ESHRE Task Force on Ethics and Law 23: medically assisted reproduction in singles, lesbian and gay couples, and transsexual people

Human Reproduction, Vol.29, No.9 pp. 1859–1865, 2014
Advanced Access publication on July 22, 2014 doi:10.1093/humrep/deu183

human reproduction ESHRE PAGES

ESHRE Task Force on Ethics and Law 23: medically assisted reproduction in singles, lesbian and gay couples, and transsexual people†

G. De Wert[1,*], W. Dondorp[1], F. Shenfield[2], P. Barri[3], P. Devroey[4], K. Diedrich[5], B. Tarlatzis[6], V. Provoost[7], and G. Pennings[7]

[1]Department of Health, Ethics & Society, Research Institutes CAPHRI and GROW, Maastricht University, PO Box 616, MD 6200 Maastricht, The Netherlands [2]Reproductive Medicine Unit, Obstetric Hospital, University College Hospital, Huntley Street, London WC1 6AU, UK [3]Servei de Medicina de la Reproducció, Departament d'Obstetricia, Universitari Dexeus, Ginecologia i Reproducció, Barcelona, Spain [4]Centre for Reproductive Medicine, UZ Brussel, Brussels, Belgium [5]Department of Obstetrics and Gynaecology, University of Luebeck, Ratzeburger Allee 160, D-23538 Luebeck, Germany [6]Infertility and IVF Center, Department of OB/Gyn, Medical School, Aristotle University of Thessaloniki, Thessaloniki, Greece [7]Department of Philosophy, University of Ghent, Blandijnberg 2, Gent 9000, Belgium

*Correspondence address. Tel: +31-433882145; E-mail: g.dewert@maastrichtuniversity.nl

ABSTRACT: This Task Force document discusses ethical issues arising with requests for medically assisted reproduction from people in what may be called 'non-standard' situations and relationships. The document stresses that categorically denying access to any of these groups cannot be reconciled with a human rights perspective. If there are concerns about the implications of assisted reproduction on the wellbeing of any of the persons involved, including the future child, a surrogate mother or the applicants themselves, these concerns have to be considered in the light of the available scientific evidence. When doing so it is important to avoid the use of double standards. More research is needed into the psychosocial implications of raising children in non-standard situations, especially with regard to single women, male homosexual couples and transsexual people.

Key words: medically assisted reproduction / singles / homosexual couples / transsexual people / ethics

Introduction

Medically assisted reproduction is mostly offered to heterosexual couples (either married or in a stable relationship)—the 'nuclear' family. There are, however, a growing number of applications in variant, 'non-standard', constellations and relationships, such as singles, and in people with other sexual identities, including homosexual female (lesbian) couples, homosexual male (gay) couples and, more recently, transsexual men and women. These cases raise ethical issues regarding access to medically assisted reproduction and some of these cases may be especially controversial. Furthermore, as transsexual people will suffer irreversible loss of their reproductive potential after the transition to their desired sex, the question arises as to whether fertility preservation is a sound option. This paper aims to elucidate these issues and to provide guidance for the professional handling of both applications of medically assisted reproduction outside of the nuclear family and fertility preservation in transsexual people.

Background and facts

Non-standard applications are highly diverse, and include the following.

First, single women (mostly heterosexual), applying for artificial insemination with donor sperm (donor insemination). Although this is, to some extent, a 'classic' case, studies on the numbers and background of such applications remain sparse. For many, becoming a single mother was apparently not their first choice—they simply did not yet find the right partner (Graham and Braverman, 2012). Single males might likewise apply for assisted reproduction. Obviously, this involves the cooperation of a surrogate mother. Such requests, however, seem to be rare.

Second, lesbian couples, another well-known case. In most cases, one of these women will be artificially inseminated with donor sperm and carry the child. An alternative procedure allows lesbian couples to share biological motherhood; this involves one of the partners providing the oocytes for IVF using donor sperm, whereas the embryo(s) generated is (are) transferred to the uterus of the other partner

†ESHRE pages content is not externally peer reviewed. The manuscript has been approved by the Executive Committee of ESHRE.

(Marina et al., 2010). Many clinics offer the latter procedure only if there is a medical indication, more specifically: if the woman who wants to become pregnant is subfertile and in need of IVF.

Third, gay couples. Like single men, these couples need to engage a surrogate mother. Little data are available about the numbers of requests. No doubt, such requests are less frequent than requests from lesbian couples.

