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ARTICLE

Cross-border reproductive care: a phenomenon expressing the controversial aspects of reproductive technologies

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Abstract Cross-border reproductive care, also called reproductive tourism, refers to the travelling of citizens from their country of residence to another country in order to receive fertility treatment through assisted reproductive technology. Several reasons account for cross-border reproductive care: (i) a certain kind of treatment is forbidden by law in the couple's own country or is inaccessible to the couple because of their demographic or social characteristics; (ii) foreign centres report higher success rates compared with those of the centres in the country of residence; (iii) a specific treatment may be locally unavailable because of a lack of expertise or because the treatment is considered experimental or insufficiently safe; and (iv) limited access to the treatment in the couple's home country because of long waiting lists, excessive distance from a centre or high costs. Although cross-border reproductive care can be viewed as a safety valve, the phenomenon is often associated with a high risk of health dangers, frustration and disparities. Solutions to these problematic effects need to be considered in the light of the fact that cross-border reproductive care is a growing phenomenon.

KEYWORDS: accessibility to fertility treatments, assisted reproduction, national legislations, patient migration, reproductive tourism

Introduction

Cross-border reproductive care refers to the travelling of citizens from their country of residence to another country in order to receive a specific treatment to exercise their personal reproductive choice. The phenomenon can be considered a part of the more general 'medical tourism', in turn a part of the wider phenomenon of globalization. Nonetheless, the phenomenon and its causes are locally specific because of the different ethical, religious and legal attitudes surrounding the patient's right to reproductive health.

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Historically, the presence of different national rules regarding the termination of pregnancy (TOP) was the first cause of migration in the field of reproduction. Whereas in Europe this type of travelling had steadily decreased due to the legalization of abortion in several countries, a new migration trend, related to nationally different accessibility to assisted reproductive techniques increased in the 1990s. A similar phenomenon occurred in Australia and in the United States.

The trend was reported by mass media for the first time due to extreme cases such as egg donation, pregnancy in 60-year-old women, and insemination with cryopreserved spermatozoa from a deceased husband. However, cross-border reproductive care is not limited to these atypical requests, but it is a more complex phenomenon expressing the controversial aspects of reproductive technologies (Pennings, 2004, 2006).

The necessity of travelling to another country for assisted reproduction purposes arises from limitations to the rights granted in the country of residence, but it can also be considered a safety valve. Lacking an international legal harmonization on assisted reproduction, patient migration reduces moral conflicts and contributes to the peaceful coexistence of different ethical and religious views.

However, this phenomenon is often associated with a high risk of health hazards, frustration and disparities that have to be taken into great consideration, especially because cross-border reproductive care is increasing.

An approach to solve and clarify these problems should include discussion, estimation of the extent of the phenomenon, an analysis of the causes and the sharing of experiences. National and international efforts should be promoted to solve the existing problems.

Currently, no clear information is available on the topic. For this reason, the European Society of Human Reproduction and Embryology (ESHRE) established a scientific research project named 'Cross-border reproductive care', in order to collect quantitative and qualitative information on the trend. A specific task force was set-up within the Society to conduct the study.

Definition

Knoppers (Knoppers and Lebris, 1991) was the first to name the phenomenon 'procreative tourism' in 1991 (later changed to 'reproductive tourism'). 'Health tourism' has emerged as a specific aspect of globalization (Wilson, 2004), and was originally used to refer to people going on vacation primarily for pleasure, adding the advantage of obtaining medical services. Nowadays the primary reason (often the 'only' reason) for medical tourism is the medical treatment itself. Therefore the term 'tourism', which refers to travelling for pleasure, is no longer correct within a medical context.

Various terms have been proposed to replace 'reproductive tourism: 'reproductive travelling' (Pennings, 2004), 'reproductive exile or migration' (Matorras, 2005), 'cross-border reproductive care' (Pennings, 2006). Although the term 'reproductive tourism' has already been accepted by the media and in public opinion, a terminology change is recommended. 'Cross-border reproductive care' is a more neutral term, since it implies no judgment or interpretation of the reasons behind 'patient mobility' and objectively describes the phenomenon.

