Ethics of assisted reproduction

An essay for Healthcare Ethics´ course 2022 by Jana Zlámalová Kuchrýková

Introduction

The assisted reproduction is an important topic, because there are many couples who cannot conceive a baby. According to World Health Organization (WHO), there may be 48 million couples which are infertile(*Infertility*, n.d.). I´ve chosen this topic because I work as a physiotherapist, who is specialized in woman´s health. Physiotherapy can be part of the treatment of infertility in both women and men. However, in this essay I´m writing about biomedicine´s way of therapy and the ethical questions, which are connected with this kind of procedure.

In first part of this essay I´m explaining what is assisted reproduction and what are its options. In the second part I´m describing 4 ethical topics, which are associated with assisted reproduction. At the end I´m summarizing the findings of this essay.

Assisted reproduction

Infertility

According to WHO "*infertility is a disease of the male or female reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse. Primary infertility is the inability to have any pregnancy, while secondary infertility is the inability to have a pregnancy after previously successful conception*"(*Infertility*, n.d.). If there is a couple, who cannot conceive a baby, the health issue can be due to many factors – some of them can be changed (for example lifestyle), but some of them are unknown.

Types of fertility treatments

In case of infertility, patient can choose from following treatment options(*Explore fertility treatments | HFEA*, n.d.):

1. Fertility drugs
2. Intrauterine insemination (IUI)
3. In vitro fertilisation (IVF)
4. Intracytoplasmic sperm injection (ICSI)
5. Surgery
6. Surrogacy

Fertility drugs

This treatment is an option in cases of hormonal imbalances or polycystic ovary syndrome. A patient can use these drugs and continue with scheduled (unprotected) sexual intercourse. Or the hormonal stimulation can be followed by IUI or IVF(*Reprofit International*, n.d.).

Intrauterine insemination (IUI)

During this procedure only sperms with good quality are used and they are injected into the uterus. The best sperm are separated from the others (with lower quality). This type of treatment may be performed with partner´s sperm (if the partner´s spermiogram is all right) or donor´s sperm.

In vitro fertilisation (IVF)
In this type of treatment, the act of fertilisation is performed by an embryologist outside the woman´s body. During this procedure eggs and sperm are brought together in a laboratory. The fertility hormones are given to a woman; these drugs stimulate the ovaries to higher eggs production. In some cases, there are possibilities to take lower dose of the hormones or even proceed without them(*Reprofit International*, n.d.) (only with natural woman´s cycle). When the eggs are matured they are removed from the woman´s ovaries and then fertilised with a sperm. When man´s sperm quality is not enough, then an embryologist may collect a single sperm and inject it into the egg **(ICSI)**. Successfully fertilised egg is called an embryo and after few days it is transferred to the woman´s uterus. It is very common, that remaining embryos are cryopreserved. These frozen embryos can be used again in case that the first IVF cycle wasn´t successful, or in case that the couple wish to have another baby. In the Czech Republic there is a law "Zákon č. 373/2011 Sb., o specifických zdravotních službách"(Zákon č. 373/2011 Sb., o specifických zdravotních službách, n.d.), where is written that the couple can make a decision what should the care provider do with the spare embryos:

- Preserve embryos for 10 years.
- Use embryos to a human embryo- and stem cell-related research.
- Donate embryos to another infertile couple.
- Dispose them.

Surgery
In some cases, a surgical procedure can be a solution for infertility issues. The diagnoses, which may be treated this way, are for example endometriosis, adhesions, blocked fallopian tubes or previous vasectomy.

Surrogacy
This option is for couples when a woman has serious health issues or in cases of repeated IVF implantation failures. In some countries this is possibility for homosexual couples (not in the Czech Republic). There are two type of surrogacy:

- Full surrogacy – when the transferred embryo was created from intended parent´s egg and sperm.
- Partial surrogacy – when the transferred embryo was created from intended father´s sperm and surrogate´s egg.

Social freezing/Preserving fertility

Social freezing may be considered as an infertility prevention(*Social Freezing*, n.d.). This method offers freezing the eggs or the sperm. Thanks to the cryopreservation of the eggs and/or sperm at peak fertile age the couple can postpone the parenthood for later. Social freezing can be also used when serious disease occurs – for example eggs and sperm can be cryopreserved before a patient must undergo chemotherapy or radiation treatment(*Preserving Fertility Before Treatment*, n.d.).

Legal access to assisted reproduction in European countries

In all European countries, heterosexual couples are allowed to undergo IUI, the exception is in Bosnia and Herzegovina and in Turkey – in those countries couples cannot use donated sperm. IVF can be

fully provided only in 28 countries, partially in 14 countries and in Turkey IVF is banned(*More than Half of European Countries Prohibit Access to Assisted Reproduction for Lesbians and Almost a Third Do so for Single Women*, n.d.). Single woman or woman in homosexual relationship have worse access to IUI or IVF as you can see in the picture 1 bellow.