Fourth, transsexual people, and particularly couples including (at least) one transsexual person. As this is a less well-known and more complex situation, this category needs some more clarification. Until recently, trans-sexualism was officially considered to be a psychiatric condition, the so-called gender identity disorder. In the recently published fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5), however, the identity of people who are transgender is no longer classified as a mental disorder. The manual diagnoses transgender people with 'gender dysphoria', which communicates the emotional stress that can result from a marked incongruence between one's experienced or expressed gender and one's assigned gender. In individual cases, 'trans' people may be treated by means of (feminizing or masculinizing) hormonal therapy and sex reassignment surgery. Applications by transsexual people for medically assisted reproduction are presently rare, but seem to steadily increase. Reproductive options are diverse—but not all options are available for all transsexual people alike; although most transsexual people will form heterosexual relationships after transition, many will not, illustrating the fact that sexual orientation and gender identity are quite different matters (De Sutter, 2001). Options include the following: when transsexual males (female-to-male transsexuals) have a female partner, she may be inseminated with donor sperm. When transsexual women (male-to-female transsexuals) have a male partner, a child may be conceived with a surrogate mother (and, if the surrogate is not also the genetic mother, with the further help of an oocyte donor). Fertility preservation may be a method to help transsexual people to have genetically related children in the future. For transsexual males, there are, at least in theory, three options: oocyte banking, embryo banking or ovarian tissue banking. For transsexual women, sperm banking is an option.

Although uterus transplantation has been carried out in a limited number of women, pregnancies and deliveries have not yet been obtained. Together with the still high costs, this makes it unlikely that this technology will be regularly applied in the foreseeable future (Gosden, 2008; Kisu et al., 2013). Uterus transplantation is, therefore, beyond the scope of this document.

Although these four categories may be sharply distinguished in theory, there is significant overlap in practice. To give just one example: transsexual women may engage in a lesbian relationship or in a relationship with a male partner.

Some of these non-standard applications are more easily accepted by fertility centers than others, even in countries where wider applications would be legally allowed; while many clinics nowadays offer medically assisted reproduction to single women and lesbian couples, far less clinics seem to accept gay couples and, especially, transsexual applicants.

General principles

Fertility specialists should take into account the relevant regulations in their country when they are confronted with a request to assist in either reproduction in non-standard situations or in fertility preservation for transsexual people. Some countries categorically prohibit assisted reproduction in, for example, non-married couples or in couples without a clear medical indication. From an ethical point of view, the following principles are of utmost relevance.

Respect for autonomy

Traditionally, the right to reproduce has been granted to only heterosexual (and married) couples. This exclusive view is, however, problematic. First, rights are generally granted to individuals, and reproduction is an important element of the autonomy of (individual) persons. Second, the acknowledgement of reproductive needs and interests of homosexual people, combined with the notion of equal citizenship, has increased the support for the view that lesbians and gays share the same right to reproduce as other individuals (ASRM, 2009). Recent studies show that many transsexual people likewise desire to have children (Wierckx et al., 2012). There seems to be a slowly growing—but still contested—support for the view that their reproductive rights should be taken seriously as well. From a human rights perspective, the burden of proof is on those critics who would deny that particular groups of persons have the right to reproduce.

Talking about rights, the distinction between negative and positive rights is important. Negative rights are liberty rights, which imply that third parties should, in principle, not intervene in an individual's choices. A liberty right to reproduce means, for example, that enforced sterilization of a (competent) person is unjustified. A positive right is a claim right, meaning an entitlement of a person to get help from others in achieving particular aims. In the reproductive sphere this would mean, for instance, that infertile persons have an entitlement to access to medically assisted reproduction. Fertility preservation will often be the only method for transsexual people to have a chance to have genetically related children in the future.

Although each (competent) individual's right to reproduce is increasingly accepted, granting this right to people in non-standard constellations and relationships is still contested. In some countries, such inclusive interpretation of the right to reproduce is even totally rejected. Rejection of this right regards medically assisted reproduction in single and lesbian women, but is probably most vehement regarding medically assisted reproduction in gay and transsexual people, and fertility preservation in the latter. Objections are partly deontological, partly consequentialist. Deontological objections are that these practices are unnatural and that they cannot be reconciled with the goals of medicine. Consequentialist criticism focuses on presumed harms to both the future child and society, but also regards possible adverse consequences for surrogate mothers. We can question whether these objections are valid and if so, overriding, taking account of the weight to be given to the applicant's reproductive autonomy.

