such as who the child belongs to, inheritance and prohibitions of marriage (mahram/na-mahram). The Head of the Commission of Health and Care⁷² responded with another speech supporting the bill:

This story and this bill [embryo donation] that we are passing today has three dimensions: Firstly, it is its scientific dimension that currently in the world, the

⁷² The Commission of Health and Care consists of Members of Parliament, who deal with issues related to public health. The Embryo Donation Bill was first introduced to Parliament through this commission. Furthermore, the Head of the Commission of Health and Care gave a lengthy response to the MP opposing the ratification of the Bill. However, for the purposes of this chapter, I have only discussed part of his response and a fuller discussion is given in chapter 5.

story of IVF is a phenomenon that demonstrates the scientific advancement of the world and is practiced now. It is something which is recognised now. From a social perspective, also, on average 10–15% of couples across the world are suffering from infertility. Due to childlessness, lives and families, well, you know it better than me, are under threat of disintegration and disentanglement. Socially, it is also the country's issue. During this one year, there is not even a single day for us without a telephone call seeking the final outcome of this bill. The Guardian Council patiently dealt with us, since infertility is a social issue. I hope with your final approval and resolving one of the very complicated problems of families, we witness a development, even in the scientific aspect, in the story of embryo transfer to infertile women (Notes of discussion – The Iranian Parliament, 20/06/2003).

His support for the bill emanated from three perspectives. First, practicing reproductive technologies would demonstrate and promote Iran's scientific and technological advancement; second, the bill highlighted the cultural value (for Iranian families) of having a child; third, these technologies seeking to address infertility were in the national interest. These three perspectives are explored further below, in order to highlight the global, national and cultural contexts of ARTs in Iran, that sit alongside the religious context.

Western modernisation and technological enhancement in Iran

As mentioned earlier in this chapter, Iran's encounter with modernity began in the mid-19th century⁷³. Mirsepassi (2000) has identified three important approaches to modernity in Iran. Between the 1960s and 1970s, modernity was embraced uncritically by the ruling Pahlavi Dynasty; the Western model was introduced to completely replace Iranian culture. During this period, the Shah took forward unpopular modernisation projects and strengthened the authoritarian state, leading to very widespread criticism of capitalism and the West. Opponents argued that the universal-modernist scheme, introduced as a single road to prosperity and power, did violence to local cultures. To resist domination by the imperial West, as Mirsepassi (2000, 13) has explained, two other approaches to modernity were formed during this period: 'a

⁷³ Writing about Iran's encounter with modernity, Mirsepassi (2000, 73) has noted that, although modern ideas and institutions in Iran dated back to the mid-19th century, 'the socio-economic relations in Iran remained pre-dominantly pre-capitalist. [...] State-sponsored modernisation programs' were launched during the 1960s and 1970s.

shift to a leftist paradigm of modernity critiquing imperialism and capitalism’ and ‘the return towards Islamist discourses of authenticity’. Of these two approaches, the latter (political Islam) led to the emergence of the Islamic movement,⁷⁴ which articulated an alternative to Western models of modernisation. Hence, the ideology of the Iranian revolution was less a ‘monolithic clash between modernity and tradition’ than ‘an attempt to actualise a modernity accommodated to national, cultural, and historical experiences’ (Mirsepassi 2000, 13).

Based on the ideology of the Islamic revolution in Iran, Iran’s religious leaders (who gained political roles after the revolution) had a positive attitude toward Western technology, including reproductive technologies. Ebrahimnejad (2014, 7) has argued that, ‘such a dramatic position [being in favour of Western technology] from a conservative Shiite cleric would not have taken place had the clerical regime not been in conflict with the West’. Indeed, these permissive fatwas on the adoption of Western technologies (e.g. the involvement of a third-party in reproduction, gender-reassignment surgery, and stem-cell research) were justified, using key Islamic texts as pro-life sciences and technological innovation. Tremayne (2006, 1) has argued that ‘in [some of these fatwas], Islamic leaders have even completely reversed traditional Islamic arguments and have concluded that not only is the use of a particular technology not un-Islamic, but that it is fully in line with Islam’. The rhetoric of the Supreme Leader’s advocacy of biomedical technologies, according to Saniei (2012), evokes a return to the Islamic golden age,⁷⁵ as well as an ambition to gain independence from the West in curing diseases and tackling health issues. Iranian physicians argued that implementing modern technologies would help Iran secure independence from the West. For example, when I asked Dr Fakoor, the senior gynaecologist at the clinic, why she chose to work in the field of infertility treatment, she said:

I was strongly in disagreement [with the reception and development of IVF]. The first time when practicing ARTs, methods of assisting conception, was

⁷⁴ After the Iranian revolution in 1979, the Islamist movement seized power and excluded those on the left.

⁷⁵ During the 11th-century golden age of Islamic civilisation, science was institutionalised, freedom of discourse and thought were established, and many influential scholars contributed to global knowledge, writing in Arabic as the language of science. This era of Islamic enlightenment did not endure and was never repeated in the history of Islam; since that time, science and rationality have declined in Iran and other Islamic countries as a cultural system and way of thinking (Mansouri 2013).

raised in Iran was in 1989. There was a meeting and I was also taking part in that. And I expressed my disagreement. I said in a country where children's diarrhoea is still quite widespread and there are many other problems, I was not in agreement with it at all. Then some of my colleagues in that meeting said that this is a technique. It should be implemented. It should be received. At that time, we didn't have a fellowship in infertility treatment in Iran. They said this is also a problem that patients are facing and many are travelling to the West to be treated. Therefore, this issue should be resolved here. Moreover, this is also a technology and this technology in this country also should be implemented (...) [At the beginning] I was thinking it [ARTs] doesn't have a priority but colleagues and later I myself came to this conclusion that we need to use the new technologies which are invented in the world.

The excerpt above highlights the fact that Dr Fakoor changed her mind because she compared Iran with and invoked the West. Initially, she did not want Iran to prioritise, invest in the necessary training, or buy the technology, equipment, or supplies needed to provide assisted conception, while many diseases still threatened the lives of children. However, the meeting convinced her that this technology would give Iranian practitioners some of the status of the West by enabling them to treat medical problems that could only be cured in the West. It would also position Iran as one of the countries across the globe that received and implemented the latest technologies.

As Tremayne and Akhondi (2016) argue, the evolution of ARTs in Iran is also linked to the interests of the Iranian state in the reproductive life of Iranians and the setting of population policies. In demonstrating this link, I will elaborate on the historic ebbs and flows in the country's population policies and explain the impact of these policies on the evolution of reproductive technologies. Looking at the history of population policies in Iran also signifies changes in gender politics and perceptions of parenthood (motherhood).

(In) fertility as a national issue

Historically, state policies on reproduction have gone hand-in-hand with religion; however, this pattern has changed significantly over time. The state's involvement in the health and reproductive life of Iranians, according to Kashani-Sabet (2011), dates back to the Qajar Dynasty (mid-19th and early 20th centuries). At this time, Iran was facing a high prevalence of epidemic diseases (including plague and cholera) due to

poor sanitation; this led to a high mortality rate, particularly infant and maternal mortality.

In the interest of building a stronger nation, Persian journals and newspapers, as well as the Sanitary Council and Society of Physicians in Tehran, highlighted the need for sanitation. The hygiene movement brought women's health issues and education to the fore, since women were considered responsible for hygiene maintenance and childcare in the national interest. While the hygiene movement and policies of state maternalism had an impact on improving the health and educational conditions of women, they also reinforced compulsory motherhood. Tremayne and Akhondi (2016) have argued that the state's pronatalist policies appealed to Iranians in this era because Islamic ideas were used to justify approaches to parenting and maternity. In Islam, motherhood is highly praised (Hasanpoor-Azghady, Simbar, and Vedadhir 2015); Islam is considered a pronatalist religion (Inhorn and Tremayne 2012).

In 1967, after the downfall of the Qajar dynasty and during the second half of the Pahlavi era, the state introduced a family-planning programme to reduce population growth, which was endorsed by the religious authorities⁷⁶. The programme's primary target group was urban middle-class women. During the implementation of this programme, fertility declined moderately. However, the family-planning programme was less successful than hoped due to its top-down nature (Tremayne and Akhondi 2016). Abbasi-Shavazi et al. (2009) have argued that the family-planning programme introduced before the Iranian revolution provided a foundation for the much more effective family-planning programme introduced after the revolution. It should be noted that, in the Pahlavi era, the family-planning programme sought to reduce family size but not to discourage mothering. Other policies were introduced to make motherhood more appealing to women. These included annual celebrations, such as Mother's Day and annual celebrations of 'exemplary mothers'.⁷⁷ During this period, despite women's presence in the professional workplace, motherhood and family life

⁷⁶ Abbasi-Shavazi et al. (2009, 23) has noted the religious endorsement of the family-planning programme pre-revolution: 'in 1964, a fatwa was issued by Sheikh Bahaodin Mahallati indicating that the use of contraceptives is permitted if they are temporary and do not make the woman sterile'.

⁷⁷ A campaign celebrating 'exemplary mothers' was run by the daily newspaper in 1967, in which 'the mothers feted had birthed numerous children, although some attention was also paid to the upbringing of children by exemplary mothers' (Kashani-Sabet 2011, 202).

were still imperative for achieving womanhood; they were considered to be women's commitments (Kashani-Sabet 2011).

Alongside the family-planning programme, as a state mechanism for achieving social reform and Westernisation/modernisation, other changes were initiated that increased the status of women during the Pahlavi era. Women obtained suffrage in 1963, the 1967 Family Protection Law granted certain rights to Iranian women; some restrictions were applied to polygamy and men's unilateral right to divorce. A man could not marry a second wife without the first wife's written consent; the legal age for marriage increased to 18 and 20 for women and men respectively (Abbasi-Shavazi et al. 2009).

After the 1979 Islamic revolution in Iran, the state's family-planning programme changed three times. Each time, Islamic scholars used Islamic values to justify the change. Population policies immediately after the revolution, as Abbasi-Shavazi et al. (2009) have shown, were generally pro-natalist. Religious leaders argued that the family-planning programme implemented during the Pahlavi era undermined Islamic values and had Western roots. Instead, these leaders emphasised marriage and family formation as basic Islamic values and encouraged early marriage. Soon after the revolution, the Ministry of Health Office of Family Planning was abolished and the legal age for marriage was reduced to 13 for girls and 15 for boys⁷⁸. At the same time, the war between Iran and Iraq (begun in September 1980) created a pro-natalist atmosphere amid heavy casualties. Large families were given priority by the government, which aimed to meet their basic needs. This policy influenced Iranian perceptions of the 'cost and benefit' of having children. As a result, the 1986 census showed unexpected population growth in 1976–1986 (an average annual rate of 3.9%) leading the state to reconstruct its population policies. Policymakers held meetings with religious leaders and gained their support for implementing a family-planning programme; the announcement referred to Imam Khomeini's fatwa legitimising the use of contraceptives by couples. The family-planning programme was revived very successfully, causing a rapid decline in population growth. According to Karamouzian et al. (2014, 232), 'the Total Fertility Rate (TFR) in Iran has declined from 6.5 in 1960

⁷⁸ According to Afshar (1998), men also regained the unreciprocated right to practice polygamy after the revolution.

to 1.6 in 2012...it was the speed and the level of decline in the TFR that surpassed everyone's expectations, a target set to be met by 2011, was already met by 2002'.

To avoid making the programme seem anti-natalist, policymakers did not use the words 'reduction' or 'control' and named the campaign instead, 'regulation of the family' (Tremayne 2009, 144). Thus, the campaign encompassed both programs to reduce the family size as well as infertility treatment. Also, to justify implementing a family-planning programme, some of the clerics argued that 'Islam does not necessarily advocate large families, but encourages better quality of life and health for mothers and babies, which can be achieved by having fewer children' (Tremayne and Akhondi (2016, 64). These policies also integrated reproduction into national identity by arguing that 'it was the duty of the citizens to help the state build a strong, independent [of foreign interference and colonialism], healthy and well-educated Muslim nation' (Tremayne and Akhondi 2016, 64).

Alongside policy measures, the cultural, social, and economic situation of the country also facilitated public adoption of the family-planning programme. After the revolution, the health network was expanded, particularly in rural areas, reducing the infant mortality rate and thus the demand for births. The literacy rate also increased and the substantial gender gap in education narrowed. Women stayed in education longer, which increased their age at marriage and reduced their reproductive lifespan (Abbasi-Shavazi, McDonald, and Hosseini-Chavoshi 2009). In fact, Tremayne (2004) reports that, while the official family-planning programme was launched in 1989, the fertility rate had already started to decline in 1984, indicating that the campaign was not wholly responsible for changing Iranian reproductive practices. During this period, while the state encouraged smaller families, motherhood was still highly praised and glorified, promoting the image of home-based, obedient women (Gheytanchi 2001).

The 1980–1990s family-planning programme resulted in a rapid drop in the fertility rate below replacement level, opening up debates about population size and the need to revisit anti-natalist policies. These debates, initiated in 2012 by Mahmood Ahmadinejad, the former president of Iran, advocated for an increase in the population up to 150 million people, a target soon supported by the Supreme Leader of Iran. Policymakers put some restrictions on contraceptive use and birth-limiting surgeries (Karamouzian, Sharifi, and Haghdoost 2014) in the interests of 'building a strong

nation', ironically the same explanation used to justify the 1980–1990 family-planning programme (Tremayne and Akhondi 2016: 64). Yet, this time around, Iranians of reproductive age did not transform their reproductive practices to fully comply with the new policies. Tremayne and Akhondi (2016) suggest that Iranians, who had high literacy rates as well as economic hardship,⁷⁹ continued to be influenced by the successful family-planning programme of the 1980–1990s. Despite this history, having children remains highly desirable in Iran, contributing to the growth of ARTs, as further discussed below.

According to Tremayne and Akhondi (2016), even though the 1986-1996 programme was very effective in reducing the population size, infertility was not adequately addressed. The expansion of IVF centres was mainly in the (expensive) private sector and infertility treatment expenses were not covered by medical insurance schemes. In recent pronatalist policies, the Iranian state has made a more serious commitment, encouraging insurance companies to cover some treatment expenses and expanding IVF centres within the public sector. These efforts, albeit small compared to the magnitude of the demand, highlight the association between policies at the national scale and the expansion of IVF in Iran. Further, this expansion in infertility treatment both reflects and reproduces normative kin relations in Iranian society; children should be genetically related to parents, only married heterosexual couples should reproduce and such reproduction fulfils the expected roles of men and women. The next section turns in more detail to the cultural dimensions of reproduction, focussing more closely on my fieldwork findings.

Infertility as a social problem: 'Is it possible for a couple to be married, yet childless in Iran?'

In the waiting area of the operation theatres, a man holding a women's handbag was called by a nurse. He was told that due to a problem, doctors had been unable to retrieve his wife's eggs. He suddenly dropped the bag in his hand and with a loud voice said, 'what should I then say to my mum? I am fed up'. It was so bad of him to say this in public [of people standing around] (Fieldnotes, 3 May 2016).

⁷⁹ According to the World Bank, in 2016, the Total Fertility Rate (TFR) in Iran was 1.7, which is considerably below the replacement level (TFR=2.05)

The above anecdote was narrated to me by Nasim, one of my participants, during an informal conversation. A common theme in conversations with clinic users and staff members was the extent to which patients felt the need to fulfil the expectations of wider social groups, including extended family, neighbours, and colleagues – by having a child. This illustrates the importance of having a child in Iranian culture, even at a time when the fertility rate has declined dramatically and high fertility is less valued than it once was.

Comparing the motivations for having a child in Western and non-Western societies, Inhorn (2003) has argued that, in most Western societies, whether or not to have a child is perceived as a matter of personal choice, with the same weight as other life goals, such as pursuing a professional career. In other parts of the world, social and economic factors make children particularly desirable. She points to three general categories of reasons for having a child in non-Western contexts: 1) social security, when children are needed to support their parents financially and in old age, for example through their labour; 2) social power, when children are valuable power resources, particularly for women in patriarchal societies; and 3) social perpetuity desires, when children are needed to continue kin-based family systems. As in other developing countries, children in Iran are highly valued for similar reasons. Sheykhi (2009) contends that, despite social pressure to have smaller families, children are a source of happiness within Iranian families. They give the family status and particularly empower women; they are also perceived as a source of support in their parents' old age. Abbasi-Shavazi et al. (2008, 12) describe, on the basis of an empirical study, the following benefits of having a child: 'having children leads to perceived emotional succour, higher social prestige, marital security, socioeconomic support, and fulfilment of the religious duty to be fruitful and multiply'.

Many of the reasons explored in the literature were cited by clinic users and staff in response to my question, 'is it possible to be married, yet childless, in Iran? Alongside the desire for perpetuity, support in old age, and stability for the family, many people said that children bring blessing to a house. According to both religious and lay beliefs, children are a source of blessing. Children bring God-given prosperity, which a house without children lacks. At the same time, it was also clear that the expectations of the clinic users' parents and wider social networks influenced them to pursue infertility

treatment. In one interview, a man clinic user, Reza, responded to my question about being married but childless in Iran by saying:

Yes, why impossible? You can stay together quite easily but everybody else is constantly saying what we will do when we get old? Well, we will do whatever others do. What is a child going to do for us? What have I done for my parents that I expect my child to do the same for me? (...) All the world and life are not restricted to a child, but what about other people's conversations? (...) My wife likes to have a child but she can put up with not having it. But it's all because of what others keep saying. For example, in this issue [being childless] my mum irritates us a lot. Umm, not irritating but she strictly follows our treatment trajectory and insists that she wants to see her grandchild.

Three women clinic users put it this way:

Marrying to have a child? Never! But my father once told me that he wanted to have a grandchild, have one child at least. I am feeling embarrassed.

I am not upset for myself anymore. I think it's more because of what other people say. Just want to have a child and my father-in-law closes his mouth.

It is possible. My neighbour has undergone 5–6 ICSI cycles but they are still childless. She is desperate [for a child]. My aunt asked me if I want to stay with my husband if forever it would be impossible for him to have a child [of his own] and I said yes. I won't leave my husband for the sake of having a child (...) they [their wider family] ask many questions. They say we don't have enough financial resources and we are investing financially hugely, the outcome would be a failure and our stove will be cold⁸⁰.

All these excerpts highlight the pressure from family members that clinic users face. Indeed, in some cases they say they could be reconciled to infertility but they continue to pursue treatment to fulfil the expectations and demands of their wider kin groups. Some clinic users felt that having a child was akin to other life accomplishments, such as owning a car or a house. They constantly compared themselves to people with children, seeing childlessness as a disruption in the course of their lives. They wanted to have a child so as to not to be othered or to miss out on intrinsic benefits. As one woman clinic user put it:

I don't really know if I sincerely want a child or not. Prior to knowing that there is a problem, I didn't like to have a child. But since the day I have realised that there is a problem, it seemed as if I had failed in an important exam. I said to myself, I should be successful in this race, too, to not have anything less [than others]. Otherwise, based on my own perspective, I don't perceive happiness in having a child at all. They [children] create a huge hassle.

⁸⁰ Childless couples are often referred to using terms such as 'cold stove' (Hasanpoor-Azghady, Simbar, and Vedadhir 2015), to suggest a lack of heat and excitement in families that don't have children around.

Looking closely at the above quotes, I want to extend the concept that Inhorn uses – the desirability of children – to explain the consequences of infertility. In the Iranian context, it is not only the intrinsic desirability of children that drives infertile couples to seek fertility treatments, but also the *normativity* of having a child. In fact, having a child is perceived to be an entitlement. Desiring a child cannot be understood merely in relation to the agency of a particular couple; it is also necessary to consider the social structures that make it normative to have a child. Childless couples are stigmatised, referred to as ‘cold stoves’ or people who have ‘no continuation’. Moreover, this stigmatisation is gendered and includes self-stigmatisation. According to the clinic staff, the infertile couple’s masculinity and femininity are questioned. Infertile women see themselves as ‘useless’, ‘unproductive’, ‘incomplete’, ‘faulty’, and ‘unhealthy’, particularly those who are financially dependent on their husbands and who live in small towns or deprived areas.

There are four potential solutions for an involuntarily childless couple in Iran: to get divorced⁸¹ (which is recognised in the law) and remarry; to remain childless; to adopt a child; or to pursue infertility treatment. Adoption is generally not a feasible option. Tremayne and Akhondi (2016, 65) have made the point that, ‘although adoption has been allowed and practiced in Iran since the 1960s⁸², it has not been considered as a genuine substitute for having one’s own biological children (...) having children remains an imperative in the Middle Eastern cultures, where biological relatedness remains the only acceptable form of procreation’. In fact, breaching normative notions of relatedness is not the only obstacle to adoption for infertile couples. Although couples have the right to legally adopt an orphan and transfer their surnames to that child, Sharia states that, ‘giving the child a name does not give him or her the right to an affiliation with an individual of the same name or to demand a portion of his inheritance’ (Sonbol 1995, 61). To resolve the problem with inheritance while maintaining legal adoption, the State Welfare Organisation of Iran requires applicants

⁸¹ Tremayne and Akhondi (2016, 63) have articulated that, ‘being mindful of the importance of fertility in Iranian culture, a clause was added to the enactment of family protection law in 1974, which gave men and women an additional right to divorce their spouse if he or she proved to be infertile’. This clause is still in place.

⁸² Iran is again exceptional in the question of adoption; according to Islamic law, legal adoption is forbidden. Adoption law gives Iranian couples the right to legally adopt an orphan and to transfer their surname to the adopted child (Abbasi-Shavazi et al. 2008).

to transfer one-third of their properties officially to the orphan they want to adopt. Despite their willingness to adopt, many clinic users were either financially unable to make such transfers or concerned about transferring property to a child who, in adulthood, might demand that property⁸³.

In these circumstances, many infertile couples resort to reproductive technologies to alleviate their suffering. Since fertility treatment is in the interest of the state, from a religious and population-policy perspective, the number of infertility treatment clinics has grown rapidly in Iran. According to Tremayne and Akhondi (2016), 61 clinics (24 public and 37 private) operate in the capital and some major cities. ‘Amid the expansion of infertility clinics, the state’s occasional interest in infertility has stemmed from its focus on nation building rather than the actual treatment of infertility’ (Tremayne and Akhondi 2016, 66). In fact, the state has not always focused on infertility; its periodic interest has been chiefly linked to population policies, rather than alleviating the sufferings of infertile couples. In setting up these policies, physicians, policymakers, and religious leaders have joined forces to justify population policies through religious discourse (fatwas). Some clinic users I had conversations with argued that the underlying reason for the fatwas permitting gamete donation was the decline in population growth.

Having discussed the high demand for children in Iranian culture, and assisted conception as one of the principal solutions that infertile couples turn to fulfil this desire, the next section of this paper will focus on ARTs in the Iranian context, particularly in the clinic where this ethnographic research was carried out.

The clinic context: situation and key features in the Iranian ARTs landscape

According to one of the senior gynaecologists, Dr Fakoor, the clinic that provided the basis for this research was established in the early 1990s as a semi-public⁸⁴, non-profit

⁸³ For example, if adoptive parents own only one house and transfer ownership partially to the adopted child, they may worry that the child could sell his/her own portion of the house in adulthood, leaving them homeless in their old age. However, being in good financial condition is not the only criteria for adopting a child. I talked to a disabled man in the clinic who could afford to transfer one house to the adopted child; in his case, the State Welfare Organisation had declined his request to adopt, arguing that he was not physically healthy.

⁸⁴ It is a semi-public clinic, not owned by a person or group of people or funded by the state.

organisation, affiliated to a public, non-governmental institute of higher education. This institute was established after the revolution, with the aim of engaging in innovative research and development projects in different science and technology fields. The clinic's affiliation with institute indicated that the clinic supported its mission of seeking independence from the West in science and technology.

The clinic was originally housed in a small, formerly residential building; the only treatment it offered was ovulation induction. For some time, only intra-uterine insemination (IUI) was available, as no embryologists had been trained and no apparatuses had been imported to Iran. Since its inception, however, the clinic has developed considerably, both physically and technically. As it is now one of several pioneering clinics treating infertility, its research activities and innovations are regularly featured in the Iranian media. As a result, it is very popular and crowded.

Most of the clinic users belong to the low-income demographic category and many travel to the clinic from distant and deprived areas. As a result, they are under significant financial pressure to cover their treatment expenses. Lower-income couples are particularly attracted to this clinic for two reasons: the treatment is cheaper than in other equally popular clinics and, more importantly, charitable organisations supervised by the state pay a good portion of the treatment expenses for some low-income infertile couples and even refer them to this clinic. Iran's political interest in population size is demonstrated by its willingness to pay some of the costs of treatment. However, treatment expenses are not paid in full and couples still struggle financially to afford treatment. I often overheard conversations between clinic users and the finance staff about payment problems; the staff typically asked users to pay what they could afford now and the rest on their next visit to the clinic.

To further situate the clinic in the wider context of Iranian ARTs, I briefly visited four other clinics⁸⁵ towards the end of this fieldwork. Two were private clinics run by two senior men gynaecologists; the third was a small unit in a public hospital and the fourth was a semi-public non-profit organisation. While visiting these clinics, I paid particular attention to the treatment costs, types of treatments offered, profile of

⁸⁵ Samin, a woman clinic user with whom I investigated some other clinics, was very helpful in generating these data. As she was asking other clinics about options and procedures for using a donated embryo or sperm, she generously allowed me to accompany her.

infertile couples using the facilities, and layout. The sections that follow will provide context by comparing the clinic I researched with these others.

The interior and exterior layout of the clinic

Around the mid-1990s, the researched clinic moved to its current building, which was constructed to provide infertility treatment. Past the main gate of the clinic, several steps lead to the ground floor. The architectural complexity of the interior layout is a striking feature. There are long corridors with other corridors branching off them, making it hard for clinic users to find their way around. One floor is used mainly for diagnostic purposes; it houses the doctors' consultation rooms and ultrasound and colour Doppler ultrasound equipment. Other floors are used mainly for therapeutic purposes: the first floor houses the IVF lab, PGD lab, IVF operations rooms, endocrinology department, operation rooms (for both men and women), anaesthesiology department, and donation clinic. As some clinic users come from other countries, including Iraq, Syria and Lebanon, a separate section is provided for them to rest in; a woman translator is assigned to each Arab couple. Another floor has sample rooms for spermograms, the radiology department, and a laboratory for routine and blood tests. The other important feature of the clinic's interior layout is the waiting areas. Each floor has multiple waiting areas that make the clinic resemble an Iranian public hospital, rather than a private clinic⁸⁶. In the three other clinics I visited, each section and its waiting area was detached from other sections by a door, reducing interactions among clinic users waiting in different sections. The researched clinic did not offer the same level of privacy.

Clinic services and staff

The researched clinic offers a wide range of services to clinic users; at the time of my fieldwork, it consisted of several (sub) clinics, including the obstetrics and andrology sub-clinics, as well as genetic counselling, psychological counselling, and donations. IUI, IVF and ICSI treatments were delivered throughout the clinic, which had its own laboratory facilities and techniques for freezing the reproductive substances of clinic users and genetically screening embryos. Egg and embryo donation, as well as

⁸⁶ In referring to the clinic, clinic users often used the word 'hospital', rather than 'clinic'. However, in actual fact, it was a day clinic.

gestational surrogacy, were practised, despite difficulties. However, sperm donation was strictly banned. In fact, sperm donation was practiced in only one of the three other clinics that I visited briefly during my fieldwork. Interestingly, that clinic did not openly refer to ‘sperm donation’. When I rang to ask whether the clinic practised sperm donation, I received a negative response. However, I also visited that clinic with a study participant whose husband was infertile. When she explained her problem to a social worker, she was told that the clinic didn’t have a ‘completed donated embryo’⁸⁷. The social worker used the phrase, ‘not a completed donated embryo’ to avoid mentioning in public the stigmatised practice of sperm donation. In fact, this phrase denotes an ‘uncompleted’ donated embryo; i.e., only the donated sperm component of an embryo. Chapter 5 explains why sperm donation is such a sensitive topic in the Iranian context.

The number of clinic staff members offering these services has increased considerably over the years. When the clinic was first established, it had approximately 10 employees; 15 years later, at the time of my fieldwork, the clinic had over 100 staff members, including medical practitioners (obstetrician/gynaecologists and andrologists), nurses and midwives, laboratory technicians, endocrinologists and embryologists, security guards, cleaners, receptionists, and HR staff. The majority of staff members were women. The gynaecologists (approximately 10), midwives (more than 25), nurses working in the IVF operation rooms and women’s operation rooms (around 15) and receptionists (more than 15) were all women. The only sections restricted to men employees were the men’s clinic, men’s operation rooms, and security department. There were three men andrologists, two men receptionists, and four men working as security guards.⁸⁸

One striking feature was the staff dress code, as each person wore a colour that denoted his or her role. For example, the gynaecologists and andrologists wore green uniforms, the midwives and senior nurses wore navy-blue uniforms, the junior nurses wore light

⁸⁸ As I was only able to enter the IVF and clinical labs once, I cannot provide an accurate estimate of the number of the staff members working there. Based on a quick observation, however, the ratio of men to women seemed more balanced.

blue and the cleaners wore dark brown⁸⁹. While the official head of the clinic was a man, the most authoritative person in the clinic was a woman; as Head of the Midwifery and Nursing Unit, she had worked for the clinic since its inception. I observed, and the clinic receptionists confirmed, that the clinic could not function properly without her. Similarly, the women gynaecologists had more power than the men andrologists, both in relation to medical decisions and to internal, managerial decisions. I will explain the reason for the higher power of women gynaecologists in the next chapter.

Treatment cycles and clinic routines

In the researched clinic, appointments were booked in advance. Due to the high number of clinic users (on average, 500 couples daily, according to the Head of Nursing and Midwifery) and shortage of staff, clinic users typically waited several hours for their appointments. The ages of women admitted to the clinic were restricted to 18–44 years; there were no age restrictions for men. As Iran has no official regulations or guidelines for egg donation or surrogacy, the clinic used its own screening strategies to choose donors and recipients, considering the donor's age, mental and physical health, and number of donations, as well as other criteria.

The core medical staff relied on teamwork and substitutability to deliver treatment; this was a striking feature that I did not observe in other clinics⁹⁰. Although the clinic assigned a gynaecologist and andrologist to each registered couple, the clinic users generally saw whichever doctors were available, rather than their designated gynaecologist and andrologist. Dr Fakoor, the senior gynaecologist, explained that this was mainly because of the high number of clinic users. The clinic medical staff were a very homogeneous team, sharing the same medical knowledge and practices; this

⁸⁹ By uniform, I mean the official uniform in Iran, which for women is a robe, trousers, and scarf and for men is a shirt and trousers. After the revolution, men were forbidden to wear ties in civil service organisations, as men with ties are associated with Western culture. Quite strikingly, men working in one of the private clinics I visited did wear ties, implying that the clinic offered treatment to more affluent and 'modernised' people.

⁹⁰The private clinics I visited were run by a single person, under intensive supervision.

was reinforced through weekly team meetings and discussions. As Dr Farid, a junior gynaecologist, explained:

All the gynaecologists have been working here for at least 10 years. We meet once a week and review treatment protocols. For example, we all know what sets of tests we need to ask for a patient with amenorrhea (absence of menstruation). All of these are in a form of instructions. I won't ask for one test while my colleague asks for another. Even if one of us is absent from the meeting for any reason, these instructions are printed and given to her. By and large, we all work in a similar way, approximately.

Although the clinic published brochures to help clinic users understand the medical aspects of their treatment journeys, they did not explain the treatment in simple terms. There were no support groups for clinic users in any of the clinics I visited. The researched clinic was open every day, from 6am until about 9pm, apart from Fridays (the weekend in Iran). It closed for 15 consecutive days during the Iranian New Year period. The staff scheduled all treatment procedures so that they would be completed before this holiday period. No new infertile couples were admitted during the month before the New Year holiday or immediately afterwards, when the clinic was resuming its routine. Most appointments were booked for the morning, as more gynaecologists were available in the morning than the afternoon. The clinic was therefore much less crowded in the afternoon and evening. During Ramadan, the women's clinic did not admit any clinic users in the afternoon and the clinic was distinctly less crowded.

Clinic economy

Funding for the clinic came from three different sources: clinic users paying for treatment, the affiliated institute, and the state (to cover some research). Although clinic users were expected to pay the clinic for treatment, they were not directly involved in financial exchanges with staff members. Of all the clinics I visited, the researched clinic had the lowest fees, particularly in comparison to the two private clinics. It did not seek to profit from third-party donation and was the only clinic in which embryo donation was practiced free of charge, in accordance with the law. It paid egg donors more money than the other clinics, to the point where it had to limit the number of times a woman could donate eggs. In financial transactions related to surrogate motherhood, the clinic simply mediated between surrogates and applicants.

So far, this chapter has explained how broad, national factors (including religion and politics) have shaped the way in which technologies of assisted conception have been received and adjusted in Iran. In describing the clinic, this chapter has situated it within the larger landscape of Iranian infertility treatment centres. However, in moving from an explanation of national policies to a description of one small clinic, I am not suggesting that the clinic merely receives and implements national practices. Rather, local and national transformations are linked and interconnected. In fact, the clinic was established only a few years after the congress (held in 1987 in Iran) that Tremayne and Akhondi (2016) have identified as the starting point for the adoption of IVF. After that congress, the senior managers at the clinic were actively engaged in lobbying religious leaders to persuade them to endorse third-party donation. Since 1999, when the Supreme Leader of Iran issued the fatwa permitting gamete donation (egg and sperm donation), sperm donation has never been practised in the clinic. During my fieldwork, I attended a talk given by one of the clinic gynaecologists on preserving fertility and the significance and implications of this practice in contemporary Iran. This talk indicates that the clinic is paving the way towards legitimising and normalising the preservation of the fertility of single Iranian women over 35 years old. In my interview with the Head of the clinic, he mentioned having organised several meetings with the Ministry of Health to discuss the practicalities of a registry system for gamete donation. In the development of IVF treatment, the local-national relationship is not unidirectional.

Conclusions: Explaining the adoption of ARTs and situating the clinic

This chapter has set out the cultural, legal, religious, and political framework for the adoption and development of reproductive technologies in Iran. The ‘Iranian ART revolution’ needs to be interpreted and understood within the historical and contemporary context of Iran. Religion, which has traditionally had a close and explicit relationship with medicine, grew to have less connection, influence, or control over medical practice after the Iranian medical reform and the secularisation of medicine in the second half of the 19th century. During this era, however, the increased power of Shia religious leaders led to a revival of *ijtihad* – the individual practice of interpreting and reasoning in Sharia. Eventually, the Islamic revolution gave religious

leaders political as well as religious power. Iran's religious leaders' affirmation of technological and scientific innovation contrasts with their other, very conservative viewpoints and policies, which have also (for example) reduced the age of marriage and restored men's unilateral right to divorce. However, by resorting to *ijtihad*, they issued fatwas and paved the way for the adoption and development of modern technologies, such as ARTs. Iran's population policies and implementation of biotechnologies encompass this close collaboration between medical practitioners and religious authorities; in Tremayne's (2004, 197) words, they are 'a clear example of the interaction between politics and reproduction'. Such collaborations cannot happen in a vacuum.

Ebrahimnejad (2014, 6) contends that 'the development of science in the modern period has always been affected by power relationships; cultural, religious and racial differences; and conflicts at national and international scales'. According to him, the adoption of Western sciences and the reinterpretation of Islamic rules would never have taken place if Iran's theological regime had not been in conflict with the West, specifically after the 1979 revolution. Ayatollah Khamenei's fatwa permitting the use of various types of reproductive technologies was rooted in his rhetoric of a return to the Islamic golden age and Iran's independence from the West, achieved in part by curing and overcoming illnesses. At the same time, as Clarke (2007a, 302), has noted, 'perhaps, Ayatollah Khamenei would like to be seen as, or genuinely is, in touch with people's contemporary problems, and the potential solutions that modern medical technology may offer'.