In the Czech Republic fertility treatment can be provided only to a heterosexual couple and a woman must be younger than 49 years(Zákon č. 373/2011 Sb., o specifických zdravotních službách, n.d.).

	IUI		
	FULLY ALLOWED	PARTIALLY ALLOWED	NOT ALLOWED
HETEROSEXUAL COUPLE	AL, AM, AT, BE, BG, BY, CH, CY, CZ, DE, DK,EE, EL, ES, FI, FR, GE, HR, HU, IE, IS, IT, KZ, LT, LV, MD, ME, MK, MT, NL, NO, PL, PT, RO, RS, RU, SE, SI, SK, UA, UK	BA, TR	/
SINGLE WOMAN	BE, BY, CY, DE, EE, EL, ES, FI, FR, GE, HR, HU, IE, IS, MD, ME, MK, MT, NL, NO, PT, RO, RS, RU, SE, UA, UK	/	AL, AM, AT,BA, BG, CH, CZ, DK, IT, KZ, LT, LV, PL, SI, SK, TR
HOMOSEXUAL COUPLE	AT, BE, BG, DE, DK, EE, ES, FI, FR, IE, IS, MT, NL, NO, PT, RO, SE, UK	/	AL, AM, BA, BY, CH, CY, CZ, EL, GE, HR, HU, IT, KZ, LT, LV, MD, ME, MK, PL, RS, RU, SI, SK, TR, UA
	IVF		
	FULLY ALLOWED	PARTIALLY ALLOWED	NOT ALLOWED
HETEROSEXUAL COUPLE	AL, BE, CY, CZ, DK,EE, EL, ES, FI, FR, GE, HU, IE, LT, LV, MD, MK, MT, NL, PL, PT, RO, RS, RU, SE, SK, UA, UK	AM, AT, BA, BG, BY, CH, DE, HR, IS, IT, KZ, ME, NO, SI	TR
SINGLE WOMAN	BE, CY, DK, EE, EL, ES, FI, FR, GE, HU, IE, LV, MK, MT, NL, PT, RO, RU, SE, UA, UK	AM, BG, BY, DE, HR, IS, KZ, MD, ME, RS	AL, AT, BA, CH, CZ, IT, LT, NO, PL, SI, SK, TR
HOMOSEXUAL COUPLE	BE, DK, EE, ES, FI, FR, IE, MT, NL, PT, RO, SE, UK	AT, BG, DE, IS, LV, NO	AL, AM, BA, BY, CH, CY, CZ, EL, GE, HR, HU, IT, KZ, LT, MD, ME, MK, PL, RS, RU, SI, SK, TR, UA

Picture 1 Legal access to assisted reproduction in European countries
Source: own processing according to(More than Half of European Countries Prohibit Access to Assisted Reproduction for Lesbians and Almost a Third Do so for Single Women, n.d.)

Ethics of assisted reproduction

There are many ethical concerns associated with assisted reproduction. For the purposes of this essay I have chosen 4 topics:

- Usage of the embryos
- Embryo as a human being with own rights
- Surrogacy
- Gamete donation

Usage of the embryos

Valc (2017) writes about lack of legislative regulation during the process of creating embryos. He sees in this overproduction commercial intension – the law allows to donate unwanted embryos to scientific research. Those human cells are destructed for the benefit of new medical treatment. Nevertheless, there are possibilities to do stem cell related research, the scientists may use umbilical cord blood or else. From this point of view, the legislative regulation for the embryo production is needed.

There exists an international consensus called the 14-day rule, which allows developmental biologists to investigate human embryos in the lab only until 14 days post-fertilization (Powell, 2021). Embryo transfer usually happens after 3 to 6 days after fertilisation, so the scientists may examine the development of the human cell around a week after implantation into an uterus. Powell (2021) in his article writes that in May 2021 the International Society for Stem Cell Research relaxed the 14-day rule. The scientists believe that thanks to this, they may be able to understand the process of cells differentiation. This understanding may be helpful in future for preventing miscarriages in first trimester of pregnancy and better understanding of developmental defects. Also the knowledge may be useful for regenerative medicine.

In these days there is a possibility to store eggs, sperm or embryo. This fertility preserving tool can be used in cases, when one of the partner has cancer. Asplund (2020) in his review asks a question, whether it is all right to use frozen gametes after donor´s death. Answer is unclear – in some countries the usage of death partner´s gametes is prohibited by laws; in some other countries it is possible. Even when the law allows to use them the ethical concern remains. Asplund (2020) points to another interesting topic, which is linked to the social freezing – in case of couple breakup, who has the right to decide, what happens with the cryopreserved embryo? In the United Kingdom there was a big case, when a woman, who survived ovarian cancer but lost her ovaries, wanted to use frozen embryos without partner´s consent (the couple split up). After a big litigation the Grand Chamber of the European Court of Human Rights "*decided that the right to a family life could not override the male partner's withdrawal of consent*"(Asplund, 2020).

