Ethical boundary-work in the infertility clinic

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Abstract   Infertility practice and reproductive technologies are generally seen as 'controversial' areas of scientific inquiry that raise many complex ethical issues. This paper presents a qualitative study that considered how clinicians constructed the role of the 'ethical' in their everyday practice. We use the concept of ethical boundary-work to develop a theory of 'settled' and 'controversial' morality to illuminate how infertility clinicians drew boundaries between different conceptions of the role ethics played in their practice. An attention to areas of settled morality, usually rendered invisible by their very nature, enables us to see how clinicians manage the 'ethical' in their practice. We argue that by creating a space of 'no-ethics' in their practice – part of a settled morality that does not require articulation – the informants re-appropriate an area of their practice from 'outside' influences and control. Bringing these elements to light can help 'outsiders' to challenge and question these distinctions and therefore bring additional perspectives to debates over morality in the infertility clinic. Illuminating the everyday ethical concerns of infertility clinicians can help direct ethical thinking towards these practical concerns, as well as to more abstract debates.

Keywords: infertility, reproductive technologies, boundary-work, morality attitudes of health personnel

Introduction

Infertility practice and reproductive technologies are generally seen as 'controversial' areas of scientific inquiry (Clarke 1990): raising 'some of the most difficult, most intractable and fundamental moral questions of which any society has become seized' (Morgan and Lee 1991: 1). Consequently, there is a substantial body of literature on the ethical aspects of reproductive technologies (see Caplan 1988, Harris and Holm 1998, Frith 2010 for overviews). In light of these ethical concerns reproductive technologies have often been more tightly regulated than other areas of medicine: countries such as Italy, Canada, New Zealand and France all have comprehensive legislation governing this area (Blyth and Frith 2009). This paper addresses these issues in a UK context, a country which passed one of the first large-scale pieces of legislation in this area – the 1990 Human Fertilisation and Embryology Act (revised and updated in 2008).

The economics of infertility treatment also has an important impact on the organisation of infertility services. In the UK it is estimated that 75 per cent to 85 per cent of treatment is carried out in the private sector rather than publicly-funded through the National Health Service (NHS) (Riley 2007, Woodward 2008). Public funding constraints delineate the treatment options that are available in NHS clinics, with increasing restrictions placed by NHS commissioners on who is entitled to NHS infertility services and what will be funded. Restrictions include: the number of cycles that will be funded (sometimes only one, rarely more than three); not treating those who already have children; age limits for women; not treating those over a certain body mass index or smokers (Lord *et al*. 2001, BFS 2006). These legal and funding structures constitute the context in which infertility treatment operates in the UK, and it is against this backdrop that the current study was conducted.

This study sought to examine ethical issues from an empirical perspective informed by social science methodology. Much of the empirical work on ethical decision making in medical practice to date has used standardised tools that measure subjects' responses to hypothetical situations (vignettes for example) (Frederick *et al*. 2000, Goldie *et al*. 2004, Bravo *et al*. 2003). This approach, however, is limited in its scope. Hurst *et al*. (2005) argue that '[t]here has been no systematic, empirical examination of strategies actually employed by physicians to deal with the ethically problematic situations they [actually] face' (2005: 7). Sayer (2004) has commented that 'contemporary sociological accounts of action tend to pay little attention to its moral or ethical dimension, emphasizing habit, discourse, convention and interest instead' (2004: 1). These observations are not entirely correct. There is a developing area of empirical research conducted on the 'lived' experience of ethics. This includes studies on how doctors approach decision making in what are seen as contentious ethical areas (Anspach 1993, Bosk 1992, Zussman 1992, Fox 1992 for example) and a number of investigations specifically into how ethical dilemmas are discussed and acted upon in clinical settings (Williams *et al*. 2002, Farsides *et al*. 2004, Braunack-Mayer 2001, 2005, Wainwright *et al*. 2006, Benson *et al*. 2009). Further, definitions and constructions of 'ethics' and the role it plays in sociological explanations have been debated (see Hoeyer 2006). Our study aimed to contribute to this growing area of research by examining how infertility clinicians define and conceptualise the role of 'ethics' in their practice.

