Genetic or Biological Trans Parenthood: Dream or Reality?[1]

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Summmary

All scientific studies on the subject of trans parenthood show that transsexualism of one of the parents has no negative effect on the development of the child. There are numerous arguments in favour of trans persons also having the right to reproduce. Many of the arguments against reproduction of trans persons can be adduced to society's fear of transsexualism, to heteronormativity and ignorance of current technological possibilities. The demand, still common in many countries, that trans persons be sterilized as a precondition for a change in the civil register is discriminating and eugenic. Current medical practice limits itself to freezing sperm cells of trans women before beginning a hormone therapy for later use in the context of a homosexual relationship, as well as the insemination of donor semen in partners of trans men. The technology for using frozen ovarian tissue in trans men is not yet available. Here the only option is hormonal stimulation and vitrification of egg cells.

Introduction

Already for several years now it is an established fact that transsexualism is not a mental disorder but requires a correct hormonal and surgical treatment in order to achieve a congruence between the phenotypical and the lived gender (T'Sjoen et al. (2004); see Standards of Care in Levine et al. (1998) and Meyer et al. (2001), recently revised [De Sutter 2009; WPATH 2011]). Due to the effects of fertility treatments, the transition to the desired gender and reproduction in trans women and men always seemed to exclude each other. Therefore the loss of

1 | Originial version in French.

reproductive capacity was regarded as the price one had to pay for the transition. Although the trans persons' wish and right to reproduce has been recognized for almost 20 years (Lawrence et al.1996), even today many medical experts – among them also those that treat trans persons – have great reservations against possible reproduction after sex/gender reassignment. It is only since 2001 that the Standards of Care recommend discussing reproductive options with trans persons who desire a hormone treatment (Meyer et al. 2001). Subsequently a debate began also among fertility experts whether trans persons who after their transition wish to have children in their relationship should be supported. The crucial question here was whether trans persons can be good parents or not and whether one has to fear a negative influence on the child's sex development or sex/gender identity (Baetens et al. 2003; De Sutter 2003a). There had been the same debate already years ago regarding homosexual persons (Hanscombe 1983) and this issue was then just as insulting for this group of people as it is today for trans persons. The debate should not revolve around the question whether trans persons should be able to have children or not, but rather address the possibilities of supporting them in their wish to have children (De Sutter 2001).

Numerous studies have focused on the well-being of trans persons after their sex/gender reassignment treatment (Cohen-Kettenis/ Gooren 1999) and many trans persons get on perfectly well with children from their previous relationships or with the children of their current partners.

Trans persons and their children

Before discussing the practical problems that emerge after transition we will first turn to an analysis of the studies on families of trans persons in which there were children present already before transition. Even though the relevant data are not very abundant, Green has conducted a study with 34 children of trans persons who have remained in contact with their parents and came to the conclusion that their transsexualism poses no problem for these children (Green 1978, 1998). The parental transsexualism has neither a negative influence on the children's psychosexual development nor on their sex/gender identity. Sometimes the children are teased by their classmates, but only briefly and without any visible further effects. All children understood what had happened with their parent. Certainly, children can suffer under the separation or divorce that frequently follows the transition of a trans person, but this suffering results primarily from the reaction of the other parent, who refuses to maintain

contact with the trans person and sometimes even takes legal action in this respect. Green concludes that the trans parent should under no circumstances be separated from his or her children. Also studies on children of lesbian couples arrive at this conclusion (Brewaeys et al. 1997). These children hardly deviate in their development from others, neither in their psychosexual development nor in their sex/gender identity. The problems that are sometimes an issue here are more related to discrimination and rejection of the parents' homosexuality by others. Here one should combat more the narrow-mindedness of society rather than the trans persons' desire to have children. White and Ettner (2007) have recently confirmed Green's findings and observed that children can deal very well with the transsexualism of one of their parents (particularly when they are still young), while they suffer very much under the parents' separation or divorce.