Patient mobility driven by medical problems not pertaining to reproduction is usually positively considered as a patient's right to have access to the highest quality health care. 'Reproductive tourism', on the other hand, often has a negative connotation because it implies the idea of law evasion or of patient search for something strange or trivial. The term should be chosen as to avoid such incorrect interpretations.

Main causes of cross-border reproductive care

Several factors, often inter-related, promote patient migration. The main causes can be summarized as follows.

A certain kind of treatment is forbidden by law because its application, ethically, is considered unacceptable

At the time of the ban on abortion in several nations, the practice of offering illegal services inside the country was a well known, frequent, and harmful phenomenon. An accurate knowledge of national incidence of illegal assisted reproduction treatments does not exist today, although ensuring full enforcement of the law is complicated in some circumstances; the only realistic option for patients to be treated is to cross the border. The most banned procedures are: surrogacy, social sex selection, gamete donation, preimplantation genetic diagnosis (PGD) and screening (PGS). Patients looking for illegal treatments abroad are not legally responsible, whereas local doctors who promote or are involved in promoting reproductive migration for these treatments may be subject to some form of prosecution.

Several countries in the world prohibit surrogacy. The demand for this treatment today seems still limited, but people usually need to travel to a different country or continent to be treated.

In several countries where PGD is legally authorized and clinically established, the use of the technique for non-medical sex selection is not allowed because it is considered ethically unacceptable. The few countries, or the few centres, offering the procedure may collect patients from all over the world.

In Europe the treatment that most frequently induces this travelling phenomenon is considered the search for gamete donation. Egg donation is forbidden in Italy, Germany, Austria, Switzerland and Turkey. Sperm donation is also banned in Italy and Austria. One hundred and sixty million European citizens have no full access to donor procedures in their own country. In theory, 80,000 couples would need treatments forbidden by national law but available just across the border.

In these and other countries, PGD and PGS are also not allowed for any indication, providing another reason for patient mobility.

Some countries prohibit donor anonymity. Swedish legislation in the 1980s promoted one of the first documented 'reproductive tourism waves': Swedish couples started to seek anonymous donor insemination in Denmark to avoid the Swedish law. Similar migration phenomena are expected

to happen in the UK after the legal approval of donor's identity disclosure [International Federation of Fertility Societies (IFFS) Surveillance, 2007].

People can be excluded from legal treatments because of their specific social or demographic characteristics

Single women, post-menopausal women, homosexual couples and, in some European countries, unmarried couples are also not eligible for infertility treatments. The exclusion is based on the belief that only a heterosexual (married) couple of normal reproductive age can fit the model of a 'normal and ideal family'.

Treatment efficacy can be limited by the law

This is mainly Italy's case, where the law forbids the cryopreservation of embryos and two-pronuclear zygotes, as well as limiting the number of oocytes for insemination to three. The public debate, which arose in 2004 and 2005 after the law approval and during the referendum campaign, elicited a clear perception of 'under-treatment' in Italian patients. In a website survey more than 40% declared to have the intention to move abroad even for treatments still available in Italy. The first data collection, on a national level (Italian National Health Service data collection, 2005), showed a reduction in treatment efficacy after the approval of the law: the cumulative pregnancy rate (PR) per embryo transfer decreased from 27.6% to 25.3%. In addition, multicentre studies (reported in 'Osservatorio Turismo Procreativo', Italian conference 2006) showed that the PR can be more affected in couples with severe male infertility or/and advanced maternal age. Why should these patients not go abroad to have more oocytes inseminated? However, since they cannot receive any form of support, or informative advice from local doctors, they need to acquire the capability to choose the best foreign centres, to avoid ruinous consequences.

A specific treatment may be unavailable due to lack of expertise or equipment

In this case, patients have to move to look for best quality service. PGD is a clear example. Although not forbidden, the technique can take a long time to be established in national clinics, if the specific expertise is missing. Usually this phenomenon is transient; once the request is documented, national health care or private clinics are able to fill the gap or to create a solution. For example, PGD expertise, located in another country, can be accessed as a service, by moving only the specimens.