Boundary-work

Our approach builds on Gieryn's (1983) conception of boundary-work (see also Kerr *et al*. 1997, Wainwright *et al*. 2006, Ehrich *et al*. 2006). Gieryn argues that 'science' is not a static entity but a negotiated practice that is defined in contrast to 'non-science' by drawing boundaries between practices: science and other 'non-scientific' activities. This is done for a purpose: 'Boundary-work occurs as people contend for, legitimate, or challenge the cognitive authority of science…Pragmatic demarcations of science from non-science are driven by a social interest in claiming, expanding, protecting, monopolizing, usurping, denying, or restricting the cognitive authority of science' (Gieryn 1995: 405). Further, there are certain 'repertoires' of boundary-work, patterns that can be detected in how such work is employed, every episode does not occur de novo but relates to the construction of science and what is considered defendable in this context (Gieryn 1995).

Wainwright *et al*. (2006) build on this conceptualisation and formulate a concept of 'ethical boundary-work'. Scientists draw boundaries between what is to be ethically preferred such that, 'ethics has become another line of demarcation, not so much from 'non-science' as from 'less ethical' positions (2006: 745). Scientists working in ethically contentious areas, 'present themselves as ethical, as well as expert, actors' (Ehrich *et al*. 2006: 1126) and ethics becomes an increasingly important part of science. In this form of boundary-work, rather

than reinforcing and strengthening science's prestige and status, the authority of 'non-science' is enhanced (*e.g.* regulatory bodies) and science is de-privileged (Wainwright 2006: 735). In this paper we use the concept of ethical boundary-work to illuminate how infertility clinicians drew boundaries between different conceptions of the role ethics played in their practice.

Methods

This study aimed to develop a deeper understanding of how ethical decisions are made in practice, by examining the 'lay normativities' (Sayer 2004) of the clinicians. 'Lay normativities' are taken to mean how people (in this case clinicians) go about their everyday life, how they think about and construct the ethical∕normative aspects of their practice – an investigation into their 'ordinary' ethics (Banks *et al.* 2006). The study received research ethics committee approval and the participants received no remuneration for taking part in the study. Twenty-two semi-structured interviews were conducted (by LF) with infertility clinicians, and data collection was stopped when theoretical saturation had been reached (Bryman 2001). The topic guide for the interviews was based on a theoretical approach that seeks informants' own categories and frames of reference (McCracken 1988). Thus, specific questions were avoided (such as what do you think about sex-selection) and general questions asked (such as, what aspects, if any, of your practice do you find ethically troubling). The topic guide covered broad areas: background details such as duration of practice, areas worked in; general questions on the role and extent of ethical issues encountered in their practice; and views on regulation and the organisation of infertility practice in the UK. The topic guide was flexible, to allow for probing by the interviewer on informants' responses.

A theoretical sampling approach (Strauss and Corbin 1998) was used that evolved throughout the study. Our sampling frame was the list of infertility clinics in the UK held by the HFEA. Initially, we sent an invitation letter that outlined the study to infertility clinicians from clinics that were geographically convenient. Once several members of a particular clinic had been interviewed, initial analysis suggested a sense of a clinic approach to issues, a clinic ethos. Therefore, additional clinicians from the clinic were interviewed to explore this notion of a clinic ethos further. We sampled clinics that were of sufficient size to enable the interviewing of at least two clinicians. This meant that we targeted larger clinics usually attached to teaching hospitals, from diverse locations in the UK. All the clinicians in Clinic 1, two-thirds of the clinicians from Clinics 2 and 4, and half of the clinicians from Clinic 5 were interviewed (see Table 1). We did not find that geographical location or gender of clinicians had an effect on the views expressed and therefore, these were not incorporated into the theoretical sampling schema.

The interviews lasted for an hour on average and were taped and transcribed. Pseudonyms were given to the clinicians to ensure confidentiality (see Table 1). We approached our interview data by seeing them both as a resource and a topic: 'Separating the question of the truth or falsity of people's beliefs from the analysis of those beliefs as social phenomena allows us to treat participants' knowledge as both resource and topic' (Hammersley and Atkinson 1995: 126). Gubrium and Holstein (1997, 2000) have developed a method of 'analytic bracketing' for combining the study of the *hows* (corresponding to data as a topic) and *whats* (corresponding to data as a resource). 'Analytic bracketing amounts to an orienting procedure for alternatively focusing on the *whats* and then the *hows* of interpretative practice…. The objective is to move back and forth between discursive practice and discourses-in-practice' (2000: 500). The final analysis then incorporates both elements to