Beneficence and non-maleficence

Applicants may greatly benefit from having a baby. There are concerns, however, regarding the (medical and/or psychosocial) risks for the various parties involved (especially the children) in non-standard cases and for society as a whole. This raises the question whether these risks and concerns constitute a good, or even compelling, reason to refrain from medically assisted reproduction—and fertility preservation—in these situations.

The debate is first and foremost about risks for *the (future) child*. These mainly concern psychosocial risks of growing up in a non-nuclear familial

environment. With regard to so-called mother-headed families (single women, lesbian couples), critics fear that the absence of a father will have detrimental effects for the psychological development of the child. There are several background theories for this position, and most prominent is psychoanalytic theory.

However, results from empirical studies so far are to a large extent reassuring (Golombok and Badger, 2010). The sparse studies on single women opting for donor insemination to become a mother mostly report that these women are psychologically healthy and can rely on a supportive family and social network. So far, no major negative effect is found on family relationships and child development. One has to acknowledge, however, that these findings are based on small numbers and that the majority of children involved were of pre-school age. Furthermore, as these studies concentrate on single women who were given access to medically assisted reproduction, there may well be a selection bias. Although no exact data are available, single women seem to be frequently denied access after careful psychological screening by some teams that give access to the large majority of lesbian couples applying for donor insemination. Quite often, single applicants were (in some centers) found to have a rather weak social network and to live in isolation. The positive findings regarding children growing up with single women may therefore relate to a large extent the subset of single women who passed the screening and selection procedures. More recent experience (in a large center) suggests that the number of single applicants with a socially robust profile has increased, resulting in a higher acceptance rate after a brief first screening of the applicant's social situation (Patricia Baetens, Free University, Brussels, personal communication).

There is a larger body of evidence about lesbian couple families, mainly about families with mothers who entered a lesbian relationship after having had children with a male partner. The consistent finding is that individuals raised in such families function well up into entering adult life, with no difference in gender-role behavior when compared with children raised in heterosexual families. A similar picture emerges from studies of 'lesbian-first families', with no father present from birth (Golombok and Badger, 2010). These families are similar to a comparison group of traditional families on a range of measures of quality of parenting and young adults' psychological adjustment. Findings also contradict the assumption that children raised in lesbian families will grow up being lesbian or gay themselves.

These findings lead to the conclusion that the quality of the family relationships matters more than the way in which the family is formed. With this in mind, 'the need of the child for a father' was dropped from the modified British Human Fertilization and Embryology Act (rev.) (2008) and from the 'welfare of the child'-clause in the Code of Practice of the Human Fertilization and Embryology Authority, and replaced by 'the need for supportive parenting'.

There are far less data regarding the implications for the development and welfare of the child growing up with gay couples. It is often simply assumed that children need a mother to develop normally. No doubt, it is far more difficult for gay men to convince people of the acceptability of their wish to parent and of their parental competency (Berkowitz and Marsiglio, 2007). The sparse empirical literature that is available, however, suggests that children are not adversely affected or harmed by being raised by homosexual fathers (Hastings *et al.*, 2006; Greenfeld, 2007; Golombok *et al.*, 2014).

What, then, about the psychosocial risks for the child of growing up with a transsexual parent or couple? Even though gender dysphoria or trans-sexualism is no longer officially labeled as a mental disorder, many people may still feel that it is. What matters mostly for the current practice is possible mental morbidity in transsexual people and its possible implications for parental competency (Murphy, 2010). Unfortunately, long-term follow-up research on adult transsexuals is, again, sparse. There is some limited evidence that transsexual males show fewer psychological disturbances and less psychopathology, have more stable relationships with their (female) partner and are socially better integrated than transsexual females (Baetens, 2003). There are presently hardly any follow-up studies regarding the psychological well-being of their children. Although many transsexual people already have children, the large majority were born before their parents' transition. Preliminary findings suggest that children adapt and that there is no support for concerns that their parents' trans-sexualism directly adversely impacts on these children (Green, 1978). Facilitators for good adaptation are absence of parental conflict after the transition and a younger age of the child at the time of the transition (White and Ettner, 2007). Obviously, children conceived by transsexual people after their gender identity shift need not adapt to a new parental identity, which may well make things easier. A 12-year follow-up exploratory study including 42 children raised by transmen and their heterosexual wives after donor insemination suggests that the children are normal and happy (Chiland *et al.*, 2013).