Arguments in Favour of Preserving Reproductive Capacity of Trans Persons

The right of reproduction

In today's reproductive medicine the right to reproduce is recognized for everyone (Robertson 1987; Schenker/Eisenberg 1997). For trans persons this is however not so simple, because the hormonal and surgical treatment makes natural reproduction impossible. In the fertility centres we also encounter other situations in which natural reproduction is impossible for obvious reasons: for couples of lesbian women. Lesbian motherhood is by and large accepted today and consequently insemination of donor semen as well as in-vitro fertilization (IVF), where one of the women provides the egg cells and after IVF the embryo is transferred to the uterus of her partner, are meanwhile routine procedures. The belief that trans persons can choose their sex/gender identity at will is comparable to the assumption that lesbian women would make a conscious choice to be lesbian. If we therefore do not regard homosexuality as a question of personal choice and support homosexual persons in their wish to have children why should we not do the same with trans persons?

Even if sexual orientation or sex/gender identity were a question of free choice this would change nothing in the argument that every person has a right to reproductive-medical support. Also people in more conventional settings have the free choice to control their fertility through sterilization and in case of a later change of heart to achieve a pregnancy through surgical restoration or artificial reproductive technology.

The legal argument

Transsexualism is the only medical case where most countries demand sterilization as a precondition for a change in the civil register. This implies that children born after transition cannot from a legal point of view have been conceived by a trans person. In the past, this demand for infertility may have resulted from technological constraints, but the technology has meanwhile made significant progress and thanks to the preservation of gametes a person can very well conceive children also after his or her transition. Law has to adjust to the technological possibilities, not the other way round. Even if a child cannot be legally recognized, the obvious thing is in the case of a lesbian couple to preferably use the frozen sperm cells of the trans partner instead of those of a donor.

The argument that trans persons give little thought to reproduction

Many trans persons, particularly adolescents, do indeed devote little thought to reproduction. This is however not an argument for not addressing the topic. Just as young people who have to undergo chemotherapy due to cancer are systematically advised to preserve their gametes in advance, this should also be possible for trans persons. Once the issues regarding their sex/gender identity have been resolved and life has returned to normal they can find partners with whom they want to have children. If they have frozen gametes at their disposal they retain the possibility of conceiving genetically related children. It is the responsibility of the attending psychiatrists or psychologists to address the subject before beginning treatment.

The argument of transmission of transsexualism

An occasional argument against the reproduction of trans persons is based on the assumption that transsexualism is a genetic predisposition and can therefore potentially be passed on to children of trans persons. From what we know today transsexualism is a so-called multifactorial phenomenon and certainly not directly transmittable. If in the coming years a corresponding genetic feature should be identified it would still be up to the trans persons to decide whether they want to have children or not, in the same way that this applies also to people with disorders, illnesses or particular genetic features. Fortunately we no longer live in a world where it is the doctors who get to decide what is best for their patients.

In summary one can say that the arguments against the reproduction of trans persons feed from society's fear of transsexualism and heteronormativity

and the ignorance about current technological possibilities. The example of lesbian women has shown that access to new procedures also leads to the development and use of new modes of treatment (Hodgen 1988) and there is no reason whatsoever why this should not also apply to trans persons.

The cryopreservation of sperm for trans women

In the following I will discuss the possible theoretical options. Even if many trans persons enter heterosexual relationships after their transition, a not insignificant number of trans persons identify themselves as homosexual. This makes clear that sex/gender identity and sexual orientation have to be considered independently from one another (Leavitt/Berger 1990; Main 1993). In this sense not all options listed here apply for all trans persons.

In trans women the feminizing hormone therapy leads to a termination of spermatogenesis and finally to azoospermia (absence of sperms in an ejaculate). After a certain time this becomes irreversible and of course surgical removal of the testes leads to definitive infertility. In this case, the only possibility for preserving fertility is cryopreservation of sperm cells, ideally before beginning hormone therapy. Provided their quality is sufficient they could be used at a later date by a partner for insemination, or an in-vitro fertilization (IVF) or even intracytoplasmatic sperm injection (ICSI) can be performed. Basically, also a testicular biopsy can be frozen since only very few spermatozoids are required for the ICSI procedure. In each case a child conceived via this procedure would stem genetically from both partners.

In the case of a trans woman with a male partner it is the same as with a male couple who today rely on the services of a surrogate mother who also provides the egg cell.