Table 1 *Sampling matrix*

Clinician Pseudonym	NHS or private	Length of practice	Sex	Seniority/Position	Clinic
Dr Adams	Both	20	M	Consultant	5
Dr Brown	Both	14 years	M	Consultant	5
Dr Case	Private	16 years	M	Director of Unit	
Dr Down	Both	25 years	M	Clinical director	1
Dr Evens	NHS	29 years	F	Consultant	1
Dr Francis	NHS	10 years	F	Consultant	1
Dr Grant	NHS	2-3 years	M	Senior Registrar, just finished speciality training	1
Dr Havers	Both	25 years	M	Consultant	2
Dr Iniman	Mostly NHS	20 years	F	Consultant	2
Dr Jenson	Mostly NHS	12 years	M	Consultant, head of unit	
Dr Kilm	Both	15 years	M	Consultant	3
Dr Lovate	Mostly private	35 years	M	Consultant semi-retired	2
Dr Marsh	NHS	Infertility 3 years	M	Sub-speciality trainee	2
Dr Novack	Both	16 years	M	Consultant head of unit	4
Dr Orben	Both	24 years	M	Consultant	3
Dr Percy	NHS	3 years	F	Sub-speciality trainee	2
Dr Quest	NHS	3 years	M	Sub-speciality trainee	4
Dr Robin	NHS	Infertility 3 years	F	Sub-speciality trainee	4
Dr Street	NHS	3 years	F	Sub-speciality trainee	4
Mr Tarn	Mostly NHS	20 years	M	Consultant, head of unit	
Dr Urban	NHS	5 years	F	Sub-speciality trainee	5
Dr Vance	NHS	26 years	M	Consultant head of unit	

Note: Some of the clinicians were the only ones interviewed from a clinic so they do not have a clinic number (Drs Case, Jenson, Tarn and Vance).

produce an integrated account. A thematic analysis was undertaken, with the transcripts coded for concepts and the relationship between concepts explored using the constant comparative method (Silverman 1993). The transcripts were read and coded by the research team and analysis of the data was discussed by the team to reach agreement on the emerging themes. We followed Silverman's strategy of 'comprehensive data treatment' to aid the validity of our analysis. 'All parts of your data must, at some point, be inspected and analysed' (Silverman 2006: 298). This project used two main ways to 'show the data' (Seale 1996). First, each point of data interpretation is illustrated with a number of quotes so that the reader gets a taste of the data and enough of it to see the evidence for the interpretation. Secondly, 'simple counting' mechanisms are employed to give the reader a sense of how many informants took a certain view. In this way we aimed to reflect the diversity of our data.

Results

The informants talked about the volume of ethical issues that arose in their practice and discussed particular ethical issues that they had found troubling and over which there had been disagreement. They also, however, talked about a range of issues over which they felt there was a consensus (barn-door issues) and a general perception that they were not

regularly beset by ethical issues in their everyday practice. Thus, the clinicians in this study had two, contradictory, ways of talking about the role of ethical issues in their practice.

Often in sociological analysis the contradictory nature of the informants' accounts has been seen as troubling (Potter *et al.* 1990). Gilbert and Mulkay (1984) argue that trying to present a definitive account of a particular social setting, or trying to theorise how social life operates one way is mistaken and leads to misrepresenting the respondents (1984: 2). They say that in trying to produce such a definitive account, sociologists select particular parts of their data, ignoring others, and give these the label of the right or best representation of what the respondents are 'really saying'. 'This is not only because different actors often tell radically different stories; but also because each actor has many different voices' (1984: 2). In order to overcome this problem, our analysis has sought to recognise the plurality of our informants' accounts, accounts that are made up, often, of contradictory 'voices' and perceptions of their practice. Our informants had two very different ways of talking about the role of ethics in their practice. On the one hand, they thought that it raised complex ethical issues by its very nature – the account they gave of their practice was one of an ethically contentious area – a 'controversial morality' repertoire. However, on the other, there was a contrasting view that in everyday practice ethical issues and difficulties did not frequently arise – most of their practice was mundane – a 'settled morality' repertoire.

Controversial morality
Seventeen of our 22 informants thought that the area of infertility medicine, as compared to other medical specialities, had the potential to raise a substantial volume of ethical issues – that there were many areas of controversial morality.

Drs Grant, Jenson and Havers' comments were typical of this view:

Yes, I did obs and gynae as the speciality, in the medicine field it's got more ethical commitment than others.

I think fertility and ethics, we are dealing with probably the most important part of medicine, in my view, or ethically important part of medicine.