In view of preliminary findings of earlier research, it has been recommended to (initially) not give access to medically assisted reproduction to transsexual females (Baetens, 2003). But this position is now regarded as too restrictive (also) by its former proponents (Patricia Baetens, personal communication).

To conclude this section on possible risks for the future children involved, a more general remark. Any risks for future children should be evaluated using the 'high risk of serious harm' standard, as formerly adopted by the European Society of Human Reproduction and Embryology (ESHRE, 2007). The implications of this principle for the current applications will be sketched below.

Risks for *applicants* themselves are primarily social. This particularly applies to transsexual applicants, as transsexual parenthood may meet severe criticism and opposition. Medical risks of fertility preservation for transsexuals are low, if not non-existent; women opting for sex reassignment surgery may undergo ovarian stimulation or provide ovarian tissue for fertility preservation during this procedure—additional surgery will then not be necessary.

One should also take account of the medical risks for possible *female collaborators*. The main risk for oocyte donors regards the ovarian hyperstimulation syndrome. A new stimulation and embryo transfer regime, however, may well reduce this risk to close-to-zero (Devroey *et al.*, 2011). With regard to surrogacy, the risks inherent in pregnancy and delivery deserve due attention. Limited data so far suggest that most oocyte donors and surrogates consider these risks as manageable if one sticks to guidelines that have been developed in order to minimize these risks (Dermout *et al.*, 2010). In view of the growth of commercial surrogacy clinics in poor-resource countries, the Task Force Opinion on cross-border reproductive care is relevant here as well (ESHRE, 2008).

Critics also point to possible harm to *society as a whole*. This 'societal harm', however, often remains unspecified. It seems to be a mostly religious critique regarding the undermining of the nuclear family, which these critics consider to be harmful—a deontological objection disguised as a consequentialist objection (Myskja, 2009). Obviously,

such 'translation' of a hidden religious norm into secular, generally accessible, language and norms, plays also a major role in debates about the presumed psychological harms for children of being raised in non-standard families.

Justice

According to the principle of formal justice, similar cases should be treated similarly—a different treatment is only justified if there is a morally relevant difference between the cases at hand. For the current issue, it is particularly important that if one accepts the 'high risk of serious harm' standard as the standard for the evaluation of risks to future children, and, thus, for either giving or withholding access to medically assisted reproduction, one should consistently use this criterion for both standard and non-standard requests. The use of a less permissive (stricter) evaluation standard for non-standard applications would imply a discriminatory double standard (Pennings, 2011). Obviously, this argument is also relevant for the different evaluation and treatment of the various types of non-standard cases. For example, a larger 'welfare of the child'-related reluctance with regard to medically assisted reproduction for gay couples in comparison with medically assisted reproduction for lesbian couples is only morally justified if the former would entail a high risk of serious harm for the future child.

Apart from the welfare of the child, there are other morally relevant considerations that should be taken into account. In so far as surrogacy is part of medically assisted reproduction in non-standard cases, the interests of surrogates should be given due attention in order to avoid exploitation.

Specific considerations

At odds with the goals of medicine?

The 'argument from Nature' is often used in medical ethics—but is deeply problematic. The argument that 'X is wrong because it is unnatural' can only succeed if there is an interpretation of the term '(un)natural' which enables us both to distinguish between natural and unnatural conditions/actions and to understand what there is about the latter which is morally objectionable. It is doubtful as to whether there is any such interpretation which is convincing (Warren, 1985). This document, therefore, focuses on the other deontological objection to medically assisted reproduction in non-standard situations: the presumed conflict with the goals of medicine.

It is often argued that physicians should use their professional skills only if there is a medical indication to intervene. This argument at least implicitly refers to the traditional goals of medicine: the prevention of disease, curing the ill, and caring for people who cannot be cured. The implication of this view for the context of medically assisted reproduction would be that doctors should offer assisted reproduction only in case of sub- or infertility (or genetic risks). As a consequence, medically assisted reproduction in the current non-standard situations would in principle be problematic.