A treatment may be clinically unavailable because it is not considered sufficiently safe or because it is still under experimental evaluation

This is a very complex issue because it involves several ethical aspects. In the starting phase of a new technique, the points of view about what is acceptable may differ among similar cultural contexts. This occurred, for instance, when ICSI was first employed for oocyte insemination and it is still partially true for PGD. The opposite occurred in the case of oocyte freezing in Italy. In 2004, this new procedure was imposed by law at a time when it was considered experimental all over the world.

Waiting lists may be too long or costs may be too high in the couple's home country

This is a result of a combination of factors, involving legal restrictions (for instance, limitations to the use of voluntary female donors or shortage of male donors due to the removal of anonymity) and limiting health care reimbursement policies. According to the 2007 Surveillance (Blyth and Farrand, 2005), only six countries in the world offer a complete public coverage (Belgium, France, Greece, Slovenia, Sweden and Israel), several countries have only partial coverage and half of the countries in the world have neither public nor private insurance. Despite the existence of national and international statements opposing the commercialization of assisted conception services, in reality, a large part of infertility treatments is performed in profit-based private clinics and the costs of the treatments can differ largely among countries. It is possible to obtain treatments abroad that otherwise could never be affordable.

Cross-border reproductive care travel usually refers to patients who wish to avoid legal restrictions (law evasion) but this is not the only motivation. This phenomenon is more complex and multifaceted and its extent is a consequence of the political, economic, religious and social factors influencing assisted reproduction practice and accessibility worldwide.

It is important to reveal all the main causes of travelling abroad for assisted reproduction treatments, to alert the scientific community, public opinion, mass media and national and international policy-makers regarding problems related to cross-border reproductive care travelling.

Estimation of the phenomenon

The topic is often an object of discussion but, still, a clear idea of the extent of the migratory fluxes entity is not available. It is not easy to study patient flow from one country to another for reproductive reasons. The idea of law evasion and its negative connotation, as well as the personal and emotional issues related to infertility, may hide the problem. In addition, a country may not disclose national immigration or emigration registries regarding medical care, due to political reasons.

In Italy, a study was set up by CECOS (Centre d'Etude et de Conservation des Oeufs et du Sperme) to quantify reproductive migration after the restrictions introduced by the law. When patients were contacted to participate in a survey, 40 foreign centres were found to be preferred. The centres were asked to send information regarding the number of Italian patients treated in the year prior to approval of the law (2003) and during 2005. Twenty-eight centres participated to the survey: 25 from Europe and three from the USA. The results showed that 1066 Italian couples crossed the border in 2003 and 4173 in 2005. A reproductive 'emigration' from Italy already existed in the absence of

legal restrictions but the approval of the law quadrupled the phenomenon in a few months.

National data collection registered 33,244 assisted reproduction cycles performed in Italy in 2005 (Italian National Health Service data collection). The information obtained from CECOS surveys points out that 13% of the cycles undergone by Italian patients are performed abroad. This percentage is surely underestimated due to the limited number of foreign centres involved in the analysis.

Another survey was organized by the patient association 'SOS Infertilità Onlus' to further investigate the trend from the patient's perspective (Bertolucci, 2008). The most critical factors to choose a centre, among those declared by patients, were the local legislation and the presence of Italian speaking operators in the clinic. Although costs seemed not to have a primary influence on the choice, it must be considered that patients travelling abroad often tend to belong to the upper social/economic level and that an increasing number of Italian patients are travelling to eastern countries, probably for lower costs.

In an analogous survey, organized by the patient association 'Cerco un bimbo' (www.cercounbimbo.net, accessed 17 November 2009), 12% of the interviewed Italian residents expressed the desire, but the lacked the financial feasibility to travel abroad for treatment.

Worldwide, little data is available in regard to other procedures such as PGD, surrogacy and social sex selection.

The European Commission performed a survey, collecting information from 53 centres on PGD (Lawford, 2007). Seventeen centres confirmed patients, or tissue samples (blastomeres or polar bodies) reception from abroad. According to the IFSS Surveillance (Blyth and Farrand, 2005), surrogacy produces 500–600 births per year in the world. Half of them are reported to occur in only two countries with permissive regulation and with the possibility to compensate the surrogate mother: India and USA. The treatment cost varies from ~4000 Euros in India to ~40,000 Euros in USA. Although no data are available, it is easy to speculate that most patients looking for surrogacy in India are foreigners.