In 2003 we published a study on the opinions of trans women about freezing sperm (De Sutter et al. 2003a). The majority of the women interviewed (77 %) stated that the freezing of sperm should be discussed and offered before beginning hormone therapy. 51% would also have made use of it had the option been offered to them. This wish was strongest among young women (below 40) who identified themselves as lesbian or bisexual, for whom cryopreservation would thus be of particular interest.

At present, it is almost impossible for trans women to become pregnant and carry a child to full term themselves. Even though uterus transplants are possible, the success ratio is low and there are still a lot of technical and ethical issues involved.

Insemination of donor semen for female partners of trans men

After their transition, many trans men enter a relationship with a partner with whom they might also want to have children. Even if in the future there may be new procedures available (see below) the majority of these couples can already perform an insemination of donor semen. Basically, this procedure is no different from the insemination of donor semen in other heterosexual couples. The literature reflects a debate on the acceptability of such a procedure (Baetens et al. 2003; De Sutter 2003b). For this reason we have initiated a long-term study to observe the development of these couples' children.

Freezing egg cells, embryos or ovarian tissue in trans men

For trans men the situation is a different one than for trans women. Virilizing hormone therapy leads to a reversible amenorrhea, but the ovarian follicles remain intact. Even though the histology of the ovaries after androgen therapy resembles those of women with polycystic ovarian syndrome (Pache et al. 1991) these follicles still contain utilizable egg cells. Of course, here too surgery leads to definitive infertility. There are three possibilities for the preservation of fertility: freezing the egg cells, freezing the embryos and freezing the ovarian tissue. These possibilities resemble in principle those of women who have to undergo chemo or radio therapy due to cancer.

Freezing egg cells

As in the case of IVF, this procedure requires a hormonal stimulation and an ovarian puncture with a subsequent freezing of the egg cells. Even if this could be an interesting and effective strategy it is unlikely that many trans men would be prepared to undergo repeated hormonal stimulations in order to preserve a sufficient number of egg cells. If frozen egg cells are available, an IVF with donor semen would be required in case of a female partner. In the case of a male partner, a surrogate mother would be required. Here the child would genetically be related to both partners.

Freezing embryos

Freezing embryos is performed with the same procedure as freezing egg cells, but here sperm from a partner or a donor is required. Freezing embryos is a routine procedure where the chance of pregnancy is considerably higher than in freezing egg cells. Subsequently here too a surrogate mother or a male partner would be required. For the procedure to be effective a number of IVF cycles would have to be carried out. It is unlikely that it would be acceptable for many trans men to undergo such a procedure.

Freezing ovarian tissue

This procedure is undoubtedly the most realistic one and is already used by women with cancer who had to undergo chemo or radio therapy. Here ovaries are extracted without prior stimulation or IVF and parts of them are frozen. In trans men this can be done in the course of the ovariectomy (Van den Broecke et al. 2001).

Similar to the freezing of egg cells or embryos this requires a semen contribution and a female partner, or in the case of a male partner, a surrogate mother. The problem with freezing ovarian tissue is not the freezing itself but the question what should happen with the tissue after thawing. It can be transplanted back again into the patients (Shaw et al. 2000; recently a first successful pregnancy was reported with this procedure: Donnez et al. 2004) (this is certainly not an option for trans men), it can be implanted into another person, which can however lead to rejection, or it can be implanted into an animal (e.g. into a mouse, but here there would be ethical reservations). In all three cases a follicle stimulation would be required with subsequent IVF. Another possibility is in-vitro culture with follicle and egg maturation, but here results have so far not been particularly encouraging. Even if freezing ovarian tissue appears at the moment to be the most promising option, much research will need to be done before this procedure could also lead to conception of children in the case of trans men.

Outlook

Even when this still sounds like science fiction today, stem cell research has progressed sufficiently to assume that in five to ten years we will be able to produce in-vitro gametes from any somatic cell and thus all options described here will become obsolete. We can also observe new developments in the area of uterus transplant: in 2012 a number of transplants were performed in Sweden, no cases of transplant rejection have been reported so far. In addition, immunosuppressants are becoming increasingly well tolerated compared to the past. We can therefore assume that in five to ten years successful uterus transplants can be performed.

References

Baetens, P., Camus, M., Devroey, P. (2003): Should requests for donor insemination on social grounds be expanded to transsexuals? In: Reprod. Biomed Online 6, pp. 279-284.