The birth and development of the clinic I studied – like 60 other infertility treatment clinics in Iran – clearly demonstrate the entangled interactions between higher political dynamics and the everyday struggles of people suffering from the stigma of infertility. The clinic offers a solution to the sufferings of infertile Iranian couples through various types of treatment. Some of the clinic's decisions and policies are purely internal (daily and annual cycles); some partly reflect the unequal division of labour in assisted conception (the feminisation of staffing); others make strategic use of the proliferated landscape of ARTs in Iran. This feature of the Iranian ART landscape enables practitioners to justify the applicability of certain treatments. At the same, practitioners are actively involved in setting national policies by encouraging Iran's religious leaders.

Finally, I want to return to the comment made by the clinic midwife, cited at the beginning of this chapter. She perceived the clinic as a microcosm of Iranian society. For her, this clinic signified the essence of cultural, political, and religious negotiations, conflicts, justifications, and interpretations – both local and global. In this small clinic, different dimensions of the complexities of assisted conception, such as gender, kinship, science, and modernity, interact every day. For me, her words encapsulated more than she herself was trying to say. They made me think about ‘the small’ people of Iran: lower-income couples, represented in this clinic. The term, ‘small clinic’, denotes for me the intensity of the space. Analysing this space is my purpose in the next chapter, in which I look at how the layout of the clinic is designed and explain its implications.

Chapter 4

Physical Boundaries and beyond: the spatial, the social, and the embodied

‘Space and place are not neutral but are linked to relations of power and gender’
(Davies 2003, 270).

I spent the first couple weeks of fieldwork sitting among clinic users in waiting areas to observe how users were distributed in the clinic. A user coming in through one of the entrances of the clinic encounters a large (main) and several smaller waiting areas, from which several corridors branch off. This floor of the clinic, with its convoluted architecture, is mainly used to test and diagnose female/male infertility and to monitor ovarian stimulation using ultrasound. It was always very crowded; the vast majority of clinic users spent their time on this floor, waiting for their own or a spouse’s appointment. The waiting areas were unable to accommodate all clinic users. As a result, some stood and leaned against the walls, while others sat on the steps leading to other floors. Clinic users and staff members walking in different directions added to the confusion felt by anyone new to the clinic. On this floor, three consulting rooms on one corridor are allocated to *men* andrologists, who examine the reproductive systems of *men* clinic users; this corridor is known as the ‘Men’s Clinic’. Four consultancy rooms on another corridor are allocated to *women* gynaecologists, who examine the reproductive systems of *women* clinic users; this section is called the ‘Women’s Clinic’. Each of these corridors has its own waiting area; the women’s waiting area is the larger of the two, by far.

I carefully watched people’s movements and interactions, paying attention to signs and notices on the walls and continuously listening, to monitor which patients were

being paged to each section. In some parts of the clinic, there were signs banning men from entering, creating gender-segregated areas. Some sections of the ground floor had no such signs but were still gender-segregated; in those places, medical practitioners examined the private parts of the male/female body. The receptionists and clinic security guards were constantly asking male clinic users to leave the waiting area of the women's clinic, banning them from accompanying their wives into the consultancy rooms, and vice versa.

Being born and brought up in post-revolutionary Iran, I am used to gender segregation. Seclusion and segregation are not confined to public places, such as schools, hospital wards, and buses. Some disciplines are specifically taught to students of only one gender in universities. However, segregation has always been challenged and questioned by a wide range of people, both highly educated and less well educated. These critics have stressed the impact of physical barriers on the role and presence of women in the public sphere, where limited cross-gender interactions lead to discrimination and a poor understanding of the needs, desires, and expectations of other genders. The gender segregation in this clinic raised some major questions for me: how do gender-specific staff from the men's and women's clinics – women gynaecologists and men andrologists – work alongside one another? How do clinic users and practitioners experience the gender-segregated organisation of the clinic? What effect does gender-segregation have on the interaction between religion and medical procedures?

Situating the clinic within the insights of scholars from the fields of geography and anthropology who theorise place and space, I will focus first on the local religious, social and cultural considerations that have structured the clinic as a gender-segregated place, drawing on Islamic understandings of female bodily practices and sexualities. I will then contextualise gender segregation in Iran, highlighting different policies and regulations that reflect perceptions of the concept through time. As Ardener (2000, 113) puts it, 'once space has been bounded and shaped it is no longer merely a neutral background: it exerts its own influence'. Focusing on segregation in four locations – the women's clinic and men's clinic, the semen-collection room, and the ultrasound-scan rooms – I will illuminate the implications of gender segregation on the embodiment of infertility treatment for both men and women.

The infertility treatment clinic as an intersecting place/space⁹¹

For people searching for assisted conception, an infertility treatment clinic is not just a material space with physical boundaries. It is a place that highlights interrelations between the social/cultural and corporeal (embodied), shaping the discursive and material realities of treatment. Linking social/cultural considerations to the spatial, Massey (1994, 2) argues that:

what is at issue is not social phenomena in space but both social phenomena and space as constituted out of social relations, that the spatial is social relations stretched out. The fact is, however, that social relations are never still; they are inherently dynamic. Thus, even to understand space as a simultaneity is, in these terms, not to evacuate it of all inherent dynamism.

Reflecting on Massey's emphasis on space/place as a social construct, the infertility treatment clinic is constructed as an entity shaped by social relations and the dynamism of social relations. This implies that infertility treatment clinics are not static places. In fact, they are in a state of flux. Nonetheless, the infertility clinic is a place where, as in other medical spaces, bodies are examined and probed. Bodies therefore cannot be inseparable in the spatial analysis of the clinic. Mary Douglas (1971, cited in Low (2003, 12), theorises that the body is 'a medium of communication positing a direct relationship of spatial arrangements and social structure beginning with the symbolism of the body and the body boundaries'. Bodies play a central role in the use and appropriation of space (Davies 2003), while space and place construct the body, both materially and discursively (Grosz 1995). Body and space, as reciprocal constitutions, have been empirically researched by Low (2006) in her study of beach life. She argues that gaze regimes, perceptions, and body techniques produce the space. In choosing a place, women first make an inspection, looking around for any potential problems once they remove their tops, and then beginning to demarcate their individual spaces. The embodiment of social order leads to the gendering of beaches. In turn, these institutionalised spatial arrangements affect bodies. Although women are topless on the beach, they are still subject to the male gaze and therefore lie flat, with rigid,

⁹¹ Both place and space are contested concepts. In this section, I refer to Cresswell's (2013) definition of space as a more abstract concept than place: 'spaces have areas and volumes. Places have space between them' (Cresswell 2013, 8). I have also used references to 'space' to suggest a focus on lived and meaningful spaces, or space as a social construct. As Lefebvre (1991) has noted (cited in Cresswell, 2013), the definitions of place and space are closely related.

immobile bodies. Her analysis emphasises that gender and space must be grasped as a structure that is ‘reciprocally constructing and constructed’ (Low 2006, 130).

This mutual interdependence between body and space explained by Low can also be analysed in an infertility treatment clinic. Bodies, mainly women’s bodies, are monitored and subjected to the medical gaze, regardless of which partner has a problem (Greil 2002). These invasive procedures on women’s bodies have led Western feminist scholars to question ARTs because they embody ‘a fundamental gender inequality’ (Inhorn 2003, 187), as described in Chapter 1. However, Inhorn (2007) critiques this understanding of the male body remaining untouched while the female body is permeable, partly by examining the space of a clinic in Egypt in which she conducted her ethnography. She describes the physical arrangement of the clinic, including the location of the semen-collection rooms – either a bathroom or a room located directly within the waiting area. The clinic was unable to guarantee privacy for men providing sperm samples, an intimate and inherently guilt-producing act.⁹² For some men, this caused profound suffering and anxiety. She describes the Egyptian infertility treatment clinic as a place where the layout (spatial organisation) influenced the men clinic user’s embodiment of masturbation, in a cultural context where masturbation was perceived as sinful. The experience of undergoing infertility treatment, albeit differently, is embodied both by men and women. Given the role of the perceptions of both men’s and women’s bodies in the organisation of the space, in the next section I want to examine this role in the organisation of the layout of the clinic.

Incorporation of Islamic understandings of female sexuality within the spatial organisation of the clinic

Fatima Mernissi (1985) in her book, *Beyond The Veil: Male-Female Dynamics in Muslim Society*, elaborates gender segregation as a practice that secures the social order in Muslim society. She argues that Muslim thinkers have contradictory perceptions of male-female dynamics, identifying ‘an implicit theory’ and ‘an explicit theory’. In the implicit theory, female sexuality is perceived as active, with the woman

⁹² Masturbation is condemned by many Islamic jurists and viewed as an unfavourable form of sexuality in many Middle Eastern countries (Inhorn 2007).

as a hunter and the man as a passive victim. In the explicit theory, which reflects contemporary beliefs, women are assigned a passive sexuality; the man is the hunter and the woman is his prey. These understandings share one common component, ‘the women’s power to deceive and defeat men, not by force, but by cunning and intrigue’ (Mernissi 1985, 33). According to the Islamic perception of sexuality, as Khuri (2001, 81) has explained, ‘men are sexually driven by sight and few men can control themselves when they see a naked women’. Thus, women are considered a threat to the social order and human civilisation; sexual segregation is implemented to avoid women’s disruptive effect and protect men. As Mernissi states, ‘the entire Muslim social structure can be seen as an attack on, and defence against, the disruptive power of female sexuality’ (Mernissi 1985, 45)⁹³. Sexuality is an essential element in enforcing Muslimness, but it is important to avoid creating the image of a monolithic Islam, which obscures the diversities within and across Muslim countries. In Muslim-majority countries around the world, ways of policing sexuality and bodies are varied and overlapping, based on various local (state, community, and religious institutional) perceptions of controlling women’s and men’s bodies through time and space (Helie 2012).

Policing sexuality, gender segregation, and public spaces in Iran

Sexual ideology and practices have undergone considerable transformations in Iran. Focusing specifically on gender segregation in public spheres, the interactions between pre-modern Iranian rulers (1794–1925) and Europeans gradually shifted the segregated nature of social life of urban Iranians. In the late eighteenth and nineteenth centuries elite Iranians travelled to Europe and were exposed to the European model of progress and one of the outcomes was that they identified ‘seclusion, veiling, the lack of education, and gendered laws as sources of the inferior position of women in Iranian society’ (Zahedi 2007, 80). These reformists found an ally in the establishment of a modernist monarchy in Iran by Reza Shah Pahlavi (1925–1942). He enforced his modernist vision and secular reforms, such as changing women’s public attire (unveiling) as part of his modernisation and Europeanisation project. Afary (2009,

⁹³ In addition, Merssini (1985, 44) differentiates between Muslim and European theories about regulating sexuality. In fact, in Western Christianity, sexuality itself is condemned and degraded; in Islam, sexuality is not attacked but women are depicted as ‘the embodiment of destruction, the symbol of disorder’.

156) articulates that ‘the new dress code enacted by the Shah undermined social, religious, and tribal distinctions based on appearance and substantially reduced gender segregation’. The state policy during the Reza Shah monarchy had a profound impact on the transformation of gender ideology and modern womanhood, through policies such as ending gender segregation and female seclusion, integrating women into the workforce, and de-veiling (Yaghoobi 2012)⁹⁴. When the Islamic Republic was established after 1979, gender ideologies of womanhood were reformulated yet again.

The Iranian post-revolutionary Islamic regime maintained education⁹⁵ and health campaigns developed during the pre-revolutionary era; however, in terms of gender and cultural practices, the new state retrogressed its policies (Afary 2009). State-sponsored policies constrained women’s access to public spaces through laws such as: ‘a ban to all co-ed. classes; re-segregation of educational institutions, including cafeterias and many other public places, partial segregation of parks, restaurants, movie theatres, beaches, buses, and all other public places. In public buses, women sat at the back and men at the front’ (Afary 2009, 279). Schools were segregated in June 1979, although universities continued to hold mixed-sex classes. The impacts of these policies on Iranian women were complex. On the one hand, many opportunities were denied women; on the other hand, as Mehran argues, sex segregation led to a higher rate of female literacy, particularly for women from conservative families who were allowed to attend high-school for the first time post-segregation (Afshar, 2012).

Another post-Revolution complexity was the explicit encouragement given to women to study medicine (Afshar 1998), while they were excluded from some other professions, such as law. The study of Obstetrics and Gynaecology has been reserved for women students only in Iran since 1979. The reason behind this decision, as Afshar explains, is ‘the fears of Islamists that male doctors should come into contact with the

⁹⁴ Here I should note that unveiling was a top-down policy and compulsory. According to Zahedi (2007), unveiling did not lead to liberation and emancipation of all Iranian women. In other words, those women who refused to unveil (mostly from the old middle class) were socially isolated and were refused to continue their education by their families.

⁹⁵ Afshar (1998) indicates that the constitution of the Islamic Republic adheres to the Quranic instruction that all Muslims must be as learned as possible.

naked bodies of women' (Afshar 1998, 74). The segregation of medical life in Iran was first endorsed by Ayatollah Khomeini, the supreme leader (Imam) of Iran, in the early 1980s, when he determined that the examination of women patients by men gynaecologists was a violation of religious rules⁹⁶ (Azarmina 2002).

The need to police female sexuality still played an important role ten years later, when Ayatollah Khamenei, the current supreme leader of Iran, was asked about the permissibility of practicing IVF. His response was affirmative as long as haram (forbidden) acts, such as gaze and touch, did not take place (Tremayne 2009). Clarke (2007a, 296) has explained that, 'although he does not discuss the matter further here, elsewhere he is clear that such intimacy between doctor and patient is permitted where necessary for treatment; [however] a female doctor is to be preferred where possible'.

Gender segregation and the spatial organisation of the clinic

During my fieldwork, ten women gynaecologists worked in the women's clinic, but there were only three men andrologists in the men's clinic. The Department of Female Infertility, formed through the collaborative work of women gynaecologists in the clinic, played a key role in setting intra-organisational policies⁹⁷, as well as providing medical treatment for infertility. As Dr Hamidi, one of the junior gynaecologists, explained:

Approximately, the management of infertility treatment, in fact somehow, is in the hands of women [female infertility department] in the sense that they choose which plan [treatment plan] is appropriate.

While emphasising the critical role of women gynaecologists, she tries not to undermine the role of the andrology clinic by using the words 'somehow' and 'approximately'. But how do these two clinics work together?

⁹⁶ Azarminia (2002, p. 645) states that, 'although it was not possible to suspend the licences of all male gynaecologists, no new male residents were accepted into the specialty from that time, and the number of male gynaecologists is dwindling'.

⁹⁷ In the next chapter, I will explain in more detail the significant impact of gynaecologists working in this clinic on its policies and practices.

The first appointment for couples choosing this clinic takes almost a day. Each couple is required to present marriage and birth certificates to register with the clinic. Both wife and husband are given a *patient information form*⁹⁸ to read and sign. The registration officer asks the husband and wife to be present for registration to check all of their documents and conduct photo verification. Once they are registered, one physical file with a specific number is allocated to both; this is used to hold all prognoses and related documents, including test results. Despite this standard procedure, some clinic users have a different perception of the number of files allocated to couples, reflecting their understanding of the (gendered) burden of treatment. For example, one man clinic user told me that there were two separate physical files for the woman and the man; a woman clinic user stated that there was only one physical file for the woman alone, as the treatment was mainly performed on the woman's body. The man was constructing an equal involvement in the treatment process by pointing to two different files for the wife and husband. In his view, a segregated clinic had to have segregated files. By contrast, the woman clinic user conceived treatment as gendered work in which men were not involved; for this reason, the file had to belong only to her.

Once they have been registered by the clinic's registration officer, the clinic adds to the file any previous clinical test results the couple have received within the previous six months,⁹⁹ apart from semen analysis tests. The wife waits for her appointment with the gynaecologist on the ground floor, while her husband goes to the basement for a spermiogram. The woman gynaecologist records the wife's infertility prognosis, based on (previous) medical documents/tests in the couple's file – sometimes she asks for new or additional medical tests. In the afternoon, the husband sees the andrologist to get the results of his semen analysis. However, before any man clinic user enters the

⁹⁸ This two-page form provides information, including the global success rate of ARTs and treatment requirements (relating to being a patient and insurance coverage); it also asks patients to read the leaflets and brochures available in the clinic to learn about the different types of treatment and their duration and costs.

⁹⁹ The majority of private clinics and hospitals in Iran require patients to repeat any medical tests carried out in other clinics, leading to extra costs for patients.

consultancy room, his file is brought to the men's clinic,¹⁰⁰ giving the andrologist access to his wife's medical tests and the gynaecologist's medical opinion.

Likewise, gynaecologists are given access to any of the husband's medical records that have been added to the file by andrologists in advance of the woman's next appointment at the women's clinic. It is therefore the clinic user's file that connects the men's and women's clinics. Clinic's policy in gendered practices of organising space is portrayed differently in one of the documents published by the clinic. A small book written by the clinic's former psychologist describes the treatment trajectory of a young, educated, urban infertile couple; in this book, the infertility treatment clinic¹⁰¹ is a place where doctors, both men and women, have different specialities but sit around one table to discuss issues, in a collaborative space. During one year of fieldwork, I never witnessed such an event; the file replaced meetings as a collaborative space.

To understand the reason behind gender segregation from the perspective of staff, I interviewed Dr Hamidi, who imagined an ideal clinic in which couples could see doctors together. When I asked her to explain further, she gave the following explanation:

Dr Hamidi: It's mainly due to the high number of patients and they say we can't handle them. I don't know, anyway, such ideas (...) but in the first appointment, it is better to see a couple together.

Sara: Have you ever suggested [she interrupted me]

Dr Hamidi: yes, we suggested once and for a while it was but again they said no. Because the number of their patients dropped. And at the end of the day, the privacy of the other patient who is laying on the medical examination bed may be threatened.

While acknowledging the value of gender segregation, particularly during the first appointment, she admits that the set-up of the clinic was based on a top-down decision, imposed on Dr Hamidi and her colleagues by the management of the clinic. Although clinic gynaecologists were not completely passive and did at one point subvert the

¹⁰⁰ Three men in special uniform, light brown shirts and dark brown trousers, were responsible for carrying the files of clinic users from the archive to and between different sections in the clinic.

¹⁰¹ Nowhere in the book is it explicitly mentioned that the story takes place in the clinic where I did my fieldwork.

management decision, a decrease in the number of clinic users and financial constraints retrogressed the clinic's set-up to its initial design. To meet financial needs the Head of the clinic sought to maximise the number of appointments by women clinic users by relying on the assistance of midwives and having two women clinic users in a consultancy room at the same time. Confidentiality between unrelated client couples is not assured within this system of clinic appointments and married couples are unable to attend appointments together.

I only once visited a consultancy room in the women's clinic¹⁰². A large desk was located at the centre of the room. On one side, a gynaecologist was talking to a woman clinic user; on the other side of the desk, another woman clinic user, who had already seen the gynaecologist, was receiving further instructions and clarifications from a midwife (given the high number of appointments, the gynaecologist does not have time to respond to all client questions). The examination bed was situated behind a curtain, which split the room into two halves. Thus, one women clinic user's body may be physically examined while another woman clinic user is talking with a midwife in the same room. Dr Hamidi only regards it as a violation of privacy when a man gazes at (naked) parts of a woman's body; she does not consider it a violation when one user's medical information is overheard by another user in the consultancy room.

The clinic's policy of maintaining a high number of clinic users through invoking the Islamic understanding of female bodily practices and the male gaze as Dr Hamidi makes clear, producing fixed boundaries and a gender-segregated place. However, I will argue that this spatial ordering of the clinic makes it more difficult for patients to understand medical information and their treatment; it also sometimes reinforces the perception that infertility is a women's problem.

Dr Talash, the clinic's male genetic consultant, was the only staff member who himself pointed to gender segregation in the clinic as a key problem and asked me to study its implications. In his critical analysis of this policy, he explained how it leaves clinic users without answers to questions or clarification of ambiguities. They did not have adequate knowledge about the procedures or their bodies and were therefore confused:

¹⁰² I have verified my observations with other women clinic users by asking them what happens in consultancy rooms.

Here [his office] is one of the only places where couples come together. Nowhere do they go together. This is an issue that you should concentrate on. For example, the woman, based on educational level, social relations, IQ or whatever you name it, is not in a good condition. [Whatever she is told at the clinic, she replies] Yes, Yes, I will do. But the man is an active member of the society. He is a business man. What is she going to tell him? How can she convey the Doctor's diagnosis to him? Or [the man] visits the urologist, the man is retarded. He has a problem. But the men's clinic only book an appointment with men, but the woman has a question for you [the andrologist]. Patients coming here and they have questions, I tell them everything. I won't say it is not my business, here is genetics only. Then, they [patients] will ask: 'by the way, what is IVF, Dr Talash?' This is not my job. The gynaecologist, midwife, should have told them before. But they won't give them enough time. What I am doing is normal but for them, [patients] my contribution is being recognised. Why? Because I give them the most thorough explanation.

He pointed to a picture on the wall of his office, illustrating IVF treatment procedures. He told me that he used the picture to explain the treatment journey to any patient coming in for a genetic consultation who had a query about IVF. This explanation of the process should already have been given to every clinic user by gynaecologists or midwives before the treatment started; however, they were not given enough time to do this, as they were under pressure to meet clinic requirements by maximising the number of booked appointments. For this reason, when clinic users asked Dr Talash basic questions about their treatment, his work 'is being recognised' and was highly valued by patients; he perceived this to be a 'normal' part of a practitioner's everyday job.

Dr Talash's argument became clearer during my observations. For example, I unintentionally overheard the following conversation between a man clinic user and a woman staff member at the information desk. The doctor had suggested a treatment to the man's wife, while the man's own questions went unanswered by clinic practitioners. He therefore resorted to asking staff members at the information desk, who were not specialised; he was given a response that focused only on the details required to keep the clinic running smoothly.

Man clinic user (A): excuse me, what is micro¹⁰³ test? (Showing a paper to her)
Helpdesk (B): Do you mean a micro operation?

¹⁰³ Among clinic users, 'micro' was used to refer to microinjection or ICSI.

A: yes, I do.

B: On Thursday morning your wife must come to the clinic.

A: Do I have to attend as well?

B: Yes, you must come and give the permission for the operation.

A: Do we get a good result? Will it [pregnancy] happen 100%?

B: No, only 40%.

A: We have done IVF two times before. Will we get a better result this time?

B: Yes. (fieldnotes, Dec 2015)

In addition, in the book published by the clinic that I discussed earlier in this section, there was only one conversation between the couple (Amir-Hossein and Maryam) about sharing medical information:

Amir-Hossein: Maryam, have doctors reached the conclusion that the fact that we are not having a baby is because you are having a problem?

Maryam: No, they haven't said anything yet. Why do you ask?

Amir-Hossein: Because they are constantly asking you to come to the clinic. My tests finished very quickly.

Maryam: Ahan. No, they haven't come to any conclusion yet. But as one of the midwives explained to me, the burden of infertility treatment is on women's shoulders regardless of the reason for infertility (*Looking for our dream baby, a book published by the clinic*)

In the absence of any explanation from medical staff about the treatment process, the husband has concluded that 'this constantly asking' his wife, when his own tests 'finished very quickly, means that their inability to conceive is her problem. In addition, many woman clinic users are not young, educated women who are able to fully understand and give medical information to their husbands. This illustrates the fact that a clinic organised around gender segregation is not neutral; rather, it influences and embodies perceptions of body and treatment.

Fixed physical boundaries: the operations of a gender-segregated spatial order

One afternoon, during my first few weeks of fieldwork, I was sitting close to four women clinic users in the men's waiting area when a man receptionist from the men's clinic approached us and asked us to leave the area until all of the clinic's booked appointments had finished¹⁰⁴. Forced to leave, we joined other clinic users in the main waiting area at the centre of the ground floor. I started talking with the woman sitting next to me and told her that I had been asked to leave the men's clinic waiting area. She said that the fact that men were allowed to book appointments with an andrologist was actually a privilege of this clinic, in comparison to other private clinics, where gynaecologists had to rely on spermograms and could only suggest one type of infertility treatment. Referring to her previous treatment trajectory in another private infertility treatment clinic, she said that her husband was not involved in the diagnosis process. She had to take hormone pills and have sexual intercourse with her husband at a particular time; her husband resented this, believing that she herself had made up the procedures. Whereas in this clinic, he was engaged in the diagnosis and physically examined; they followed the treatment instructions together. Therefore, even though the space of the clinic is gender-segregated, allocation of a section in the clinic to men leads to higher levels of men's involvement in the treatment journey compared to some private clinics.

Nevertheless, booking an appointment with an andrologist and undergoing a physical examination is not something that all men can easily cope with. Ahad was a male clinic user in his early thirties. He constructed his first appointment as a challenging experience. He expressed resentment at having to undergo a physical examination and semen analysis, before the first appointment. It was difficult for him to be examined by a man andrologist:

When the male doctor wanted to examine, it was really difficult. A typical person¹⁰⁵ is shy. Even here [he means the room we conducted the interview in,

¹⁰⁴ Similarly, the clinic security guards were constantly asking men to leave the women's waiting area. Men forced to leave the area returned to the women's waiting area shortly after the security staff left. In other words, clinic users did not always respect the gender segregation rules imposed by the clinic.

¹⁰⁵ Here, Ahad used the word 'Adam'. Informally, 'Adam' is used to refer to a typical individual; it is a gender-neutral term in the Persian language. I have translated Adam as 'a typical person' for ease of understanding.

which was the male consultancy room] I told doctor [points to the examination bed which was covered with curtains] that I am very sorry. He said, ‘what are you sorry about? It is my job’.

He described this shyness and feeling of shame as ‘typical’ among men. This feeling of shame that men experience at the clinic partly, as Khuri (2001) argues reflects the perception of the human body in Islam. Referring to the story of Adam and Eve in the Quran, in which they become aware of their shamefulness (nakedness) after being victimised by Satan’s temptation, he states that naked bodies, including men’s bodies, are shameful and must be concealed and guarded. However, there is a discrepancy between men and women when it comes to concealing and guarding the body; as he elaborates, ‘while the source of shamefulness for men refers to the part of the body that lies between the navel and the knee, women’s shamefulness refers to the whole body’ (Khuri 2001, 41). His analysis does not explain the reason for this difference.

Nasim, a 31-year-old woman clinic user, has a similar account of her husband’s experience and the typical feeling of shyness among men, leading to profound anxiety and suffering. She also distinguishes women from men, describing the experience of the physical examination of female private body parts as something that women ‘have got used to’.

It was really difficult for him to come here. Before coming [to the clinic] I was telling him not to be under a lot of stress. Because the majority of men are shy and they have never had such experiences. Women, just after their marriage, for any time that they want to see a doctor, they have got used to it. But men do not have such experiences. It is not at all easy for them to digest why they should make an appointment. So, before the first day, I prepared him. I told him: ‘It is ok. It’s going to happen only once’. Then I did my best to distract him.

Men’s difficult moments and experiences of anxiety and stress, associated with physical examinations, can also be explained by the association between fertility, virility, and masculinity. Van Balen and Inhorn (2002, 5) argue that ‘particularly for men, infertility raises the spectre of impotency and other emasculating disruptions of male virility’. Men perceive their inability to conceive as a threat to their masculinity, reflecting the idea that ‘masculinity flows from the body of the male (and especially his penis)’ (Throsby and Gill 2004, 336). I was told by many women clinic users that their husbands had refused to see a urologist for years, insisting that it was impossible for men to have infertility problems. I would argue that the spatial arrangements of the

clinic (gender segregation) reproduce and reinforce this notion of the male body. In an interview with Dr Sohrabi, a clinic andrologist, I asked about the separate clinical areas in which women are not permitted to accompany their husbands to male consultancy rooms:

Dr Sohrabi: Sometimes I do not know to what extent it is the husband's right and to what extent it is the wife's right. Sometimes husbands are not inclined to share their medical records with their wives. I do not know that ethically we should inform them [their wives] or just inform their husbands and then they inform their wives themselves. I wonder. At the end of the day, that woman has her own rights. It is a shared life. But is it my responsibility to inform them [wives]? Is it their [husband's] own responsibility? I do not know.

Sara: What do you usually do?

Dr Sohrabi: If a man requests that his wife comes in [men's consultancy room]? I'll have a look at his medical records. Then I may permit her presence in the consultancy room or not. Sometimes we want to treat them and we want to tell them that based on these reasons there is a low probability [of success and the doctor permits the wife's presence]. But if the husband does not have such a request, I will never want him to ask his wife to come.

Here, Dr Sohrabi faces a considerable ethical dilemma. He wonders whether he should position himself and his colleagues as a third party who should be involved in conveying medical records to women – 'we have to inform them' – or dissociate himself – 'just inform their husbands'. The general ethical principle would be one of patient confidentiality, that is, patients have the right to decide who has access to their medical information. However, infertility is a distinctive type of condition in that it is experienced by two people, husband and wife, raising questions about the right of one to know about the other's reproductive body. There is an additional complexity here, in the ways that the gendered power relations discussed earlier make it more difficult for wives to know about their husband's medical condition than vice versa. In the everyday life of the clinic, two gatekeepers appear to control women's attendance in men's consultancy rooms. The first is the husband. A man can withhold all of his medical information from his wife and blame her for the couple's infertility if his own feelings of masculinity are threatened; the second is the andrologist who decides whether to allow the wife to be present, depending on the man's medical condition and the success rate for the type of treatment they want to use.

When I asked Nasim if she had ever wanted to accompany her husband to a male consultancy room, she replied:

Men are shy, you know. I really wanted to go with him to see the doctor but I think men are physically examined only once. And I know for that time, even if I showed my interest, men don't like it.

The doors of the men's consultancy rooms remained closed to Nasim and so many other female clinic users, despite their wish to accompany their husbands. In fact, they choose not to show their interest, in order to protect their husbands' sense of masculinity. Nevertheless, Nasim dreams of the day in which her husband will be allowed to accompany her to consultancy rooms in the women's clinic.

Yes, I really want it. You know, this is one of the dreams of the women that men go in with them [to the consultancy rooms] but it is not permitted (...). Some people have told me, I have heard it for delivery, that the husband's presence for delivery is not good for him, he can't bear that. He will be scared. But, I think, no. If it is going to be a painful experience, then he should realise the extent she is suffering. Because, if I go in, come out and tell him how much I had suffered, he won't understand that. He says I know it was painful but it is over now. But if he hears you saying 'ouch', it seems as you will be a more valuable person for him.

Note that women's embodiment of the new reproductive technologies is fundamentally unequal to men's, even when the pathology affects the man, a point that has been highlighted by many feminist scholars. I would argue that the gendered structure of the clinic furthers this fundamental gender inequality. In making this argument, I am not trying to downplay men's corporeal or psychological suffering, as I will discuss later in this chapter.

For many women like Nasim, who suffer from the embodiment of the treatment, the husband's presence is critical because it enables him to understand the level of the pain a wife endures; his presence brings the wife a higher status and value, ultimately influencing the couple's further decisions regarding their treatment trajectory. When I met Nasim, who had unexplained infertility, she had already undergone three unsuccessful IUI and two failed IVF cycles. When trying to transfer their last three

frozen embryos, she was advised to undergo endometrial scratching¹⁰⁶. She supported her argument by using her endometrial scratching experience as an example:

You know, the next phase of the treatment may be more understandable for him. For example, this time, for scratching, I suffered a lot. Several days ago, I told him that I am ok with not having a baby at all but I never will experience scratching again. Then he said: ‘oh, really? The pain lasts for a second only. You can tolerate it’. And then he said as I want (laughs). But I understand that it is not understandable for him. They haven’t experienced it to have a sense of it. But if it was in a way that men could come in, at least in future decisions, if they want to decide together regarding carrying on the treatment or not, their decision is more mutual, rather than only one of them wants to quit it. Because the husband realises that, no, she is suffering a lot. Then it is her right to decide not to carry on with the treatment.

Even though Nasim’s husband was present at the clinic when she had an appointment for endometrial scratching, he was not allowed to accompany her into the female consultancy room in the women’s clinic. To give him a sense of the pain she had suffered, she drew an analogy between ‘not having a baby at all’ and ‘never experiencing scratching again’. In fact, she had longed for four years to have a baby but her husband still expected her to tolerate it. He had not heard her moaning and this increased the gap of treatment embodiment inequality and potentially changing further decisions to unilateral ones.

Another medical procedure that almost all women are required to undergo within the fixed boundaries of the women’s consultancy rooms is sounding the uterus or measuring uterus depth. Marjan was a 27-year-old woman clinic user from the north-west of Iran; I followed part of her treatment trajectory during my fieldwork. On the day we arranged the interview, as soon as she saw me, she asked what uterus sounding was – and burst into tears. We could not conduct the interview. As she was not ready to undergo uterus sounding, she decided to leave the clinic. Outside the clinic and while we were waiting for the taxi, she told me:

¹⁰⁶ Endometrial scratching is a technique used to improve the likelihood of pregnancy in cases where there have been recurrent implantation failures, despite good quality embryos. This technique involves gently scratching the lining of the womb before the fertility treatment cycle, allowing the embryos to embed more easily.

Look at me. I have never been like this. For radiography of my uterus¹⁰⁷ I didn't cry at all but just as I hear its name [uterus sounding], I burst into tears. Hamid [her husband] is sitting there and says it is nothing, very easy, go and do it' (Field notes, 30 May 2016).

Husbands were not allowed into the ultrasound scan room; it was only because I was a woman researcher that I was able to hear some women moaning during transvaginal ultrasound. Seclusion and segregation exclude men clinic users (husbands) from understanding the treatment process thoroughly; this may have an impact on their relationship and any further decisions they want to make. Interestingly, although some places in the clinic are not gender-segregated, partners still hesitate to accompany each other.

Gender segregation in the mind

Apart from the difficult moments they experience during physical examinations, men also have to provide sperm samples in the clinic. Although semen-collection rooms are not gender-segregated (Dr Sohrabi, the clinic andrologist, once told me that men are encouraged to take their wives in), the majority of men refuse to bring their wives. They blame the location of the semen-collection rooms, making them informally gender-segregated. Thus, although semen-collection rooms were theoretically a place without gender boundaries, in practice, they remained gender-segregated.

The semen-collection rooms are located on one floor in the clinic. Most of the space on this floor is dedicated to the laboratory; the remainder is the radiology section and a large, gender-mixed waiting area. The entrance of the lab is located in one corner of this floor. Two women receptionists sit by the entrance, always surrounded by many men and women, booking appointments with the lab, either for blood tests or to give semen samples. As one passes the entrance, one sees a short, narrow corridor. At the end of the corridor is a table with a lot of semen collection cups; the three doors opposite the table are all next to each other. I once visited a sample collection room on an afternoon when it was vacant. The room was quite small and dark, with no

¹⁰⁷ Hysterosalpingography (HSG) is what Marjan meant by radiography of the uterus; it is a test to check the fallopian tubes. Almost all of the female clinic users told me that it was very painful – even more painful than uterus sounding.

windows. Apart from a bed and a nature picture hanging on the wall, there was nothing in the room to stimulate masturbation (for example, pornographic magazines). Beyond these three doors was another room used for blood tests.

Here, I should pause to explain the reason for the absence of any objects to stimulate masturbation. Masturbation is viewed by the majority of Islamic jurists as religiously unlawful¹⁰⁸ (Inhorn 2007). While masturbation is traditionally condemned in Islam, semen samples are a necessary part of infertility treatment. However, masturbation is permissible if it is performed by a man's wife¹⁰⁹(Inhorn 2007). I now return to the description of the placement of semen-collection rooms to understand why men refuse to take their wives into these rooms. The following is the process by which men clinic users are asked to go to the semen-collection rooms.