As you are aware in this field, more than probably in other fields of the medicine, ethics is very important.

Whether or not this is the case, that infertility practice is particularly fraught with ethical difficulties, is not the substantive issue here; palliative care doctors might disagree, for instance. What is important is that the informants thought that their practice raised complex ethical issues. Dr Quest summed this up when he said:

If you sit and think how many ethical problems we have every day, I think that it's impossible to count them.

Dr Evens said:

Now the interesting thing for this kind of work obviously with fertility, is because there are so many ethical issues.

Dr Grant saw infertility medicine as the place where ethics and medicine had a closer relationship than in other specialities.

I see them as two, in medicine, yes, not in infertility. I think in infertility, or assisted conception, I think ethics and medicine begin to come close together. That's the reason why we can turn a patient down on ethical grounds, not only on medical grounds.

Twelve of the informants talked easily about the large numbers of issues that arose in their practice.

Particular ethical issues

In the interviews an open question was asked: 'What issues, if any, do you see as ethically challenging in your everyday practice?'

Every informant discussed the ethical problem of trying to ensure welfare of the child produced by any infertility treatment. This was an assessment that had to be undertaken when considering all patients for treatment, so was an issue that was likely to be frequently encountered (HFEA 2005). It was also an area that the informants felt was hard to adjudicate on due to: lack of availability of information on prospective parents; lack of acceptability/agreement of criteria for 'good enough' parenting; and questions over whether infertility clinicians should be making such decisions in the first place. However, a number of clinicians felt it was right that treatment was only given to those who would not pose a substantial risk to any resulting child. This was thought to be part of their responsibility as a clinician rather than merely a procedural requirement. The non-anonymity of gamete donors was seen as unethical by 11 informants, largely due to the fall in donor numbers since the law was changed to only allow non-anonymous donors in 2005 (HFEA 2004). The ethical problems raised by egg sharing were issues over which there was little consensus. Some clinics (Clinics 1, 2 and 4) did not have such a scheme due to the problems they saw with egg sharers giving un-coerced informed consent (English 2005). Treating female same-sex couples was also an area where there was some disagreement and which has, in the past, been the source of great controversy (Donovan 1993). Five of the informants were not happy about treating same-sex couples and one informant (Dr Down) would take a request for treatment from this group to the clinic ethics committee (CEC). These three issues could be said to be clear examples of the issues over which there was little agreement amongst the informants and were part of a 'controversial morality'. Some of these issues mentioned by the informants such as pre-implantation genetic diagnosis (Krones and Richter 2004), the treating of same-sex female couples (ASRM 2009) and the treatment of post-menopausal women (Pennings 2001) have received a great deal of attention in the ethical literature. Others, such as age difference between partners, whether to treat recipients with health problems and how many IVF cycles a couple should have, have received little consideration in comparison.

It is difficult to separate distinct 'ethical issues' from each other and there is clearly an overlap between issues. When informants talked about particular cases they often raised a number of inter-related ethical issues and therefore these could have been categorised in a number of different ways. For example, many cases could be classified under the broad heading of welfare of the child considerations, pointing to particular reasons for such a concern: worries over the health status of the person undergoing treatment; the impact of gamete donation on the couple; and age differences between couples (usually an older man and younger woman). Further, placing issues into different categories could be viewed as putting preconceived and artificial categories onto the data (Strauss and Corbin 1998), as every issue in some senses presents its own unique ethical dimensions. As Hedgecoe (2004) notes, applied ethics often 'assumes that social reality cleaves down neat philosophical lines, with theoretical categories matching those in social reality' (2004: 130). However, despite these qualifications, the listing of ethical issues does provide a useful flavour of what the

informants found ethically troubling. It is useful to see what practitioners, themselves, see as ethical issues in their practice rather than concentrating only on the dramatic or the issues that raise interesting philosophical conundrums (Kleinman 1999).

Settled morality

The informants said that infertility practice was an area that raised many difficult ethical issues, but they also thought that, generally, in their everyday clinical practice they were not regularly beset by ethical difficulties. Generally, their practice was routine and straightforward with ethically difficult cases only arising once or twice a year. Hoffmaster (1990) introduced the term 'settled morality' to point to features of the moral world that were commonplace and uncontroversial, moral issues that were not under dispute. This concept will be developed here to explain how the informants conceptualised this aspect of their practice.