According to the last PGD Consortium Report (Harper et al., 2008), social sex-selection was shown to be the PGD indication only in a few cycles. In most European countries, this procedure is considered ethically unacceptable. It is therefore not surprising that a single centre in Jordan carried out, during the same year, more sex-selection procedure in couples travelling from all continents (85 cycles) than those performed in the whole of Europe (personal communication).

All the data available are incomplete, data collection is often not scientifically rigorous, and most data are unverified information derived from patient associations or personal requests. Knowledge is based on rumour rather than facts. Thus, there is, clearly, the need for a scientific project gathering reliable data regarding patients' number and reasons for travelling. The collection of quantitative and qualitative information is the only way to reveal underlying problems and to promote possible solutions.

Problems and risks

Cross-border reproductive care is a clear consequence of two main issues: post-modern society, characterized by a multitude of moral and religious point of views which, in the matter of reproduction, produce a mosaic of different laws even among countries with similar cultures and values (like Europe); and limited public infertility care, which promotes a private-based reproductive medicine.

Ethically, the need to cross the border for assisted reproduction (due to legal restrictions or financial reasons) is considered a limitation of one's 'reproductive autonomy'. Furthermore, economically based discrimination ('inequality of access') can be promoted, since only patients with adequate financial resources can afford treatments abroad.

From a different perspective, cross-border reproductive care can be seen as a 'safety valve' that reduces moral conflict and thus contributes to the peaceful coexistence of different moral and religious views (Pennings, 2004, 2006). No country penalizes patients looking abroad for treatments considered illegal in their home country, demonstrating the absolute minimum respect for their moral autonomy. Another reason to explain this phenomenon could be that this travel is tolerated by governments approving restrictive laws as a 'safety valve' to reduce the internal conflict and thus to preserve the existing law against political attacks. The emotional problems linked to infertility, the personal nature of the condition and the clear intention to evade local restrictions, indicate why it is unreasonable to expect couples to broadcast their reasons for leaving the country or to publicly express a political protest back home.

Even if cross-border reproductive care is seen as a useful social safety valve and a benefit for patient autonomy, the phenomenon is associated with the risk of generating conflicts, frustration and disparities. No objective data are available on these crucial issues and every opinion can help the debate, including not only those based on ethical or philosophical perspectives, but also from people who face the problem daily.

The most important risks for patients are money venture, difficulty in selecting the foreign centre, given the myriad of choices available (i.e. through internet advertisement), poor ability to evaluate the quality and safety standards of the centres, unsatisfactory counselling and information due to language differences, no psychological/social assistance and limited recourse to local courts in case of malpractice. The expense of travelling for patients should be compensated by the guarantee of receiving the best care.

The cross-border reproductive treatments are mainly performed in private clinics. In a free market, the influx of hundreds of patients may easily increase costs in the most requested centres. On the other hand, clinics just outside the border, having no legal restrictions (but also no adequate control), may offer cheaper but lower quality assisted reproduction treatments to attract patients. Pure commercialization can have negative consequences in terms of cycle outcome and health risks, and patients all over the world have the right to be protected against malpractice.

According to patient reports (there is no clear evidence available) in some countries, treatment costs are higher for foreign couples compared with local couples. The reason for this policy may be to prevent treatments from becoming less accessible to local couples because of the foreign 'market', but it also promotes 'inequality' among patients.

Despite a general European consensus (often underlined by national laws) on the unacceptability of using sperm, egg or embryo donation for financial gain, the existing marketing, as part of cross-border reproductive care, produces a borderline situation in this respect. For instance, the high demand for donated gametes could promote a 'black market' to recruit more donors, especially from poor countries.