A man janitor sitting at the table would walk to the entrance and call each man loudly by his surname,¹¹⁰ without mentioning where he was supposed to go. Since only the man's surname was called, everyone knew where he was going. Each man had to pass through the crowd to reach the semen-collection rooms. He was given a cup and a clean bed sheet. Although he did not have a set time to produce the sample, he had to exit through the same corridor. Even though no stimulating material was provided in the rooms, the majority of men went into the sample rooms alone. Mohammad, an educated, 35-year old clinic user, raised this issue in his interview:

If a man wants to go with his wife [to the semen-collection rooms], he can't do that at all. He feels embarrassed and suffers. It must be located in an uncrowded space. Far from this crowded area. Then if he [the man janitor] calls: 'you! Come for the semen sample and if you want, you can take your wife with you'. [Now] everybody sees that you have taken your wife to the room. It must be in an uncrowded space and I think, they have to call one by one. For example, you go

¹⁰⁸ Inhorn (2007, 40-44) clearly elaborates on an ambivalent attitude towards semen. In fact, while it is considered 'life-giving' (men carry foetuses in their sperm; by ejaculating their semen into women's waiting wombs, they create a human life), semen is also viewed as a pollutant. This ambivalence towards semen manifests itself in men's anxiety over semen collection as a routine part of infertility diagnosis and treatment.

¹⁰⁹ Musallam (1983, cited in Inhorn 2007, 51) states that 'many Islamic jurists have ruled that it is legally permissible for men to be masturbated by their wives, because a man has a right to enjoyment of her hand as he has to the rest of her body'.

¹¹⁰ Toward the end of my fieldwork, the clinic's method of asking men to go to the semen-collection rooms changed. Instead of a man janitor standing at the entrance and calling men by their surnames, a specific number was allocated to each man clinic user. When his number appeared on a big screen, he had to go to a semen-collection room. However, it was still a crowded area and everyone could tell that the men were going for spermogram tests, even though their surnames remained confidential.

there, you see two other men are also standing there to go for the test and they can't take their wives, either. [Based on his suggestion for the location of the rooms in a less crowded area] you can't see their wives. You know, shamefulness won't let you [to take you wife].

Mohammad perceives entering the semen-collection room with his wife in the presence of other men clinic users, even though they were in the clinic for similar problems, as 'embarrassing' and 'shameful'. He sees the procedure of semen-collection as an intimate act that required privacy – being 'called one by one'. Hence, although men are allowed to bring their wives to the rooms – and even encouraged by medical institutions informed by a religious understanding of masturbation – they go alone to empty rooms. Some, if not all, struggle to provide a sperm sample.

Mohammad: I was given a clean bed sheet. But there was nothing there to masturbate. It was even written there that we are not permitted to use saliva or any cream. But they hadn't even put anything else there even. For example, saying if we use this liquid, it doesn't cause a trouble. I think the main problem that it had was that there was nothing there to masturbate.

Sara: What do you think other men do?

Mohammad: Most of the men don't go with their wives. Seldom does it happen that they take their wives. Well, they are forced to use [saliva or cream] although it is written not to use them. And the result would be a poor sperm sample. What can be done? Well, this is Iran, at the end of the day. Our improvement up to this level is good enough.

Other men clinic users, like Mohammed, find it hard to masturbate and resort to forbidden aids. Since they do not take their wives or have access to pornographic films or magazines, men clinic users use lotions or saliva to ease masturbation. Using any lubricant contaminates the sample, affects the result, and breaches the clinic's medical procedures. Mohammad accommodates his struggle to provide a sperm sample among other incompatibilities and problems in Iran that are beyond his control. In expressing his frustration, Mohammad, used the familiar and common sentence available among Iranians when they want to complain – 'what can be done?' Even though in this phrase Mohammad critiques the adjustment of semen-collection procedures in the clinic, he uses it as his mechanism for coping and normalisation of his suffering. If the treatment leads to pregnancy and a take-home baby, he is protected from a bigger suffering: childlessness. Yet, as I argue, since men go to semen-collection rooms alone, women

may not understand the full embodiment, suffering, and anxiety of the sperm collection process that men undergo.

Some women clinic users, in both formal and informal interviews, framed masturbation in the clinic as a painless act for men. For example, Nasim said:

It [masturbation] is not a painful thing for them. Everywhere all the sufferings are for women.

Nasim does not view masturbation as involving any form of suffering for men; she distinguished women from men in terms of the amount of pain they suffer. Another woman clinic user sitting in the ultrasound waiting area angrily told me that, we women suffer all the pain and yet men are given beds. In fact, she was alluding to the clinic's failure to provide a comfortable environment for women dealing with the physical and emotional burdens of treatment. Likewise, a pregnant woman describing to me and another woman clinic user the pain she endured during her treatment journey said that a husband goes to 'empty' himself, referring to masturbation as a non-painful act that he carries out by himself. If these women had accompanied their husbands to the semen-collection rooms, they might have experienced their husbands' suffering. One of the women clinic users, during an informal conversation, told me that the first time they went to the semen-collection rooms, her discomfort had resulted in her husband being unable to provide a semen sample. She had accompanied her husband to mediate between the space and her husband's anxiety about providing a semen sample but she too had been affected by the darkness, the crowd, and the location of the semen-collection rooms.

While the gendered boundaries of the semen-collection rooms were set by the clinic users themselves, the boundaries of the women's clinic, as previously discussed, were set by the clinic. However, even the boundaries of the women's clinic, which secludes users by gender, do not always remain fixed. There are occasions when the fixed boundaries become blurred; I call these *moments of crisis*.

Blurred boundaries: moments of crisis

Despite the physical demands of infertility treatment, which many women clinic users deal with, there is a high risk of failure at each stage. Taking into account 'failure' as

an important component of IVF, Sarah Franklin (1997, 121) uses the term ‘series of hurdles’ to describe how IVF feels. Describing IVF as a series of hurdles illuminates the intensity of the treatment. Franklin elaborates further that ‘each hurdle represents another point of potential failure, and there are many more hurdles to overcome than are initially appreciated’. Among the ten hurdles she identifies – from previous infertility investigations to birth – there are two critical stages at which women clinic users will be notified of the outcome within the fixed boundaries of the women’s clinic: ovulation stimulation and egg aspiration.

Failure of ovulation stimulation refers to a condition under which a woman’s ovaries do not respond adequately to hormonal drugs, leading to cancellation of the cycle and the use of the term, ‘poor responder’. A failure of egg aspiration occurs when, after all possible drugs have been injected and the ovaries have been regularly monitored, no egg is surgically aspirated – a condition known medically as *no oocyte at retrieval*¹¹¹. In these two situations, clinic gynaecologists must inform women clinic users of their medical conditions. As such explanations are not easy to give, they often lead to a blurring of the fixed boundaries of the consultancy rooms and the presence of husbands in the women’s clinic. These are occasions, as Dr Hamidi, the junior gynaecologist describes, when she has to disclose bad news to women clinic users:

Almost all the time we give this explanation [the need to abandon the treatment cycle] to couples. When a woman comes, she is very discouraged, very sad, confused and dazed. Most of the times we try to talk to their husbands, too. If we realise that she is discouraged, we will ask her to go and take him [the husband] with herself to [the room]. Because [otherwise] we must repeat what we said before, we had explained once to the wife and now again to the husband.

Dr Hamidi cites the bad feelings of women clinic users – ‘discouraged’, ‘very sad’, ‘confused’ and ‘dazed’ – to justify the presence of husbands in the women’s consultancy rooms¹¹². Yet, when I asked how she explained the situation to the couple, she replied:

¹¹¹ Also referred to as Empty Follicle Syndrome (EFS).

¹¹² These women are given some hints about the cancellation of their treatment cycle or having no oocytes at retrieval in the ultrasound scan section or recovery section of the clinic’s operating theatre. They receive a full explanation in the consultancy rooms of the women’s clinic. It should be noted that operating theatres also have fixed boundaries (gender-segregated).

I will say this is not a condition which has happened only to your wife. It could happen to you [the husband]. This time it was just a bad luck. She herself has not wanted not to have an ovule. It was something which has happened to her during the trajectory of her life. It could happen to you as well. You haven't married only to have a child. Therefore, with the help of somebody else you can carry on [your married life].

Likewise, another junior gynaecologist at the clinic, Dr Farid, described moments of crisis as a condition under which boundaries became blurred and the consultancy rooms of the women's clinic were not typically gender-segregated:

How is bad news given to a patient? You need to tell her. Explain why her ovaries have stopped functioning at the age of 31 and she must use a donated egg. This has a horrible emotional burden on a woman. I can't help her on my own (...) all these, needs a system whereby a gynaecologist, her husband and even a psychiatrist are on her side, a support (...). Some women say that we don't know what to say [to their husbands] and how to say. I will say, ok, ask your husband to come. Then when I start to talk, I will start with the physiology of ovaries and in a way to explain that this poor woman is not to be blamed. She was not born like this. It was her destiny that it has happened to her. And now it is better that you help her have a baby, rather than remarry and spend too much money [to remarry].

In the above excerpts, clinic gynaecologists express their views on the spatial organisation of the clinic and the authority of medicine. Dr Hamidi regards gender segregation as hindering the flow of medical explanation at these critical stages, doubling the clinic workload. Dr Farid does not believe that medical explanations can help women clinic users *per se*, 'I can't help her on my own'. She contends that gender segregation limits women's sources of support, even creating the need to have a psychiatrist in the room.

These two clinic gynaecologists, in the above accounts, address the husbands when explaining why their wives have been unable to overcome these two hurdles. They use scientific (medical) explanations and their authority to try to protect women clinic users. By explaining how ovaries function, they are trying to protect women from the blame of failure and the burden of responsibility, referring to 'destiny', 'bad luck' and what 'happened to her', and even suggesting that the failure could have happened to the husband and that women should not always be blamed. They also distinguish between not responding adequately to hormonal drugs and birth defects or abnormalities. The solution they both offer to the husband is to support his wife through 'somebody else's help' – a donated egg rather than remarriage. However,

some women still choose to have the doors of the women's consultancy rooms closed.

As Dr Hamidi explained:

She wants to maintain her life. You know. What is the normal reaction? You ignore what I tell you and say something else to your husband. Then the husband understands something about this process, while we have told the patient something else.

According to Dr Hamidi, keeping their husbands in ignorance of the medical diagnoses is a way for these women to maintain their position in a context in which giving birth to a child fulfils the social demand and gives stability to a married life.

Conclusion: the clinic as a space of struggle between religion and medicine

Referring to the quotation that opens this chapter, the spatial organisation of the clinic is not neutral; it is a social construct. Indeed, the relationship between social structure and spatial arrangements in the clinic is mediated by Islamic perceptions of female bodily practices and the association between masculinity, fertility, and virility. Moreover, this perception of bodies makes the relationship between medical and religious knowledge and their authoritative powers much more complex.

Some medical practices, such as the examination of private parts of the body or the provision of semen samples, are incompatible with religious discourses, despite being medically required in the treatment process. In other words, religious understandings of bodies clash with the medical practices of IVF; the space of the clinic embodies this struggle. Hence, boundaries are emplaced by the clinic and by the clinic users themselves. However, attempting to manage the struggle between medicine and religion by setting up boundaries complicates the full recognition of the embodiment experience of the emotional and physical burden of treatment, for both men and women.

Women's and men's clinics are gender-segregated; men and women are not permitted to accompany each other to consultancy rooms. Gender segregation precludes men from understanding what happens in women's consultancy rooms, while making it easier to decide what and how much medical information to disclose to their wives. Women, on the other hand, tend to perceive segregation as a barrier that places them in a more vulnerable position, where their husbands are unable to understand fully the

physical/emotional burden of treatment. Therefore, in moments of crisis, a feeling of solidarity between women gynaecologists and women clinic users makes the fixed boundaries of the women's consultancy rooms permeable. Men's lack of knowledge about female bodies and the scientific knowledge of women gynaecologists plays out as a mechanism to subvert the fundamental gender gap inherent in the treatment reinforced by seclusion.

Even though the clinic has a strategy to resolve the clash between the religious prohibition against masturbation and the need for semen samples, namely, asking men to bring their wives, men clinic users have made these rooms unofficially gender-segregated. Blaming the location of the semen-collection rooms, this unofficial segregation has ultimately reinforced the very clash that the clinic was trying to mitigate, exacerbating men's suffering when providing semen samples. This is similar to the experience of Egyptian men, as explained by Inhorn (2007).

Medical procedures and religious perceptions of bodies interact with each other in the real life of the clinic. In this interaction, some of the medical procedures clash with social and religious norms. Women and men clinic users and staff negotiate this clash through different ways of organising the space of the clinic to normalise this clash. However, this interaction also takes place beyond the physical boundaries of the clinic and happen at the level of discourses and regulations that I will explore in the next chapter.

Chapter 5

‘My child’ or ‘another’s child’? Negotiating kinship in procreation with third-party involvement

We created man from a **liquid mixture**, to test him; and we made him hearing and seeing (Quran, 76:2, *my emphasis*).

We have enjoined upon man kindness to his parents. His mother **carried** him with difficulty, and **delivered** him with difficulty (Quran, 46:15, *my emphasis*).

The treatment trajectory for men and women who come out of the men’s or women’s clinic holding a document referring them to the donation clinic is considerably more challenging than that of other couples, who may have access to reproduction using their own gametes. This small document includes boxes to tick for the following options: egg donation, embryo donation, or gestational surrogacy. Donor sperm is never used in this clinic. In cases where the prospective father cannot contribute sperm, the only option is to use a donated embryo, even in cases where there is no bodily pathology in the woman’s reproductive system. Reactions to this document and news vary among couples, but some do take the next step, going to the floor where the donation clinic is located.

A very small area in one corner of a floor is dedicated to the donation clinic, which is divided into two rooms with a partition wall between them, enabling the clinic users, wife and husband together, to see women social workers. One room is for clinic users who seek a donated egg, while the other room is for couples requesting embryo donation and gestational surrogacy. The donation clinic has its own reception desk,

allowing users to book appointments with the social workers to receive counselling, discuss concerns, and receive information about the processes.

Although I had been to the donation clinic quite a few times, I will never forget the day when a couple entered while I was standing next to the receptionist. The receptionist was quietly telling me about a veteran of the Iran-Iraq war, who had become infertile after inhaling chemical gas and was on a waiting list to receive a donated embryo, when a couple came in. The husband was holding one of the aforementioned papers, with a tick in the embryo donation (ED) box. They wanted to book an appointment with the social worker. The wife moved slightly closer to the receptionist, looking very stressed and confused, and said that she had some questions. At that moment, her husband walked to the other side of the room, distanced himself from the receptionist and pretended that he was reading a piece of information attached to the wall; I am sure he was actually listening to the conversation between his wife and the receptionist:

Woman: Doesn't it have any problems from the perspective of religion?

Receptionist: Look for what your marja taqlid¹¹³ is saying. Make a phone call and ask.

Woman [suddenly bursting into tears]: I don't know what is going to happen in the future! I am scared of it. I am scared if later, I face problems in my life (Field notes, 1 Aug 2016).

Tears were streaming down her face, while her husband continued to stare at the piece of paper on the wall. Witnessing this encounter made me wonder why clinic users were so worried about using a donated embryo. Given that the medical knowledge and technology to procreate using a donated embryo existed and the procedure had been religiously endorsed and ratified by law in Iran, why were clinic users so worried about using a donated embryo? How did the receptionist, as a staff member offering this service, make sense of donation? This question could be answered in different ways. In this chapter, I will answer it through the lens of kin relations. Religious approval of gamete donation does not in itself guarantee that all clinic users and practitioners will

¹¹³ Marja al taqlid within Shia Islam, according to Clarke and Inhorn (2011, 409) , is 'a source of emulation, [and] represents the pinnacle of mundane religious authority. According to the normative model, when unsure of the religiously sanctioned course of action in a given situation, lay people should turn for guidance to the clerical elite'.

feel willing or able to pursue it because their understanding of kin connections is very complex. Alongside religious constructions, kin relations are discursively constructed through biology and morality in everyday life and practices in the clinic. This chapter builds on the deconstruction and reconstruction of understandings of kin relations in the age of assisted conception, as discussed in Chapter 1. It focuses specifically on the meanings attached to kin relations in the Iranian context. This chapter therefore begins by characterising notions of kinship in the Islamic legal context and explaining how they are defined in the fatwas on egg and embryo donation by some religious Shia authorities in Iran. I acknowledge that the explanation of the broader Islamic/Iranian context in this section may be very descriptive and heavy going. However, it is essential to include this explanation to contextualise these fieldwork data. I then trace the dynamic negotiations among practitioners and show how they draw on religious and cultural debates about kinship to demarcate their positions on third-party donation. In the two following sections, I will demonstrate how recipients and donors deconstruct and reconstruct their own notions of relatedness. These various understandings of practitioners form the trajectory of donation in this clinic; clinic users apply these notions strategically to negotiate whether a child born through gamete donation is ‘their own’ or ‘somebody else’s’ and whether third-party donation is legitimate or not.

Explicating kinship in Islam

As discussed in the literature review, Tremayne (2012a, 2009, 2012b) argues that the religious endorsement of various types of third-party donation by the Iranian religious authorities breaches the notion of kin affiliations in Islamic law. But how is kinship defined in Islam? In Chapter 3, I mentioned the fact that religious leaders in Iran used a flexible mechanism in Shia Islam, *ijtihad*, to endorse third-party donation. So what are these religious permissions or fatwas, and how do they define kin connections?

In Islamic law, according to Clarke (2007b), the Arabic term for kinship is *qarabah*, which can be translated as ‘closeness’. Three subcategories of kinship are subsumed under this term: *nasab* (relations of filiation, genetic/biological), *musaharah* (relations

through marriage) and rida¹¹⁴ (milk kinship). Marriage, incest, adultery, and inheritance are clearly explained in Islamic law, based on these rulings. These kinship types determine who an Iranian woman must be veiled in front of and what social and sexual relations can exist between men and women (Tremayne 2015b). They demarcate the boundaries, establishing which relatives an individual is forbidden to marry (mahram), and which are allowed (gharib, commonly known as na-mahram in Iran) (Clarke 2007b). Tremayne (2009) delineates these two categories, mahram and na-mahram, noting that, ‘mahrams are parents and siblings, among others. As they are not potential marriage partners, close social contact is allowed. Na-mahrams are potential marriage partners, and therefore, close social and sexual interaction between them is forbidden, and na-mahram men are not allowed to see a woman’s body except for the face, nor they can touch her’¹¹⁵ (Tremayne 2009, 147). In defining nasab, Clarke (2009, 47) notes that ‘relations of affiliation (nasab) are not mutable or fluid, but are given, paradigmatically – not exclusively¹¹⁶ – through procreation...All children born to a married woman are related to that woman and her husband’. However, Clarke (2008) raises a very interesting question as to whether nasab is the same as biological relatedness; he argues that nasab is not reducible to biogenetic relations under Islamic law. In fact, ‘nasab is legitimate relatedness¹¹⁷’ (Clarke 2008, 163). Clarke, therefore, concludes that:

¹¹⁴ Rida, or breast-feeding constructs the bonds of descent. According to Fortier (2007, 18), in Islamic jurisprudence there is a relationship between sperm, milk, and agnatic descent, so that, ‘if a woman breast-feeds a child that is not her own, this child cannot marry not only the children of his wet nurse, but also the children of all former wives of his wet nurse’s husband’. According to Clarke (2007c), even though Rida is a form of kinship relations similar to other types of filiation in the Islamic legal regulations, it just entails marriage prohibition and does not institute inheritance.

¹¹⁵ Veiling for women is an important way of categorising men and women into marriageable and non-marriageable categories in Islamic legal terms. Clarke (2007b, 2009) asserts that, in practice, ‘intimacy is a matter of degree rather than a discrete category, and the lines between stranger and intimate become blurred’. He attributes the level of veiling to the place, class, context, and political orientation changing through time (e.g. old women are not obliged to veil).

¹¹⁶ By using the phrase ‘not exclusively’, Clarke (2009) refers to milk kinship (rida) as another category in which nasab is not bestowed through procreation; instead, it is bestowed through breastfeeding. In another article, Clarke states that ‘a kinship-like relation entailing marriage prohibition, although not inheritance rights, between nurse and nursling, between babes suckled by the same women; the lack of inheritance between milk kin indicates their secondary status’ (Clarke 2007b, 382).

¹¹⁷ Even though nasab, when ascribed to a biological child, identifies his/her legitimacy, there are exceptions to this concept. Clarke (2008) cites occasions when a non-biological child is awarded nasab. When a man suspects his wife of infidelity, for example, he must swear the woman and her child a mighty oath; if he does not do so, the child is ascribed to him. On the other hand, there are cases in which a biological child is denied paternal and maternal relations if the child is illegitimate.

There is no classical Islamic concept of a ‘natural’ child. Islamic law does mandate biological relatedness contingently, because sex out of marriage is forbidden, and thus, were this injunction followed, all children would be biologically related to their social parents...Islam does not endorse parenthood as two distinct entities: biological and social – Muslim parenthood is biosocial (Clarke 2008, 163).

The introduction of assisted conception, particularly third-party donation, has posed a challenge to *nasab*. If a child has developed from a woman’s egg fertilised with a sperm other than her husband’s, who does the child belong to, in the absence of the institution of social fatherhood in Islamic law? Moreover, this fertilisation can be considered a form of adultery, as it involves the gametes of individuals who are not married. More generally, third-party involvement in procreation has triggered two controversial debates in Islamic law: the *legitimacy* of an act that involves a third person in wedlock (whether it is a form of illicit sexuality, *zina*); and the question of whom the child born out of donation *belongs* to. These questions and many similar ones have been foregrounded in various debates among Sunni and Shia religious scholars.

To keep the purity of lineage (*nasab*), Sunni religious leaders have reached a consensus on banning the practice of third-party donation. However, the Shia position on gamete donation and surrogacy is less monolithic, a fact that has caused controversy (Inhorn and Tremayne 2012, Tremayne 2009). Shia religious authorities, *maraji*, have used their own interpretation of Islamic sources to issue often contradictory fatwas on the permissibility of third-party involvement in ARTs (Tremayne and Akhondi 2016). Tremayne and Akhondi (2016, 68) have argued that Shia religious jurists who oppose third-party donation perceive that ‘biological relatedness is the only acceptable form of procreation’ and recognise children born of donation as illegitimate. Those permitting its use also relate the child to its genetic or biological parents but have different ways of justifying the child’s legitimacy (Clarke 2009). The following subsections describe the way in which Shia religious leaders have interpreted and reasoned about each type of donation treatment. The next section analyses the practitioners’ understandings of third-party donation and the history of its practice in the clinic.

Egg donation

The majority of Shia religious authorities permit the use of donated eggs. Clarke (2007a) has explained that the egg donation fatwa of Ayatollah Khamenei, the Supreme Leader of Iran, originated as a response to a question. He was asked whether a married woman whose marriage was threatened because she was unable to have children, due to a lack of eggs, was permitted to use another woman's eggs, fertilised with her husband's sperm and then transferred into her uterus. He responded as follows:

There is no problem in the Shari'a in itself, except that the child born in this way is related to the sperm and egg producers, and its relation to the owner of the womb is problematic (Clarke 2007a, 296).

According to his view and that of the majority of Shia scholars, using donated eggs is legitimate, but the child belongs to the producer of the egg. The egg and sperm are seen as playing equivalent roles in conception; the child is legitimate as long as no forbidden touch or gaze takes place between the egg donor and the father who provides the sperm (Garmaroudi Naef 2012a). Nonetheless, some scholars bind the legitimacy of the child to certain conditions. They require a temporary marriage between the husband and the egg donor, *mut'a*, to keep the origins of the child within the parameters of marriage¹¹⁸ (Abbasi-Shavazi et al. 2008). In such cases, the husband does not have to first divorce his wife because polyandry is permissible for men. However, when Ayatollah Khamenei was later asked about the requirement for a temporary marriage with the egg donor, he declared that it was not needed. Senior clerics who do not require a temporary marriage for egg donation have opened up the option of donation between sisters, otherwise impossible because simultaneous marriage to two sisters is prohibited in Islam (Clarke 2009).

Sperm Donation

There is more controversy among Shia religious leaders about the legitimacy of sperm donation in Islamic law and very few Shia maraji permit sperm donation, in comparison to the number who allow egg donation. While temporary marriage could be used as a solution to enable sperm donation without violating Islamic rules, it would

¹¹⁸ Invocation of temporary marriage is one way of making egg donation legitimate since polygyny is legal in Islam. Therefore, '*mut'a* marriage avoids the implications of *zina*, or adultery, which would occur if the husband did not marry the egg donor' (Abbasi-Shavazi et al. 2008, 6).

be more complicated than for egg donation because polyandry is illegal for women in Islam. In the absence of the husband's viable sperm, and if the wife wants to use her own eggs, as Tremayne (2009) clearly delineates, the wife needs to get divorce from her husband, then marry the sperm donor nominally for a few days. During this time period the donor's sperm would be used to fertilise her egg in vitro, with any viable embryo then implanted in her uterus. After this point she would then remarry her original husband. According to Tremayne (2009), temporary marriage for women is very rare and at the time of her research, she claims that such temporary marriage for women has never happened in Iran. Hence, it would seem that resorting to temporary marriage is not a practical option to enable sperm donation without breaching religious norms, perhaps because it is seen as too transgressive if gendered marital power relations. In the absence of temporary marriage, any child born through donor sperm would be considered as a 'laqit, out-of-wedlock child, without a family name and without a father' (Abbasi-Shavazi et al. 2008, 6).

In fact, there are a few religious authorities who do allow the use of sperm donation, including Ayatollah Khamenei¹¹⁹, but they do not base their permission on the use of temporary marriage. According to these fatwas, the child belongs to the producers of the egg and sperm and the legitimacy of the child is justified based on their interpretation of the act of adultery or zina. As Garmaroudi-Naef explains, 'the definition of the act of adultery and incest does not depend on the contact and transformation of bodily sexual fluids. It depends rather on the illegitimate physical act that happens through illicit sexual intercourse' (2013, 108-109). For this reason, if the egg and sperm have been collected separately and combined in the laboratory rather than through sexual intercourse, no adultery is deemed to be involved.

Gestational Surrogacy

Based on a similar perception of what constitutes adultery, gestational surrogacy is widely permitted in Shia Islam and therefore legitimised, since clerics distinguish between 'placing the sperm directly into the woman's uterus' and combining egg and sperm outside the woman's body before transferring an embryo into the surrogate

¹¹⁹ Ayatollah Khamenei, taking a unique position among other Shia authorities, has also permitted the use of AID (artificial insemination by a donor) (Clarke 2007a, b).

woman's womb (Garmaroudi Naef 2013, 109). The question here is whether the child belongs to the carrier or producer of the egg. Some clerics believe that the child belongs to the woman who gives birth to it, citing the Quranic verse quoted at the beginning of this chapter, which defines the mother as she who carried the child. However, the majority of clerics relate the child to its genetic mother (Garmaroudi Naef 2012a, 165); genetic essentialism in ascribing kin relations, in the context of egg and sperm donation, thus facilitates the permissibility of surrogacy arrangements (Clarke 2007a).

Embryo Donation

Embryo donation is the only form of third-party involvement in procreation that has been enshrined in law by the Iranian Parliament; the law was enacted in 2005. The embryo must belong to a heterosexual married couple and be placed in the uterus of the recipient woman following donation. Because there is no sexual act between the recipient woman and the genetic father of the embryo, it is not perceived as zina by those religious authorities who permit it. However, parental rights to the child are more complicated in cases of embryo donation. According to the fatwas endorsing the use of embryo donation, the child belongs to his/her genetic parents. At the same time, the law on embryo donation does not specify whom the child belongs to, nor from whom the child will inherit property. One of the articles of this law, Article 11, states that, 'the responsibilities of the adopting couple and the adopted child, are the same as biological children of parents in terms of custody, education, alimony, and respect; the child shall bear the name of the adoptive parent, but the law has not mentioned inheritance while it is considered as one of the mutual rights between parents and children'¹²⁰ (Garmaroudi Naef 2013, 107). The reason for this silence on inheritance is clearly addressed in the notes of the discussion of the Embryo Donation Bill in the Iranian Parliament. Before discussing this issue in more detail, I should point out that the law on adoption – which is forbidden in Islam but exists in Iran – has been a point

¹²⁰ The complexity involved in legitimising embryo donation, while ascribing the child born through this method to its genetic parents, lies in other Islamic structures such as inheritance. In fact, 'Under the Islamic law, inheritance rights are exclusively linked to biological relatedness and to marriage as between the wife and the husband, except for the one-third of heritage on which there is a right (for the deceased) to bequeath (to make a will)' (Tremayne and Akhondi 2016, 68).

of reference in Parliamentary discussions and has paved the way for the ratification of the Embryo Donation Law. In fact, one MP who supported this Bill asserted that:

Anyhow, the outcome of this embryo donation is something beyond adoption, but obviously will not include the criteria of inheritance similar to one's own and real child. (Notes of Discussion- The Iranian Parliament, 08/06/2003).

This Member of Parliament distinguishes the child born through embryo donation from an adopted child, perhaps because the recipient mother gestates the embryo. The child born out of donation is perceived as more related to the recipient couple than a child who is adopted. Nevertheless, this MP also distinguishes the child born through embryo donation from one's 'own' and 'real' child. Interestingly, during the discussion of the bill, one MP pointed to ambiguous issues related to inheritance – in particular, whether the child would be categorised as mahram or na-mahram in his/her relations with the recipient parent and wider family. A supporter of the bill responded as follows:

Yes, with respect to inheritance and the issue of mahram/na-mahram, we have similar cases. There is a law called Adopting Orphaned Children which is currently executing in this country. There are families going to the State Welfare Organisation, who adopt children and are their guardians. Never has there been any law ratified to determine if these children are categorised as mahram or na-mahram in their relationships with that family or wider kin groups. In my opinion, these are private issues of people and since fatwas of religious authorities are different on these issues. These are private issues and people have to follow the fatwa of their own marja-taqlid. It is not necessary to mention details here. (Notes from a discussion – The Iranian Parliament, 20/06/2003).

This Member of Parliament also cited adoption law to justify the fact that the Embryo Donation Bill did not mention inheritance or define the child's social/genetic relationship with his/her recipient parent. In fact, he cited the smooth execution of adoption law as grounds on which to defend the Embryo Donation Bill. He constructs inheritance and mahram/na-mahram categorisation as 'private issues', 'details', and 'not necessary to mention', given the plurality of fatwas. In such private matters, the couple's 'own marja-taqlid' must regulate the process; there is thus no need for the law to intervene. The failure of the law to stipulate who the child will inherit from can be seen, on the one hand, as liberating for clinic users and practitioners, due to the multiplicity of religious ideas. They can make their own decisions, agentically and actively. On the other hand, it is constraining (even chaotic) because there is no fixed or given set of principles to regulate the religious implications of third-party donation.

However, it is worth mentioning that regulations requiring confidentiality during the donation process are not included in the law but are explicitly mentioned in the Ministry of Health regulations that enacted the Embryo Donation Law in 2005. One Article states that ‘receiving, keeping, and transferring the donated embryo should remain confidential’.

Such confidentiality makes it impossible for the child to inherit from his/her genetic parents, since only the clinic will know who they are. The table below summarises the positions taken by the Shia religious authorities with respect to each type of treatment:

Table 1: The positions of Shia religious authorities, with respect to third-party donation

Type of treatment	<i>Legitimacy of the act (if third-party donation is seen as a form of illicit sexuality?) (a and b are two different stances)</i>	Who the child <i>belongs</i> to?
Egg donation	a) Yes, but it can be legitimised through temporary marriage. b) No. It is legitimate even without temporary marriage	Genetic parents of the child
Sperm donation	a) No. It is legitimate. b) Yes, and it cannot be resolved through temporary marriage.	Genetic parents of the child
Gestational surrogacy	No. It is legitimate.	a) Genetic parents b) The surrogate mother and the genetic father
Embryo donation	No. It is legitimate.	Genetic parents of the child

The multiple positions on third-party involvement in procreation taken by Shia’ religious authorities highlight two points. First, even though the child belongs to the producers of the egg and sperm (the producers of the ‘liquid mixture’ in the Quranic verse at the beginning of this chapter), the controversial sperm-donation debates revealed that gametes are considered to have gendered properties. Moreover, as I will show later in this chapter, gendered ideas about eggs and sperm foreground the reconstruction of kinship for women receiving or donating eggs. Second, the Embryo Donation Law (like the Adoption Law) has resulted in the transfer of parental rights to adoptive parents and a broader definition of nasab (Tremayne and Akhondi 2016). Nevertheless, this transfer is not complete, as the child can still inherit only from his or her genetic parents. In other words, even though responsibilities that follow genetic

lines, such as nurturing, have been transferred to the social parents, the child still inherits only from the genetic parents. Moreover, Iran's Embryo Donation Law can be seen as another attempt to construct the institution of social fatherhood, which is not recognised under Islamic law. While these debates on the legitimacy and kin-relatedness of children born out of third-part donation are ongoing discussions, it is interesting to see how this complexity operates and is managed in the real life of the clinic.

'We have the fatwa but...': Practitioners' understandings of gamete donation, gender, and relatedness

Outside the donation clinic, the first things that drew my attention, and presumably that of many other clinic users waiting to see social workers, were two large pieces of hard cardboard attached to the outside wall, completely filled with handwriting. One piece had a bold heading: 'Tell whatever your disappointed heart wants to say¹²¹', while the other had 'My heart's desire' as its heading. Clinic users had written a sentence or two below the headings, followed by a signature and date. Most of the comments expressed dissatisfaction with the clinic or the stage of the process a particular clinic user was at. There were personal conversations with God and I even saw a mobile number and a request for an egg donor to call. It was hard to find even a small space to write a comment on. Most of the comments dated back several years, suggesting that donation had not been practiced recently in this clinic. The number of comments demonstrated that donation was a huge source of stress and a challenge for clinic users.

Even though both the current and former Head of the clinic wished to include donation among the infertility treatments provided by the clinic, and emphasised its religious and legal status, the history of donation in this clinic had various ups and downs. This section of the study draws on interview material to trace the trajectory of gamete donation in the clinic over time. I will argue that the inconsistency among fatwas discussing gamete donation has opened up a space in which clinic practitioners can promote their own perceptions of kinship and the legitimacy of conception.

¹²¹ This phrase is part of a poem in Persian. Disappointed heart is the closest translation for the original phrase, 'del-e-tang', which literally means a squeezed heart.

Understandings of kin relations and legitimacy are culturally constructed and rooted in legal/religious discourse. They shape the trajectory of donation and even practiced types of third-party involvement in reproduction.

Egg donation was the first form of third-party involvement in procreation that the clinic began to offer in the early 2000s, and it generated much controversy and debate among practitioners. Initially, to avoid violating religious rules, the egg donor was known and the husband was required to marry her temporarily. As a result, the supply of egg donors was much lower than the demand; donors had to be divorced or widowed women, since a married donor could not marry the recipient's husband, even temporarily. In separate interviews, the clinic's Social Worker and the Head of the Nursing and Midwifery unit discussed the many problems that ensued as a result of having a known donor and a temporary marriage. These ranged from donors who blackmailed recipient couples by threatening to reveal donation, to illicit sexual relationships between donors and recipient husbands, to a case in which a clinic gynaecologist was sued by a donor because the child's mother (named on the issued birth certificate) was the recipient, not the egg donor. Such issues rendered egg donation, practically speaking, very problematic; for a period of time, some senior gynaecologists at the clinic stopped practicing it. Embryo donation was also practiced for a short time using known donors (a married couple introduced to the clinic by the recipient couple); for similar reasons, this treatment also stopped for approximately five years (2006–2011).