Thus, there were two ways of seeing the role of ethics in infertility practice; on the one hand, practice raised many ethical issues and, on the other, there were few ethical issues, and these two views could be held by the same informant. For example, Dr Urban, who said ethics was a big part of IVF, also found it hard to give examples of ethical issues raised by her practice and said:

Because I feel personally we don't sort of get much involved in these difficult ethical issues.

Dr Grant also combined these two views, saying ethics and infertility were closely linked and also that difficult cases were infrequent. These quotes clearly illustrate Gilbert and Maulkay's (1984) contention that each actor has many voices and that people do not structure their experiences in coherent and consistent ways.

This view that the informants' practice raised few ethical issues can be seen as an articulation of a 'settled morality'. There is a boundary drawn between ethically contentious areas of practice and areas where morality is settled and therefore ceases to be seen as 'ethical' – it becomes a matter of routine practice (May and Finch 2009). This 'settled morality' has two elements. The first is that there is a core of agreement, a consensus over certain issues and secondly, that ethical issues are seen as not regularly encountered in everyday practice – a form of 'no ethics repertoire'. These two elements of settled morality, although different in their conceptualisation of the role of ethics in practice, both have the effect of creating a practice where ethical issues are not visible – they have become part of normalised clinical practice (Cussins 1998).

Consensus over issues

Informants alluded to the notion of a settled morality when talking about obvious ethical decisions, or, as one informant put it, 'barn-door' cases, where they thought that most people would agree with that decision. Dr Iniman gave an example:

It would have to be, it has to be something pretty barn-door, such as a psychiatric history or current admission for psychosis and difficulty in coping with day-to-day life.

Dr Percy made a similar point:

So in order to be able to refuse treatment when it's a clear-cut barn-door case, I think we have to have some form of assessment.

This kind of consensus was often located at a clinic level, in that different clinics had their own consensus over what constituted acceptable practice. Informants talked about the 'ethos' of their unit, that the unit shared a particular moral stance on an issue. For instance, Dr Case's clinic had come to a joint decision that they would not treat same-sex couples:

> LF: Is that [not treating same-sex couples] a policy of your organisation or this
>   particular clinic?
> Dr Case: That's a policy of this particular clinic, and the feeling of the staff in this
>   particular clinic. And it was the feeling of the staff in this clinic that made us
>   latecomers to treating single mothers as well.

Informants from Clinic 1 were very much in favour of non-anonymous gamete donation and portrayed that as being part of the 'ethos' of their clinic. Dr Evens said:

> Because we've always, since 1980s, had this ethos that children have a right to know how they were conceived. The scenario pretending it never happened has never sort of sat easily within our unit; it's not sort of been our ethos.

Dr Francis (also from Clinic 1) reiterated this view:

> We're also quite unusual that we've been a unit that's done an awful lot of known egg donation for years, and we've had very little anonymous egg donation; nearly all our egg donation's known. So I think we've always felt very comfortable with that. You know, quite a lot of units don't do known donation, whereas we've always done it.

In this clinic there was a strong agreement on a particular ethical issue – that gamete donors should not be anonymous. Therefore, settled morality can be located at the localised level of a particular clinic. Other clinics, as is pointed out in the quote above, could think very differently.

The 'no ethics repertoire'
The second aspect of settled morality was a 'no-ethics repertoire'. Some informants did not find it easy to think of ethical issues when asked the general question, 'what issues do you see as ethically troubling in your practice?' Dr Robin, for instance, in response to this question said:

> Do I have to say something?'

Dr Orben asked for some guidance on what the interviewer might be looking for when asking about what challenged them ethically in practice:

> Well I don't know, because my perception of it is obviously different from yours. I don't see it as particularly difficult from an ethical point of view at all. You give me some examples of what's difficult ethically.

Twelve of the informants explicitly talked about how, generally, their practice did not raise or did not frequently raise ethical issues. Dr Marsh responded to a question about how he dealt with controversial ethical issues by saying:

Just, like I said, if it's contentious – if it's straightforward, which is 90 per cent or 99 per cent, even 95 per cent of the times it is straightforward.

Dr Lovate also made this point

I mean I think that I actually, mostly one isn't faced with ethical issues, mostly it's just mundane sort of medicine.

Dr Orben, when discussing issues that might cause controversy, said that it was unusual for such issues to arise:

One or two cases in, and how long have we been doing it here? Well, I think I started my infertility practice in, I came in '85 and I think within a year it was up and running. So in 20 years of practice here, probably the number of cases where we've had to really scratch our heads and think you could count on the fingers on one hand.