However, there are *different* (wider and narrower) views about the goals of medicine. The current objection seems to presume a questionable essentialist view, suggesting that there are clear and fixed boundaries between the medical and the non-medical domain and between medical and non-medical indications. There are many widely established medical solutions for non-medical problems, especially in the context of reproductive medicine. Think of sterilization (while fertility is not a disease) and termination of pregnancy (while an unwanted pregnancy is not a disease). More fundamentally, the concepts of health and disease are not as clear-cut and objective as the objections suggests. This is also the case in medically assisted reproduction, certain applications of which are better understood as a treatment for involuntary childlessness than as an intervention to redress a biological defect—IVF for couples of which the female partner approaches the end of her reproductive life-span is a clear example. Apparently, many people (at least implicitly) accept a less restrictive view: what is meant by good and ill-health and by 'indications' is not only informed by medical facts, but also by social conventions and justifications (Novaes, 1998; Richman, 2004). In the domain of medically assisted reproduction this bears on shared social understandings of the meaning and value that having children may bring to human lives and relationships. The question, then, becomes why medically assisted reproduction in non-standard cases should not also be seen as enhancing reproductive health in a wider sense of individuals involved.

Those clinics that do offer medically assisted reproduction to single women and lesbian couples already accept this broader (non-essentialist) view. To *a priori* reject, for example, gay couples on the basis of the traditional view regarding the goals of medicine would, then, be inconsistent.

The welfare of the child

There is a strong consensus that the welfare of the child is an important consideration in the context of giving access to medically assisted reproduction. At the same time, the way in which this criterion is made operational differs widely. To a large extent this is caused by the fact that different evaluation standards are being used.

The traditional, heterosexual, nuclear family is often used as the gold standard (Pennings, 2011). As a consequence, when children in a non-standard group do not reach the same level of welfare as the control group, those families are automatically classified as inferior and disqualified. Even if it would be shown that children in (some types of) non-standard families have a somewhat lower quality of life, it does not automatically follow that their quality of life is unacceptable. The concern of professionals involved should not be whether one type of family or one kind of parent is better than others—they should determine which prospective parents and families carry a high risk of serious harm to the future children (ESHRE, 2007).

With regard to single women applying for medically assisted reproduction, there is a concern that a subset of these applicants live in circumstances (societal isolation) and/or has personality traits that could impose a high risk of serious harm on future children. This may be a good reason for a psychosocial screening of single applicants, assuming that most of them do not show relevant problems. That said, more research is needed in order to avoid that exclusion criteria are being used without empirical evidence regarding their predictive value.

In view of the fact that there is strong evidence that children conceived by lesbian couples fare well, continuing concerns about the welfare of children in these families seem to be unfounded—they may even reflect a persistent underlying prejudice or moral repugnance.

As there is no evidence for the view that growing up with gay parents is inherently risky, categorical refusals are, again, unjust. These applicants may, just like heterosexuals, generally be accepted for medically assisted

reproduction, unless there is good reason (a well-founded suspicion or concern) to look more closely at their situation.

Categorical refusals of lesbian and gay couples are also at odds with growing support for more permissive adoption criteria. There is a strong consensus that selection criteria regarding candidate adoptive parents should be very strict—stricter than the 'high risk of serious harm'-standard to be used in the context of medically assisted reproduction. So, if one accepts lesbian and gay couples as adoptive parents, it should be even more acceptable to give them access to medically assisted reproduction. Some countries or states allow homosexual couples to adopt infants with HIV/AIDS only (Lamanna and Riedmann, 2006)—apparently suggesting that 'second-class' parents are good enough for 'second-class' children. Such policy is, obviously, discriminatory for both these children and homosexual adoptive parents. Ironically, raising a diseased child requires even higher parental competencies than raising a healthy child.

With regard to transsexual applicants, societal opposition, prejudice and repugnance are especially strong. But clinicians should rely on the same 'high risk of serious harm'-standard that guides their decisions regarding other applicants. Taking account of (admittedly sparse) empirical data available, the risks are not *a priori* prohibitive. The impression that transsexual males and females have different risk profiles (see above) has been used as an argument to (at least initially) limit access to medically assisted reproduction to transsexual *males*. This categorical limitation is, however, problematic. It is the professional's responsibility to evaluate each request individually, making use of the relevant expertise of colleagues. Confronted with both transsexual male and transsexual female applicants, professionals should check as to whether there is any relevant mental morbidity. As developmental problems during childhood might interfere with psychological and emotional stability in adulthood, it may be recommended to assess childhood experiences of the transsexual applicant (Baetens, 2003). Furthermore, as the transition period is often very stressful, it is important that this period should be completed before starting medically assisted reproduction, thus providing a stable life situation for the future child.