Brewaeys, A. et al. (1997): Donor insemination. Child development and family functioning in lesbian mother families. In: Hum. Reprod. 12, pp. 1349-1359.

Cohen-Kettenis, P. T., Gooren, L. J. (1999): Transsexualism. A review of etiology, diagnosis and treatment. In: J. Psychosom. Res. 46, pp. 315-333.

De Sutter, P. (2001): Gender reassignment and assisted reproduction. Present and future reproductive options for transsexual people. In: Hum. Reprod. 16, pp. 612-614.

De Sutter, P. et al. (2003a): The wish for children and the preservation of fertility in transsexual women. A survey. In: Int. J. Transgenderism 6, 3.

De Sutter, P. (2003b): Donor inseminations in partners of female-to-male transsexuals. Should the question be asked? In: Reprod. Biomed. Online 6, pp. 382-383.

De Sutter, P. (2009): Reproductive Options for Transpeople. Recommendations for Revision of the WPATH's Standards of Care. In: Int. J. Transgenderism 11, pp. 1-3.

Donnez, J. et al. (2004): Livebirth after orthotopic transplantation of cryopreserved ovarian tissue. In: Lancet 364, 9443, pp. 1405-1410.

Green, R. (1978): Sexual identity of thirty-seven children raised by homosexual or transsexual parents. American Journal of Psychiatry 135, pp. 692-697.

Green, R. (1998): Transsexuals' Children. In: Int. J. Transgenderism 2, 4. URL: http://www.symposion.com/ijt/ijtc0601.htm [04.01.2014].

Hanscombe, G. (1983): The right to lesbian parenthood. In: J. Med. Ethics 9, pp. 133-135.

Hodgen, G. D. (1988): Perspectives in human reproduction. In: Hum. Reprod. 3, pp. 573-576.

Jones, H. W. (2000): Gender reassignment and assisted reproduction. Evaluation of multiple aspects. In: Hum. Reprod. 15, pp. 987.

Lawrence, A. A. et al. (1996): Health Care Needs of Transgendered Patients. In: J. Am. Med. Assoc. 276, p. 874.

Leavitt, F., Berger, J. C. (1990): Clinical patterns among male transsexual candidates with erotic interest in males. In: Archives of Sexual Behavior 19, pp. 491-505.

Levine, S. B. et al. (1998): The standards of care for gender identity disorders. In: Int. J. Transgenderism 2, 2.

Main, T. L. (1993): Sexual orientation among male-to-female transsexuals. URL: http://members.tripod.com/~terrim/ORIENT.HTM.

Meyer, W. et al. (2001): The Standards of Care for Gender Identity Disorders. 6th Version. In: Int. J. Transgenderism 5, 1.

Pache, T. D. et al. (1991): Ovarian morphology in long-term androgen-treated female to male transsexuals. A human model for the study of polycystic ovarian syndrome? In: Histopathology 19, pp. 445-452.

Robertson, J. A. (1987): Procreative liberty, embryos, and collaborative reproduction. A legal perspective. In: Women Health 13, pp. 179-194.

Schenker, J. G., Eisenberg, V. H. (1997): Ethical issues relating to reproduction control and women's health. In: Int. J. Gynaecol. Obstet. 58, pp. 167-176.

Shaw, J. M. et al. (2000): Evaluation of the long-term function of cryopreserved ovarian grafts in the mouse, implications for human applications. In: Mol. Cell, Endocrinology 161, pp. 103-110.

T'Sjoen, G., Rubens, R., De Sutter, P., Gooren, L. (2004): The endocrine care of transsexual people. In: J. Clin. Endocrinol. Metab. 89, pp. 1014-1015.

Van Den Broecke, R. et al. (2001): The female-to-male transsexual patient. A source of human ovarian cortical tissue for experimental use. In: Hum Reprod. 16, 1, pp. 145-147.

White, T., Ettner, R. (2007): Adaptation and adjustment in children of transsexual parents. In: Eur. Child. Adolesc. Psychiatry 16, 4, pp. 215-21.

World Professional Association for Transgender Health (WPATH) (2011): Standards of care for the health of transsexual, transgender, and gender nonconforming people. 7th version. Reproductive health, pp. 50-52.