When ethical issues are part of a settled morality, they can be rendered invisible because they are not discussed or debated – attitudes towards them are assumed – it is easy not to think of them as ethical issues at all, they become 'normalised', part of everyday practice (Cussins 1998). Dr Marsh illustrates this point very well:

And the framework helps when you are making difficult decisions, for common decisions probably just it's very straightforward you wouldn't bat an eyelid and think, 'Oh, I've made an ethical decision', but you have.

Here, decisions made within the settled morality, or 'common decisions' as Dr Marsh puts it, are often not even seen as ethical ones. Issues in settled morality do not attract the intensive discussion that controversial moral issues do, but they are moral issues nevertheless. As Smith and Churchill (1986) note there are generally, 'enough shared assumptions about our values and their expressions in action that we do not need to articulate the process explicitly' (1986: 7).

Everyday issues
An explanation for the view that their practice raised few ethical issues could be that the questioning of the informants was specifically directed at their *everyday* practice, rather than asking them what ethical issues in general they thought were troubling. They were focused on thinking about issues raised by routine practice rather than issues that were on the horizon or still experimental. Dr Orben implicitly makes a distinction between everyday issues and unusual ethical issues:

Well, again it doesn't because a lot of it's at the margins, we're talking about pre-implantation diagnosis aren't we, and we're talking about having siblings in the hope that you're going to match for a bone marrow donor and those kind of things which, of course, make up a very small number of the total number of patients undergoing fertility treatments. It doesn't really impact on our practice at all.

Dr Evens makes a similar point:

I think the issues we're coming on to now, the more ethical issues that I think are more important are the genetics, and creating the perfect baby, and pre-implantation genetic diagnosis and selection, or whatever. I think those are huge ethical dilemmas, far more important than the issue of trying to assess who [would] or who wouldn't be able to provide the appropriate parenting skills.

Dr Orben made the point that IVF practice in the UK operates within tight boundaries.

But within the UK we've been pretty closely regulated, either voluntarily or compulsorily, over the years so that some of the excesses that hit the newspapers which are mostly about treatments that take place abroad, that's just not part of our practice.

Funding also has a profound effect on the boundaries of practice, and funding criteria prevented some ethical issues being raised for NHS clinics. Potentially 'controversial' groups (such as single women, same-sex couples, older women for example) would be precluded from receiving treatment by the funding criteria and, therefore, in a NHS clinic, certain cases would never present themselves for ethical debate. Dr Evens made this point about funding issues:

And in relation to the fact that we're National Health Service, we don't pay for the treatment, it's the primary care trust that pays for the treatment, so we're going on their guidance as to what they feel is appropriate, so that's where that comes in.

Here we can see a perception that responsibility for the ethical parameters of infertility practice are located *outside* the practice itself. The informants thought that regulation and funding meant that they operated 'within' a pre-determined boundary that precluded (some) contested areas of practice. Therefore, certain contested applications of technology (such as sex-selection for social reasons) were prohibited by law and thus not up to the individual clinicians to decide. This has been mirrored in other data. Wainwright et al (2006) found that stem-cell scientists drew a complex boundary between responsibility and non-responsibility. Scientists were 'non-responsible through allowing regulatory authorities to ensure their ethical accountability' (2006: 743); but personally responsible 'for pursuing the ethically valuable ends of helping people through research' (2006: 743). This boundary drawing between different types of responsibility is also reflected in Kerr and colleagues' (1997) work on geneticists, who saw the general direction of their field to be something that should be regulated from 'outside', 'new genetics professionals thus deflect ultimate responsibility for their products onto society' (1997: 293). In this way, boundary-work is not performed differently every time there is some dispute or circumstance, there are *repertoires* of boundary-work (Gieryn 1995: 406). It can be argued that there is a 'displacement of responsibility' repertoire held by professionals working in ethically contentious areas that are highly regulated. They see the external regulation as where ethical responsibility lies.

Changing boundaries
The boundaries between controversial and settled morality in the infertility clinic are permeable. As Gieryn notes, the same is true for science: 'The boundaries of science are ambiguous, flexible, historically changing, contextually variable, internally inconsistent and sometimes disputed' (1983: 792). Areas that our informants argued to be contentious were not static: issues could move from being part of a controversial morality to becoming 'settled'. An issue can start off as part of controversial morality (as most aspects of

reproductive technologies did) and as it gains greater acceptance or is 'normalised' (Cussins 1998) becomes part of the settled morality.