Around 2007, to mitigate the problems caused by known egg/embryo donors, the clinic's Ethical Committee made some changes to the donation procedures. Members of the committee removed the temporary marriage requirement for egg donors by invoking fatwas that did not recognise third-party donation as a form of illicit sexuality. Under the new guidelines, married egg donors were permitted to donate their eggs. Donation procedures slowly began to increase. Currently, procedures remain limited by supply, as the number of would-be recipients exceeds the number of donors. While a recipient couple can skip the long waiting list by introducing an egg or embryo donor to the clinic, that couple will still be given the egg or embryo of an unknown donor/s. Egg donors are commercially contracted, while donating an embryo is altruistic (there is no exchange of money). In the case of embryo donation, the clinic's ethical committee incorporated the donor confidentiality requirement

included in the Ministry of Health's embryo donation regulations. The 'spare' frozen embryos of couples who had undergone successful IVF/ICSI treatment were, with their consent, set aside for potential embryo donation.

Notwithstanding these official positions, some senior members of staff officially declared themselves unwilling to be involved in any clinical procedure related to donation, including consulting with egg recipients/donors, retrieving eggs from donors, and transferring embryos¹²². The head of the clinic asked other gynaecologists working in the clinic to take responsibility for donation procedures; some junior doctors agreed to work with anonymous donors under the new regulations. These debates, followed by a shift in the internal regulations of the clinic, were accompanied by another event – the birth of the donation clinic, as a dedicated space. The head of the clinic appointed two social workers to provide information and counselling to recipient couples, egg donors, and gestational surrogates, explaining the clinic's procedures and regulations and also undertaking the initial screening of both recipients and egg donors/surrogates to ascertain their social and financial status¹²³. Given all these changes, I was interested to tease out what perceptions clinic practitioners, as well as the head of the clinic, based their positions on; how did they deconstruct and re-construct kin relations?

One of the senior gynaecologists who refused to be involved in donation was Dr Fakoor, one of the first woman gynaecologists to retrieve eggs surgically in this clinic and in Iran. She told me that, even before the clinic established its new regulations, she had practiced egg/embryo donation against her will. She cited two examples to demarcate her position, in response to a question about her reasons for disapproving of donation. One example involved a colleague's story of parent-child relatedness, while the other reflected her own experience and clinic users' expectations of medical science:

¹²² Either a donated embryo or an embryo conceived using a donor egg fertilised with husband's sperm.

¹²³ Screening gamete recipients based on their social and financial status was another source of debate within the clinic. Should they do a thorough investigation of the couple's lifestyle, for example, by visiting their house, or limit the screening to assessing the couple's conversations with social workers in the donation clinic? At the time of my fieldwork, the latter approach was used; clinic social workers assessed whether the couple could afford to have a baby and whether either partner was addicted to drugs, etc. Moreover, with the approval of the social workers, the clinic's psychiatrist carried out psychological assessments and the two junior gynaecologists did medical screenings.

One of my colleagues told us that she had gone to a park with her children. A man had recognised her [as a member of the clinic], approached her and said, ‘these two children are donation children [conceived by his sperm and donated eggs]. Just as they were born their mother left [us] and had said that she had no feelings for these children and they were not her children’. Many of them [recipients] keep donation secret from families. This indicates that donation in our country hasn’t been socially accepted. It is true that third-party [donation] is currently known as a treatment all over the world but the reality is that it isn’t accepted in our society. IVF is accepted among the public as a scientific technique helping pregnancy but not donation (...) or, as another example that I was personally involved with, she [a woman clinic user] had received a donated egg. We did all the [medical] screenings but the child was diagnosed with Down’s syndrome. She brought the child to the clinic and said, ‘it’s yours. I didn’t want a child with Down’s syndrome’. Patients can’t accept these probabilities in medical science. When we suggest donation, patients assume that we are going to give them an absolutely healthy child and can’t accept that this child like other children may have [medical] problems.

Dr Fakoor posits that kinship bonds made through blood/genetic links were perceived as more normative and could not be disavowed. She lists various problems that could emerge because the use of a donated egg disrupts the cultural assumption that kinship (*nasab*) is defined biologically¹²⁴. In the example she gives, even though the husband regarded his former wife as the children’s mother and she had given birth to the children, his wife did not see herself as their mother. In the absence of genetic links to the child, there is a risk that a child’s gestational mother will reject him/her. In explaining the woman’s decision, Dr Fakoor asserts that, although egg donation is a known scientific form of infertility treatment across the world, it cannot be adapted to the Iranian context. For this reason, infertile couples must keep gamete donation a secret. She not only relies on a dominant understanding of kinship to build her argument, but also challenges popular representations of medical science¹²⁵. In her

¹²⁴ See Kirkman (2008) on the experience of women using donated eggs in the Australian context. She argues that in Euro-American cultures, kinship is fundamentally based on a biogenetic connection. While women who become mothers by using a donated egg comply with cultural norms that associate womanhood with motherhood, they usually feel that they have challenged the assumptions regarding the genetic link between mothers and children.

¹²⁵ Popular media representations of assisted conception in Iran are not covered in this thesis; however once I was in the gynaecologists’ meeting room when a senior gynaecologist contested claims made by a TV programme broadcast in Iran. The title of the program was ‘The End of Infertility’. She argued that there was no such thing as ‘the end’ of infertility and that such programmes undermined the practicalities of medical science in infertility treatment, giving lay people, such as the woman clinic user who gave birth to a child with Down’s syndrome, an unrealistic picture of medical science and

second narrative, she highlights the fact that when science does not comply with recipients' expectations by giving them 'an absolutely healthy child', the clinic is blamed; in the absence of any genetic relationship, the mother does not feel any responsibility for nurturing the child. To justify her position, Dr Fakoor points to the fact that egg donation is not socially accepted in Iran, where genetic relations create the mother-child bond.

Considering these two examples, Dr Fakoor proposes a solution that favours adoption over egg donation:

The best solution in my opinion is adoption. Doesn't she want to have a child? This [receiving eggs] is similar to adopting a child. What is the difference? Just a bit more developed, more serious. It is somebody else's egg and that [adoption] is somebody else's child. Should it be always in the stomach? (...) Having a child has its own joys but with what price? [Having a child] in any form? We had another example; the child was born of embryo donation and the father passed away. There had been a huge dispute among relatives that this is not his child to inherit [from him]. Just think about the level of tension imposed on the mother, on the child.

She constructs egg donation as a 'more serious' and 'more developed' form of adoption as it involves medical procedures and the work of pregnancy. In her opinion, in both cases, the child is 'somebody else's child'; she de-emphasises the role of gestation in establishing kin relations. Dr Fakoor also points to the legal/Islamic construction of relatedness and Islamic law on inheritance, believing that embryo donation disrupts them both, causing lots of problems and tensions for the child and the mother. Another senior gynaecologist, Dr Vahidi, emphasised the clash and incompatibility between fatwas permitting the use of gamete donation and the Islamic discourse about *nasab*:

For egg donation, no law is set yet. It is endorsed from the religious point of view but we have no law (...) what about its ramifications? Law is something which looks at the process of this treatment. Either religion should declare that the child belongs to the person who is nurturing the child, [or ...] although it is not correct. Some professionals in other clinics are trying to ignore *nasab*. They say, 'what is the use of *nasab*? The child belongs to the person who is rearing it'. But it is incorrect. It is not according to our religion. Anonymity of the donor is only included in the law set for embryo donation. It is not mentioned in the law.

raising their expectations falsely. See Chapter 2 in Franklin (1997) and also Steinberg (1997) for discussions on media representations of ARTs on the UK.

Dr Vahidi argues that, on the one hand, religion (fatwas) has permitted gamete donation while, on the other hand, the set and fixed notion of nasab in Islam does not allow any form of law to be passed in Parliament stating that the child one nurtures is one's own child. Any attempt to broaden kin relations would violate Islamic rules. For her, there is an inherent contradiction between the religious authorisation of gamete donation, religious (legal) notions of kinship, and the practicalities of gamete donation. In her view, it is not possible to reconfigure kin connectedness.

However, those junior gynaecologists who agreed to practice gamete donation have sought to expand the boundaries set by the laws on relatedness. Dr Hamidi, a junior gynaecologist and Director of the Donation Clinic during my fieldwork, challenged the foundation of genetic kin relations:

Dr Hamidi: I think the definition of parents is not correct. I don't know, too, but any way, the father and mother are not the egg and sperm producers. You ovulate every month. Yes? Do you have concerns about the ovulated egg? I think it is not defined correctly who the parents are.

Sara: What is the definition of parents in your perspective?

Dr Hamidi: In the Quran, it says your parents are those who give birth to you. It could say it in another way. But even if we don't get involved in religion. Imagine a couple has used a donated embryo, I think, this child is the sister or the brother of the other [genetic] children of the donor and shouldn't marry them because of the risk of anomaly and due to genetic issues, but they [the donors] are not the child's parents. They have blood relations, but this doesn't mean that we consider them as the father and the mother of the child so that the child inherits from them. I personally think, father and mother are those who have looked after you, like an arable piece of land which is given to you. The one who puts efforts to cultivate the land is the owner of the land. Now imagine egg and sperm as this arable land (...) [if you donate your eggs] you haven't endured any difficulties for your egg and therefore you don't like it. Is Relationship between humans based on genes? Does it matter for you to know who your ancestors were? Do you have any emotional relations with each other? First the father and mother should be defined and then define kinship and inheritance.

While Dr Hamidi acknowledges genetic (blood) connections between donors and children born with donor gametes, she distinguishes between the donor and the nurturing couple in terms of ascribing the title of parent. She constructs her argument based on religious and non-religious discourses. Nevertheless, in both of her arguments, becoming a parent requires a procedure involving effort, enduring difficulties, and emotional ties –rather than mere genetic connections. Parenthood is

constructed during gestation and nurturing, according to her Quranic argument, which draws an analogy between ‘arable land’ and children. Here, I should pause and note that, according to Islamic rules, if one plants arable land, one becomes the owner of that land. Dr Hamidi uses this analogy to accommodate donation within religious discourses available to her and to legitimise its practice.

She asserts that this definition of parents broadens the boundaries of kinship and undermines the donors’ maternal or paternal claims. Dr Hamidi challenges the idea of having a genetic child to perpetuate a lineage, reasoning that there is no emotional relationship between ancestors and their second- or third-generation kin relations. Although she discounts the transmission of genes in defining a parent, her broadened notion of kinship includes the relationship between children born through donor gametes and other (genetic) children of the donor. In other words, they are considered siblings not because of social closeness, which they do not have in this case, but because the scientific/medical perspective holds that a marriage between them would increase the risk of anomaly. Dr Hamidi reconstructs the definition of parenthood and kinship differently from senior clinic gynaecologists who oppose gamete donation. While for senior gynaecologists, *nasab* is a concept that cannot be changed, Dr Hamidi challenges the normative, fixed understanding of kinship. She de-emphasises the genetic aspect of *nasab* and re-emphasises its social (nurturing) aspect.

These quotations from senior and junior gynaecologists highlight their opposing views on gamete donation. This then raises the question: how they can work together? In an informal conversation, I asked Dr Fakoor about this disagreement between senior and junior gynaecologists and its potential impact on their collaborative work; she said that they have disagreements, but get along quite well. Importantly, this disagreement about gamete donation is not confined to gynaecologists; it has also been a matter of dispute between senior gynaecologists and social workers at the clinic. Mrs Mehraban, a social worker, described the very difficult path she had taken since starting to work for the clinic¹²⁶, in keeping the donation clinic operating:

Thank God, the head of the clinic is supporting us [but] the doctor’s [gynaecologist’s] team doesn’t. Years ago, I wanted to meet the head of the

¹²⁶ At the time of the interview, Mrs Mehraban had been working for the clinic for eight years, from around the time when clinic’s donation policy shifted towards anonymity and then restarted the practice of egg donation.

gynaecologist's team several times, it was somebody else [one of the senior gynaecologists of the clinic]. She always rejected me. But, thank God, since two of the junior gynaecologists have taken the responsibility of the donation clinic, they [junior gynaecologists] don't involve their own personal views. They don't involve their religious beliefs and we are feeling much more secure now. We used to have many issues in donation. Therefore, there has been always this concern. You know, religious opinions towards donation are diverse and doctors [gynaecologists] were integrating their practice with their religious beliefs (...) [the] gynaecologist team in this clinic is a very powerful team and they veto everything, we used to have many issues with them. They were looking at donation clinic as an office which has maintained donation which is a practice against religion. This was the [reason for] resistance. However, if you ask me about my personal perspective, maybe under the same condition [being in need of a donated egg], I would never accept donation. My personal view is something else, but for the clinic user, why should I involve my personal view? I want to know what her [clinic user's] perspective is. What does she want? What are her needs and problems? The donation clinic has always insisted on principles of humanity.

The above excerpt is the essence of Mrs Mehraban's very long response to my question about whether she had received any feedback on a book she had published in the clinic narrating the trajectory of infertility treatment¹²⁷. She started to talk about resistance towards any activities/events she proposed, a 'resistance' aimed at undermining her role and that of the donation clinic, more broadly. In her quotation, Mrs Mehraban alludes to an internal conflict between the head of the clinic and the clinic social worker on one side and the clinic senior gynaecologists on the other. She argues that this conflict is the result of an incompatibility between personal/religious and professional views in gamete donation. She contends that the senior gynaecologists' opposition to gamete donation is rooted in their own personal or religious beliefs. However, she feels that this opposition overlooks the professional, medical, and even humanitarian aspects of gynaecological practice, which include considering clinic users' 'perspective', 'wants', 'needs', and 'problems'. Mrs Mehraban recognises that religion and medical technique clash when it comes to gamete donation. The practise therefore requires an emphasis on the professional aspect of gamete donation, rather than religious discourses.

¹²⁷ The book is a story of the treatment trajectory of an infertile couple (Amir-Hossein and Maryam). I have included some sections of this book in the analysis of the gender segregated space of the clinic in Chapter 4.

While there have periods when egg and embryo donation have been performed in this clinic and then stopped, as explained earlier, sperm donation has never been practiced. The exclusion of sperm donation raises a very interesting question: why it is not practised even though it has been endorsed in fatwas issued by some religious authorities? I asked this question of several staff members. The excerpts below not only shed light on the different perceptions of kinship in the case of sperm donation, but also add another layer to the discussion, regarding the cultural conception of sexual intercourse and gamete donation.

Dr Sohrabi: Since the beginning, clerics have been viewing sperm donation as problematic and there are reasons behind it which cannot be easily dismissed. According to religion, the guardian of a child is the owner of the sperm; it means he [the owner of the sperm] is ascribed as the father of the child. Now, in the case of sperm donation, who is ascribed as the father? Moreover, religiously speaking, the father has some responsibilities to the child and the child has some responsibilities to the father, which are not as strict in egg donation as in sperm donation. Because, although the mother is somebody else, the father is this [known] person. The child belongs more to the father than to the mother, from the religious point of view. That's why it [egg donation] is easier to be resolved.

Sara: But Ayatollah Khamenei has affirmed sperm donation in his fatwa.

Dr Sohrabi: Yes, I have heard about the Ayatollah Khamenei's approval. But law is different from fatwa. While one religious authority's attitude is that it [sperm donation] is not religiously problematic, the other thinks that it is religiously problematic. And there is controversy among them. But, at the end of the day, the law is something else. Each individual may be muqalid, follower, of a different person, which causes chaos. The husband might be muqalid of someone who says sperm donation is haram (prohibited). The wife might be muqalid of a person who says sperm donation is halal (permitted) and I might be muqalid of somebody else with another perspective. Now, whose perspective should we rely on? If there is a law, then everything will be clear. No law is set yet in this regard.

Analysing Dr Sohrabi's attitude towards sperm donation requires an explanation of modes of conception in Islamic texts. Fortier (2007) recognises two modes of conception in the Quran and teachings of Sunna (the life of the prophet Muhammad): a monogenetic and masculinist representation, which emphasises the major role of sperm in conception; and the duogenetic point of view, in which conception is assumed to be based on the mixture of two sexual fluids. However, the prevailing representation is the former; this is the one that Dr Sohrabi refers to when he rejects sperm donation – 'the guardian of the child is the producer of the sperm'. He is

assigning gender roles to eggs and sperm that reflect gender relations in mainstream Islamic religious discourse. For him, the egg or women's role is different from the sperm or men's role in procreation: 'the child belongs more to the father'. Thus, breaching the genetic tie is less problematic in egg donation than in sperm donation, in terms of ascribing kinship. When I pointed to the fatwa of Ayatollah Khamenei, the Supreme Leader of Iran, he made a distinction between a fatwa and law. Dr Sohrabi regarded the controversy generated by fatwas as chaotic and problematic, since the man, woman, and doctor could all follow different clerics, with different perspectives on third-party participation in conception.

At the same time, it is worth remembering that, to remove the temporary marriage requirement in egg donation, the clinic invoked the fatwa of Ayatollah Khamenei, while a great number of Shia religious authorities still require a temporary marriage between the egg donor and the recipient's husband. Moreover, in his fatwas, Ayatollah Khamenei has mentioned that the resulting child belongs to its genetic parents. Situating Dr Sohrabi's quotation among broader religious debates on third-party donation highlights two problems with donation in practice. First, fatwas are selectively used by practitioners to justify and legitimise their own viewpoints. Second, practitioners strategically re-interpret fatwas, adding cultural and gendered understandings.

Dr Sohrabi's concerns about sperm donation were not confined to the religious and legal aspects of gamete donation. Later, when I asked whether he thought that third-party donation resolved the sufferings of infertile couples, he responded:

It seems that some of the patients initially just assume that their current issue is to resolve their infertility. They are paying less attention to the future and they may face some problems in the future (...) I don't know in this culture if a donated embryo is transferred and implanted and a baby is born and grows up and if the child is naughty and doesn't listen to what his father is saying, won't he [the father] scold and say that if this child was mine, he wouldn't have behaved like this? Will he transfer all the responsibility of this [undergoing donation] to his wife's shoulders? I don't know, but these are things I am concerned about. I don't want to say if the child is born with a disability or a disease whose health care costs financially? What would be the emotional relationship of the child with his/her parents? [what would be the emotional relationship of] the parents to the child? In European countries, they have researched these issues and they are discussing them, but the reality is that our culture is different from them [Europeans]. For example, they easily accept that their wife with somebody else's child come to their lives. Or the husband

comes with somebody else's child, or their child leaves their home. These things are very normal but for us they are not normal. To be honest, I don't really know what will happen to them [children born through gamete donation in Iran].

Like Dr Fakoor, Dr Sohrabi worries that a child born through donation could face future rejection from the prospective father. He posits that a genetic/biological connection creates the bond and emotional relationship between the child and his/her parents. Having no genetic or biological role in procreation, the prospective father may not make the child as much his own by investing in him/her, even if the prospective mother does. However, he assumes that the prominent role of genes/biology in constructing emotional ties between children and their parents has cultural origins; he makes a distinction between 'our culture' and 'theirs [Europeans]'. For him, in Iranian culture – 'our culture' – forming a bond with a child to whom one does not have a genetic/biological connection is 'not normal' and hence not widely accepted. He recognises that Iranian culture cannot truly accept third-party involvement in reproduction or adapt to its disruptions. Similar perceptions were also expressed by Dr Taban, the Head of the Clinic.

In explaining his reasons for abandoning sperm donation, Dr Taban, who insisted on practicing egg donation when the clinic's senior gynaecologists stopped practicing it, argues that the public is more conservative than religion:

We have the fatwa of the leader who has approved it [sperm donation]. Others [religious authorities] have not affirmed its use. There are no considerable number of fatwas. We may say that from the religious perspective, the leader has approved it and let's practice it but the public's perspective? Imagine you are infertile and in a gathering, you tell them that you have used the sperm of another man. How much do you think your assertion is favourable in their eyes? You may even say that you have used a donated egg but there is not such sensitivity. If you talk with a patient and she tells you somebody else's sperm has been injected into her uterus ten times and now she is pregnant or not. What will you think about her? Fortunately, or unfortunately, I agree with banning sperm donation because, from a lay viewpoint, it is not accepted. So many people [other practitioners in other clinics] have emphasised that this clinic starts [practising] sperm donation, so that they [also] use this method and [then] it will prevail quite quickly in Iran. But we didn't use it.

Even though the head of the clinic acknowledges Ayatollah Khamenei's fatwa permitting the use of sperm donation, he cites unfavourable views of this practice, among other Shia religious authorities and the public, to justify the clinic prohibition.

He argues that lay beliefs about sperm and egg donation link to assumptions grounded in gender relations; semen is sexualised: injecting into a woman's uterus the sperm of a man who is not her husband is equivalent to illicit sexuality. His rhetorical question, 'What will you think about her?' invites the response that the act of using a stranger's sperm is impure and sinful. Whereas, in his view, the egg is asexualised – there is 'not such sensitivity'. Note that this clinic is both famous and popular. In banning sperm donation, it has deterred other clinics from routinely practicing sperm donation and reinforced people's assumption that gametes are tied to sexual relations between men and women during reproduction.

Some other staff members also associate sperm donation with inappropriate sexuality, in this case on the part of the man, rather than the woman. When I asked Mrs Mehraban, the clinic social worker, why sperm donation was banned despite the permissive fatwa, she referred to 'stereotypes. Semen collection requires masturbation and masturbation is haram (forbidden) in Islam'. When I drew her attention to the fact that, in this clinic, the majority of men masturbate to collect sperm (rather than engaging in sexual intercourse with their wives and withdrawing at the last minute), she replied that 'those are clinic users who are already in their treatment process; whereas there is no need for donors to masturbate'. The same physical practise (masturbation) takes on different meanings when mediated by religion. Masturbation by prospective fathers is permissible here because the doctors and clinic manager consider it a necessary medical procedure¹²⁸. It is prohibited (haram) in the case of sperm donation. The Head of the Midwifery Unit offered yet another apparent distinction between egg and sperm donation, which related to medical procedures and control over donor gametes: '*collecting semen is easy and it might go "out of our control"; whereas egg donation is clinical and in control*'. Practitioners invoke religious ideologies and regulations to make sense of medical/scientific practices and biology.

An analysis of debates about egg and sperm donation in other contexts, particularly Western countries, show that Iranian culture is not alone in associating gamete donation with sexual impropriety. For example, Haimes (1993) highlights

¹²⁸ Shia Maraji in Iran have allowed masturbation for infertility treatment. However, there are certain conditions that have to be met. For example, Ayatollah Khamenei has endorsed it if treatment requires masturbation and masturbation in the presence of the wife is impossible. This fatwa, thus, implies that if the wife is available, masturbation without her presence is not permitted.

assumptions linking donation with illicit sexuality in the UK. Using discussions about the Warnock Report and in-depth interviews with its members, Haimes argues that sperm and egg donation are implicitly gendered. Egg and sperm donation are both permitted, but with different justifications. Members pointed to the technical aspects of egg donation; as the procedure requires clinical treatment, it is seen as asexual. Semen is collected through masturbation and is therefore associated with deviant sexuality. In Norway, Spilker and Lie (2007) have analysed debates among Norwegian Members of Parliament on permitting sperm donation and prohibiting egg donation (the opposite of this clinic). They have argued that these discussions were built upon socially and culturally constructed norms of sexuality and gender roles, in which the identity of the biological mother has been always recognised, while similar recognition has never been accorded to the biological father. The above studies and my fieldwork data highlight the gender assumptions implicit in gamete donation. As these assumptions are based on context, the medical procedures are understood in various ways.

Returning to my fieldwork data and among all the staff members I interviewed, only Dr Hamidi, the Head of the Donation Clinic, argued that sperm donation was similar to egg donation:

I think sperm donation and egg donation are similar. A person without being involved in sex is donating his semen or her eggs. What is the difference? Why should it be problematic for a man to donate his semen but non-problematic if a woman donates her eggs? A cell in the human body has the capacity to reproduce and there is another cell which is a cornea cell. You transplant this one [cornea cell] and resolve the problem but you can't transplant that one [sperm].

Here, Dr Hamidi does not differentiate a donated egg from a donated sperm. From a medical/scientific perspective, she argues that both are cells with the capacity to reproduce humans. She even suggests that they are not really very different from other cells transplanted as a part of medical treatment. In this way, Dr Hamidi disassociates the procedures from any assumptions that tie gender roles to gametes in reproduction. She posits that any human cell has a specific function that is universally recognised and cannot take on different meanings, based on context.

Like the practitioners, who actively used various cultural repertoires, such as religious knowledge and public perceptions, to construct kin relations and the legitimacy of gamete donation, gamete recipients also use strategies to claim or discredit kin

relations. In fact, recipients are ‘doing kinship’ (Thompson 2005) in making sense of the complexities of third-party donation. Attaching gender roles to gametes and using ideas about nurturing to reconstruct kin relations are ways of co-constructing these acts, as the following section highlights. I begin by explaining how recipients negotiate the complexities of gamete donation by telling the story of one clinic user. This representative story illuminates the various struggles and challenges faced by gamete recipients and the strategies they use to reconstruct kin relations.

Kinship work: Strategies of claiming relatedness

One late afternoon in April 2016, I was about to leave the clinic when I saw a woman sitting alone in the back row of a waiting area, leaning her head on the wall. I sat next to her and we started to talk. Sanam was 26 and her 31-year-old husband, Hussein, was in the operating theatre to have sperm directly aspirated from his testicles, if any was found. She had a Master’s degree in psychology and her husband had a college degree in Lathe machinery and owned his own business. Sanam told me about the very difficult moments she experienced when Hussain’s spermiogram showed that he had azoospermia; Hussein also experienced a great deal of stress and anxiety in the days leading up to his operation. After we chatted for a while, she was given a paper describing the operation, while Hussain was still in recovery. It was written in English and full of medical terms, so I read it for her. At the bottom of the page, the clinic andrologist suggested using a donated embryo (E.D.). She abruptly said that she already knew the outcome because her husband had a genetic problem; his chromosomes had an extra X rather than being XY; a syndrome she could not remember the name of¹²⁹. I tried to console her by saying that I was not a doctor and that what I understood might be wrong but she said that, as a psychologist, she knew how to control herself. Two weeks later, I met Sanam again, waiting for her husband outside the men’s clinic. Hussain had an appointment with the clinic andrologist to discuss the result of the operation and a pathologic analysis of his testicular tissue. Sanam had not disclosed any information about the operation report to her husband, as he was in a lot of pain after the operation. When Hussain finally left the fixed

¹²⁹ The syndrome is called Klinefelter Syndrome (KS or XXY) whereby the extra X in the chromosome results in much lower Testosterone secretion and sterility. According to the NHS webpage, this syndrome is quite common, affecting around 1 in every 660 men.

boundaries of men's clinic holding that same small piece of paper (very like the one mentioned in the introduction to this chapter), Sanam introduced me to her husband. He could hardly say a word, appearing to be overwhelmed.

Later, Sanam told me that the clinic andrologist had prescribed testosterone replacement therapy and explained that there was a very small possibility that Hussain could be a biological father if, after a year of regular testosterone injections, his body began to secrete testosterone itself and to make the male reproductive substance, sperm. She reported that Hussain had cried all the way home that day. The unlikelihood of his ever being a biological father was not the only reason for his grief. Hussain speculated that he also had little chance of becoming a non-biological father at this clinic because they might have to spend six years on the waiting list to receive a donated embryo, given that demand vastly outstripped supply. Moreover, the clinic's policy stipulated that, if they received a donated embryo but implantation failed, they would be excluded from the waiting list forever. They had kept Hussain's infertility a secret from both their families and were also feeling that strain.

Six months later, they began to approach other clinics to find out if their waiting lists for embryo donation were shorter; they even considered using donated sperm in another clinic. All of these delays in pursuing any kind of third-party participation in treatment exacerbated the difficulties of making up their minds. Sanam was reluctant to pursue any of these options because of the risk of social stigma, as she explained:

I have hope, may be with this medicine [testosterone] that he is using. But if later it doesn't work and we wanted to use a donated embryo or sperm, other people's view will be different. They will say, 'oh it is not their own baby. It belongs to somebody else'. I don't want to be the talk of the town.

Sanam's main concern revolved around normative notions of relatedness, enforcing biological essentialism and the fixed role of reproductive substances in establishing descent. She was worried about being 'othered' by relatives if she gave birth to a child using a donated embryo or sperm. Yet, she imagined that the degree of 'othering' was partly determined by the type of treatment. For her, using a donated egg represents a form of biological relationship.

Sanam: You know, an egg is considerably different from sperm or an embryo.

Sara: In what ways?

Sanam: Well, an egg will enter the woman's body and becomes part of it but [a donated] sperm is hard for a man. Sometimes Hussain says: 'OK, I agree' [to use donated sperm or a donated embryo], but I feel like it is not easy for him. At the end of the day, if they inject sperm into my uterus, it will be my child but not his child. He knows it himself and perhaps this fact annoys him forever. That's why I delay [in pursuing embryo or sperm donation]. I tell myself, what if after the birth of the child, we reach to a point where Hussain says it is not my child and he can even prove it. With a simple genetic test, it can be revealed that it is not his baby.

Sanam differentiates between using a donated egg and a sperm or embryo in terms of kin relations. She contends that gestation can produce kinship, as the carrying woman and fetus share bodily substances, despite the absence of a genetic connection. This embodied experience makes the fetus part of the woman's body. However, using a donated sperm does not require any bodily involvement from the man; for this reason, no form of genetic/biological connection can be constructed. Moreover, kin relations can be tested using a simple medical genetic test – 'my child but not his child'. Note that while many religious scholars prohibit (as a form of adultery) conception using a woman's egg and sperm from a man who is not her husband, Sanam does not view this practice as a violation of religion.

Of course, I can prove that with his [the husband's] agreement and in a clinic, I have done it. I haven't done anything which is in contrast with Sharia.

The two ways in which she legitimises the use of donated sperm are her husband's consent – 'with his agreement' – and the fact that insemination is a clinical practice. Hence, no physical or sexual relationship has taken place outside the marriage. Her thinking is quite close to that of the few religious authorities who advocate sperm donation. Nonetheless, Sanam's concerns reach beyond the religious legitimacy of the child. She would not perceive a child conceived and born through sperm or embryo donation to be their own child:

In another clinic, I was asked about my marja taqlid and she [the consultant] said he [Sanam's marja taqlid] hasn't permitted sperm and embryo donation and I said, 'I'll change him [her marja taqlid]. Take it easy'.

Sanam is not concerned about the religious permissibility of donation; if she decides to use a donated embryo, there are other religious authorities she can follow¹³⁰. For

¹³⁰ Deciding who to choose as one's Marja, to follow or not, is a personal decision.

her, the problems caused by infertility do not end with donated embryos, as she further explained:

You know, you are looking at our problem from an outsider's perspective. You can tell me, well some people use a donated embryo, give birth to it and it is over and never think about what may happen in the future. For example, when this child is born, what is the perception of others? What will they say? Or even, will we accept the child after it is born? Because we know this fact. There is something in our subconscious mind that it is not our child. It may annoy us, even me myself. You will never know. Maybe if the child starts to bother us, I reach a point and say to myself that I wish I hadn't done it. I don't want to have these issues. That's why I am delaying [in making a decision] (...) we haven't told anybody but if we go for it, we will tell everybody that it is our own child.

She has ongoing concerns about their relatives' attitudes and even their own bond with the child. MPs who enacted the law on embryo donation legally broadened the notion of descent and transferred parental rights, such as custody and nurturing, to adoptive parents. Nevertheless, Sanam constructs the parent-child relationship and parental responsibilities as partly constituted by the genetic relationship between child and parents. She cannot predict how she will feel about the child and her/their connection to the baby. Even if she gives birth to a child conceived through donation, she does not know if gestational relatedness will make her feel that the baby is hers. In other words, she is concerned about how they are going to experience kin relations. For her, biological relations do not merely construct kinship; relatedness is a feeling, a process. Even though Sanam may struggle to find a way of establishing kin relations with the child, she is clear that if they do pursue donation and are successful, they will have to keep it secret and present the child as 'their own child' to the wider family. Sanam is concerned about future practical issues arising as the result of donation.

Tremayne (2015b, 72) argues that gamete recipients in Iran use secrecy to 'claim their biological parenthood and prove their own reproductive ability'. To contribute to Tremayne's claim, I would argue that there are many clinic users like Sanam, for whom secrecy is a strategy to construct biological kin relations in a culture that stresses the role of biogenetics in reproduction. Such people use secrecy to resist being 'othered' because they are nurturing a non-biological child. They use secrecy to strategically naturalise third-party donation. Here, I should note that the clinic staff encourage users to keep gamete donation a secret. One clinic gynaecologist told me that they advise recipients to withhold all information and never to disclose it to their

wider families, or even to their sisters and brothers. When I asked the reason, she said, ‘this child later wants to play with their [recipient’s] sister’s or brother’s children and should not be told that he/she is a donated child and not their child, for psychological reasons’¹³¹. Despite emphasising the view that the child is ‘not their child’, the clinic gynaecologist contends that disclosing this information would cause the child to be labelled ‘illegitimate’ by others, creating many social and psychological problems for the child in future (Abbasi-Shavazi et al. 2008).

By contrast, other clinic users challenged the notion that biology and embodied reproduction determine kinship; instead, they aimed to broaden the notion of kinship. Majid was a man clinic user who had been infertile for 11 years with varicocele, which seriously affected his sperm count and morphology. His wife, Masoumeh, had once wanted to foster her sister’s third child but Majid had refused, saying that he preferred to raise a ‘stranger’s child’ than one belonging to kin. He was concerned that when the child reached the age of five or six, his/her genetic parents might disclose information about his/her genetic origin. Instead, he wanted the child to reach the legal age of adulthood (18 years old) before being told that Majid and his wife were not his or her genetic parents. As he said, this was the age, ‘when he/she understands enough to leave or stay with us’. His wife opposed this idea, as she had never wanted to nurture a ‘stranger’s child’. He told me that:

That is like your own child, what is the difference? Is it necessary to always give birth to the child? I think, it is not always necessary to give birth to a child. The child belongs to the one who nurtures it. Imagine, I give birth to the child, but you go and raise it. The child will not be raised with my way of nurturing. You are raising and nurturing it. When the child is old enough, the child must be told [about her/his origin]. If he/she is raised properly, he/she will not go to live with his/her parents and if he/she decides so, will not abandon us. I really know such people in our relatives who adopted a child and when she was 18, she was told the truth, but she had said that you are my real parents.

Majid distinguishes between giving birth to a child and nurturing, it in terms of creating kin relations. He argues that his way of rearing a child will make the child his own: ‘the child belongs to the one who nurtures it’. Yet, at the same time, he wants to keep all information about the child’s genetic origins a secret until he or she is old enough to choose Majid and his wife as his or her ‘real parents’. Although he is not

¹³¹ Elaborating on the notion of perpetuity in Iranian culture, Tremayne (2015b, 70) argues that, ‘the unity of the family being the ultimate priority, those individuals who do not have a biological link with the family or the kin group are rarely welcome members of the kin group’.

undermining the role of genetic parents, secrecy is seen as temporarily necessary, to build connectedness with the child, developing emotional ties that will guarantee their recognition as parents in future. Yet, for his wife, familiarity with the producers of the gamete constructs relatedness with the child.

In addition to using secrecy as a strategy to construct kin relations, women using donated eggs take comfort from gestation and socio-cultural conventions by giving a prominent role to sperm in reproduction. As the clinic social worker, Mrs Mehraban, told me:

Our clinic users view third-party as a continuation of their own treatment and I try my best that she understands that coming to the clinic so far has been for her own treatment and it [donation] is now a new door. But because there is this perspective that sperm plays a prominent role, she says 'it [the child] is not from me; but it is from my husband. My husband is important'. What is important? A cell. There is no patriarchy there [in the cell] but this idea is so strong that she thinks by giving birth to a child from a donated egg, she can own the child when it is not hers. Why? Because she experiences pregnancy, delivery of the child and nobody understands. They keep it secret.