In many countries, homosexuality and trans-sexualism are socially condemned. As a result, even though the inherent risks for the welfare of the child in these situations are low or only hypothetical, there is a risk of social harm to the children involved, in terms of stigma, exclusion, bullying, etc. This should not be used as an argument to categorically withhold medically assisted reproduction from lesbian, gay or transsexual applicants. The well-being of their children would improve considerably were same-sex relationships and transsexual people socially respected and their potential for competent parenthood recognized (Hastings *et al.*, 2006; Pennings, 2011). Professional societies involved in reproductive medicine may have an important co-responsibility to educate the public and policymakers in this regard.

Conscientious refusals and civil disobedience

Professional autonomy has various dimensions, including, first, conscientious refusals, and, second, civil disobedience.

Respect for physicians' conscience is an important principle in medicine generally (ACOG, 2007). This includes conscientious objections by individual doctors to provide assisted reproduction to non-standard applicants, even though such objections open the door to discrimination and prejudice. Such appeals to conscience do not absolve objectors from the obligation to refer these patients to another professional or clinic. Conscientious objections can only be made by individual professionals.

Civil disobedience of individual medical professionals is a second, often disregarded, dimension of professional autonomy. This demanding course of action is relevant in the context of this document as many countries prohibit medically assisted reproduction in non-standard situations. Commonly accepted (defining) conditions of morally acceptable civil disobedience include a non-violent breach of the law, the existence of a morally good cause (which would be obvious in the current case as the disobedience would signify protesting against a basic injustice), and a commitment to change a law or policy in order to better society—thus the protest should have a public character (Bedau, 1991). If these conditions are met, physicians have the moral right to engage in civil disobedience—as some doctors did in the past, for instance in order to help women to have a termination of pregnancy in countries where this was still forbidden.

Shared biological motherhood

Technically, shared biological motherhood involves one of the female partners in a lesbian couple providing the oocytes for IVF, whereas the other bears the child. For the couples, this procedure, although more challenging and costly than donor insemination, has the psychological advantage of allowing both partners to participate in the creation of a child: both partners are (social and) biological parents, although in different ways: one woman is the genetic mother, the other the gestational mother. Obviously, this gives a new impetus to the debate about how assisted reproduction for lesbian couples challenges established views about parenting (Dondorp *et al.*, 2010).

Critics, firstly, state that the procedure (leaving aside cases where the woman wanting to become pregnant has an infertility problem that qualifies for IVF) has nothing to do with the goals of (reproductive) medicine. One may counter that the procedure could be seen as enhancing the reproductive health of the lesbian couple in a wider sense (see above). A second issue regards the proportionality of the procedure: in cases where the couple could also have a child through donor insemination, applying more burdensome, riskier and less cost-effective IVF needs a justification. The core question, however, is to what extent donor insemination can indeed be regarded as an alternative means to the same end of helping the couple to have a child. This is precisely what couples involved deny; only shared biological motherhood provides them with a child that truly comes from both of them. An (admittedly imperfect) analogy is ICSI for heterosexual couples with a male factor fertility problem. ICSI enables those couples to have a child from both partners where they could also have a 'donor child' through—much simpler—(traditional) donor insemination (Dondorp *et al.*, 2010). Interestingly, a recent study found that shared biological motherhood appears to ameliorate emotional insecurities in dual-mother households, both externally (in response to challenges to maternal legitimacy) and internally (when confronted with infant preference for the other parent) (Pelka, 2009).

Although there are no *a priori* objections to shared biological motherhood, some difficult cases ask for further debate. Think, for instance, of a woman aged 38 years who would like to 'donate' oocytes to her female friend aged 26 years. One may wonder as to whether this would be wise, and whether a medical contra-indication might be appropriate. A minimum prerequisite would be to offer implication counseling.

Fertility preservation for transsexual people

It seems that a substantial number of transsexual people have a (latent) wish to have (further) children after sex reassignment surgery. Since this surgery will result in infertility, fertility preservation is their only option to have a genetically related child in the future. In the past, fertility issues were not sufficiently addressed (Wierckx *et al.*, 2012). Recent guidelines of the Endocrine Society rightly recommend that all trans subjects who satisfy the criteria for endocrine treatment should be informed and counseled about the effects of hormone treatment on fertility and about the available options to enhance the chances of future fertility (Hembree *et al.*, 2009).