Dr Vance, for instance, said:

I mean the whole thing's a moveable feast isn't it. I suppose that's the other thing I've learnt, I mean the ethics of today are not necessarily going to be the ethics of tomorrow. You know, it is quite a bit about, it's got to be a shifting sands sort of thing.

Thus, what issues are seen as ethically controversial change over time, 'what counts as an ethical problem *in the first place*…is socially constructed' (Hedgecoe 2004: 126). Ethical issues are entities that arise out of a particular social context (Haimes 2002, Cribb 2005) and what is a pressing ethical issue, for one generation might not be seen as such by another (Warnock 1985).

An example used by two informants, Dr Lovate and Dr Jenson, that illustrates the changing status of particular issues, is the question of treating female same-sex couples. Both these informants argued that this was no longer an ethically contentious issue and therefore did not need to be the subject of ethical debate. Dr Jenson said:

It's changing. I suppose five-six years ago, same sex couples would have been sent to the ethics committee should we treat them. I am now of the opinion, and have been for some time, that a same sex couple doesn't need to go to the ethics committee.

Dr Lovate argued:

But if you want to know my personal views about that, I would have no hesitation in treating a lesbian couple. So I think in a way my views have changed because society has changed.

However, as discussed above, this was an issue that other informants put into the 'controversial morality' camp and was not, as yet, part of a general inter-clinic 'settled' morality. In this way, different clinics have different settled moralities – a local settled morality. The pressure to change what is part of a clinic's settled morality can, in some cases, come from outside. Dr Adams illustrated how the CEC pressed the clinic to change their policy on not treating same sex couples and single women:

The Ethics Committee felt that we were discriminating against single women and lesbians, and that we should treat them, so we do now.

Dr Percy from Clinic 2 talked about how NICE and HFEA guidelines on non-discrimination had influenced her clinic to review their policies on not treating same-sex couples.

Discussion

Starting from the clinicians' perspective of what were ethical issues, rather than imposing a conception of what might be ethically important derived from moral theory or abstract concerns, gave an important insight into how 'ethics' is actually experienced (Hoeyer 2006). A theory of 'settled' and 'controversial' morality was developed to explain how infertility

clinicians thought about the role of ethical issues in their practice. Hoffmaster (1990) outlines a version of this distinction, commenting that, 'morality is largely settled. Morality encompasses the commonplace as well as the controversial, and it is only a preoccupation with the latter that creates the unwarranted impression that moral issues are, by their very nature, disputatious' (1990: 244). Therefore, the boundaries the clinicians drew in our study were between areas of morality that were 'settled', over which there was general consensus (Frith 2009) and a perception of 'no ethical issues in practice'; and areas where consensus had yet to be reached and which were therefore still controversial. Our informants operated within this 'settled' morality, through which they sought to normalise their practice so they could develop a local framework in which to go about their everyday clinical duties. The issues that informants thought to be ethically troubling – areas of controversial morality – were the ones they debated and saw as ethical issues in their practice. Thus, contemporary infertility treatment has 'created' or drawn a boundary between routine everyday practice (May and Finch 2009) and ethically controversial and troubling aspects of practice.

The notion of a settled morality can be seen as analogous to the discussions over what has been called the 'agenda problem' for applied ethics (Cribb 2005). Cribb uses Brock's (1987) formulation of this, '[t]he problem is what is to be taken as fixed or given for the purposes of setting or changing policy and what is to be taken as open for modification and so on the policy agenda' (Brock 1987: 790). Settled morality is the fixed or given ethical aspects of their practice (while recognising that issues can move between the two domains, generally from controversial to settled morality, although movement could be the other way).

In this way, it can be argued, that there are levels of settled morality. There is the wider societal level of settled morality concerning infertility provision: a range of issues that are no longer debated and seen as 'ethical issues' in everyday infertility practice, such as: the morality of the practice of IVF itself, creating a family with the assistance of reproductive technologies; creating and manipulating embryos outside the body; and the practice of sperm donation itself (HFE Act 2008). These assumptions of ethical acceptability mean that infertility clinicians can practice within a legally agreed framework and issues are no longer seen as 'ethical', just part of common practice. Operating within this is a professionally constructed settled morality of areas that are considered to be 'good' practice (such as the number of embryos to replace in treatment). The clinicians then develop their own 'local' settled morality that operates in their individual clinics. This local morality could be out of step with wider societal consensus (such as the clinic that did not treat same-sex couples), or might be a stance on an issue such as donor anonymity on which there is little professional consensus. Nevertheless, it is constrained by the wider settled moralities of practice; clinics must comply with the law and regulations.