Mrs Mehraban argues that using a donated egg is a separate route, unlike normal IVF/ICSI procedures. It is 'a new door' because it involves using a reproductive substance from another woman. Yet, since the male reproductive substance is constructed as playing a prominent role in reproduction – religiously and culturally – the woman receiving an egg downplays her missing genetic role, while at the same time valuing her gestational role, which makes the fetus her own child. While maintaining that there is no physiological difference between egg and sperm, Mrs Mehraban is aware that men's perceived role in reproduction is so culturally important that it has transformed women's perception of their own reproductive substance. Given the fact that gamete recipients are trying to build connections between themselves and the child born through gamete donation, the following questions arise: how do donors disambiguate the concepts of 'my own child' and 'another's child'? What do they think about donating eggs? These questions are addressed in the next section.

Egg donors and disowning the bonds of descent

There are three parties involved in the process of donation. So far, this chapter has focused on the way in which practitioners and recipients ‘do kinship’ around donation. This section provides insight into the ways in which egg donors¹³² at the clinic make their own experiences meaningful. Orobitch and Salazar (2005), in their ethnography of a private infertility clinic in Spain, have argued that egg donors experience contradictory and ambiguous feelings about the child-to-be. On the one hand, they try to separate themselves from the potential child by emphasising the medical and biological aspects of donation and strengthening the idea that only gestation and spending time with a child can establish the emotional ties of parenthood, a kind of connection they will never have. On the other hand, as donation is anonymous, donors try to imagine the recipient as an ideal real woman whom they will help to become a mother, as a way of making sense of the act of donation. The ambiguous position of donors, in disassociating themselves from the potential child while at the same time associating themselves with it by thinking about an imaginary recipient, as Orobitch and Salazar have detailed (2005), became clearer to me during formal and informal interviews with staff members and donors.

I went to the egg retrieval operation theatre to meet one of the senior gynaecologists in a brief gap between two operations, to arrange a day for a formal interview. She was very busy and I was asked to sit next to women waiting for their operations. Every woman who entered was given a gown at reception and asked to change clothes in the changing room. A label with her full name written on it was stuck onto the gown. All

¹³² My focus here is on egg donors, as I did not come across any gestational surrogates or couples willing to donate embryos during my fieldwork. I should note that, in the clinic, donated embryos were provided through two routes. First, there were frozen embryos left behind by couples who had undergone IVF/ICSI treatment in the clinic several years before, and who had not renewed their contract with the clinic to keep the embryos frozen. Before these embryos could be donated to other couples, the clinic social worker had to contact the genetic owners of the embryos to ask for their consent. If they did not respond, the head of the embryology lab, together with one gynaecologist and one andrologist, decided whether the embryo was of good enough quality to be donated. Another source of donated embryos came from couples who consented to allow their spare frozen embryos to be donated if they themselves succeeded in getting pregnant. Even in this case, the clinic waited until the child was born before allocating the rest of the embryos for donation. The social worker said that, on some rare occasions, she had seen couples asking their close relatives to donate embryos to them (fewer than ten couples in the five years prior to my fieldwork).

of the women had name labels, except for one, whose label said ‘D-xxx’¹³³. The letter D¹³⁴ suggested the word ‘donor’; I felt sure that she was there to donate her eggs and that I was witnessing the way in which the clinic separated donors from other women to maintain anonymity during the egg donation process, a feeling that was later confirmed.

Among the women waiting in the operation theatre, I recognised Zahra, a clinic user I knew, and sat next to her¹³⁵. Zahra was 39, living in a small town on the border between Iran and Iraq. She and her husband had infertility resulting from a female-factor pathology diagnosed more than 10 years previously. She was in the operating room for an embryo transfer, following two unsuccessful IVF cycles. Shortly afterwards, the woman whom I assumed to be an egg donor came and sat next to me and told me that she had been asked by the reception staff to clean off her make-up, something she had not been asked to do the previous time. From this, I assumed that it was her second time donating eggs. She told me that she was 30 years old, divorced, unemployed¹³⁶ and had a nine-year-old daughter who was living with her ex-husband. She said that her father was unaware that she wanted to donate her eggs and would consider donation a sin, like most members of the public. She said, ‘they think, I am giving my child to somebody else’. Suddenly, Zahra said that ‘they’¹³⁷ also thought that egg donation was a sin. I was sitting between them and they started to discuss this issue seriously:

¹³³ These three x letters were in reality three digits. To keep the identity of my informants confidential, in accordance with the clinic users’ consent form and in line with ethics of this research, I have changed the three digits after D to the letter x. the letter D was written in English.

¹³⁵ Zahra was one of the clinic users whom I had partially followed her during her treatment journey, although we could not arrange a time for a formal interview during the busy life of the clinic. She travelled a long distance with her husband to reach the clinic and thus had a short amount of time to spend there. She usually was very stressed and had headaches because she had spent the previous night on the bus.

¹³⁶ Later in a phone conversation after the operation, she told me that she was being paid around 27,000,000 Iranian Rials, which at the time of my fieldwork was equivalent to £643. She had a plan in mind whereby donating one more time would allow her to pay a rental deposit on a house in a suburban area of the city where the clinic was located. The deposited money would be replaced by monthly rent payments for a one-year contract (the landlord would deposit this money in a bank and get interest). When the contract ended, she would get the money back.

¹³⁷ By ‘they’, presumably, Zahra was referring to the Sunni community and their prohibition regarding gamete donation, as Zahra was from the West of Iran where the majority of people are Sunni.

Zahra: your egg will be mixed with the sperm of somebody else's husband. For sure, it is a sin. Instead of this [using a donated egg], I am more inclined to find another wife for my husband.

The donor: Then, he will not pay attention to you. How do you want to live with him?

Zahra: She [the new wife of her husband] will live in a separate house.

The donor: She will give birth to a child and you will be jealous.

Zahra: No, I'll like that child. (Field notes, 23 May 2016)

The donor positions her father and the public in opposition to egg donation because they would consider a child born using her egg as her own child; giving that child to somebody else would therefore be sinful. She explained her thinking in more detail later in the interview, and I will return to those comments later in this section. Of particular interest here is the conversation between Mina and Zahra; the latter viewed egg donation, not as a same-sex transfer of a genetic substance between women, but as a form of illicit sexuality, mixing together the sperm and ova of a man and woman who were not married to each other. Zahra views the conception of a child out of wedlock as sinful. The donor, on the other hand, justifies egg donation as bringing stability to families, no actual third person is involved, and allowing Zahra to claim that the child is her own. At this point, I was asked to go and meet the gynaecologist. So I introduced myself to the donor and asked if she would be willing to talk about her experiences as a donor. She agreed and introduced herself as Mina and we exchanged phone numbers to arrange an interview.

A couple of weeks later, we arranged a day to meet. I went to the suburban area where the clinic was located and conducted one of few interviews held outside the boundaries of the clinic. We went to a park and Mina told me about the first time she donated eggs in another hospital. She had a friend who was donating eggs and encouraging other women to do the same.¹³⁸ Mina was worried about the side-effects, pain, and anaesthesia involved in the egg donation procedure, but her friend highlighted the financial profit, arguing that donation was savab (a religiously good deed), and so she

¹³⁸ According to Mina, some women, like her friend, are mediating the process of egg donation in different hospitals and clinics. In fact, they encourage other women to donate their eggs, introduce them to infertile couples, and receive money – almost as if they were ‘marketing’, to use her own term. This clinic strictly forbids any exchange of money outside the contract signed by donors and recipients. It did not want to lose control over the financial aspects of donation; the security guard of the clinic was very careful not to let donors find recipients by sitting among clinic users and talking to them. However, an egg donation candidate told me that a laboratory staff member once encouraged her to become a surrogate mother for a couple who were ready to pay her a lot of money.

agreed to donate eggs. By associating the donation of eggs with religious discourses (categorisations of things perceived as good or bad), Mina's friend used religion to fit donation, and legitimising the act of donating eggs. Others, like Mina's father, invoked religious ideas to justify the opposite position, that donating eggs undermined religion.

Mina emphasised that donation is a good deed, contrary to what other people might think:

It is accepted religiously. Maybe the public views it as problematic and that is because of our culture. Westerners do the same things [donation], am I right? My father thinks it is very problematic. He thinks it is a sin. He says, 'you are giving your child to somebody else. That is your child. And later, your children may meet each other, fall in love with each other and marry'. What issues is he thinking about? [Laughing] He says if they marry I have committed this sin. But, I don't know what to say. When it is formed in somebody else's tummy and the sperm belongs to somebody else. I haven't told my father. But for sure, mullahs have thought about these issues, don't you think so? (...) one of my friends tells me that I will have children in different places. It is interesting to have children without knowing where they live. But they are not my children. I can't see them.

Mina constructs cultural norms as having more power than religious regulations. In other words, even though egg donation is endorsed by religious authorities, the public views donation as problematic. She constructs the resentment of the public towards egg donation as grounded in Iranian culture – 'our culture'. To emphasise the extent to which the problematic nature of egg donation is embedded in Iranian culture, she sought my confirmation that people in the West practice and undergo third-party involvement in procreation. Mina refers to her father as a typical member of the public challenging egg donation. Nevertheless, for her father, the problem was not constructed as one of illicit sexual behaviour at the point of donation. He felt that the child born using his daughter's egg would belong to his daughter. If she donated her eggs several times, she would have several genetic children who could potentially meet and marry, not knowing that they were genetically related because of the anonymity¹³⁹ of donation. Mina therefore kept her donation a secret, so as not to face a challenge from her father; by laughing, she separated herself from her father's beliefs.

¹³⁹ One of the concerns of some of clinic practitioners and the head of the clinic was the absence of any registration system for donors and recipients in Iran to avoid future sibling marriage. To lessen the contingency of incest, the clinic did not permit egg sharing or egg donation more than three times.

At the same time, Mina tries to argue that no bond is being created between her and any potential child by separating herself emotionally from her experience. Like the donors in Orobitz and Salazar's (2005, 43) research, for whom devaluing the genetic role of eggs in reproduction 'serves to justify or to express the absence of social bonds and the lack of emotional involvement with [any] future child', Mina also separates egg donation from kin relations. She identifies three different kinds of relationship that would establish kin connections with the child-to-be. The first is a relationship between the foetus and the mother during gestation; the second is created through the day-to-day contact of raising a child; and the third is the prominent role of semen in reproduction. Mina is clear that she will not experience any of them: any child will be 'formed in somebody else's tummy'; she 'can't see the child'; and it will be 'somebody else's sperm'.

Another donor told me that she had not known that 'the child born through her eggs can be considered as one's own child'. It was only through the clinic's information counselling and reading an article on a news agency website that she became aware of the role of eggs in establishing kin relations. Furthermore, the clinic psychiatrist¹⁴⁰ mentioned that she had given counselling to a lot of egg donors, none of whom them felt that they were donating something from their own bodies and giving it to somebody else. She said they faced many financial obstacles and did not think about what would happen to this child in the future – 'they [donors] think which one of our problems can be resolved with this money'. She then told me about a meeting held two years previously with prospective donors and clinic staff members, including a clergyman¹⁴¹ responsible for the religious aspects of donation:

He [this clergyman] told them [donors] that in the future you have the right to see the child and talked about the religious law, but it was obvious that none of them [the donors] were listening. You know, the one who comes here to donate her eggs, has serious financial problems and family issues. When the clergyman was giving this information, none of them [donors] asked a question or gave any feedback, saying [for example]: 'oh this child could be ours. Is this what he meant?'. Even when he said the child inherits from you, [laughed], I mean he

¹⁴⁰ The mental health of any woman intending to be a donor must be confirmed by the clinic psychiatrist; asking the prospective donor about her motivations for donation is part of this assessment.

¹⁴¹ Mrs Mehraban told me that, for a couple of years, this clergyman used to give information about religious aspects of donation to both donors and recipients, alongside the regular donation procedures, such as medical, social, and psychological screenings,. She did not know why religious counselling had stopped. Unfortunately, I could not arrange a time to interview him, due to his very tight schedule.

was explaining issues which could work against the donation clinic and anonymity in donation was set up to avoid these issues.

The donor I mentioned above and some of the women seen by the clinic psychiatrist may have been unaware of their own genetic relationship to the child. Given the information they received, the fact that they were quiet in the meeting may not indicate negligence or a failure to imagine the child's future or acknowledge concerns about him/her. Rather, they may have concentrated on their current financial crises and the fact that the money would partially resolve them as a psychological strategy, to distance themselves from thinking about the child's future. Many donors, like Mina, use the strategies described above to disown the bond of descent while simultaneously thinking about the child and its intended parents. In the excerpt below, Mina explains:

The first time I donated my eggs, I dreamed that I have given birth to two babies, two boys. Later, I was told that one of them is alive. She [the recipient] might have miscarried it [the other baby boy in her dream] (...) you know, you feel like you have delivered a child. I had a very good feeling. I have just donated an egg but I am always thinking and asking God that its father and mother are very good people. [The child] is nurtured in a good way, this is very important for me. I swear to God. It's very important for me.

Mina framed her good feeling after donating eggs by narrating her dream. Even though she does not recognise herself as the mother of the child born through her eggs, Mina emphasises the role played by her eggs in conceiving that child. She imagines the child and its parents and hopes they will take good care of the child; thus she simultaneously expresses concern about the child while disavowing her own maternity. Mrs Mehraban also mentioned this ambiguous feeling, where the donor imagined the child. She said that some donors insisted on knowing whether any child had been born using their eggs. The social worker did not give them an answer, even though a donor once told her that she had two sons and had always wanted a daughter. She wanted to know whether the child had been a girl.

Conclusion: mysterious gametes and notions of relatedness

The biosocial institution of nasab underpins both the conceptualisation of kin relations in the Islamic legal system, and the way relatedness is experienced in Muslim contexts. However, the involvement of a third party in procreation disturbs this institution. This disturbance has elicited different responses from the various actors involved in third-party donation, including the religious authorities. Affirming or rejecting gamete donation, as this chapter reveals, involves a strategic interplay that makes visible or invisible certain ‘biological’ or ‘social aspects’ of relatedness, as well as invoking religious discourses to legitimise or de-legitimise the act of donating or receiving somebody else’s gamete.

To endorse third-party donation, religious leaders have had to identify the child’s nasab. On the one hand, as Sharia does not recognise social parenthood, they have had to make visible the role of genetics, while confining the notion of kinship to genes. On the other hand, although parenthood is not identified separately by its social aspects in the Islamic context, there is fertile ground in the Iranian legal system, due to the existence of Adoption Law, to construct the institution of social parenthood manifested in the Embryo Donation Law. Due to the ‘fixed’ and ‘given’ structure of inheritance and official categories of mahram/na-mahram, it does not seem feasible to recognise social parenthood as an institution. This issue has been raised by senior gynaecologists and andrologists at the clinic. Moreover, a closer look at the tensions and debates between senior and junior gynaecologists at the clinic suggests that this perception of the inseparability of meanings attached to nasab is a generational viewpoint, common among senior practitioners, but not among junior gynaecologists, who tend to highlight the social aspects of parenthood.

When it comes to the institutions of fatherhood and motherhood, the challenges imposed by third-party donation on nasab are perceived very differently. Biological notions of relatedness are culturally and religiously constructed in gendered ways. One senior gynaecologist emphasised the importance of the egg in her construction of kinship – a role that has become visible through biology/genetics – and negated the role of gestation, birth, and nurturing in her identification of motherhood. By contrast, women undergoing egg donation tend to see the egg as having minimal impact on the construction of relatedness. The attribute gives a high level of significance to the embodied experience (gestation and birth) and the role of sperm.

Sperm donation challenges the only biological role that fathers-to-be play in reproduction: providing sperm. This generates the strongest resistance among practitioners and reluctance among clinic users. The controversy raging around the practice of sperm donation reveals a dominant monogenetic view of conception: while egg donation is a same-sex transfer of procreative substances, sperm donation is a cross-sex transaction and illicit form of sexuality. Therefore, although the clinic andrologist emphasised the role of the egg in reproduction, he downplayed its role in constructing *nasab*. Furthermore, practitioners and clinic users justify their opinions about gamete donation by referring to the differences between ‘our culture’ and that of ‘the West’. However, while some practitioners construct this difference in terms of kinship ties being degraded in Western culture, donors such as Mina do not regard the West as immoral, but instead construct Iranian culture as backward, traditional, and outdated.

In all these debates and discussions around gamete donation, a very interesting question to ask is whether the moral dimensions associated with third-party donation (the legitimacy/illegitimacy of the action) are the focus of attention, or whether the emphasis is on clean ties of *nasab*? Clarke (2008) argues that people in Islamic contexts tend to focus on the propriety of the action of receiving or donating gametes and the purity of descent, arguing that, in the context of fertility treatment in Lebanon, people were more concerned about the propriety of the sexual relationship through which the child was conceived. However, as this chapter illustrates, people concerned about gamete donation were more troubled by the ownership of the child and how recipient couples are going to experience kin relations in the long-term.

Given all of these challenges, the lack of any guidelines, and inconsistent religious rulings, the clinic has set its own regulations to mediate the relationships between donors and recipients, making donation anonymous, separating donors from other clinic users, and placing the (religious and ethical) responsibility for donation on the shoulders of the donors/recipients themselves, as shown in the conversation between the clinic user and receptionist at the start of this chapter. Recipients and donors must improvise strategies to deal with the consequences of breaching normative (biosocial) notions of kinship. The mysterious origins of donor gametes and the withholding of information make it impossible for the genetic parent to claim the child and make kinship work for Sanam, Majid, and many other gamete recipients. Secrecy is a

mechanism that allows them to exercise agency, moving alongside the structures that enforce biological relatedness without being marginalised. Donors also resort to secrecy in order to donate eggs without being blamed for deconstructing sexual moralities.

Have ARTs deconstructed kinship and produced a new definition of kinship in Iran? Thompson (2001) argues that, in the US context, technologies are breaking the old cultural categories of kin connections, while at the same time reinforcing the same old ways of classifying human beings through biological notions of kinship. Similarly, in the Iranian context, ARTs serve to reinforce genetic notions of kin connections. Although the clinic's labs deconstruct normative notions of relatedness by mixing together the reproductive substances of unmarried couples, folk notions of kinship are maintained in the eyes of public. Secrecy negotiates between 'another's child' and 'my child'.

While secrecy is used strategically to veil the breach in normative notions of *nasab*, many couples worry about how they will experience kinship if their child is born through gamete donation. Returning to the couple I introduced at the start of this chapter, the tears running down the woman's face and her husband's avoidance of the clinic receptionist were the tip of a much larger iceberg. Witnessing her tears, the receptionist and I also got very upset. The woman asked a quick question about the financial cost of using a donated embryo and left the donation clinic. Outside, I found the couple sitting in the waiting area. Like someone in shock, she was staring into the distance. I approached her and told her that I could introduce her to Sanam. She agreed and asked for my number with tears still running down her face. I tried to comfort her, telling her not to worry and she replied, 'No, I rely on God', and went back to sit next to her husband. But why was she invoking God if she could have a baby using a donated embryo? This is the question I will strive to answer in the next chapter.

Chapter Six

Iranian patients and global (Western) technology: emotions, uncertainty and risk in the everyday local practice of ARTs

Here [the clinic], it is not good at all. One person is upset. The other is agitated. Here [this clinic] has its own world.

(Informal conversation with a woman clinic user, Field notes 28th Nov 2015)

One afternoon in May 2016, I followed one of the clinic's embryologist, Dr Ahmadi, to the embryology lab to see straws on which frozen embryos were loaded and then placed in a tank filled with liquid nitrogen for storage. Having worn a gown and taken off my shoes, I entered a very quiet area full of lab equipment and several lab technicians working in silence and solitude. According to the clinic's embryologist, embryos were placed either in an incubator, described by the embryologist as a '5-star Hotel', or in big tanks containing liquid nitrogen which were housing approximately 10000 embryos. It seemed as if time was stopped in those tanks as the temperature is -196C to preclude the embryos from developing. Outside this tranquil space, however, the clinic's atmosphere was very different. There were many clinic users and staff going up and down in the hustle and bustle of everyday practice to retrieve viable eggs and sperm from bodies. The number of men and women with luggage hanging around the clinic was striking, their faces revealing physical/emotional exhaustion. Scenes such a couples sitting either on the seats located in the waiting areas or even on the stairs, covering their faces with their hands, wiping their tears, grieving, walking but bending forward with a face showing pain, giving comfort or even yelling at each other, were integrated into the everyday life of the clinic. Outside the walls of the clinic, it had the reputation among laypeople, regardless of their reproductive status, of having the most experienced staff, 'the end point' in treating infertility by offering

the most advanced, updated technology and a highly likely pregnancy. So, while laypeople construct the technology as promising and in the lab everything seems to be under control, why was the clinic such an emotional place? How are these emotions experienced and managed and how do religion, biomedicine and gender interact in that process?

According to Franklin (1997, 146-147), even though IVF has extracted the moment of conception from 'the dark continent of the woman's body' and has led to great increase in the scientific knowledge about conception, the success rates of assisted reproductive technologies are low, and the understanding of reproductive failure is limited. This uncertainty regarding the outcome, despite all the hard work of applying reproductive technology, is described by Adrian (2015) in her multi-sited ethnography of infertility clinics in Denmark and Sweden, as what makes IVF a psychologically challenging treatment.

The everyday life in this clinic was certainly far different and more complex than lay people's perception of expectations and risks associated with reproductive technologies or even what I witnessed in the IVF lab. To cast light on the understanding, uncertainty and emotions involved in the practice, I will start this chapter describing the emotions experienced by staff and clinic users and some of the factors involved in the emergence of these emotions. Then, I will narrate a story of one of the woman clinic users I followed during my fieldwork, named Leila. Her story is a good, but not unique, example of how medical knowledge as a response to one uncertainty generates further uncertainties. This, as Jenkins et al. (2005) argue, may lead to a change in gender relations and couple's understanding of infertility; I will reflect on Leila's story and analyse it in more depth as this chapter progresses. In the succeeding sections, I will explain how uncertainty is perceived and represented in the clinic, and the ways uncertainty was managed both by staff and clinic users. In doing so, I will argue that staff and clinic users were configuring, and reconfiguring, uncertainty and risk associated with the treatment by resorting to religious beliefs and discourses, their emotions, as well as notions of trust.

The clinic as an emotional space

Becker (2000, 122-125) describes ARTs as technologies of ‘selling hope’, as North American notions of individualism and responsibility for health closely associated with the belief in the power of technology. Staying in the treatment despite the emotional exhaustion demonstrates this hope – the hope of being a biogenetic parent. Men and women undergoing infertility treatment in Becker’s study expected technology, at least initially, to follow a straight forward course and work miracles. However, as they underwent the treatment they realised that there was a disparity between the outcome and their expectations, as infertility treatment was more experimental than they had originally assumed. They gradually realised the limitations of reproductive medicine.

The uncertainty and risk integrated into the practice of reproductive technologies give an emotional dimension to the everyday life of the clinic. Risks and emotions involved in the practice were not simply located within individuals. As Lupton (2013, 638) invoking a sociocultural approach argues, risks and emotions are ‘fluid, relational and highly contextual’. They are shared between people and located within a specific place/space. The imperatives and importance of having a biogenetic child in Iran drive people to enter the world of reproductive technologies, a world integrated with uncertainties, risk and emotions.

Recalling from chapter three that reproductive technologies are not covered by health insurance in Iran, many infertile couples had to find resources to fund their treatment themselves¹⁴². Moreover, the majority of the clinic users were from distant rural areas and of low socio-economic status. Even though the treatment was less expensive than in other private clinics, many clinic users had to sell a main part of their properties to fund clinic costs. The majority of them told me that they had chosen this clinic since one of their family members, acquaintances, friends or neighbours had already successfully undergone treatment here. Nonetheless, the clinic, as the opening quotation of this chapter clearly highlights, was less a world of hope and was more a world of negative feelings and emotions.

¹⁴² An IVF cycle in this clinic at the time of my fieldwork costs £900 and an ICSI cycle costs £1100, excluding travel, accommodation, commuting and drug expenses.

Many clinic users were sharing their experiences of encountering the technology and previous unsuccessful cycles with other clinic users, having sad faces, often in tears, being angry and agitated. A woman clinic user in the waiting area of the donation clinic once told me that *'the environment here makes me upset. I don't know why? Maybe I'm not like this in other places'* and then burst into tears. Another man clinic user while he was looking at me and talking about his experience, suddenly looked down and said, *'the atmosphere of the clinic is heavy'*. And many other clinic users in formal and informal interviews were stressing that they do not want to come to the clinic ever again in their lives.

Referencing the uncertainty involved in practicing assisted reproductive technologies, clinic practitioners in the interviews distinguished clinic users from other types of patients, and infertility treatment from other forms of medical treatment. Mrs Shahed, the head of the nursing and midwifery unit, drew a line between those questing for conception in infertility treatment clinics and other patients in other hospitals and clinics:

These [clinic users] are very special patients. With the patients in this clinic, you'll be more mentally intimate. Because in hospitals, you're more dealing with a physical problem of a patient. But here you are more dealing with the mental issues of patients rather than their physical problems. Anyway, you know that you can help your patient only for a maximum of 40 per cent physically (...) the infertility patient is not a patient really. Most of the times, I am hesitant to use the word patient for infertility patients. I wonder whether we can call them 'patients', or one can use the word 'a help-seeker' or 'a consumer'.

Mrs Shahed recognises problems associated with clinic users as both physical and mental. She differentiates infertility clinics from other hospitals in terms of the staff's involvement in both physical and emotional aspects of treatment and asserts that as the success rate of reproductive technologies is low, the emotional aspects of treatment and infertility are what they are dealing with the most. For Mrs Shahed, the term 'patient' refers to those whose physical problems can be overcome with medical intervention with a high success rate. Thus, she is torn between using the word 'patient' for clinic users and instead suggests two other words – 'help-seeker' and 'consumer' – neither of which convey the idea of someone with a physical problem requiring medical intervention. In fact, on the one hand, they may suffer from physical problems leading to inability to conceive. Yet, on the other hand, infertility treatment

in most cases will not lead to resolving clinic users' physical problems, and they will endure a lot of mental anguish.

This mental anguish for clinic users, as a result of the dynamic interplay of high levels of investment and high risk of failure, also manifested itself in clinic's staff interactions with the clinic users. It was very common to hear staff shouting at a clinic user, or sometimes neglecting and not making eye contact with them, or listening to them with upset, sad, and empathetic faces. The majority of staff in response to my question about what they dislike in their job, emphasised their difficulties in doing emotional labour and managing emotions between clinic users and themselves, the pressure and sadness they were enduring. From practitioners to receptionists and to cleaners, they all illuminated on burdening emotional labour in the interviews. Mrs Hemmat, the clinic's cleaner, pointed to the beds of the women clinic users rest on after surgeries and told me that she often sits by the clinic users and listen to their life stories. Mrs Pirooz, the clinic's senior midwife, recounts the fluidity of emotions in the clinic:

We are human beings. Encountering their [clinic users'] sadness makes us feel depressed. Therefore, those working here will lose their happiness gradually (...) all these pressures and negative feelings will be transferred to us. [A typical clinic user] cries and says this was my last opportunity. I sold my car, I sold part of my property, sold all my gold. When you hear these [stories], you will also have a bad feeling unconsciously, you will be upset and empathise with that person.

Other staff explained how their reaction to emotions in the clinic had changed over time. One of the receptionists, Mrs Hosseini, who had been working in the clinic for 8 years at the time of interview, told me that:

At the beginning, I was not used to this situation and was immensely affected. The majority of those coming here has mental problems. They have physical issues but for the majority of them, their mental problem is prior to the physical one because they are under a lot of pressure from their in-law's family. They come here and cry because they don't get the outcome, or they have a miscarriage. You would be so upset. If a patient was crying, I was crying with her too (...) but by the passing of the time, [I realised that] each of these clinic users has a problem and if I cry with each of them, I can't do my own work. I'll try to help them as best as I can in the ways that are relevant to my job. Crying is not useful.

While Mrs Hosseini recognises and understands the high level of emotions in the clinic, she describes her learned coping strategies in managing her feelings. Even though at the beginning of her career she shared intimacy with clinic users, empathised and sympathised with them, she gradually distanced herself emotionally to protect herself. In other words, she redefined her 'self' and developed the ability to depersonalise the situation, similar to the strategy that Hochschild (2003) describes in her study of flight attendants. This conscious process of estrangement between what she feels and her reaction, as Allan and Barber (2005) also document in their study of fertility nursing roles, is an emotional response by fertility staff as a defence against anxiety.

I was also affected by the emotions shared in the clinic. Witnessing all those sadness, tired faces with tears and traces of bearing pain was so draining that after just two weeks into my fieldwork, I felt I could not emotionally stand it. However, later on, when a clinic user made a comment about the depressing research topic I have chosen, quite unconsciously I told her that I have got used to the sadness of the clinic. I remember that just I told her that I had got used to the sadness, I was shocked remembering my own answer. Obviously, I, similar to staff, had found a defence mechanism for myself which helped me to keep up with conducting my research. However, my sensitivity in noticing emotions and feelings gradually faded away. To give a more in-depth understanding of uncertainty and emotions in the clinic, how they emerge and are managed, I am going to tell the story of one clinic users' treatment trajectory, that of Leila.

Leila's Story

Leila was one of the clinic users I followed during her and her husband's treatment journey. The first time I met her was on the 13th of January 2016. She looked relaxed and was waiting for her husband's surgery to be finished. She was 24 years old, married five years ago, had a BSc in Mathematics and was working full-time as an administrator in a small workshop. Yunus, her husband, was a 30-year-old working in Human Resources for one of the big shopping malls. According to Leila, they had not used any method of contraception for a year shortly after their marriage, but she did not get pregnant and was presuming that she has the problem. When I asked her why,

she replied: *'Well, it's always women who have the problem'*. Two years into their marriage, when Yunus had undergone hernia repairs in hospital, the surgeon informed them that the only way of them having a (genetic) child would be through IVF as Yunus was *azoospermia*¹⁴³. Since then, Yunus had booked appointments and come to the clinic without Leila several times and had been withholding all the medical information and test results from her until he was very close to his TESE (Testicular Sperm Extraction) surgery.

On the day of Yunus's surgery (the day I first met Leila) we chatted for a while and then she was told by the nurse that the andrologist had been able to find three viable sperm which would be frozen until Leila's eggs had been retrieved and are ready to be fertilised by his sperm. Despite the good news about these three viable sperm retrieved, pursuing the treatment was financially challenging as they both had to work hard to make ends meet as well as saving money to cover the financial aspects of treatment. She could only start undergoing treatment on her own body due to lack of financial resources around four month later. On the 19th of May 2016. I saw her again in the clinic and she told me that Yunus was giving her all the injections of hormonal drugs but due to his working hours, he was unable to accompany her to the clinic during the intense period of monitoring her ovulation induction. Leila, by this time, had already quit her job as she could not manage working and coming to the clinic every two days and spending half a day there.

Until the 6th of June, when she went for her final transvaginal ultrasound, Leila's main concern was their financial constraints regarding the treatment. She was also affected by the side-effects of the hormones, feeling pain in her abdomen and the dose of her drugs was constantly changing after each scan to preclude her from OHSS (Ovarian hyper stimulation Syndrome). Before each scan, she used to tell me that when she goes in, she will be told that her eggs are very big, energetic and exciting. During this time she was reminding Yunus that he only had three sperm, and he used to get cross with her. Both Leila and her husband were quite sure that she would become pregnant following the treatment. Leila once told me that she kept ignoring the narratives of

¹⁴³ A complete absence of sperm (azoospermia) is 'one of the causes of male infertility and is because of a) defects in the hypothalamo-pituitary axis causing maturational arrest, b) a varicose vein in the scrotum (varicocele) which has raised the temperature of the testes, c) various obstructive conditions of the ejaculatory seminal ducts in the male genitals due to congenital abnormalities or acquired testicular damage' (Inhorn 2003, 192).

other women in the clinic talking about their previous unsuccessful cycles – *‘I escaped all those negative energies’*.

On the day of her final scan, I was on my way to the clinic when I received her text message saying that she is so upset and waiting for me. I got quite concerned but the worst-case scenario I was assuming was that she had been told that because of OHSS, they cannot transfer embryos two days after egg retrieval and she must wait for a couple of months. When I found her among the crowd of people in the waiting area of the ultrasound section, she suddenly put her arms around me and said she wanted to cry. Asking for the reason, she said she could not quite understand the information she was given as they had used the word ‘protocol’¹⁴⁴ which she did not understand. She had been told that it is better for this cycle to be cancelled and restarted using another drug regimen. In fact, she was told that one of her ovarian follicles had matured quicker than the others and since there are only three sperm, her ovaries need to be stimulated using another treatment protocol to maximise the chance of conception and pregnancy. I was shocked to hear all the news and unable to say a word as I was assuming everything was under control, proceeding as planned and soon Leila would go for egg retrieval surgery. She was also agitated and furious and said she had been scoffed at by the gynaecologists of the clinic and was quite worried about how they could fund her next cycle. I gave her a glass of water and tried to give her comfort when she said, *‘I don’t know why this happened? God’s deed. Maybe that was for my own good. But what is this ‘my own good’? All these injections? I don’t know. Only God Knows’*. Later that day, when I asked, Mrs Fallah, one of the clinic’s midwives for more details about Leila’s cycle cancellation, she said, *‘various reasons are involved. It might be her body’s reaction to the hormonal drugs or the dose of the drugs. In medical science nothing is for 100% identified. Half of what we do is what we do with closed eyes as we are only aware of limited factors such as FSH¹⁴⁵, LH¹⁴⁶, patient’s age and transvaginal ultrasound, we only choose the protocol based on these*

¹⁴⁴ Protocol does not have a Farsi equivalent, but it is not a word used in daily speaking. Therefore, many people are unaware of its meaning.

¹⁴⁵ Follicle-Stimulating Hormone (FSH)

¹⁴⁶ Luteinizing Hormone (LH)

factors (...) don't say this to her but maybe the next time she comes, we will again be unable to retrieve good quality eggs from her' (Field notes and Interviews with Leila).

Medical Knowledge and reproductive technologies: interplay of uncertainties and gendered blame

To analyse Leila's story, I start this section by discussing how uncertainty is integrated with infertility treatment. The outcome of assisted conception, despite clinician's attempts and promises in providing a certain diagnosis and treatment, is discussed in terms of probabilities and uncertainties (Alaszewski and Brown 2007, Silva and Machado 2010). In other words, despite the narrative of modern medicine and health care interventions providing a response to uncertainty, medical attempts to control the conditions of our lives have produced more uncertainty (Jenkins, Jessen, and Steffen 2005). Thus, relying on scientific knowledge produces more risks to negotiate. The process of diagnosis is uncertain and can change with the emergence of new facts. For example, Tjørnhøj-Thomsen (2005) recounts the experience of a woman in her study who was told that the conception of her eggs with her husband's sperm had not happened in the lab, probably due to incapacities of the sperm-cells, producing more uncertainties in terms of how the couple made sense of their infertility. The woman had thought that it was always her who had the problem but now it seemed that her husband might have a problem too. Further uncertainties generated by biomedicine imply 'a reconsidering and reallocation of responsibilities and guilt' of infertility, which may affect the couple's relationship (Tjørnhøj-Thomsen 2005, 80).