As in all cases of fertility preservation, patients should be informed that cryopreservation of reproductive material does not gauarantee future access to medically assisted reproduction. If they apply for such assistance later, professionals will have to consider the request in the light of all relevant factors, including the welfare of the future child, taking account of the best evidence then available. Another issue to be timely and carefully addressed is whether (and if so, how and when) the future child should be informed about the method of its conception and about the trans-sexualism of (one of) its parents. Some couples do not want to inform the child about the latter (Baetens, 2003). These couples may, for example, break up with their past life before sex reassignment surgery and start a new life in which no one knows. So even though it is generally better to timely inform the child about relevant facts concerning its conception, there may well be exceptions to this rule (ESHRE, 2011; Chiland *et al.*, 2013).

No doubt, many questions for further discussion and research remain. The psychological effects of fertility preservation for transsexual persons are presently unknown. One might speculate that the freezing of sperm for transsexual females and the freezing of oocytes or ovarian tissue for transsexual males reinforces their old sex and does not fit with their new gender identity. Research into related counseling needs and the possible adverse psychological impact of this dissonance is clearly needed. And even if one considers the offering of fertility preservation to transsexuals to be good clinical practice, difficult cases will emerge. Should, for instance, oocytes be frozen for/from a transsexual man who has a relationship with a woman? There is an analogy here with the debate about shared biological motherhood in lesbian couples. Many clinics refuse the latter strategy when the woman who will bear the child is fertile, arguing that there is no medical indication for IVF (see above). The case just mentioned is rather similar. More generally, when fertility preservation is put on the agenda when the individual concerned is not yet mature and competent, questions may arise regarding decision-making authority, especially when parents and children/pubertal children/adolescents disagree about fertility preservation.

Ethical considerations

- Medically assisted reproduction in non-standard situations is morally sound in many cases. There is no good reason to *a priori* dismiss access in these situations—such categorical dismissal would imply discrimination.
- Clinics and professionals should not use double standards to evaluate possible risk factors for the welfare of the child.
- Practitioners who, because of a conscientious objection, refuse to assist in reproduction or to offer fertility preservation in non-standard situations should refer these applicants/patients to other professionals.
- As far as possible, professionals should try to use criteria which have been proven to predict the welfare of children and applicants. Furthermore, they should evaluate their policy regarding the standards used in the light of scientific evidence.
- Fertility preservation should be offered to transsexual people considering sex reassignment. Implication counseling should take place before starting the procedure. An important prerequisite for starting medically assisted reproduction in transsexual people is counseling by a psychologist/psychiatrist with relevant experience.
- IVF aimed at 'shared biological motherhood' can be morally justified as a form of assisted reproduction for lesbian couples.
- As current evidence, especially regarding families headed by singles, male homosexual couples and transsexual people, is based on small numbers, more research should be performed into the welfare of children growing up in non-standard situations. In view of the growing number of non-standard requests for medically assisted reproduction, the findings of such research may contribute to more adequate counseling and moral guidance.
- If doctors treat these non-standard applicants, they have the moral responsibility to invest in follow-up studies for data collection.

Funding

This work was funded by the European Society of Human Reproduction and Embryology (ESHRE).

Conflict of interest

None declared.

References

ACOG, Committee on Ethics. The limits of conscientious refusal in reproductive medicine. *Obstet Gynecol* 2007;**110**:1203–1208.

ASRM, Ethics Committee. Access to fertility treatment by gays, lesbians, and unmarried people. *Fertil Steril* 2009;**92**:1190–1193 (revised version of 2006).

Baetens P. Should requests for donor insemination on social grounds be expanded to transsexuals? *Reprod Biomed Online* 2003;**6**:281–286.

Bedau HA (ed). *Civil Disobedience in Focus*. London: Routledge, 1991.

Berkowitz D, Marsiglio W. Gay men: negotiating procreative, father and family identities. *J Marriage Fam* 2007;**69**:366–381.

Chiland C, Clouet A-M, Golse B, Guinot M, Wolf JP. A new type of family: transmen as fathers thanks to donor sperm insemination. A 12-year follow-up exploratory study of their children. *Neuropsychiatrie de l'enfance et de l'adolescence* 2013. doi.org/10.1016/j.neurenf.2013.07.001

Dermout S, Van de Wiel H, Heintz P, Jansen K, Ankum W. Non-commercial surrogacy: an account of patient management in the first Dutch Centre for IVF surrogacy, from 1997 to 2004. *Hum Reprod* 2010;**25**:443–449.

De Sutter P. Gender reassignment and assisted reproduction. Present and future reproductive options for transsexual people. *Hum Reprod* 2001; **16**:612–614.