So what were the informants in this study accomplishing by this boundary drawing between settled and controversial morality? We suggest they are creating a space in which they could practice without being constantly troubled and challenged by 'outside' considerations (in this case the ethical aspects of their practice). As Gieryn notes, boundary-work happens for a purpose and it occurs when the activity (in his analysis, science), is threatened in someway by outside forces vying for control. One such threat, 'takes place when two or more rival epistemic authorities square off for jurisdictional control over a contested ontological domain' (1999: 16). It can be argued that, in certain manifestations, 'ethics' is such an 'outside' force in infertility practice. Infertility is an area of medicine where practice is highly constrained by national regulation that is, in part, there to ensure ethical acceptability. These external regulatory structures can impose certain responses to ethical issues (such as donor non-anonymity) on clinicians over which they have no control. We

argue that by creating a space of 'no-ethics' in their practice – part of a settled morality that does not require articulation – the informants re-appropriate an area of their practice from these 'outside' influences and control. An area is created in which they have the relevant – clinical – expertise to make the decisions. Thus, this boundary drawing accomplishes a response to a take-over of their practice by an outside practice – ethics. Although, ultimately, their practice is still governed and constrained by the external regulatory authority of the HFEA, this internal area of settled morality allows them space to practise as autonomous 'expert' practitioners.

It is important, however, that such outside forces are involved in ensuring that practitioners do not construct their own settled morality of agreed practice (such as not treating same-sex couples) that might be out of step with wider societal trends and indeed equal opportunity legislation. As Kerr *et al.* (1997, 2000) note, the public should be involved in the discussions of the morality of these practices and that professional constructions of settled, and often invisible, morality are challenged and indeed 'seen.' Thus, using the concept of ethical boundary-work can provide insights into how practitioners 'bracket off' parts of their practice into either ethically challenging or ethically acceptable aspects. By bringing these elements to light, it can help 'outsiders' to question these distinctions, and therefore bring additional perspectives to the debates over morality in the infertility clinic.

Conclusions

The form of ethical boundary-work carried out by the clinicians in this study illustrates how they manage and conceptualise the role of ethics in their practice. Such a consideration of how clinicians think about ethics in practice is an important area of study, as it redirects ethics away from the traditional philosophical concerns of applying universal moral theories and principles and locates ethical issues and decisions as situated, social entities: thus creating a different understanding of ethical issues that pays more attention to their social construction and context (Haimes 2002. Cribb 2005, Wainwright, *et al* 2006). This insight is useful as it enables a fuller understanding of the ethical aspects of this area of medicine: a contribution that empirical ethics can make to ethical debates. Issues that are dramatic and newsworthy are often seen as *the* pressing issues raised by infertility treatment and reproductive technologies. However, attention to areas of settled morality, usually rendered invisible by their very nature, enables us to see how clinicians manage the everyday ethical aspects of their practice, and how it becomes normalised in order for them to go about their everyday duties. Thus, attention to ethical boundary-work in this area can ensure that ethical thinking in this area is directed towards these concerns, as well as to the more abstract debates.

Ethical boundary-work also has a wider application. For example, a lack of appreciation of the distinction between settled and controversial morality can result in confusion over what an ethical issue actually *is* and this is evident in some critiques of bioethics. Turner (2004), for example, argues that bioethics ignores important problems such as global inequities in resources because bioethicists do not see them as ethical problems. Using the notion of ethical boundary-work we would argue that it is not that these problems are not seen as ethical, rather they are issues over which there is broad agreement. It is generally agreed that it is wrong that people starve in poorer countries while those in the developed world consume the majority of the world's resources. Therefore, while there may be disagreement about the solutions to such complex problems, there is no need to debate the rights and wrongs of global inequality; it is part of settled morality (among certain communities).

Ethical boundary-work gives an insight into the complex role of ethics in infertility practice and the professional rhetoric that surrounds it. Such boundary-work can also show us that morality is not always about disagreement and conflict, often much of morality is 'settled' and often the biggest difficulty is over how to 'carry out' what we know we should do.

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Acknowledgements

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