In Leila's case, she began by following the general assumption worldwide, and including in Iran, that infertility is a woman's problem (Abbasi-Shavazi et al. 2008, Van Balen and Inhorn 2002). Medical knowledge then contradicted this assumption, by indicating that the problem was her husband's. Yunus's silence about his pursuit of treatment can be understood as related to the interplay between masculinity, sexuality and reproduction¹⁴⁷ (Inhorn et al. 2009), as he took on the burden of responsibility for their childlessness. Nonetheless, medical science seemed to offer a

¹⁴⁷ This silence is tied to the ideas (shared within Judo-Christian-Islamic tradition) connecting manhood to the 'abundant production of sperm'. Thus, inability of the sperm to impregnate is considered as one of the 'greatest challenges to hegemonic masculinity' (Inhorn et al. 2009, 4-5).

solution, when three viable sperm were extracted from Yunus. Although the attempt to use these sperm required Leila to undergo an extensive, invasive and costly egg retrieval process, the couple were optimistic that her pregnancy was within reach. Then, when Leila and I were both thinking that everything is under the control of biomedicine, quite to our surprise her treatment cycle was cancelled. She was then left with further uncertainties. Now, it was her body which was 'at fault', as she had originally assumed. Events had recast the potential blame for infertility on her, notwithstanding the earlier diagnosis of her husband's pathology. I will return to Leila's story at the end of this chapter.

This gendered reallocation of the blame of infertility was also acknowledged by, Mrs Karimi, one of the clinic midwives, referring to the common failure of the technology for women who do get to the next stage, following successful egg retrieval and fertilisation:

A woman starts the treatment with a male-factor [infertility] but when they don't achieve the result, her husband will tell her that your uterus had a problem. My sperm was collected, and the embryo was conceived. I mean these disputes create anxiety for her, so upsetting and she suffers a lot.

So, if the treatment fails even though infertility was initially diagnosed to be male-factor in the origin, the woman is blamed for the failure – 'your uterus had a problem'. This is the case even though it is well known that failure to implant is the most common type of failure in IVF treatment, and that it is never the woman's fault when this happens. Moreover, that the woman only 'required' the egg retrieval and embryo implantation in the first place because of her husband's infertility. Given the uncertain nature of assisted conception, in the next section I consider in more detail how clinic users experience and manage all the risks and uncertainties.

Experiencing/assessing uncertainty and risks of infertility treatment

Choosing the treatment type cast light on clinic users' understandings of uncertainties and risks associated with reproductive technologies. Sitting among clinic users in different areas of the clinic, I could hear they were encouraging each other to exercise their agency in doctor-patient relationships. They advised each other to insist for

receiving the most updated yet most expensive infertility treatment method, even though gynaecologists had chosen a less physically invasive and expensive treatment, which was based on their medical diagnosis of the cause of infertility. For example, on one occasion a woman clinic user who had got pregnant by ICSI, after 13 years of infertility, was talking to other women about her experience. Other women heard that she was pregnant and they told some other women next to them about her pregnancy. Soon a group of women were around her, looking up to her with excitement and tears in their eyes, eagerly listening to her experience. She was telling them that IUI¹⁴⁸ will not lead to pregnancy and eventually they should use the best and most updated method (which was the method she had undergone) as there is no reason to spend money on treatment methods which do not lead to pregnancy. The most updated technology is constructed here as generating the least risk, through assessing the financial investments and the perceived success rates of each treatment method together. However, in this assessment the physical investments of bodies – mainly women’s bodies – and the risk they bear were not included. Besides financial investment on reproductive technologies, Leila quit her job due to the necessities of the treatment and monitoring, endured a lot of pain and injected a high level of hormones for ovulation stimulation.

The invasive aspect of reproductive technologies is also silenced in the practitioners’ perception of risk management. In a conversation with Dr Fakoor, the clinic’s senior gynaecologist, I raised the point that many clinic users say IUI is a disappointing treatment type, and she replied:

[when clinic users request for a change in their treatment type] the first sentence I tell them is that: ‘do you how much is the probability of success in this technology [IVF or ICSI] that you have a lot of trust in’? Then she will say no. I tell her it is 30 percent. ‘Do you know much is [the probability of success] in IUI’? She replies, no and I say, ‘there is not much difference between IUI and IVF in terms of their success rates while there is a huge difference between them financially’. Anyway, she knows what’s best, but I tell her why are you emphasizing on it [changing the treatment from IUI to IVF]? Let your doctor decide for you.

¹⁴⁸ Intra Uterine Insemination (IUI) is an assisted conception method in which the husband’s sperm is placed inside the wife’s uterus to facilitate fertilization.

Dr Fakoor recounts the unawareness of clinic users about the minimal differences in success rates between IUI – a less costly and less technologically advanced option – and IVF – a more expensive and technologically advanced option. She relies on the same calculations of risk as the clinic users (financial investments versus success rates) to convince clinic users to accept medical authority. However, to exercise her autonomy in choosing the treatment type, Dr Fakoor demolishes the clinic user's trust in reproductive technologies. She tells them that 'the technology you have trust in' cannot be trusted to deliver its promises. She encourages clinic users instead to trust her knowledge in managing uncertainties involved in infertility treatment.

Having embarked on a particular type of infertility treatment, clinic users' experience of uncertainty takes another form during their treatment cycle. Notwithstanding what they might have been told about average success rates for people with the same diagnosis, their perception of the uncertainties and success rates of assisted conception was based on their emotions and intuition, as clinic user Nasim recount. Nasim was injecting hormones preparing her uterus for transfer of her frozen embryos after three unsuccessful IUI cycles and one IVF cycle.

For my first IUI, when I went to the operation theatre, I preferred not to talk with anybody and be quiet. But in my heart, I was certain that it [pregnancy] will happen. I was sure and kept telling myself that these [women] will not be [pregnant] but I will be. But then when it [pregnancy] was not happening, I was completely hopeless. I mean I broke down. Then for the second time, my hope was a bit lowered. Now that I have reached to this point, I say it's 50-50. I neither say that it will certainly happen, nor say it won't certainly happen. Sometimes, even I say it won't happen. I feel like if I say it won't happen, I'll have a better feeling. I mean when I go to the operation theatre knowing for certain that it won't happen, neither will I have any expectations of myself, nor of anybody else. And then when it doesn't happen, I'll say to myself that I knew from the beginning that it won't happen. Therefore, I won't be upset with a negative [pregnancy] test. Then I think but if it happens, how happy I will be.

For her first IUI cycle, Nasim was content that the likelihood of pregnancy was 100 per cent, while according to statistics and figures the success rate for an IUI cycle is 20 per cent maximum. Like Leila, Nasim also distinguishes herself from other women and their stories of failure – 'they will not be pregnant but I will be'. Each time when the outcome of the treatment was a failure, hope is replaced by despair and she was reducing the success rate of the cycle she was undergoing, even despite using a more

technically advanced type of treatment. When I saw her in the clinic, she had experienced four failed cycles and each one had led her to revise her expectations downwards, although she still had hopes for success. So Leila's, Nasim's and many other clinic users' perception of uncertainties as integrated in the practice of procreative technologies is not static but changes during their treatment journey. However, they all have hope in the technologies.

To address how the hope and promise of infertility technologies introduced from the West are presented in the clinic, I analyse in the following two sections one of the booklets published and distributed in the clinic and then how the efficacy of assisted conception is presented in numbers and figures. It becomes apparent that as well as presenting medical facts and figures, these sources of information also manage emotions, and produce emotions.

Clinic's published discourses: Representations of uncertainty and emotions

Every couple registering with the clinic was given a 30-page booklet¹⁴⁹ with the title, '*Some pieces of information about infertility and methods of treatment*'. This booklet was co-authored roughly a year before my fieldwork, by one of the junior gynaecologists and the head of the midwifery and nursing unit. On its cover there is a picture of a human being painted in green, with a head but no face, arms wide open, standing, and it looks more likely to be a woman than a man due to the shape of its body. Around the body are many leaves, such that I read the human body being represented as the trunk of the tree, the arms being the branches, and the leaves symbols of life and fertilization. This image reminded me of a very famous expression among Iranians that a person without a child is like a tree without leaves and fruits. On the first page of the booklet, there is a picture of a woman's palm holding a baby's hand¹⁵⁰. The metaphor of the tree illustrates the cultural priority to reproduce and its

¹⁴⁹ The booklets provided by the clinic were not limited to this one. Different sections in the clinic, such as genetics and labs, had their own booklet. However, I have only focused on this booklet as it was given directly by staff to the clinic users and was the first booklet they were encouraged to read prior to undergoing any type of treatment.

¹⁵⁰ I have not included images from the booklet in order to keep the identity of the clinic confidential.

naturalness, particularly to women, and the picture of the hands of a mother and a baby seem to give hope and comfort to the reader that a ‘take home baby’ is possible.

The text starts by explaining the admission procedure in the clinic and the different medical tests required either for diagnosis or to prevent infectious diseases. Then, it moves on to explain infertility and what causes it. On top of this page and in bold there is this statement: *infertility is a **medical** problem with a prevalence of 10 percent among couples*. Defining infertility as a medical problem renders it a disease which requires medical intervention. Pointing briefly to the proportion of female-factor, male-factor, unexplained and both male and female factor infertility, four pages of this booklet are then allocated to the causes of female-factor infertility, explaining in detail with illustrations of women’s reproductive organs. However, causes of male-factor infertility are not discussed in this booklet at all. Descriptions about the factors associated with the probability of pregnancy in assisted conception come afterwards. The rest of the booklet gives a very short description about types of treatment available in the clinic including, ovulation induction medication, IUI, IVF¹⁵¹, ICSI¹⁵², ZIFT¹⁵³ and PGD¹⁵⁴.

A closer look at the content and graphics in the booklet shows it to construct uncertainties about treatment as rooted in women’s bodies, and not in uncertainties either with the male body and/or with medical knowledge. On the one hand, descriptions about the success rates in pregnancy work to avoid creating false hope for the reader, as the booklet clearly identifies the factors reducing the chance of pregnancy in assisted conception. On the other hand, the text and to great extent the whole booklet assert the idea that treatment failure is mainly associated with the woman’s age and the number of eggs aspired in the operation theatre. The good quality

¹⁵¹ In vitro fertilization (IUI)

¹⁵² Intra Cytoplasmic Sperm Injection (ICSI)

¹⁵³ Zygote Intra Fallopian Transfer (ZIFT)

¹⁵⁴ Preimplantation Genetic Diagnosis (PGD)

of sperm is presumed¹⁵⁵ and the experimental nature of technology and medicine in assisted conception is downplayed.

There was another two-page leaflet titled, '*Guidelines for patients referred to men's infertility clinic*', located next to the help desk. On its cover, there is a picture of an egg towards which many sperm cells are moving. While the egg is slightly obscured, the sperm cells look healthy and all have a similar morphology. On page one of the leaflet there are instructions about how to maintain and improve the production of sperm in the testes, and on the second page a brief description about varicocele as the most common reason for male infertility, the process of varicocele surgery, and the resulting percentage increase in the probability of pregnancy. It is striking that there are no illustrations of the male reproductive system in this leaflet, and that it was not overtly distributed among clinic users by staff, thereby reinforcing the stigma and silence surrounding male infertility. Both of these texts promote the benefits of medical intervention without discussions of the risks, such as OHSS¹⁵⁶.

While the text in the booklet focuses on assisted conception as a medical intervention, with an appropriate treatment plan being identified by the gynaecologists of the clinic to overcome infertility, the pictures in the booklet transfer messages of hope to the reader. Beside the pictures on the cover of the booklet which I touched upon earlier in this section, there are several other pictures giving the booklet an emotional, persuasive feel. Pictures of happy, healthy babies as well as one picture of a mother and a baby (and no images of a father and a baby) are placed throughout. Some of the babies are smiling and some of them are staring at the reader. Babies in the booklet look like western babies, with blue eyes and white skin, reflecting the prevalence of Western beauty norms in the non-western world. In the section of the booklet explaining IVF, there is a picture of a pipette spilling a drop of water, whereby the pipette looks like a stork and the drop of water contains a baby. Here then the

¹⁵⁵ The only statement in the booklet where there is an indication of the role of the sperm in conception, is in the section explaining factors involved in calculating the probability of pregnancy in assisted conception. In fact, in the first line of this section, it is noted that 'having the good quality sperm, the key factor in the success rate of assisted conception is woman's age'. The rest of this section which takes up two pages of the booklet explains factors associated with women's bodies that reduces the chance of pregnancy.

¹⁵⁶ Ovarian Overstimulation Syndrome (OHSS) is a syndrome which may occur for women using hormonal drugs to stimulate their ovaries causing them to produce too many eggs. Its symptoms ranges from abdominal pain and vomiting to severe ones which require the hospitalisation of the woman and in rare cases it can be fatal.

technology – the pipette – is akin to the stork bringing – promising to bring – a take-home baby to infertile couples. Again there is a western connotation, in terms of the narrative that storks deliver babies.

Clinic efficacy: locally practiced but global figures presented

The degree of certainty about the outcome of assisted conception technologies in infertility treatment is provided by statistics and probabilities, or what are called success rates in the world of reproductive technologies. According to Inhorn (2003), there are three main definitions for success rates used in the world of IVF: the first one is the take-home baby rate which is the live birth rate, the second one is the percentage of resulting pregnancies confirmed by ultra-sound (clinical pregnancy) and the third one is the percentage of chemical pregnancy which is apparent on an initial pregnancy test.

Throughout my fieldwork, I was unable to find any figures about the clinic's success rates which were available to the public. All the statements giving information about the success rates were made generally, putting forward the global success rates for reproductive technologies only. The first place where I noticed success rate figures was on an electronic scrolling message board placed on the wall of the main waiting area of the clinic located on the ground floor. However, the visibility of these figures was not straightforward. The board was attached to the top of the wall, very close to the ceiling, and included much information. Alongside the type of certificate¹⁵⁷ awarded to the clinic, how to book an appointment with the clinic and issues related to insurance coverage, this statement was included: *According to **global statistics**, the success rate of different types of infertility treatment is between 20 to 45 percent.* No further information was given about the specific success rates for each type of treatment or how they were measured. This same statement in bold was also placed on the back of the informed consent form that every couple had to read and sign before registering with the clinic. In this case, however, it was followed by a sentence indicating the endeavour of the clinic's director to use all the facilities and advanced

¹⁵⁷ According to the information displayed on the moving message board, the clinic was awarded an ISO 9001 certificate which addresses various aspects of quality management. Being certified to ISO 9001 implies that the clinic is following particular standards recognised worldwide.

techniques and equipment in infertility treatment, as well as specialist staff, to maximise the success rate.

Curious to know why clinic-specific success rates were not provided, I asked this question of the staff. The lengthy reply from Dr Farid, the clinic's junior gynaecologist, was as follows:

Infertility treatment in this clinic is moving at the same pace as infertility treatment in Europe, United States and in the whole world. That's because all those who are working in this field, from all around the world, interact a lot with each other in different international conferences and we read each other's articles. We go to different conferences, they share their experiences, introduce new drugs and treatment methods. We organize a conference each year and many come here (...) therefore, we are not behind in infertility treatment, I mean from the perspective of techniques. We may not have one apparatus and they have it. I mean it may only reach to 1-2 percent based on what they have and what we don't. For example, in using PGD¹⁵⁸ in diagnosing genetic diseases of the embryo they are using a technique called 'CGS Array' and we were using 'Fish' which is an older method. Now, it is for two years that we also have 'CGS Array' in Iran. It [this clinic] conforms itself quickly because it [this clinic] wants to achieve the outcome. Because of that, we are not lagging and are kept with advances in technology. Our success rate is roughly equal to the world. Those who are poor respondents [to hormonal drugs], everywhere in the world, no matter in Iran or if they travel to Canada or Europe, [their success rates] is between 5-10 percent and I will always explain this to my patients. I'll say if you want to go to Canada, then go to Canada but they will do the same for you. But apart from that, we don't have access to good quality drugs because of the sanctions. These issues may reduce our success rate temporarily but even this one is technical and not related to our protocols.

Here Dr Farid compares the efficacy of infertility treatment in the clinic with that of the whole world, particularly Western countries, and in making this comparison she claims that the clinic has equal success rates with the West. She distinguishes between medical/scientific and technical/technological advancement and contends that there is no lag in terms of medical aspects of infertility treatment in the clinic, since medical practitioners are part of global community of scientists. They all progress together in producing medical knowledge in the treatment of infertility through exchanging information in conferences and once a year Western practitioners take part in the conference the clinic holds, giving some of the status of the West to the clinic. However, she acknowledges that if there are any small differences between the success

¹⁵⁸ Preimplantation Genetic Diagnosis (PGD)

rates of this clinic and its Western counterparts, it is due to the lack of equipment and drugs – sanctions imposed on drugs – not gynaecologists' diagnosis and protocols. She frames this technological delay as an issue which is not intrinsic to the clinic, but related to contingent political matters, such as sanctions. By presenting global (mainly Western) success rates, the clinic is seeking to achieve two objectives. First, highlighting that the clinic is advancing at the same pace as the West gives credit and legitimization to the clinic; it is as good as the countries where these treatments originated, where still uncertainty and failure have to be managed. The second objective is to preclude clinic users from dropping out of the treatment in Iran and looking for treatment in the West – 'they will do the same for you' – as there is this belief among clinic users that the West is offering the advanced technology with the highest outcome.

The following incident was narrated to me by three members of staff (a receptionist, a midwife and a senior gynaecologist) on three separate occasions, signalling its significance in the clinic. The story was that a woman had undergone a successful treatment in the clinic but in the first couple of weeks after the confirmation of clinical pregnancy, she had started bleeding and was referred to the clinic immediately. The clinic had been crowded as usual and when she was seen by the gynaecologist, it was proved that she had miscarried. Having been informed about the miscarriage, her furious sister had searched for the receptionist of the clinic, found her among other clinic users and had given her a slap. The guard of the clinic had taken the clinic user and her sister to the office of the director of the clinic to discuss the issue further with the clinic's gynaecologist who scanned her. The clinic's senior gynaecologist, Dr Fakoor, after narrating the story told me:

You explain to them that the world says 25 percent is the probability of miscarriage. The world says, with bleeding, the doctor has a limited range of medicine. [the doctor] can't do everything for you. Our issue is not the errors involved in medicine but [our issues] are those things [uncertainties] in medicine that people can't accept.

Dr Fakoor invokes figures and statistics to manage the situation and anger of the clinic user. Yet, in her reasoning and putting forward the risk of miscarriage, she resorts to global statistics – 'the world says 25 percent' – rather than using local statistics. By referring to 'the world' both in explaining the risk with miscarriage and the

authority/knowledge of the practitioner in controlling the problem (bleeding), she reifies the uncertainty inherent in medical knowledge. She recognises that there is an incompatibility between the clinic users and the scientific discourse accepted worldwide in terms of expectations and understandings of uncertainties in (bio)medicine. And in doing so, she distinguishes between ‘the world’ (knowledgeable doctors) and ‘them’ (ignorant clinic users). Moreover, in resorting to global statistics, not only does she strive to normalise and naturalise the miscarriage but also legitimise the failure and the treatment which did not lead into a take-home baby.

Alongside figures and rates used strategically by the practitioners to manage the uncertainties associated with technologies, there were other rhetorical devices involved in managing uncertainties and emotions in the everyday life of the clinic. One of the most common was the invoking of God in the everyday practice of assisted conception, as a way of dealing with uncertainties, success and failure, as I analyse next.

‘Inshallah you’ll get the result’: religious beliefs/discourses and navigating the boundaries of uncertainty

I was sitting among several couples in the waiting area of the operation theatre on the first floor of the clinic in the late afternoon of the 1st of Feb 2016. The couples were all in their final stage of undergoing an IUI cycle. Among them, there was a man who caught my particular attention. His mouth was constantly open and shut as if he was whispering a phrase. Taking a closer look, I realised he was repeating *Salavat* – a complimentary phrase to Prophet Mohamad and his family. He was asking prophet Mohamad to be a mediator in asking for God’s mercy and blessings. He was not interacting with anyone, even his wife, and after a short while his wife was asked to go to the operation theatre. I then introduced myself and asked him about the treatment type they were undergoing. He replied:

They [practitioners] said IUI and we said somewhere else we had undergone 3-4 unsuccessful IUI cycles and then they said *Inshallah* this time it [pregnancy] will happen, which means close your mouth and don’t say anything else.

His response demonstrates the discursive resources available to clinic users and practitioners in negotiating their treatment method. While the man projects the likelihood of pregnancy from an IUI cycle as very low, according to him and his wife's previous encounter with this type of treatment, the practitioners resort to religious discourses to exercise their own power and take control. *Inshallah*, If Allah (God) wills it, has an Arabic (qur'anic) origin but is very commonly used by Iranians in their daily speech. Using this Arabic phrase when one decides to plan to do an activity (or in the middle of doing it), be it a chore or an important task, ties one's decision to a source of power (Allah), an ultimate being who knows what is best for every individual. In fact, the man clinic user's perception of the practitioner relying on religious discourses (*Inshallah*) is not simply as a strategy to manage the uncertainties involved in the practice and limitations of medical knowledge, but also as a way of regaining their autonomy and preventing clinic users from questioning either the technology or their medical knowledge.

Despite the (often) unconscious use of *Inshallah* in everyday life by Iranians, religious discourses were also actively deployed by both practitioners and clinic users on a frequent basis. For example, during a conversation with a clinic user, she recounted practitioners invoking religious discourses when transferring embryos to women's uteruses. She recalled the practitioner's conversation with her before the transfer:

You have two embryos with good and excellent quality. We will transfer them. Putting hope in God, you'll get the result. And then the doctor said 'say *besm Allah*' (In the name of God) and I said '*besm Allah*' and she transferred them (Fieldnotes, 22 Feb 2016).

On the one hand, the woman clinic user was given positive information regarding the development of the embryos. On the other hand, in order to manage the uncertainties around successful implementation and the establishment of a clinic pregnancy, the gynaecologist asked the clinic user to put her hope in God, who is the ultimate source of knowledge. Of course failure following embryo transfer is still very significant in IVF treatment, as the gynaecologist would be aware; she would also be aware that medical knowledge cannot (yet) explain why some transfers are successful and others are not.

In her multi-sited ethnography of infertility treatment clinics in Iran, Garmaroudi Naef (2012b) argues that recitation of the name of God by (male) doctors and patients in the operating rooms emphasises and reinforces the connection between the human and divine in the process of creation. To contribute to Garmaroudi Naef's argument, I argue that reciting the name of God is also connected to the belief that if one starts activities with saying *besm Allah*, one invokes God's help and assistance¹⁵⁹.

Beside practitioners invoking religious beliefs and discourses in their practice, clinic users in their daily conversations in the clinic were constantly telling each other, 'Inshallah, you'll get the result'. Obtaining the result in this phrase by clinic users denotes pregnancy and a take-home baby. Even during my fieldwork, I realised that I was also unconsciously using this phrase at the end of any conversation with clinic users. Moreover, many clinic users, while sitting in the waiting areas for their appointments or while waiting for their spouse undergoing a surgery, were either reading *Ziyarat Nameh*¹⁶⁰ or repeating *Salavat*. Hence, tying their hopes to God and deploying God as an alternative source of knowledge in managing the uncertainties and anxieties related to the practice of IVF was very common.

During the course of my fieldwork, many women clinic users shared their experiences of seeking religious ideas and beliefs to overcome the limitations of medical knowledge. There was one narrative which I can still vividly recall as I was also emotionally tangled up in this clinic user's story. On the 1st of May 2016 after the Iranian New Year holidays, a woman clinic user approached me and said that she had seen me in the clinic before the holidays and on seeing me again she assumed that I had undergone infertility treatment before the holidays and was wondering if my treatment had been unsuccessful, like hers, or not. At that point I introduced myself, and then without a minute of hesitation and without me having chance to ask her if she was interested in participating in my research, she started narrating her story. She said she was injecting hormonal drugs, but on monitoring her ovaries clinic

¹⁵⁹ I should here note that clinic users' perception of gynaecologists' dress code also manifested the involvement of religious beliefs and ideas in the management of uncertainties in treatment, as they were all properly veiled and praying with other clinic users in the clinic's prayer room. Some of the woman clinic users told me that the practitioners' appearance stresses their connection with God.

¹⁶⁰ *Ziyarat Nameh* is a form of written prayer in which salutations and greetings are sent to Muhammad and his family. According to Shia doctrine, Imam (successors of Muhammad) are means through which divine grace is given to humans.

gynaecologists were wondering why they were not responding to the most advanced drugs. She had gone back to her home town and visited a holy place there. She said she stayed there for a couple of hours and cried for the whole time. Two days later, on returning to the clinic for monitoring, the gynaecologist had told her that her ovaries had responded to the drugs and she had replied that the blessing was from Khanom Fatemeh (the daughter of prophet Muhamad) and burst into tears. I also could not resist crying and she said she had thought this time she would eventually become pregnant. Unfortunately, she was to be disappointed again, by both medical technology and the alternative source of religious knowledge that she had sought.

Invocation of God, for some clinic users, cover all the uncertainties in the practice of IVF represented in figures. Fatemeh, a woman clinic user, was in the last trimester of pregnancy at the time of our interview. Recalling the history of her infertility treatment, she said when her treatment in this clinic started, she had already undergone one failed IVF cycle followed by a failed IUI cycle. In this clinic, she was told to start with an IUI cycle despite her wish to move to IVF. The IUI cycle in the clinic was unsuccessful and three months later, she underwent an IVF cycle which generated embryos but which also did not lead to pregnancy. At that point, she had some frozen embryos in the clinic but decided not to pursue treatment any further:

Fatemeh: My frozen embryos had been here for two years. And after two years I came again to have them transferred. I was disappointed at that time, no incentive to carry on [the treatment]. I decided to study (...) There must have been something in it [failed IVF] for my own good. Sooner or later, one will get the result. Perhaps, at that point it was in my interest to study and not to have a baby. This tolerance and patience eventually led to an outcome.

Sara: That's great. But what happened that you decided to restart? What were you thinking about this time, do you remember?

Fatemeh: This time, my spirit lifted considerably. The previous time, I was saying there is 50-50 chance of [achieving] the result. It was just my assumptions but this time, I knew about it [achieving the result]. A feeling was telling me that this time I will gain the result for 100 percent. It was a feeling from my heart, a spiritual feeling or a feeling of connection with God, it [the feeling] was telling me that I'll get the result. My husband in those two weeks I was resting for the pregnancy test was asking me if I was thinking whether it [pregnancy] will happen or not. He was asking such questions a lot and I was reassuring him. I was telling him with certainty that it'll work out this time. Then he was asking me how I would know that, and I kept telling him I don't know, a good feeling, like a feeling that God has revealed to me. Positive energy of my friends and my family were also having an impact. They were praying for me and it was as if God heard their voices (...) the biggest problem is that one gets hopeless of

gaining the outcome. If one is hopeless then all this commuting to the clinic will be useless. In this clinic, one must invest energy and time as well as being patient to not quit it [the IVF cycle] in the middle of the road. One must come and go constantly to get the outcome. Now, here, it's up to God when you gain the result. Doctors are mediating [in executing God's will].

In dealing with failure, Fatemeh invokes God. For her, there is a logic and order behind her earlier failure which she is not aware of and only God knows about. . In retrospect, Fatemeh constructs this failure as a test of her patience which is rewarded by getting pregnant two years later. Another clinic user Leila invoked God in a similar way when she was informed that her cycle should be cancelled, referring to God's absolute knowledge in identifying 'one's own good' or 'interest' in the life course.

When I asked Fatemeh what made her restart treatment in the clinic she linked this to her religious belief – 'a feeling from my heart', 'a spiritual feeling', 'a feeling of connection with God'. She perceived this feeling to be so strong that it replaced all uncertainties, unlike her previous cycles in which she had uncertainties regarding their outcomes. In her account, one should not lose hope in the treatment, indeed she attributes her ultimate success to having enough faith, enough belief, and enough people saying prayers on her behalf. As women undergoing IVF in Franklin's (1997, 176- 178) study described, she had the feeling of 'having to try' IVF as long as there is hope and chance. Yet, 'in having to try IVF' she recognises the role of the medical knowledge/practitioners as mediators of God's will and that the absolute power is in the hands of God.

Conclusion: mediation of religious beliefs and strategies of coping with uncertainties

In conclusion I want to return to Leila's story. I can still recall her concerned and nervous face when we said goodbye to each other and she left the clinic for a tentative future, hoping to find sufficient financial resources to pursue her and her husband's quest for a baby. The midwife in Leila's story was well aware of the limitations of medical knowledge and technology. Yet, she withheld these uncertainties about the next cycle using a different protocol from Leila, and also asked me not to reveal it to her. Even though the clinic midwife might have had the best of intentions, to maintain Leila's hope for her future cycle, keeping the information might give her false hope

and promise. After my fieldwork, I received a text from Leila saying that a couple of month after I exited the clinic, they had managed to afford to start the treatment again. This time eggs were successfully retrieved from her ovaries and the conceived embryos were transferred to her uterus, but unfortunately no pregnancy ensued.

Leila's story and accounts of many other clinic users in this chapter, like Nasim and Fatemeh, illuminate the process of what Cipolletta and Faccio (2013, 295) call, 'the complex interplay between omnipotence and impotence'. The feeling of everything being under scientific control is soon replaced by uncertainties about assisted conception, rendering the clinic a space of negative emotions. This dualism of control, calmness and order versus uncertainty, risk and fear is apparent in my description of the clinic at the beginning of this chapter. However, as I show throughout the chapter, the two poles of this binary co-exist with each other and are co-constructed simultaneously. To maintain a space that looks calm and orderly, labour has to be done to manage negative emotions and uncertainties. This work of managing emotions is partly done by the clinic practitioners through utilising global success figures and rates, and partly through the staff situating the clinic at the cutting-edge of infertility treatment globally. Nevertheless, these numbers convey different meanings at different times depending on what is being negotiated. Sometimes practitioners refer to these figures to situate their medical knowledge and efficacy as on a par with Western clinics. Sometimes they refer to numbers to justify failures in the practice of IVF (e.g. miscarriages after pregnancy is established). And sometimes numbers are used in negotiations of medical authority over clinic users.

Religious beliefs and discourses were also strategically invoked by both clinic users and medical practitioners in order to normalise this complex interplay of notions of control and uncertainty in IVF. Practitioners invoked God in the moments of greatest uncertainties, e.g. transferring embryos, to manage clinic users' emotions. At the same time, this invocation was also used by them to maintain their medical authority over clinic users. On the other hand, clinic users were actively resorting to religious beliefs to deal with the uncertainties of assisted conception and failure. Particularly in dealing with failure, religious discourses do not clash with medical knowledge. Rather, religion gives comfort to clinic users, provides an answer for the production of more uncertainties. Throsby (2004), in a UK context, argues that when IVF succeeds, the success belongs to the technology and practitioners, whereas when it fails, the burden

of labour and responsibility for failure is on women – medical technology and even male partners remain unblemished. By resorting to religious discourses, women clinic users can shift the blame and responsibility for failure from their bodies to God.

Invocation of God both by medical practitioners and clinic users is not exceptional to the Iranian cultural landscape. Inhorn (2003, 171) in her ethnography of an Egyptian clinic notes that clinic users and practitioners tied their hopes and belief in technology to God. In so doing, as she argues that global hope technologies take the form of ‘technologies of God’ when practitioners and clinic users accommodate the success in technology with their own cultural form. Bharadwaj (2006a) also contends that Indian clinicians invoke religion to make sense of the uncertainties about assisted conception in the absence of rational explanation. Clinic users in his study expressed blind faith in doctors who were viewed as ‘life giving, sustaining gods’, highlighting the superiority of medical practitioners over the faith in technology (Bharadwaj 2006a, 460). Nevertheless, clinic users in my study were actively exercising their agency in doctor-patient relationships, showing more faith and trust in technology, rather than their practitioners, and when being disappointed by the technology, they were invoking God as a coping mechanism. In actively seeking power and control over reproduction and sexuality, Mernissi (1977, 107) argues that ‘women in a patriarchal society seek through the saint’s mediation a bigger share of power, of control’. In fact, in visiting saints and sanctuaries Mernissi argues that women seek help which modern public service is unable to offer and they ‘embody a refusal to accept arrogant expertise, to submit blindly to authority, to be treated as subordinate’ (Mernissi 1977, 104). I agree with this analysis; however, I have demonstrated that seeking assistance and solution from God, the Prophet and other Saints was not restricted to women. Men clinic users were also actively asking a supernatural force to influence the power structures in the realm of clinical conception. At the same time, practitioners also seek assistance from divine powers in order to maintain their control over practice while being all too aware of the limitations of medical technology. Thus power relations in doctor-patient relationships in the clinic were partly mediated and negotiated by invoking supernatural powers.

Chapter Seven

Conclusions

Iranian infertility clinics are the loci where state law, culture, society and religion intersect on ARTs (Tappan 2012, 105).

As Tappan argues above, infertility treatment clinics are points where many broad authorial structures intersect. Practices of IVF take a complex form, as they assist and at the very same time disrupt norms of authorial systems such as law and religion. What has fascinated me in this thesis is how these complexities are negotiated on a daily and ongoing basis to make the application of IVF possible. As the technologies of assisted conception have spread across the world these negotiations have taken different forms based on the local context, yet not separate from global considerations.

My research has focused on an IVF clinic in Iran and has sought to analyse the interactions of religion, medicine/science and gender, as they are negotiated by staff and clinic users in the everyday practices and processes of infertility treatment. During a 10 month feminist ethnography of the clinic, I have paid attention to the ways in which authorial systems of medicine, religion and gender relations are variously reproduced, minimised, disavowed and appropriated. I have also addressed the ways in which clinic users and staff accommodate and resist assisted conception as a global form, and how their local negotiations link to national and international forces.

In what follows, I summarise the key insights of my study from two different perspectives inspired by Franklin (2013a, b). First, she highlights the significance of understanding the workings of IVF through ‘older structures of sociality’ of human reproduction and biological mechanisms. Second, she notes the opportunity that IVF will provide to examine and analyse these same old structures (Franklin 2013a, 8-9). The first section of this chapter reflects the first part of Franklin’s framework, drawing

attention to how IVF practiced in the clinic is mediated by the interactions of religion, gender and medical/scientific knowledge. Drawing together examples from across my analytical chapters, I argue that assisted conception is a negotiated practice and these negotiations take place in different layers. Thereafter, I address the second part of Franklin's framework and use IVF as a lens through which to look beyond at wider society; IVF as looking-glass tells us much about religion, gender relations and medicine in Iranian society. In doing so, I am not claiming that this clinic is representative of all IVF clinics in Iran¹⁶¹ rather that its complex negotiations resonate with gender politics/asymmetries and religious plurality in Iranian society. Having discussed the findings of my research from these two perspectives, in the final section of this chapter I reflect on my thoughts and feelings on the last day of my fieldwork and link them to the limitations of my research, as well as the opportunities and potentialities to further expand this field of knowledge.

Assisted conception: a negotiated practice

I begin this section by explaining why I see assisted conception as a *negotiated practice*. The word negotiation encompasses a process – a process which involves discussions to find a middle ground. There are contradictions, incompatibilities and complexities involved in the intersection of local systems, such as religion, in adopting IVF. As Franklin has argued (2013a) assisted conception is grounded in the very norms and structures that it simultaneously undermines. To normalise and/or minimise these complexities different actors negotiate the intersection of various systems. The main conclusion of my research is that these negotiations have two interconnected characteristics: they are dynamic and they are constantly changing.