Devroey P, Polyzos NP, Blockeel C. An OHSS-free clinic by segmentation of IVF-treatment. *Hum Reprod* 2011;**26**:2593–2597.

Dondorp W, De Wert G, Janssens PMW. Shared lesbian motherhood: a challenge of established concepts and frameworks. *Hum Reprod* 2010; **25**:812–814.

ESHRE Task force Ethics and Law, Pennings G, de Wert G, Shenfield F, Cohen J, Tarlatzis B, Devroey P. The welfare of the child in medically assisted reproduction. *Hum Reprod* 2007;**22**:2585–2588.

ESHRE Task Force Ethics and Law, Pennings G, de Wert G, Shenfield S, Cohen J, Tarlatzis B, Devroey P. Cross-border reproductive care. *Hum Reprod* 2008;**23**:2182–2184.

ESHRE Task Force Ethics and Law, de Wert G, Dondorp W, Pennings G, Shenfield F, Devroey P, Tarlatzis B, Barri P, Diedrich K. Intrafamilial medically assisted reproduction. *Hum Reprod* 2011;**26**:504–509.

Golombok S, Badger S. Children raised in mother-headed families from infancy: a follow-up of children of lesbian and single heterosexual mothers, at early adulthood. *Hum Reprod* 2010;**25**:150–157.

Golombok S, Mellish L, Jennings S, Casey P, Tasker F, Lamb ME. Adoptive gay father families: parent-child relationships and children's psychological adjustment. *Child Dev* 2014;**85**:456–468.

Gosden RG. Focus on fertility preservation. Ovary and uterus transplantation (review). *Reproduction* 2008;**136**:671–680.

Graham S, Braverman A. ARTs and the single parent. In: Richards M, Pennings G, Appleby J (eds). *Reproductive Donation*. Cambridge: CUP, 2012, 189–210.

Green R. Sexual identity of 37 children raised by homosexual or transsexual parents. *Am J Psychiatry* 1978;**135**:692–697.

Greenfeld DA. Gay male couples and assisted reproduction: should we assist? *Fertil Steril* 2007;**88**:18–20.

Hastings PD, Vyncke J, Sullivan C, McShane KE, Benibgui M, Utendale W. Children's Development of Social Competence Across Family Types. Canada: Department of Justice, 2006.

Hembree W, Cohen-Kettenis P, Delemarre-van de Waal H, Gooren L, Meyer III W, Spack N, Tangpricha V, Montori V. Endocrine treatment of transsexual persons: an Endocrine Society Clinical Practice Guideline. *J Clin Endocrinol Metab* 2009;**94**:3132–3154.

Kisu I, Banno K, Mihara M, Suganuma N, Aoki D. Current status of uterus transplantation in primates and issues for clinical application. *Fertil Steril* 2013;**100**:280–294.

Lamanna M, Riedmann A. *Marriages and Families. Making Choices in a Diverse Society*. Thompson Learning, 2006.

Marina S, Marina D, Marina F, Fosas N, Galiana N, Jové I. Sharing motherhood: biological lesbian co-mothers. New IVF indication. *Hum Reprod* 2010;**25**:938–941.

Murphy T. The ethics of helping transgender men and women have children. *Perspect Biol Med* 2010;**53**:46–60.

Myskja BK. Rationality and religion in the public debate on embryo stem cell research and prenatal diagnosis. *Med Health Care and Philos* 2009;**12**:213–224.

Novaes SB. The medical management of donor insemination. In: Daniel KR, Haimes E (eds). *Donor Insemination: International Social Science Perspectives*. Cambridge: CUP, 1998, 105–130.

Pelka S. Sharing motherhood: maternal jealousy among lesbians co-mothers. *J Homosex* 2009;**56**:195–217.

Pennings G. Evaluating the welfare of the child in same-sex families. *Hum Reprod* 2011;**26**:1609–1615.

Richman KA. *Ethics and the Metaphysics of Medicine. Reflections on Health and Beneficence*. Cambridge, MA: The MIT Press, 2004.

Warren MA. *Gendercide*. New Jersey: Rowman & Allenheld, 1985.

White T, Ettner R. Adaptation and adjustment in children of transsexual parents. *Eur Child Adolesc Psychiatry* 2007;**16**:215–221.

Wierckx K, van Caenegem E, Pennings G, Elaut E, Dedecker D, van de Peer F, Weyers S, de Sutter P, T'Sjoen G. Reproductive wish in transsexual men. *Hum Reprod* 2012;**27**:483–487.