Aznar & Tudela (2020) in their review mark that during the IVF procedure is usually created around 10 embryos and maximum two of them are transferred to the womb. Rest of them is frozen, which means that the number of cryopreserved embryos is increasing. They suggest an adoption as a solution to this situation, rather than keeping embryos frozen or destroying them.

Embryo as a human being with its own rights

This is also a multidisciplinary question. According to Valc (2017) some authors consider act of fertilisation as a beginning of life, meanwhile others pointing out, that the embryo lacks the individuality and the autonomy. International law of unborn child protection varies in countries. Even though the European Court of Human Rights in the Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine declares: "*The interests and welfare of the human being shall prevail over the sole interest of society or science*."(Convention for the Protection of Human Rights and Dignity of the Human Being with Regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine, 1997), many countries legally allows using embryos for human embryo- and stem cell-related research. There is missing clear statement about embryo´s right. Valc (2017) narrates the handling with embryos as undignified and destructive.

Surrogacy

Valc (2017) points to the lack of exact laws in the European Union – there is no consensus about surrogacy . He points out that the difference in the legalization of surrogacy among the countries may lead to the Surrogacy tourism. He mentions also the paradox in the Czech Republic where the IVF treatment is based on anonymity of the donors, however surrogacy is missing anonymity. Valc (2017) sees another problem in objectification of the baby in the contract between the intended parents and surrogate mother. He thinks that this act is against the child´s personality rights.

Shenfield et al. (2005) in their article mention psychosocial aspect of surrogacy – there exist few cases when a surrogate mother refused to relinquish the child, and there may be some psychosocial impact on the children – however there is not enough information (long-term follow-up studies are needed). They also consider surrogacy as acceptable, if all the parties follow the recommendations. Those recommendations are:

- Surrogacy must be an altruistic act.
- All participants should undergo a physical examination by independent specialist.
- Recommended age of the surrogate mother is under 35 years for partial surrogacy and under 45 years for full surrogacy.
- It would be appropriate for the surrogate woman to have her own child(ren)
- All participants are recommended to have enough time to think the situation through.
- For the surrogate mother safety, it would be good to transfer only one embryo.

Aznar & Tudela (2020) support the opinion of objectification of the baby and add that also a surrogate mother´s body became just a commodity.

A big question in this topic is payment for surrogacy. All authors mentioned above agree that the surrogacy should be altruistic, however for authors Aznar & Tudela (2020) even unpaid version is not acceptable. According to them the objectification of child affects his or her rights and may be life-threatening.

Gamete donation

Eggs and sperms donors are in anonymity (the exception is surrogacy). Valc (2017) ask a question – Who can be considered as a parent? Biological parent, social parent, genetic parent, legal parent…? He thinks that during the process of assisted reproduction the baby loses his or hers rights to know his or her origin. This fact may have a psycho-social impact on the adolescent child. He sees another

problem in inability to detect genetic predispositions and health risk factors, which may be potentially linked to the donor´s gamete.

Aznar & Tudela (2020) in their article mention 4 aspects according to which the suitability of donor´s anonymity can be assessed. From the child´s point of view the anonymity is against the child´s rights – the arguments are same as Valc´s. From the donor´s point of view the anonymity is for some people necessary, because they want to avoid potential parental obligations. From the IVF providers´ point of view anonymity attracts younger donors, which is more convenient. From the society´s point of view donor´s anonymity may lead to marital consanguinity.

Conclusion

Assisted reproduction with its options is very discussed topics. To find a solution for the ethical concerns is a multidisciplinary quest.

For the question how to handle with the embryos, there are many answers: Valc (2017) suggests clear legislative regulations for all countries in the European Union. The developmental biologists in Powell´s (2021) article want to use them for research. Asplund (2020) answers this with questioning the ownership of the embryos from social freezing. Authors Aznar & Tudela (2020) suggest an adoption.

Embryo´s rights are vaguely described in European Convention on Human Rights and Biomedicine, Valc again suggest clear legislative regulations for all European countries.

Ethical concerns about surrogacy may be resolved according to Valc (2017) again with clear international jurisdiction, however he considers surrogacy as a violation of the child´s fundamental rights. For Shenfield et al. (2005) is surrogacy admissible if all the parties follow the measures and guidelines. Aznar & Tudela (2020) do not accept surrogacy because of the child´s objectification.

The question about anonymity in gametes donation stays unanswered. Valc (2017) points out that donor´s anonymity is against child´s fundamental rights. Aznar & Tudela (2020) write statements against anonymous donation for the good of child and for the good of society, they also have statements for anonymous donation for the good of donor and for the good of providers of assisted reproduction.

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