The interaction of local structures of religion, medicine and gender relations is very complex, being configured in different ways at different times. For example, sometimes these local structures contradict one another and sometimes not, depending on the strategies of normalisation that different actors deploy; this is what I mean by them being dynamic. At the same time, these structures themselves are not fixed or static, but subject to change. Furthermore, the local structures and the global politics

¹⁶¹ See chapter 3 for discussion of how the clinic is positioned in the Iranian ART landscape.

and flows of knowledge and technologies are not fixed and static. Therefore, negotiations of the complexities of ARTs have an ongoing feature to reflect and accommodate changes in the national and global level. Each of my empirical chapters addresses the everyday interactions of religion, gender relations, and medical knowledge at a different level of abstraction. Chapter four addresses the clinic's material environment, its architecture and gendered organisation of space. Chapter five addresses the clinic's regulatory environment, the laws governing kinship in the context of gamete donation and the discursive and rhetorical devices that clinic users and staff deploy to negotiate their practices. Chapter six addresses the emotional environment of the clinic.

Religious authorities originally ruled that practicing IVF between heterosexual married couples does not violate Islamic law. In other words, as long as IVF is practiced between heterosexual married couples, there is no contradictions between Islam and this form of reproductive medicine. However, looking more closely into the practicalities of assisted conception, one can identify certain procedures required for IVF that breach Islamic ideologies about men's and women's bodies. As I observed in chapter 4, these violating procedures are both inherent in the practice of assisted conception itself, such as masturbation for semen collection, and also occurred as a result of the clinic's internal policies in maximising the number of the clinic users who are admitted.

To negotiate these contradictory aspects of religion and medicine, three groups in the clinic were involved in demarcating, blurring and eliminating gendered spatial boundaries in different sections of the clinic simultaneously: the Head of the clinic, clinic users and clinic staff. The Head of the clinic enforced boundaries for consultation rooms and operation theatres, making them gender-segregated areas in order to accommodate Islamic ideologies of policing female sexuality with the medical requirements to examine women's reproductive system in diagnostic and IVF procedures. However, in moments of crisis (e.g. giving news of ovulation stimulation failure) clinic gynaecologists sometimes strategically blurred these boundaries, asking, downplayed the clash between Islamic ideologies of women's bodies and IVF procedures, and asked husbands to accompany their wives to the consultancy rooms. At the same time, the clinic allowed wives to accompany their husbands to semen-collection rooms as a matter of policy, in order to nullify the prohibition of

masturbation in Islam. However, men clinic users actively demarcated boundaries, making these rooms male only areas, and so re-producing a clash between religious ideology and the requirements of reproductive medicine.

In chapter 5, I showed that *nasab*, kinship, in Islam is a biosocial institution that is not reducible to either biological or social parenthood, and therefore it is unable to accommodate the disruption and complexities caused by the practice of third-party donation. To normalise this complexity, some Iranian religious leaders have re-interpreted religious discourses and have distinguished between the legitimacy of the act of involving a third-party in reproduction, and the relatedness of the child. This strategic use of flexible mechanisms available in Shia Islam has engendered resistance and tensions among clinic staff. Senior practitioners resisted third-party donation through reinforcing a dichotomy between religious/traditional and scientific/professional values. On the other hand, junior gynaecologists resorted to scientific rationale and reasoning to accommodate and justify donation. To reconcile these opposite poles, the Head of the clinic invoked fatwas endorsing third-party procreation using donor eggs and donor embryos yet excluding sperm donation – recognising sperm donation as a form of illicit sexuality (an understanding embedded in Islamic discourses and Iranian culture). In other words, by using the same fatwa to allow egg donation but rule out sperm donation, the Head of the clinic was employing double standards. In justifying egg donation, the fatwa can be coupled with the dominant (normative) understandings about the role of the sperm in perceptions of kin relations and sexual propriety, while in sperm donation they cannot. Through this strategic invocation of fatwas, the Head of the clinic not only legitimises egg donation but also accommodates the practice of third-party donation with national cultural forces by excluding sperm donation.

In resisting donation, particularly sperm donation, clinic staff are more concerned with the sexual propriety (legitimacy) of the act of donation. On the other hand, clinic users as potential recipients of donated gametes situate themselves and Iranian culture at the national level differently. At stake in their accounts was confusion about their biological/genetic relations with the child. Both recipients and donors strategically hid their act of receiving or donating their eggs and normalised it through emphasising the prominent role of sperm in reproduction, the same assumed role that is used to prohibit sperm donation. It was notable that those men clinic users who were considering

sperm donation as a solution worked hard to re-think and de-emphasise the role of sperm in reproduction.

These strategies that clinic users (recipients and donors) and practitioners resort to in order to accommodate or resist technological conception are embedded in Islamic discourses and cultural beliefs in Iran. In other words, they invoke or create familiar, habitual or traditional frameworks in negotiating the complexities of involvement of a third-party in procreation. Creating or relying on such frameworks has been identified in other research in different contexts, for example, Thompson's (2005) study of configuring and reconfiguring kinship through invoking a shared life history or Ragoné's (1998) research looking at the experience of gestational surrogates where the commissioning couple is from a different racial group. In my research negotiating third-party involvement in reproduction has sometimes reinforced traditional understandings about the gendered roles of egg and sperm, while at other times the same time it highlights a partial reconfiguration of these gendered roles.

Technological assisted conception is a complex medical procedure. It is a very precise and orderly technique which requires a high level of expert medical knowledge, yet, at the same time, the procedures and outcome of the treatment are extremely unpredictable and uncertain. This paradoxical nature of assisted conception manifested itself in the environment of the clinic; it was both a very emotional space and a very orderly and precise place. I showed in chapter 6 that negotiating uncertainty was dynamic and complex depending on the stage of the treatment. In the initial stages of choosing the treatment type, clinic practitioners demonstrated the uncertainty involved in an IVF cycle both to legitimise their failures in the practice and to invoke the status of the West in infertility treatment. However, during treatment cycles, high levels of failure and uncertainty were strategically minimised by clinic users to maintain their levels of hope, and they revised the likely success rate of treatment upwards in their case. They also strategically invoked religious beliefs and discourses, tying their hopes to an ultimate source of power in order to accommodate, minimise and normalise the uncertain character of their treatment journey. Practitioners, similarly, invoked religious beliefs and discourses but in relying on God they disavowed potential failures and disappointments with the treatment in order to regain their medical authority. Invocation of God by practitioners is not specific to Iranian culture or to this clinic. Practitioners in other clinics across the world also strategically

invoke religious beliefs, for example in clinics in India (Bharadwaj 2006a) and in Ecuador (Roberts 2006, 2010). In Ecuador God is invoked to legitimise a medical practice which official religious discourses condemn, and in India it manifests as a criticism of the 'incompleteness' of the Western and colonial science. However, when the treatment fails the negotiations of uncertainty in infertility treatment take another formulation. Clinic practitioners downplay the potential uncertainty and failure tied to any future treatment cycles which are going to be sought by clinic users. Moreover, clinic users, particularly women, incorporate religious beliefs, using the common religious texts and following religious rituals, into their experience with medical knowledge in dealing with treatment failure.

Through these many examples across the empirical chapters of my thesis, I have demonstrated how clinic staff and clinic users negotiate the interactions of medical knowledge, religious beliefs, ideologies, regulations and gender politics. These negotiations were dynamic and ongoing relative to the treatment stage, those who are involved (staff and/or clinic users) and the type of treatment (third-party donation or conventional IVF). In these negotiations different types of information (medical information about the treatment and genetic origins of the child), emotions and impracticalities of donation are managed. Furthermore, while these negotiations make the application of IVF possible, there are implications for men's and women's full understanding of each other's embodiment of infertility treatment and a reinforcement of gendered gametes. In reflecting on these negotiations, I have realised that this is another dimension that is missing from my analysis, that of financial concerns.

Although I did not pay specific attention to this missing element while I was doing my fieldwork, various examples across all the chapters cast light on this issue. In chapter 4, the boundaries segregating men and women clinic users were constructed on religious grounds, but what seems primary in the clinic's policy regarding gender-segregation was maximising the number of clinic users, leading to maximum income for the clinic. It was particularly because the clinic sought to have two gynaecological consultations going on at the same time in the same room that it was essential to exclude men as husbands of the women concerned. In chapters 5 and 6, practicing third-party donation and claiming medical knowledge that was advancing at the same pace as that in the West was partly a strategy to maintain the popularity of the clinic and attract many users from inside and outside Iran borders. Even in chapter 6, hiding

the uncertainty of success rates regarding any future IVF treatment could be partially seen as an approach by staff not to discourage clinic users on whom the financial viability of the clinic depends. Financial considerations were elements at the centre of most of the decisions made in the clinic yet they were downplayed by the staff. In other words, even where scientific, technical decisions in the clinic had financial origins, they were then justified on religious grounds. The strategic invocation of religion, as Bharadwaj (2006b, 424) argues, ‘collapses the domains of the sacred and the profane in the local moral worlds of the childless, their clinicians and religious injunctions’. This justification of financial decisions through religion highlights the place of the sacred in the mundane economic struggles of the clinic.

Assisted conception: as a lens to look through existing structures

Franklin (2013a, 8) argues that ‘the topsy-turvy world of IVF, (...), offers us a looking glass into a looking-glass world’. She uses IVF as a tool, a looking glass or a lens, through which to observe wider issues, such as the dissolution of the biological and technical. Looking through this looking glass, she posits that biology was once assumed to work “automatically” or “by itself”, but following IVF it now has ‘a more explicit contingent, or relative, condition’ (Franklin 2013a, 16). She posits that after IVF facts about human reproduction follow two different models. The first one posits an independent, even automatic, operation of conception (as invoked in the term ‘spontaneous’). In the second one, the biological act of conception requires assistance and the human embryo is ‘reconstructed in vitro’ (Franklin 2013b, 750). According to Franklin, the co-existence of these two models suggests that the biological facts about human reproduction are relative and contingent.

Franklin uses IVF as a looking glass or lens to look at biology in the age of technology. In this section, I want to use assisted conception as a lens or looking glass to look at religion, gender relations and medical knowledge in the Iranian context. Additionally, similar to Franklin in her analysis, I am also going to hold this looking glass still. I zoom in and out and sometimes change the background light to be able to see a more encompassing picture; a picture which is able to include the interface of the local and the global.

First, I want to look back at gender segregation through the lens of IVF. At the beginning of chapter 4, I labelled gender seclusion as a practice reinforced after the Iranian 1979 revolution. This imposed practice stems from Islamic ideologies, or at least patriarchal interpretations of the same, but it is criticised and challenged by a wide range of Iranians. However, a closer look at it, brings into light a more complex feature associated with gender segregation. It has restricted the study of obstetrics and gynaecologists to women after the revolution, preventing men from entering and being specialised in this field. In turn, this has subverted patriarchal gender power relations in the context of the clinic, at least in part. Major decisions about the procedures involved in different treatment cycles are made by women gynaecologists. Their key role enables them to temporarily undermine the clinic's policy of segregated consultancy rooms and ask men to accompany their wives. Additionally, it empowers women gynaecologists to actively resist and disobey policies set by the male Head of the clinic about donation (chapter 5) and yet still keep their jobs, position and status in the clinic. These women practitioners participate in international conferences, collaborate with many men and women gynaecologists across the world, and claim to have obtained the most updated medical/scientific knowledge (chapter 6). They have done this, according to Afshar, 'by adopting the ascribed identity for a "good Muslim" but contesting its meaning and reconstructing it as a liberating tool, while maintaining the label and its attributes in the public gaze' (Afshar 2012, 6). I am in agreement with Afshar's (2012) argument and contend that despite all the constraints and limitations imposed on women by the type of Islam adopted by the state in Iran, women gynaecologists in the clinic, like many other Iranian women, have subverted policies aiming to control women. While with their dress code and proper veiling (that I alluded to in chapter 6) women gynaecologists represent good Muslim women in the context of the clinic and international conferences, they cannot simply be portrayed as victims of what was once imposed on them to curtail their liberation.

The gender segregated clinic introduces various implications for gender relations between couples. It disempowers many clinic users, particularly women, through furthering the fundamental gender gap in infertility treatment, and hinders men from understanding the full embodiment of treatment procedures. However, for those women recognising the permission of polygamy in the state law as a threat, gender segregation may ensure their future as the only wife of their husband. Gender

segregation in the clinic allows them to withhold critical medical information regarding their treatment procedures from their husband, such that he cannot blame them for the couple's infertility and use that as grounds to seek another wife. Looking at gender segregation through Franklin's metaphor of IVF as a looking-glass, one can see that gender asymmetries are not always oppressive. In particular contexts women have used them agentially to at least partly subvert gender inequalities embedded in cultural practice and reinforced by the state law.

I now zoom out to look at another key authorial power playing a role in adopting and adapting assisted conception: religion. In fact, religion also takes different forms when one looks at it through the lens of IVF. Ijtihad in Shia Islam allows for interpretation and reinterpretation of religious discourses. Moreover, the individualist character of ijthihad leads to a plurality of religious rulings endorsing or condemning gamete donation; rulings which are even contesting each other. Various scholars have discussed this degree of agency and control, which leads to disagreement and the endorsement of opposing views in Shia Islam. Focusing on the multiple and contested regulations of ARTs in Shia Iran and comparing them to similar regulations in secular Turkey and the Sunni Arab world, Gurtin and her colleagues (2015, 3141) argue that it is misleading and over-simplistic to assume 'a monolithic Islamic response to ARTs'. I want to extend their claim and argue that this conclusion holds not only between three Islamic contexts, but also within the context of Shia Islam.

In my research in Iran religion is sometimes invoked in a monolithic, homogeneous and contained way, but is also sometimes used in a more pragmatic, conditional and contingent configuration. For example, in shaping the spatial organisation of the clinic (chapter 4) religion is used monolithically to segregate women's and men's clinics, yet at the same time there are moments of rupture when medical authority takes precedence. Clinic users and staff were certainly deploying religion selectively and re-interpreting it over time. Some clinic users decided to change their Marja al-taqlid and select a Marja who endorses the use of gamete donation. Fatwas permitting egg and sperm donation were selectively appropriated, invoked strategically and changed over time (chapter 5). While fatwas endorsing egg donation conditionally through temporary marriage were first utilised by the Head of the clinic and practitioners, over time the Head of the clinic referred to fatwas which do not specify such requirements. At the same time, the invoking of an all-encompassing and monolithic religion – God

as the source of ultimate power and knowledge – was also in play, used to manage the uncertainties and disavow failures of assisted reproduction (chapter 6). All the above examples demonstrate that Islam, through the lens of IVF, is invoked sometimes as a rigid religion and sometimes as a flexible form which is adaptable to the requirements of a modern life.

To look at medical knowledge (biomedicine) through the looking glass of IVF in the Iranian context, I need to change the background light, even the filters, to be able to observe biomedicine situated in the discussions surrounding modernity/secularism and the traditional/spiritual. In doing so, I argue that sometimes medical knowledge is referred to as a contained system, while at the same time, it is fragmented, selectively practised and appropriated. In chapter 6, I showed that clinic practitioners claim that medical/scientific knowledge in the clinic and in Iran is developing at the same pace as in the West. In other words, local and national scientific activities and goals reflects global trends and flows of progression. Despite all the sanctions, medicine in the Iranian context is modernised and the clinic offers cutting-edge knowledge and technology.

Biomedicine generally offers many types of infertility treatment, including involvement of a third-party in procreation. Nonetheless, when it comes to sperm donation (or egg donation from the perspective of senior gynaecologists) the uniform and modernised shape of biomedicine is contested by practitioners. Some of them constructed gamete donation as in contradiction with national Iranian culture and against religion. Therefore, they argued that medical procedures had to be selectively practised. However, for other practitioners (particularly junior practitioners) such selective practice was not scientific or professional. At the same time, there was a general consensus among staff that products used to aid masturbation in the semen-collection rooms should be prohibited, and this led some clinic users to view the clinic (and Iran) as delayed in terms of conforming to modernity and western technology. Medical knowledge and technology in the Iranian context looking through the lens of IVF views biomedicine in hegemonic terms in the clinic, yet at the same time influenced by traditions and religion.

The practice of ARTs in the Iranian context complicates any categorisation of Western biomedicine through a ‘modernist narrative’ (Ginsburg and Rapp 1995), since it is also

influenced by tradition and religion. The narrative of modernity constructs tradition/religion and science/modernity as polar opposites, yet in the clinic both clinic users and practitioners moved between these poles strategically and contingently, transforming this dichotomy to a spectrum. Clinic users and practitioners positioned the clinic and the medical knowledge/techniques that it offered somewhere on this spectrum; a position which is relative to what is being negotiated.

Returning to Franklin's idea of using IVF as a looking glass through which to analyse the dissolutions of technology and biology, she argues that 'neither biology nor technology will look quite the same again after we have re-examined them through the looking glass of IVF, and the curiuser and curiuser window its transfer "into man" has opened' (Franklin 2013a, 29). I have demonstrated via my research that this section was also a collation of other examples of Franklin's argument. When I re-examined religion, gender relations and medical knowledge through the lens of IVF, none of them looked exactly the same. These structures looked more complex, nuanced, a bit strange and even unfamiliar.

Limitations of my research

As I started to write my conclusion, I was reminded of the final day of my fieldwork. Upon exiting the clinic, I wrote down in my notebook:

I remembered the first day I entered the clinic when I had no idea what to do or where to go. Then I told myself: 'how can one deeply understand the treatment journey of couples with 15 years of dealing with infertility, and the peaks and troughs of a clinic with more than 20 years of history?' It will never be possible' (Field notes, 16 Aug 2016).

I remain convinced that fully capturing all the complexities of assisted conception in the clinic is not possible. My prolonged immersion in the clinic, via my ethnographic methods, has enabled me to understand much. For example, while on the surface it seemed as if the clinic staff were all working smoothly and collaboratively, under the skin of this collaborative atmosphere there were important tensions in everyday practice, as I have demonstrated. Moreover, an ethnographic gaze has enabled me to untangle the proliferation of layers and dimensions of complexity in the practice of assisted conception, as various structures intersect in different ways and clinic users seek to normalise their experiences. The limitations I faced were partially due to my

research design and analysis, and partly as a result of the space of the clinic and my role there.

In conducting my project in the clinic, I was neither a member of staff nor a clinician and this precluded my access to the IVF labs. Clinicians in the IVF labs, as I briefly described in chapter 6, were involved in the most scientific aspect of the IVF process. They worked in solitude and their relationship with IVF was much less mediated through encounters with clinic users. Therefore, their interpretations of the complexities of assisted conception could be different from those of other clinic staff. For example, I do not know how they make sense of mixing an egg and sperm from a woman and a man who are not married, following the clinic's policy about mixing gametes of unmarried couples but in the light of some religious concerns about illicit sexual activity. I cannot say whether there were similar tensions about egg/embryo donation among lab technicians as there were between senior and junior gynaecologists.

My research also has shortcomings embedded in the analysis. While I have shown the different ways through which many men and women staff and clinic users negotiate, reproduce, manage and minimise the complex nature of assisted conception, I have not focused on how these strategies differ by age, level of education, ethnic groups, and various gender identities. In terms of age, I showed in chapter 6 that Leila's husband was taking the responsibility of infertility and pursuing treatment without involving Leila. Withholding the information from Leila suggests that he was trying to navigate the normative association between fertility and masculinity and the facts of medical diagnosis. It would be interesting to know how different generations of men navigate these contradictions. Furthermore, younger Iranian couples are typically more educated and aware of the latest technological updates. How do they negotiate and manage the complexities of third-party donation?

Looking at the individual case studies, it is clear that clinic users travel to the clinic from different parts of Iran. Some of them belonged to various ethnic minorities with their own culture and traditions. If those undergoing gamete donation negotiated its complexities through resorting to familiar and habitual frameworks, then given their different ethnic culture it is likely that their mechanisms of normalising these complexities differed. Furthermore, while all the couples I interviewed or had a

conversation with were cisgender, my participants do not represent the range of people with other gender identities admitted to the clinic. In fact, the admission of people with gender identities other than as straight men and women became clear to me in an interview with the clinic's social worker. She mentioned that there were seven transgender people with their partner on the clinic waiting list to receive donated embryos. She also emphasised that initially one couple was admitted to the clinic and then six other couples within the same month sought the clinic's services, suggesting that these couples are part of a trans community sharing information.

After the Iranian revolution, Ayatollah Khomeini, using the flexible mechanism in Shia Islam, *ijtihad*, issued a fatwa endorsing gender reassignment surgery (Tremayne, 2006). As a result of this fatwa and the availability of medical technology, rates of gender re-assignment surgery in Iran are among the highest in the world. Having married a person from their opposite gender post-transition, trans people and their partners are considered to be heterosexual couples and are eligible to receive a donated embryo in order to become parents. How they make sense of and interpret these intersections of religion and medicine, which initially facilitate their path to gender-reassignment surgery and may then assist them in pursuing parenthood, are important questions that this research has not addressed and that I would like to pursue in the future.

My study was also time-limited at 10-months, only a fraction of the time some couples spend pursuing infertility treatments. Indeed, since I have exited the field, the treatment journeys of many of the clinic users I followed have continued, both in and beyond the clinic. Among those with whom I am still briefly in touch and whose stories make up key sections of my thesis are Leila, Sanam, Nasim, Marjan and Mina.

Leila is looking to pursue her quest for conception in another clinic hoping for higher success rates. However, another attempt requires her husband's successful sperm aspiration for the second time. While Leila is considering going to another clinic, Sanam, who was reluctant to pursue sperm or gamete donation, eventually made her mind and underwent embryo donation in another clinic with a shorter waiting list, but unfortunately no pregnancy ensued. Mina donated her eggs one more time, using the money to pay the deposit on a house she was planning to rent. She wants to donate her eggs one more time as she is now facing other financial problems, but the clinic does

not allow egg donors to donate more than three times and she was unsure about donating her eggs in another clinic. Nasim and Marjan had pregnancies which went successfully to term and they both have toddlers now, as well as frozen embryos being stored in the clinic. They are both hesitant about when or even whether to transfer these embryos and undergo all the medications and bear the uncertainties of treatment again. These brief updates from some of my participants demonstrate the continuation of their hopes for a successful treatment; despairs over failures; ambiguities and concerns about undergoing another treatment with all its risks, which now might be understood and managed differently by them.

Beside the different and various treatment paths that my participants have followed since I left the clinic, Iran's position in the world has also changed. One year after I finished my fieldwork, Mr Trump was elected as US President. Among his many campaign promises was a ban on Muslim immigrants, which he delivered by banning Iranians from entering the US. Moreover, he exited the 2015 nuclear deal with Iran (JCPA) and re-imposed all the sanctions, including sanctions on medicine. The re-introduction of these sanctions is likely to require the Head of the clinic and clinic staff to revisit their strategy of positioning the clinic at the cutting edge of science and technology. Once again, local negotiations with the global flows of technology that I discussed in this thesis are dynamic and relative.

Throughout this thesis, I have demonstrated the dynamic feature of negotiations of complexities in the practice of assisted conception. Religion, gender relations and medical knowledge/technique, which are imagined as very stable constructs, become very dynamic when we look at them in the everyday practice of assisted conception. However, what is fascinating is that this dynamism has multiple layers. It exists *within* each of the structures of religion, gender relations and medicine – as through IVF they are rendered more contingent and relative. Also, negotiations are dynamic *between* religion, medicine and gender relations in their everyday interactions, leading to multiple intersections of these structures. Nonetheless, it is clear also that there are factors which are outside this triangle and yet still shape negotiations, such as finance and international phenomenon like Presidential elections. , which are outside this triangle and still shaping the negotiations *beyond* local and national changes. All these ongoing changes and different layers of dynamism make the everyday practice of

assisted conception in the Iranian context extremely unpredictable and uncertain, highlighting the importance of continuation in such ethnographic studies.

Appendices

Appendix 1 – details of the participants

	Clinic users' Pseudonyms	Short Biography
1	Fatemeh	A 29-year-old woman clinic user at the time of the interview and at her last stages of pregnancy. She lived in the city where the clinic was located and had a BA in Public Administration but was unemployed. She had undergone multiple failed IUI and IVF cycles in another clinic and this clinic. Their infertility had a combined cause. Her husband was employed by a governmental organisation funded all the treatment expenses. She was properly veiled indicating that she was a religious woman.
2	Mina	A 30-year-old egg donor. She had not completed secondary school. She was divorced and unemployed. For Mina, egg donation was a way of earning money. At the time of the interview, she was living with her sister in the suburban areas of the city the clinic was located. She was in contact with my after I returned to the UK but after several months changed her phone number without informing me.
3	Nasim	A 31-year-old woman clinic user, married for 9 years. The reason of their childlessness was unexplained. She had a Master's degree in Law but working as a journalist. She had undergone multiple failed IUI and IVF cycle in the clinic. They were living in a small town, very close to the city of the location of the clinic. She was properly veiled and a religious woman. I followed her during her treatment and am still in contact with her. They themselves paid the treatment expenses.
4	Majid and his wife	Majid and his wife were both in their late 30s, married for 11 years. He was a tailor and his wife were a house-wife. They lived in the North-East of Iran and at the time of interview, it was their first visit to the clinic. Their childlessness had a male-factor pathology. They had no insurance coverage for their prospective treatment. I am not in contact with them.
5	Marjan and her husband	Marjan was a 27-year-old woman clinic user from the north-west of Iran. Her husband was self-employed and she was a house-wife. She had already undergone 3 unsuccessful IUI cycles in a clinic in their home town. They had private insurance to pay for their IVF cycle. Their childlessness had a male-factor pathology. I followed her partially during her treatment journey and am still in contact with her.

6	Leila and Yunus	A 24-year-old woman clinic user, married for five years. She had a BSc in Mathematics and was working full-time as an administrator in a small workshop. Her husband was also a full-time employee in a big shopping centre. They were originally from the West of Iran but were moved to suburban areas of the city the clinic was located in since their childhood. Their infertility has a male-factor pathology. The treatment expenses were not covered by their insurance. I followed her during her treatment journey and am still in contact with her. I never met her husband.
7	Sanam and Hussein	A 26-year-old woman clinic user and her husband Hussain was 31-years old (I saw him only one time very briefly). Hossein was self-employed and Sanam had a master's degree in psychology but was looking for jobs. Their childlessness had a male-factor pathology and they were from the city the clinic was located. I followed her during her husband's treatment journey and am still in contact with her. They were self-funded in treatment expenses.
8	Mohammad	A 35-year old man clinic user, from the West of Iran. He had a master's degree in management and self-employed. Their childlessness had a female-factor pathology. They were self-funded in covering treatment expenses.
9	Reza	A 38-year old man clinic user, from the city the clinic was located in. Their childlessness had a female-factor pathology. He was fire-fighter and treatment expenses were partly covered by their health insurance. I have not analysed much of his accounts in this thesis.
11	Aram	A 33-year-old woman clinic user, married for 10 years. She was living in a small town, very close to the city of the location of the clinic the reason of their childlessness was combined (secondary infertility). She had a 7-year old son. Her ovaries were not responding to hormonal drugs. They were self-funded in covering treatment expenses. I have not analysed much of her accounts in this thesis. I followed her during her treatment journey and am still in contact with her.
12	Ahad	A man clinic user in his late 30s from the North West of Iran. He was a sessional labourer. Their childlessness had a female-factor pathology. They were self-funded in covering treatment expenses.
13	Hadi and Ziba	Ziba was in her late 20s and Hadi in his early 30s when I first met them. They had immigrated to the city that the clinic was located from their home town which was located in the West of Iran just for the

		ease of access o the clinic. Their infertility had a female-factor pathology. They had been married for nearly 10 years and had undergone various treatment in other clinics. Ziba was house-wife and Hadi was a precarious daily-paid employee in the construction sector.
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Details of Staff members

	Staff Pseudonyms	Short Biography
1	Dr Parsa	A staff member in one of the Research Departments of the clinic who facilitated my access to the clinic
2	Dr Hamidi	A junior gynaecologist and the director of the current donation clinic during my fieldwork. She was in favour of gamete donation.
3	Dr Fakoor	A senior gynaecologist and one of the pioneer gynaecologists in performing egg retrieval surgeries. Mother of 5 children and a very religious woman. She was strongly in disagreement with gamete donation.
4	Dr Sohrabi	A junior andrologist and one of the pioneer andrologists in sperm aspiration surgeries. His position about gamete donation was undecided. He was a very religious man.
5	Dr Vahidi	A senior gynaecologist and one of the pioneer gynaecologists in performing egg retrieval surgeries, and a very religious woman. She was strongly in disagreement with gamete donation.
6	Mrs Mehraban	A social worker in her late 30s, giving consultations and at the same time screening egg donors and recipients. She was in favour of gamete donation.
7	Mrs Bahrami	A social worker in her late 30s, giving consultations and at the same time screening embryo recipients and making surrogacy arrangements. She was in favour of donation.
8	Dr Nikoo	A psychiatrist in her late 30s. She assessed psychological well-being of donors and surrogates.
9	Mrs Pirooz	A senior midwife and the director of women's operation rooms.
10	Mrs Hosseini	A 30-year old receptionist who talks about her emotional labour.

11	Mrs Shahed	A senior nurse and one of the most influential staff in managing the clinic. She was the first nurse employed by the clinic.
12	Dr Farid	A junior gynaecologist and a researcher. She did not disclose her opinion regarding gamete donation.
13	Mrs Fallah	A senior midwife. Her accounts form the entry to chapter 3 of this thesis. Apart from that, I have not analysed much of her accounts here.
14	Dr Taban	The Head of the clinic. A very religious man in his late 50s. He was in disagreement only with sperm donation. However, he was attempting to persuade the Ministry of Health to regulate gamete donation.
15	Mrs Karimi	A senior midwife. I have not analysed much of her accounts here.
16	Dr Talash	A man genetic consultant who opposed the clinic's policy of gender segregation.
17	Dr Ahmadi	A woman embryologist. Her accounts form the entry to chapter 6 of this thesis.

Appendix 2 – Consent forms for clinic users

Informed Consent Form for clinic users who attend ... clinic, and who are invited to participate in research on experiences of clients in the above infertility clinic seeking treatment in Iran

Part I: Information Sheet

Introduction

I am Sara Bamdad from Shiraz, studying for a PhD in Women and Gender studies in the University of Warwick in the UK. I am doing research on Iranian fertility clinic users. The information that I collect from this research will only be used for academic purposes. I am going to give you information about my research on this form and invite you to be part of this research. Please ask if you have any questions.

My research

The number of people in Iran seeking infertility treatment in clinics is increasing currently. I want to know about your treatment experience and how you make sense of the process of seeking assisted conception. I believe that you can help me by telling me the story of your treatment journey. I want to learn about your hopes, fears and uncertainties before and during treatment.

Invitation to participate in this research

You are being invited to take part in this research because I feel that your experience as a clinic user can contribute much to the understanding and knowledge of the special route you go through. Your participation is likely to broaden the views of medical practitioners and politicians once they get to know the problems based on your perspective.

The research will involve your participation in interviews/focus groups that will take about an hour. Your participation in this research is entirely voluntary. It is your choice whether to participate or not. If you choose not to participate, all the services you receive in this clinic and your treatment cycle will continue and nothing will change. If you accept to participate, then you will be asked to talk about your own personal experience of infertility and treatment seeking. I understand that this is very personal and confidential information.

If you choose to participate but do not want to answer a question you may say so. No one else but I will be present in the interview unless you would like someone else to be there. The interview will be recorded if you agree. Any information recorded will be kept confidential, and no one will be identified by name on the voice-recorder.

Nothing that you tell me today will be shared with clinical staff or will be attributed to you by your name. I am happy to know you only by your first name for the purpose of setting up your participation. In the written outputs from this research your words will be shown under a pseudonym, so that you are anonymous. My notes from your interview will be

made available to you at a later date, should you so wish. Also, you will be able at the end of the interview to review your remarks and add anything further, or change your answers.

This proposal has been reviewed and approved by Clinic's Ethical Committee, which is a committee whose task, it is to make sure that research participants are protected from harm.

Part II: Certificate of Consent

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____

Date _____

Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my answered the following questions:

- 1.
- 2.
- 3.

Print Name of Researcher/person taking the consent _____

Signature of Researcher /person taking the consent _____

Date _____

Day/month/year

Appendix 3 – consent forms for members of staff

Informed Consent Form for staff of ... clinic, and who are invited to participate in research on experiences of providing fertility treatment in the above infertility clinic

Part I: Information Sheet

Introduction

I am Sara Bamdad from Shiraz, studying for a PhD in Women and Gender studies in the University of Warwick in the UK. I am doing research on Iranian clinic users and staff. The information that I collect from this research will only be used for academic purposes. I am going to give you information about my research on this form and invite you to be part of this research.

My research

The number of people in Iran seeking infertility treatment in clinics is increasing currently. I want to know about your experience in providing fertility treatment. I want to learn about your successes and the challenges that you face in providing treatment.

Invitation to participate in this research

The research will involve your participation in interviews that will take about an hour. If you choose to participate but do not want to answer a question you may say so. No one else but I will be present in the interview unless you would like someone else to be there. The interview will be recorded if you agree. Any information recorded will be kept confidential, and no one will be identified by name on the voice-recorder.

Nothing that you tell me today will be shared with clinical staff or will be attributed to you by your name. I am happy to know you only by your first name for the purpose of setting up your participation. In the written outputs from this research your words will be shown under a pseudonym, so that you are anonymous. My notes from your interview will be made available to you at a later date, should you so wish. Also, you will be able at the end of the interview to review your remarks and add anything further, or change your answers.

This proposal has been reviewed and approved by Clinic's Ethical Committee, which is a committee whose task, it is to make sure that research participants are protected from harm.

Part II: Certificate of Consent

I have read the above information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study

Print Name of Participant _____

Signature of Participant _____

Date _____

Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my answered the following questions:

- 1.
- 2.
- 3.

Print Name of Researcher/person taking the consent _____

Signature of Researcher /person taking the consent _____

Date _____

Day/month/year

Bibliography

- Abbasi-Shavazi, Mohammad J., Peter McDonald, and Meimanat Hosseini-Chavoshi. 2009. *The Fertility Transition in Iran: Revolution and Reproduction*. Dordrecht: Springer.
- Abbasi-Shavazi, Mohammad Jalal, Marcia Inhorn, Hajiieh Bibi Razeghi-Nasrabad, and Ghasem Toloo. 2008. "The 'Iranian ART Revolution': Infertility, Assisted Reproductive Technology, and Third-Party Donation in the Islamic Republic of Iran." *Journal of Middle East Women's Studies* 4 (2):1-28.
- Abbasi-Shavazi, Mohammad Jalal, Hajieh Bibi Razeghi Nasrabad, Zohreh Behjati Ardakani, and Mohammad Mehdi Akhondi. 2006. "Attitudes of infertile women towards gamete donation: a case study in Tehran." *Journal of Reproduction and Infertility* 7 (2):139-148.
- Aberese-Ako, Matilda. 2016. "I won't take part!": Exploring the Multiple Identities of the Ethnographer in two Ghanaian Hospitals." *Ethnography* 18 (3):300-321. doi: 10.1177/1466138116673380.
- Abu-Lughod, Lila. 1990. "Can there be a feminist ethnography?" *Women and Performance: A journal od Feminist Theory* 5 (1):7-27.
- Adrian, Stine William. 2017. "Sperm Stories: Sociotechnical Imaginaries of Sperm Donation and Sperm Banking in Denmark." In *Assisted Reproduction Across Borders: Feminist Perspectives on Normalizations, Disruptions and Transmissions*, edited by Lie Merete and Lykke Nina, 275-285. New York, NY: Routledge.
- Adrian, Stine Willum. 2015. "Psychological IVF: conceptualizing emotional choreography in an infertility clinic." *Distinktion: Scandinavian Journal of Social Theory* 16 (3):302-317.
- Afary, Janet. 2009. *Sexual Politics in Modern Iran*. Cambridge, UK ; New York: Cambridge University Press.
- Afshar, Haleh. 1998. *Islam and Feminisms: An Iranian Case-Study, Women's studies at York series*. Basingstoke: Macmillan Press.
- Afshar, Haleh. 2008. "Can I see your hair? Choice, agency and attitudes: the dilemma of faith and feminism for Muslim women who cover." *Ethnic and Racial Studies* 31 (2):411-427.