Another, often ignored, aspect is the frustration of fertility specialists working in countries where assisted reproduction treatments are restricted by the law (see Italy, Germany and to a lesser extent, Switzerland). The autonomy in making decisions for the patient's best interest is limited, the specific expertise previously acquired can no longer be expressed unless the practitioners go into exile, and previous efforts to avoid gamete commercialization (Ferraretti et al., 2006) have become useless. Furthermore, civil or legal responsibilities preclude patients' assistance in their choice to go abroad and prevent collaboration with foreign centres. In addition, home country physicians have to take care of the eventual complications of assisted reproduction treatments performed in foreign centres (ovarian hyperstimulation syndrome, infections, multiple pregnancies, etc.) and, if things go wrong, they may be called into local courts. Moreover, scientific and clinical research may be slowed down due to restricted materials and methodology and reduced financial income.

All these disadvantages have easily become advantages for the receiving centres, where the influx of new patients is not a result of enterprises in a libertarian health-care globalization, but is merely the consequence of restrictions imposed by national governments.

Possible solutions?

Given that European citizens are free to travel voluntarily in Europe in search of medical treatments (including assisted reproduction), the best solution to avoid the non-voluntary need to travel abroad due to restrictive laws would be a legal harmonization of assisted reproduction (no national restrictive laws) and/or strong policies to guarantee public funding or insurance coverage of infertility treatments. However, one must realize that this goal is distant; any proposal for future policies needs to take the world as it is, rather than how someone wishes it to be, into account. Health care is considered more and more a product or a service like any other, and its commercialization is eased by market globalization. On the other hand, state sovereignty cannot be discussed.

Given that cross-border reproductive care is a growing phenomenon, measures should be taken to prevent medical, psychological and economic damage to patients who may be lured into the market. Patient anxiety could be partially relieved by providing counselling, ovarian stimulation monitoring and psychological assistance as part of the treatment in the local clinic. However, this involvement could raise the suspicion of complicity when the treatment is forbidden in the original country. According to the law, Italian doctors, assisting patients travelling abroad for practices illegal in Italy, can be subject to civil, legal or professional prosecution. Different ethical positions are expressed on the possible conflicts linked to the responsibility of the professionals. A paper addressing the problem (Heng, 2007) concluded that referring local patients abroad is deplorable not only if driven by financial incentives but also if considered necessary for the best interest of the patients. The author explains the reasons why doctors should abide by the laws and regulations that manage clinical practice in their home country. Whatever the case may be, realistic attempts to abolish or amend such regulations can only be made after eliciting widespread dissatisfaction against local regulations. On the contrary, the ESHRE task force on Ethics and Law (Pennings et al., 2008) supports the hypothesis of civil disobedience. Although prohibited by law, physicians have the moral obligation to refer the patient and to provide them adequate information and counselling in order to guarantee safe and effective treatments. The logic of this position would lead to support of the doctors who decide to break the law.

Promoting educational campaigns for patients about general rules could also help them to better evaluate the information they receive and the quality of the centres they contact.

Nonetheless the best solution would be to establish an independent international system which accredits proficient and safe clinics; in this way, patients can be sure that these clinics operate according to the rules of good clinical practice. International scientific societies and/or health institutions should promptly promote such solutions, although it is clear that time and significant efforts are required.

Most of the experts who analyse the phenomenon (IFSS Surveillance, 2007; Matorras, 2005; Pennings, 2004) agree that cross-border reproductive care will continue to increase in the coming years, but all agree that monitoring the travelling, analysing the causes, shedding light on the problems and promoting public discussion are necessary to promote measures for patients benefit. Currently, two European Institutions have started to examine the phenomenon: ESHRE established a task force to specifically study cross-border reproductive care; the Commission of the European Parliament proposed a Directive to improve the quality, safety and practical aspects of cross border health-care.

Conclusions

Cross-border reproductive care is a complex phenomenon expressing several controversial aspects of reproductive technology. Monitoring the phenomenon is crucial to promote public discussion and to analyse the underlying causes. Despite the difficulties, efforts should be made at all levels to reduce the involuntary need to travel, to find solutions to prevent dangers, to guarantee the safety and the quality of the treatments wherever provided, and to balance disparities among patients (Pennings et al., 2008). Though the increasing commercialization of health care and general marketing strategies generated by globalization are accepted as unavoidable, health care cannot be treated as any other product.

The observed trend is continuously increasing, but at the moment reliable numbers and systematic analyses of the reasons for travelling are lacking. Producing facts on this phenomenon is the aim of the ESHRE Task Force on cross-border reproductive care.

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