- Afshar, Haleh. 2012. Fluidities of Identities: Strategic and Practical Pathways selected by women. In *Women and Fluid Identities: Strategic and Practical Pathways Selected by Women*, edited by Afshar Haleh. Basingstoke: Palgrave Macmillan,.
- Ahmadi, Aliyar, and Sara Bamdad. 2017. "Assisted reproductive technologies and the Iranian community attitude towards infertility." *Human Fertility* 20 (3):204-211. doi: 10.1080/14647273.2017.1285057.
- Alaszewski, Andy, and Patrick Brown. 2007. "Risk, Uncertainty and Knowledge." *Health, Risk & Society* 9 (1):1-10.
- Allan, Helen. 2007. "Experiences of infertility: liminality and the role of the fertility clinic." *Nursing Inquiry* 14 (2):132-139.
- Allan, Helen, and Debbie Barber. 2005. "Emotional Boundary Work in Advanced Fertility Nursing Roles." *Nursing Ethics* 12 (4):391-400.
- Appadurai, Arjun. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis; London: University of Minnesota Press.
- Appadurai, Arjun. 2008. "Disjuncture and Difference in the Global Cultural Economy." In *The Anthropology of Globalization: A Reader*, edited by Xavier Jonathan and Renato Rosaldo, 47-65. Malden, MA: Blackwell Pub.
- Ardener, Shirley. 2000. "The Partition of Space." In *Gender space architecture: an interdisciplinary introduction*, edited by Jane Rendell, Barbara Penner and Iain Borden, 112-117. London: Routledge.
- Arghavan, Mahmoud. 2018. "The Dilemma of Postcolonial/or Orientalist Feminism in Iranian Diasporic Advocacy of Women's Right in the Homeland." In *Middle East Studies after September 11 : Neo-Orientalism, American Hegemony and Academia*, edited by Keshin Tugrul, 150-172. Boston: BRILL.
- Azarmina, P. 2002. "In Iran, gender segregation becoming a fact of medical life." *CMAJ: Canadian Medical Association Journal* 166 (5):645.
- Becker, Gay. 2000. *The Elusive Embryo: How Women and Men Approach New Reproductive Technologies*. Berkeley: University of California Press.
- Bharadwaj, Aditya. 2006a. "Sacred Conceptions: Clinical Theodicies, Uncertain Science, and Technologies of Procreation in India." *Culture, Medicine and Psychiatry* 30:451-465.

- Bharadwaj, Aditya. 2006b. "Sacred Modernity: Religion, Infertility, and Technoscientific Conception around the Globe." *Culture, Medicine and Psychiatry* 30:423-425.
- Cipolletta, Sabrina, and Elena Faccio. 2013. "Time experience during the assisted reproductive journey: a phenomenological analysis of Italian couples' narratives." *Journal of Reproductive and Infant Psychology* 31 (3):285-298.
- Clarke, Morgan. 2007a. "Children of the Revolution: 'Ali Khamene'i's 'Liberal' Views on *in vitro* Fertilization." *British Journal of Middle Eastern Studies* 34 (3):287-303.
- Clarke, Morgan. 2007b. "Closeness in the Age of Mechanical Reproduction: Debating Kinship and Biomedicine in Lebanon and the Middle East." *Anthropological Quarterly* 80 (2):379-402.
- Clarke, Morgan. 2007c. "The modernity of milk kinship*." 15 (3):287-304. doi: 10.1111/j.0964-0282.2007.00022.x.
- Clarke, Morgan. 2008. "New Kinship, Islam, and the Liberal Tradition: Sexual Morality and New Reproductive Technology in Lebanon." *The Journal of the Royal Anthropological Institute* 14 (1):153-169.
- Clarke, Morgan. 2009. *Islam and new kinship: Reproductive Technology and the Shariah in Lebanon*. New York.Oxford: Berghahn Books.
- Coffey, Amanda. 2018. *Doing Ethnography*. Los Angeles: Sage.
- Collier, Stephen. 2006. "Global Assemblages." *Theory, Culture & Society* 23:2-3.
- Collier, Stephen, and Aihwa Ong. 2005. "Global Assemblages, Anthropological Problems." In *Global Assemblages: Technology, Politics and Ethics as Anthropological Problems*, edited by Collier Stephen and Ong Aihwa, 1-54. Oxford: Blackwell Publishing.
- Corea, Gena. 1988. *The Mother Machine : Reproductive Technologies from Artificial Insemination to Artificial Wombs*. London: Women's Press.
- Cresswell, Tim. 2013. *Place: A Short Introduction*. Hoboken: Wiley.
- Crowe, Christine. 1987. "Women Want It: In Vitro fertilization and Women's Motivations for Participation." In *Made to Order: The Myth of Reproductive and Genetic Progress*, edited by Patricia Spallone and Deborah Lynn Steinberg, 84-93. Oxford: Pergamon Press.
- Cussins, Charis. 1998. "Techniques of Normalization and Naturalization in Infertility clinics." In *Reproducing reproduction : kinship, power, and technological*

- innovation*, edited by Sarah Franklin and Helena Ragoné, 66-101. Philadelphia: University of Pennsylvania Press.
- Davies, Karen. 2003. "The body and doing gender: the relations between doctors and nurses in hospital work." *Sociology of Health and Medicine* 25 (7):720-742.
- Ebrahimnejad, Hormoz. 2002. "Religion and Medicine in Iran: From Relationship to Dissociation." *History of Science* 40 (1):91-112.
- Ebrahimnejad, Hormoz. 2014. "Medicine in Iran: Profession, Practice and Politics 1800-1925." In. Basingstoke: Palgrave Macmillan.
- Eich, Thomas. 2012. "Constructing Kinship in Sunni Islamic Legal Texts." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Inhorn Marcia and Tremayne Soraya, 27-52. New York Berghahn Books.
- Eyzadyar, Nasrin, Shirin Ahmadnia, Seyed Mohammad SeyedMirzaei, Seyed Ali Azin, and Mohammad Yazdanisafa. 2014. "To choose the oocyte Donation as a way of becoming mother (Phenomenological study of infertile women in Royan institute)." *Journal of Iranian Social Studies* 8 (1):6-21.
- Farquhar, Dion. 1996. *The other Machine: Discourse and Reproductive Rechnologies, Thinking gender*. New York: Routledge.
- Fortier, Corinne. 2007. "Blood, Sperm and the Embryo in Sunni Islam and in Mauritania: Milk kinship, Descent and Medically Assisted Procreation." *Body & Society* 13 (3):15-36.
- Franklin, Sarah. 1997. *Embodied progress: a cultural account of assisted conception*. London, New York: Routledge.
- Franklin, Sarah. 2013a. *Biological Relatives: IVF, Stem Cells, and the Future of Kinship*. Durham: Duke University Press.
- Franklin, Sarah. 2013b. "Conception through a looking glass: the paradox of IVF." *Reproductive BioMedicine Online* 27:747-755.
- Franklin, Sarah, and Marcia Inhorn. 2016. "Introduction." *Reproductive BioMedicine and Society Online* 2:1-7.
- Franklin, Sarah, Celia Lury, and Jackie Stacey. 2000. *Global nature, global culture*. London: Sage.
- Franklin, Sarah, and Celia Roberts. 2006. *Born and Made: An Ethnography of Preimplantation Genetic Diagnosis, In-formation series*. Oxford ; Princeton: Princeton University Press.

- Garmaroudi Naef, Shirin. 2012a. "Gestational Surrogacy in Iran: Uterine kinship in Shia thought and practice." In *Islam and Assisted Reproductive Technologies*, edited by Marcia Inhorn and Soraya Tremayne, 157-193. New York, Oxford: Berghahn Books.
- Garmaroudi Naef, Shirin. 2012b. "Gestational Surrogacy In Iran: Uterine Kinship In Shia Thought And Practice." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspective*, edited by Marcia Inhorn and Soraya Tremayne, 157-193. New York: Berghahn Books.
- Garmaroudi Naef, Shirin. 2013. "The Birth of Embryo Donation and Surrogacy in Iran." Health Related issues and Islamic Normativity, Universitäts- und Landesbibliothek Sachsen-Anhalt: Halle, Germany.
- Geertz, Clifford. 1993. *The Interpretation of Cultures: Selected Essays*. London: Fontana Press.
- Gheytauchi, Elham. 2001. "Civil Society in Iran: Politics of Motherhood and the Public Sphere." *International Sociology* 16 (4):557-576.
- Ginsburg, Faye, and Rayana Rapp. 1995. "Introduction: Conceiving the New World Order." In *Conceiving the New World Order: The Global Politics of Reproduction*, edited by Ginsburg Faye and Rapp Rayana, 1-17. Berkeley: University of California Press.
- Goldberg, Helene. 2009. "The Sex in the Sperm: Male infertility and Its Challenges to Masculinity in an Israeli-Jewish Context." In *Reconceiving the Second Sex: Men, Masculinity, and Reproduction*, edited by Marcia Inhorn, Tine Tjørnhøj-Thomsen and Maruska la Cour Mosegaard, 203-225. New York: Berghahn Books.
- Greil, A. 2002. "Infertile Bodies: Medicalization, Metaphor, and Agency." In *Infertility around the globe: New thinking on childlessness, Gender and Reproductive Technologies*, edited by Marcia Inhorn and Frank Van Balen, 101-118. Berkeley, Calif.; London: University of California Press.
- Grosz, E. A. 1995. *Space, time and perversion : essays on the politics of bodies*. New York ; London: Routledge.
- Gurtin, Zeynep. 2012a. "Assisted Reproduction in Secular Turkey: Regulation, Rhetoric, and the Role of Religion." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspective*, edited by Inhorn Marcia and Tremayne Soraya, 285-311. New York: Berghahn Books.

- Gurtin, Zeynep. 2012b. "Practitioners as Interface Agents between the Local and the Global: The Localization of IVF in Turkey." In *Reproductive Technologies as Global Form: Ethnographies of Knowledge, Practices and Transnational Encounters*, edited by Knecht Michi, Beck Stefan and Klotz Maren, 81-109. Frankfurt/New York: Campus Verlag.
- Gurtin, Zeynep, Marcia Inhorn, and Soraya Tremayne. 2015. "Islam and Assisted Reproduction in the Middle East: Comparing the Sunni Arab World, Shia Iran and Secular Turkey." In *The Changing World Religion Map : Sacred Places, Identities, Practices and Politics*, edited by Brunn Stanley and Gilbreath Donna, 3137-3153. Dordrecht: Springer.
- Gutmann, Mathew. 2009. "The Missing Gamete? Ten Common Mistakes or Lies about Men's Sexual Destiny." In *Reconceiving the Second Sex: Men, Masculinities and Reproduction*, edited by Marcia Inhorn, Tine Tjørnhøj-Thomsen and Maruska la Cour Mosegaard, 21-44. New York: Berghahn Books.
- Haimes, Erica. 1993. "Issues of Gender in Gamete Donation." *Social Science and Medicine* 36 (1):85-93.
- Hammersley, Martyn, and Paul Atkinson. 2007. *Ethnography: principals in practice*. London; New York: Routledge.
- Harrington, Jennifer, Gay Becker, and Robert Nachtigall. 2008. "Nonreproductive Technologies: Remediating Kin Structure with Donor Gametes." *Science, Technology & Human Values* 33 (3):393-418.
- Hasanpoor-Azghady, Syedeh Batol, Masoumeh Simbar, and Abouali Vedadhir. 2015. "The Social Consequences on Infertility among Iranian Women: A Qualitative Study." *International Journal of Fertility & Sterility* 8 (4):409-420.
- Helie, Anissa. 2012. "Policing gender, sexuality and 'Muslimness'." In *Sexuality in Muslim contexts: Restrictions and Resistance*, edited by Anissa Helie and Homa Hoodfar, 1-14. London; New York: Zed Books.
- Hochschild, Arlie Russell. 2003. *The Managed Heart: commercialization of human feelings*. Berkeley and Los Angeles, California: University of California Press.
- Houot, Sandra. 2012. "Islamic Jurisprudence (Fiqh) and Assisted Reproduction: Establishing Limits to Avoid Social Disorders." In *Islam and Assisted*

- Reproductive Technologies: Sunni and Shia Perspective*, edited by Inhorn Marcia and Tremayne Soraya, 53-69. New York, Oxford: Berghahn Books.
- Inhorn, Marcia. 2007. "Masturbation, Semen Collection and Men's IVF experiences: Anxieties in the Muslim World." *Body and Society* 13 (3):37-53.
- Inhorn, Marcia. 1994. *Quest for Conception: Gender, Infertility, and Egyptian Medical Traditions*. Philadelphia: University of Pennsylvania Press.
- Inhorn, Marcia. 2002. "The "Local" Confronts the "Global ": Infertile Bodies and New Reproductive Technologies in Egypt." In *Infertility around the globe: New thinking on childlessness, gender and reproductive technologies*, edited by Marcia Inhorn and Frank Van Balen, 263-282. Berkeley, California ; London: University of California Press.
- Inhorn, Marcia. 2003. *Local Babies, Global Science: Gender, Religion, and in vitro fertilization in Egypt*. New York and London: Routledge.
- Inhorn, Marcia. 2004a. "Middle Eastern Masculinities in the Age of New Reproductive Technologies: Male Infertility and Stigma in Egypt and Lebanon." *Medical Anthropology Quarterly* 18 (2):162-182.
- Inhorn, Marcia. 2005. "Making Muslim Babies: Sunni versus Shi'a Approaches to IVF and Gamete Donation." IUSSP Annual Conference, Tours, France.
- Inhorn, Marcia. 2006a. "'He won't be my son": Middle Eastern Muslim Men's Discourses of Adoption and Gamete Donation." *Medical Anthropology Quarterly* 20 (1):94-120.
- Inhorn, Marcia. 2006b. "Islam, IVF and Everyday Life in the Middle East." *Anthropology of the Middle East* 1 (1):42-50.
- Inhorn, Marcia. 2006c. "Making Muslim Babies: IVF and Gamete Donation in Sunni Versus Shi'a Islam." *Culture, Medicine and Psychiatry*:427-450.
- Inhorn, Marcia. 2009. "Male Gentile Cutting: Masculinity, Reproduction, and Male Infertility Surgeries in Egypt and Lebanon." In *Reconceiving the Second Sex : Men, Masculinity, and Reproduction* edited by Inhorn Marcia, Tjørnhøj-Thomsen Tine, Goldberg Helene and la Cour Mosegaard Maruska, 253-280. New York: Berghahn Books.
- Inhorn, Marcia. 2011. "Globalization and Gametes: Islam, Assisted Reproductive Technologies and the Middle Eastern State." In *Reproduction, Globalization, and the State: New Theoretical and Ethnographic Perspectives*, edited by

- Browner Carole and Sargent Carolyn. Durham; London: Duke University Press.
- Inhorn, Marcia. 2012. "Why Me? Male Infertility and Responsibility in the Middle East." *Men and Masculinities* 16 (1):49-70.
- Inhorn, Marcia. 2015. *Cosmopolitan Conceptions: IVF Sojourns in Global Dubai*. Durham Duke University Press.
- Inhorn, Marcia. 2004b. "Privacy, privatization, and the politics of patronage: ethnographic challenges to penetrating the secret world of Middle Eastern, hospital-based in vitro fertilization." *Social Science and Medicine* 59:2095-2108.
- Inhorn, Marcia, and Morgan Clarke. 2011. "Mutuality and Immediacy between *MARJAMUQALLID*: Evidence from male In Vitro fertilization patients in Shii Lebanon." *International Journal of Middle East Studies* 43:409-427.
- Inhorn, Marcia, Pasquale Patrizio, and Gamal Serour. 2012. "Third-Party Reproductive Assistance around the Mediterranean: Comparing Sunni Egypt, Catholic Italy, and Multisecterain Lebanon." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Inhorn Marcia and Tremayne Soraya, 223-260. New York: Berghahn Books.
- Inhorn, Marcia, Tine Tjørnhøj-Thomsen, Helene Goldberg, and Maruska la Cour Mosegaard. 2009. "The Second Sex in reproduction? Men, Sexuality and Masculinity." In *Reconceiving the Second Sex: Men, Masculinity and Reproduction*, edited by M Inhorn, Tine Tjørnhøj-Thomsen, Helene Goldberg and Maruska la Cour Mosegaard, 1-17. New York: Berghahn Books.
- Inhorn, Marcia, and Soraya Tremayne. 2012. *Islam and Assisted Reproductive Technologies*. New York: Berghahn Books.
- Ivry, Tsipy. 2010. "Kosher Medicine and Medicalized Halacha: An Exploration of Triadic Relations among Israeli Rabbis, Doctors and Infertility Patients." *American Ethnologist* 37 (4):662-680.
- Ivry, Tsipy. 2013. "Halachic Infertility: Rabbis, Doctors, and the Struggle over Professional Boundaries." *Medical Anthropology* 23 (3):208-226.
- Jenkins, Richard, Hanne Jessen, and Vibeke Steffen. 2005. "Matters of life and death." In *Managing Uncertainty: Ethnographic Studies of Illness, Risk and*

- Struggle for Control*, edited by Steffen Vibeke, Jenkins Richard and Jessen Hanne, 9-29. University of Copenhagen: Museum Tusulanum Press.
- Kahn, Susan. 2000. *Reproducing Jews: A Cultural Account of Assisted Conception in Israel*. Durham and London: Duke University Press.
- Kahn, Susan Martha. 2006. "Making technology familiar: Orthodox Jews and infertility support, advice and inspiration." *Culture, Medicine and Psychiatry* 30:467-480.
- Karamouzian, Mohammad, hamid Sharifi, and AliAkbar Haghdoost. 2014. "Iran's shift in family planning policies: concerns and challenges." *International Journal of Health Policy and Management* 3 (5):231-233.
- Kashani-Sabet, Firoozeh. 2011. *Conceiving Citizens: Women and the Politics of Motherhood in Iran*. New York: Oxford University Press.
- Khan, Shahnaz. 2005. "Reconfiguring the Native Informant: Positionality in the Global Age." *Signs* 30 (4):2017-2037.
- Khuri, Fuad. 2001. *The Body in Islamic Culture*. London: Saqi Books.
- Kirkman, Maggie. 2008. "Being a 'real' mum: Motherhood through donated eggs and embryos." *Women's Studies International Forum* 31:241-248.
- Kirsch, Gesa E. 2005. "Friendship, Friendliness, and Feminist Fieldwork." *Signs* 30 (4):2163-2172.
- Knecht, Michi, Stefan Beck, and Maren Klotz. 2012. "Reproductive Technologies as Global Form: Introduction." In *Reproductive Technologies as Global Form: Ethnographies of Knowledge, Practices and Transnational Encounters*, edited by Knecht Michi, Beck Stefan and Klotz Maren, 11-26. Frankfurt/New York: Campus Verlag.
- Lewin, Ellen. 2005. "On the Outside Looking in: The Politics of Lesbian Motherhood." In *Conceiving the New World Order: The Global Politics of Reproduction*, edited by Ginsburg Faye and Rapp Rayana, 103-121. Berkeley: University of California Press.
- Lie, Merete, and Nina Lykke. 2017. "Editorial Introduction." In *Assisted Reproduction Across Borders : Feminist Perspectives on Normalizations, Disruptions and Transmissions*, edited by Lie Merete and Lykke Nina, 1-21. New York, NY: Routledge.

- Long, Debbi, Cynthia Hunter, and Sjaak van der Geest. 2008. "When the field is a ward or a clinic: Hospital ethnography." *Anthropology & Medicine* 15 (2):71-78.
- Lorber, Judith. 1989. "Choice, Gift, or Patriarchal Bargain? Women's Consent to In Vitro Fertilization in Male Infertility." *Hypatia* 4 (3):23-36.
- Low, Martina. 2006. "The social construction of space and gender." *European Journal of Women's Studies* 13 (2):119-133.
- Low, Setha M. 2003. "Embodied Space(s): Anthropological Theories of Body, Space and Culture." *Space and Culture* 6 (1):9 - 18.
- Lupton, Deborah. 2013. "Risk and emotion: towards an alternative theoretical perspective." *Health, Risk & Society* 15 (8):634-647.
- Mahmoud, Farouk. 2012. "Controversies in Islamic Evaluation of Assisted Reproductive Technologies." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Inhorn Marcia and Tremayne Soraya, 70-99. New York: Berghahn Books.
- Mamo, Laura. 2007. *Queering Reproduction: Achieving pregnancy in the age of technoscience*. Durham, NC: Duke University Press.
- Mansouri, reza. 2013. The History of Science in Iran from a Physicist's Perspective. In *Science and Innovations in Iran: Development, Progress and Challenges* edited by Abdol S. Soofi and Sepehr Ghazinoory. Basingstoke: Palgrave Macmillan.
- Marcus, Julie. 2001. "Orientalism." In *Handbook of Ethnography*, edited by Amanda Coffey Paul Atkinson, Sara Delamont, John Lofland and Lyn Lofland, 109-117. London: SAGE.
- Massey, Doreen B. 1994. *Space, place and gender*. Cambridge: Polity.
- Maynard, Mary, and June Purvis. 1994. "Doing Feminist Research." In *Researching Women's Lives from a Feminist Perspective*, edited by Mary Maynard and June Purvis, 1-10.
- McKinnon, Susan. 2015. "Productive Paradoxes of the Assisted Reproductive Technologies in the Context of New Kinship Studies." *Journal of Family Issues* 36 (4):461-479.
- Mehrabi, Tara. 2017. "Matters of Donation and Preserved Relations: Co-Construction of Egg Donation and Family Structures in Iran." In *Assisted Reproduction Across Borders: Feminist Perspectives on Normalizations*,

- Disruptions and Transmissions*, edited by Lie Merete and Nina Lykke, 189-203. New York, NY: Routledge.
- Mernissi, Fatima. 1977. "Women, Saints and Sanctuaries." *Signs* 3 (1):101-112.
- Mernissi, Fatima. 1985. *Beyond the veil : male-female dynamics in modern Muslim society*. Rev. ed. London: Al Saqi.
- Mirsepasi, Ali. 2000. *Intellectual discourses and the politics of modernization: Negotiating Modernity in Iran*. Cambridge, UK: Cambridge University Press.
- Moazami, Behrooz. 2013. *State, religion, and revolution in Iran, 1796 to the present*. Basingstoke: Palgrave Macmillan.
- Moore, Lisa Jean. 2009. "Killer Sperm: Masculinity and the Essence of Male Hierarchies." In *Reconceiving the Second Sex: Men, Masculinity and Reproduction*, edited by Marcia Inhorn, Tine Tjørnhøj-Thomsen and Maruska la Cour Mosegaard, 45-71. New York: Berghahn Books.
- Mounce, Ginny. 2018. "Emotion Work in Ethnography." In *Emotions and Reflexivity in Health and Social Care Field*, edited by Allan Helen and Arber Anne, 133-158. Cham, Switzerland: Palgrave Macmillan.
- Nash, Meredith. 2014. "Introduction: Conceiving of Postmodern Reproduction." In *Reframing Reproduction: Conceiving Gendered Experiences*, edited by Nash Meredith, 1-19. Houndmills, Basingstoke, Hampshire: Palgrave Macmillan.
- Oakley, Ann. 1987. "From Walking Wombs to Test-Tube Babies." In *Reproductive technologies: Gender, Motherhood and Medicine*, edited by Stanworth Michelle, 36-56. Cambridge: Polity in association with Blackwell.
- Orobitg, Gemma, and Carles Salazar. 2005. "The Gift of Motherhood: Egg Donation in a Barcelona Infertility Clinic." *ETHNOS* 70:31-52.
- Owton, Helen, and Jacquelyn Allen-Collinson. 2014. "Close But Not Too Close: Friendship as Method(ology) in Ethnographic Research Encounters." *Journal of Contemporary Ethnography* 43 (3):283-305.
- Pande, A. 2010. "Commercial Surrogacy in India: manufacturing a perfect mother-worker." *Signs* 35:969-992.
- Paxon, Heather. 2006. "Reproduction as spiritual kin work: Orthodoxy, IVF, and the moral economy of motherhood in Greece." *Culture, Medicine and Psychiatry* 30:481-505.
- Petchesky, Rosalind. 1987. "Foetal Images: the Power of Visual Cultures in the Politics of reproduction." In *Reproductive technologies: Gender, Motherhood*

- and Medicine*, edited by Stanworth Michelle. Cambridge: Polity in association with Blackwell.
- Ragoné, Helena. 1994. *Surrogate Motherhood: Conception in the Heart*. Boulder: Westview Press.
- Ragoné, Helena. 1998. "Incontestable Motivations." In *Reproducing Reproduction: Kinship, Power, and Technological Innovation*, edited by Franklin Sarah and Ragoné Helena, 118-131. Philadelphia: University of Pennsylvania Press.
- Ramazanoglu, Caroline, and Janet Holland. 2002. *Feminist methodology : challenges and choices*. London: SAGE.
- Razon, Na'amah, and Karen Ross. 2012. "Negotiating Fluid Identities: Alliance-Building in Qualitative Interviews." *Qualitative Inquiry* 18 (6):494-503.
- Ribbens, Jane, and Rosalind Edwards. 1988. "Living on the Edges: Public Knowledge, Private Lives, Personal Experience." In *Feminist Dilemmas in Qualitative Research: Public Knowledge and Private Lives*, edited by Ribbens Jane and Edwards Rosalind, 1-23. London: SAGE.
- Roberts, Elizabeth. 2006. "God's laboratory: Religious rationalities and modernity in Ecuadorian in vitro fertilization." *Culture, Medicine and Psychiatry* 30:507-536.
- Roberts, Elizabeth. 2010. "Ritual humility in modern laboratories: Or, why Ecuadorian IVF practitioners pray." In *The problem of ritual efficacy*, edited by William S. Sax, Johannes Quack and Jan Weinholt, 131-149. Oxford, New York: Oxford University Press.
- Rothman, Barbara Katz. 1988. *The Tentative Pregnancy: Prenatal Diagnosis and the Future of Motherhood*. London: Pandora.
- Saniei, Mansooreh. 2012. "Human Embryonic Stem cell research in Iran: the Significance of the Islamic Context." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Marcia Inhorn and Soraya Tremayne, 194-217. New York, Oxford: Berghahn Books.
- Sawicki, Jana. 1991. *Disciplining Foucault : feminism, power, and the body, Thinking gender*. London: Routledge.
- Serour, Gamal. 1996. "Bioethics in Reproductive Health: A Muslim's perspective." *Middle East Fertility Society Journal* 1:30-35.

- Serour, Gamal, and Bernard Dickens. 2001. "Assisted Reproduction Developments in Islamic World." *International Journal of Gynecology and Obstetrics* 74:187-93.
- Sheykhi, Mohammad Taghi. 2009. "Children as a source of Happiness within the Iranian Families: Profiles and Challenges." *African Journal of Political Science and International Relations* 3 (11):526-531.
- Silva, Susana, and Helena Machado. 2010. "Uncertainty, risks and ethics in unsuccessful in vitro fertilization treatment cycle." *Health, Risk & Society* 12 (6):531-545.
- Skeggs, Beverley. 1994. "Situating the production of Feminist Ethnography." In *Researching women's lives from a feminist perspective*, edited by Mary Maynard and June Purvis. London: Taylor & Francis.
- Skeggs, Beverley. 2001. "Feminist Ethnography." In *Handbook of Ethnography*, edited by Paul Atkinson, Amanda Coffey, Sara Delamont, John Lofland and Lyn Lofland, 426-442. London: Sage.
- Smietana, Marcin. 2017. "Families Like We'd Always Known'? Spanish Gay Fathers' Normalization Narratives in Transnational Surrogacy." In *Assisted Reproduction Across Borders: Feminist Perspectives on Normalizations, Disruptions and Transmissions*, edited by Lie Merete and Lykke Nina, 49-60. New York, NY: Routledge.
- Sonbol, Amir Al-Azhary. 1995. "Adoption in the Islamic Society: A historical survey." In *Children in the Middle East*, edited by Elizabeth Warnock Fernea. Austin, USA: The University of Texas Press.
- Spilker, Kristin, and Merete Lie. 2007. "gender and bioethics intertwined: egg donation within the context of equal opportunities." *European journal of women's studies* 14 (4):327-340.
- Stacey, Judith. 1988. "Can there be a feminist ethnography?" *Women's Studies Int Forum* 11 (1):21-27.
- Stanworth, Michelle. 1987. "Editor's introduction." In *Reproductive Technologies: Gender, Motherhood and Medicine*, edited by Michelle Stanworth. Oxford, UK: Polity Press.
- Steinberg, Deborah Lynn. 1997. *Bodies in glass: genetics, eugenics, embryo ethics*. Manchester: Manchester University Press.

- Strathern, Marilyn. 1992. *Reproducing the Future: Essays on anthropology, kinship and the new reproductive technologies*. New York: Routledge.
- Strathern, Marilyn. 1995. "Displacing Knowledge: Technology and the Consequences of kinship." In *Conceiving the new world order: The global politics of reproduction*, edited by Faye D. Ginsburg and Rayna Rapp, 346-364. Berkeley and Los Angeles, California: University of California Press.
- Tappan, Robert. 2012. "More than Fatwas: Ethical Decision Making in Iranian Fertility Clinics." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Marcia C. Inhorn and Soraya Tremayne. New York: Berghahn Books.
- Taylor, Bridget. 2005. "Whose baby is it? The impact of reproductive technologies on kinship." *Human Fertility* 8 (3):189-195.
- Temple, Bogusia. 2009. "Translations: The Construction and Representation of People's Lives." *Graduate Journal of Social Sciences* 6 (3):13-19.
- Thompson, C. 2002a. "Fertile ground: feminists theorise infertility." In *Infertility around the Globe : New Thinking on Childlessness, Gender, and Reproductive Technologies*, edited by Marcia Inhorn and Frank van Balen, 52-78. University of California Press.
- Thompson, Charis. 2001. "Strategic Naturalizing: Kinship in an infertility clinic." In *Relative Values: Reconfiguring kinship studies*, edited by Sarah Franklin and Susan Mckinnon, 175-202. Durham and London: Duke University Press.
- Thompson, Charis. 2005. *Making Parents: The Ontological Choreography of Reproductive Technologies*. Cambridge, Massachusetts, London: The MIT press.
- Thompson, Charis M. 2002b. "Fertile ground: feminists theorise infertility." In *Infertility around the Globe : New Thinking on Childlessness, Gender, and Reproductive Technologies*, edited by Marcia Inhorn and Frank van Balen, 52-78. University of California Press.
- Throsby, Karen. 2002. "'Vials, Ampoules and a Bucketful of Syringes': The Experience of the Self-Administration of Hormonal Drugs in IVF." *Feminist Review* 72:62-77.
- Throsby, Karen. 2004. *When IVF Fails: Feminism, Infertility, and the Negotiation of Normality*. Basingstoke: Palgrave Macmillan.

- Throsby, Karen, and Rosalind Gill. 2004. "'It's different for men': Masculinity and IVF." *Men and Masculinities* 6 (4):330-348.
- Tillmann-Healy, Lisa M. 2003. "Friendship as Method." *Qualitative Inquiry* 9 (5):729-749.
- Tjørnhøj-Thomsen, Tine. 2005. "Close encounters with infertility and procreative technology." In *Managing Uncertainty: Ethnographic Studies of Illness, Risk and the Struggle for Control*, edited by Steffen Vibeke, Jenkins Richard and Jessen Hanne, 71-91. University of Copenhagen: Museum Tusulanum Press.
- Tjørnhøj-Thomsen, Tine. 2009. "'It's a bit unmanly in a way': Men and Infertility in Denmark." In *Reconceiving the Second Sex: Men, Masculinity, and Reproduction*, edited by Marcia Inhorn, Tine Tjørnhøj-Thomsen and Maruska la Cour Mosegaard, 226-252. New York: Berghahn Books.
- Tremayne, Soraya. 2004. "'And Never the Twain Shall Meet': Reproductive Health Policies in the Islamic republic of Iran." In *Reproductive Agency, Medicine and the State: Cultural Transformations in Childbearing*, edited by Maya Unnithan-Kumar. New York, Oxford: Berghahn Books.
- Tremayne, Soraya. 2006. "Not all Muslims are luddites." *Anthropology Today* 22 (3):1-2.
- Tremayne, Soraya. 2009. "Law, Ethics, and Donor Technologies in Shia Iran." In *Assisting Reproduction, Testing Genes: Global Encounters with New Biotechnologies*, edited by Daphna Birenbaum-Carmeli and Marcia C. Inhorn, 144-162. New York: Berghahn Books.
- Tremayne, Soraya. 2012a. "The dilemma of assisted reproduction in Iran." *Facts, Views & Vision in OBGYN*:70-74.
- Tremayne, Soraya. 2012b. "The down side of Gamete Donation: Challenging Happy Family Rhetoric in Iran." In *Islam and Assisted Reproductive Technologies: Sunni and Shia Perspectives*, edited by Marcia C. Inhorn and Soraya Tremayne, 130-156. New York: Berghahn Books.
- Tremayne, Soraya. 2015a. "The Four Faces of Iranian Fatherhood." In *Globalized fatherhood*, edited by Inhorn Marcia, Chavkin Wendy and Navarro José-Alberto, 336-355. New York: Berghahn.
- Tremayne, Soraya. 2015b. "Whither kinship? Assisted reproductive technologies and relatedness in the Islamic Republic of Iran." In *Assisted reproductive technologies in the third phase: Global encounters and emerging moral*

- worlds*, edited by Kate Hampshire and Bob Simpson, 69-82. New York, Oxford: Berghahn Books.
- Tremayne, Soraya. 2018. "Assisted Reproductive Technologies and Making and Unmaking of Kin in Iran: Transformation or Variation on a Theme?" In *International Handbook on Gender and Demographic Processes*, edited by Nancy E. Riley and Jan Brunson, 83-93. Dordrecht: Springer.
- Tremayne, Soraya, and Mohammad Mehdi Akhondi. 2016. "Conceiving IVF in Iran." *Reproductive BioMedicine and Society Online* 2:62-70.
- Unnithan-Kumar, Maya. 2004. "Introduction: Reproductive Agency, Medicine and the State." In *Reproductive Agency, Medicine and the State: cultural transformations in childbearing*, edited by Unnithan-Kumar Maya, 1-23. New York: Berghahn Books.
- Van Balen, F, and M Inhorn. 2002. "Interpreting Infertility: A view from the social sciences." In *Infertility Around the Globe: New Thinking on Childlessness, Gender and Reproductive Technologies*, edited by F Van Balen and M Inhorn, 3-32. Berkeley, Calif. ; London: University of California Press.
- Van der Geest, Sjaak, and Kaja Finkler. 2004. "Hospital ethnography: introduction." *Social Science & Medicine* 59:1995-2001.
- Wajcman, Judy. 1991. *Feminism Confronts Technology*. Cambridge, UK: Polity Press.
- Wind, Gitte. 2008. "Negotiated Interactive Observations: Doing Fieldwork in Hospital Settings." *Anthropology and Medicine* 15 (2):79-89.
- Yaghoobi, Claudia. 2012. "Iranian women and shifting sexual ideologies, 1850-2010." In *Sexuality in Muslim Contexts: Restrictions and Resistance*, edited by Anissa Helie and Homa Hoodfar, 52-78. London; New York: Zed Books.
- Zahedi, Ashraf. 2007. "Contested Meaning of the Veil and Political Ideologies of Iranian Regimes." *Journal of Middle East Women's Studies* 3 (3):75. doi: 10.2979/mew.2007.3.3.75.
- Zaman, Shahaduz. 2008. "Native among the Natives: Physician Anthropologist Doing Hospital Ethnography at Home." *Journal of Contemporary Ethnography* 37 (2):135-154.