

Attitudes Toward Reproductive Tourism and Cross Border Reproductive Care (CBRC): Legal, Economic, Ethical Issues and Dilemmas, Possibilities and Limitations

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Abstract: The goal of the present study is to discuss the issue of Cross-Border Reproductive Care known as CBRC and Reproductive Tourism. The subject is of great interest as this type of tourism has been flourishing in recent years, without, however, being thoroughly researched, regarding the very important, health, quality of medical care, financial, ethics, legality and transparency or illegality, aspects concerning the processes that are carried out for the desired result of human reproduction. In addition, one of the sharpest-increasing types of Cross-Border Reproductive Care is international surrogacy. Thousands of interested people travel abroad for IVF and ICSI treatment, or with the aim to employ the paid services of foreign surrogates. The search for solutions has made CBRC a global industry. It is a multibillion-euro international industry introducing unique legal, financial, ethical, and risk-management challenges and disputes. The current study addressed this gap by examining Greek citizens' attitudes toward Reproductive Tourism and Cross border reproductive and their legal, financial, ethical, consequences. To test the research hypotheses, a survey was conducted on 652 Greek citizens, who answered a questionnaire, which was distributed electronically in the format of a Google form. For the data analysis the study used the multiple correspondence analysis – MCA of sphere of multivariate data analysis. The results discuss, as far as the legal dimensions are concerned, the restriction on specific reproductive treatments in the country of residence. IVF and ICSI are allowed in almost all countries but there are legal restrictions regarding the age of the woman or the couple, unmarried couples, single woman, gay, transgender and same-sex couples. As far as the financial dimension of the CBRC is concerned, the study discusses the lack of financial data that is a natural consequence of the lack of both national and global registers. The cost of infertility treatment seems to be one of the most basic reasons for those interested to seek assisted reproductive services outside the borders of their country of origin and residence, and the commercialization of health is an ethical issue that deserves further study in relation to the country of destination. In addition, the study discusses main ethical issues regarding donors and surrogate mothers, among others, which have to do with their exploitation, their moral and physical harm, possible child abuse, parental rights and the sale of babies which are considered of a major importance. Donor or surrogate mothers may suffer from serious and even life-threatening complications. Donor or surrogate mothers from low and economic backgrounds do not have the possibility of legal support and coverage and cannot claim parental rights. Additionally, the study debates the high cost of treatments, health and care benefits, the economic exploitation of women from countries with weak economies, the instrumentalization of women, the legal issues and rights of descendants born in destination countries and in terms of their repatriation, the correct information and informed consent for the medical procedures to be performed, as well as many others because the list is long. According to the study the need that is obvious, due to the great impact of the CBRC, concerns the creation of a universal protocol through the European Council and the College of Obstetrics and Gynaecology (EBCOG) as well as the American College of Obstetrics and Gynaecology (ACOG) to remove all the above mentioned issues, issues and moral dilemmas that above all will guarantee the good of health, justice, non-harm, the good of justice, autonomy and self-determination and finally, human rights.

Keywords: Reproductive tourism, CBRC, Legal, Economic, Ethical issues

1. Introduction

The issue of motherhood is of great importance in the life of a woman or even a couple. On the other hand, the issue of the inability to have children is a big problem that can bring unhappiness in the life of a woman/couple, in light of the possible pressure from both the family and the social environment. A woman's reproductive capacity is also influenced by age, besides other health-related problems that may arise. In recent years the science of genetics and assisted reproduction has made a remarkable progress. IVF and the use of a surrogate mother are presented as a solution to the issue, among other ones. In vitro fertilization (IVF) with donor eggs is an increasingly popular treatment option for women, who cannot use their own eggs. This approach has gradually become ethically and legally accepted in the majority of countries. The issue of the surrogate mother that will concern us is a social, constitutional and moral one and raises, among other things, various moral concerns and dilemma.

In every country, however, there are legal restrictions regarding assisted reproductive treatments, including in vitro fertilization (IVF), artificial insemination and surrogacy. Due to this fact, many people travel abroad to access fertility treatments. This growing phenomenon is known as cross-border reproductive care (CBRC) or fertility tourism. Due to its complex nature and worldwide impact, CBRC has become an emerging dilemma that deserves more attention in the global health care agenda (Crockin, 2013; Salama et al., 2018). This type of tourism has flourished in recent years, without, however, shedding much light on health, quality of medical care, economy, ethics, legality and transparency or illegality, which are all aspects concerning the procedures. Cross-Border Reproductive Care (CBRC) or fertility tourism is the choice of traveling to another country for the purpose of choosing fertility treatment. The choice of destination country depends on which fertility treatments are allowed by law, and are morally, socially and religiously acceptable (Salama, 2018). In addition, in many countries certain assisted reproduction treatments, which are expensive, are not covered by the country's health insurance systems or are partially reimbursed, and this is why many patients travel to other countries in search of these treatments at a lower cost, due to legal reasons that will enable them to circumvent stricter legislation in their country, in order to access better health care, as well as protect their anonymity and medical privacy (Salama, 2018). One of the fastest growing categories of cross-border reproductive care (CBRC) is surrogacy. People experiencing infertility travel internationally, to be able to seek refuge in countries, where foreign surrogate women can be hired for a fee (Deonandan, 2015). Cross-border surrogacy offers the possibility of creating a family, which may come into conflict with the conventional legal, moral and possibly political, and, perhaps, even religious rules of family creation. Cross-Border Reproductive Care (CBRC) is a multi-hundred-billion-dollar global industry, associated with strong legal, economic, ethical and health challenges for all involved parties, as well as the countries of origin and destination (Deonandan, 2015). These risks are linked to issues of citizenship and nationality, the possibility of the child immigrating to the parents' country of origin, as well as to issues of parentage, kinship, and family, in case of a transnational surrogacy (Deomampo 2015).

According to Goold and Savulescu (2009), from a social point of view, in vitro fertilization (IVF) promotes women's equal participation in employment, offers women more time to choose a partner/spouse, provides better opportunities for the child, as it allows couples more time to become financially independent, can reduce possible risk of genetic and chromosomal abnormality, allows women and couples to have another child, if circumstances change, and offers an option to women, who experience with problems associated with ovarian failure. Furthermore, according to Goold and Savulescu (2009), there are strong arguments based on the same concern and respect for women, demanding that women have access to this new technology.

A very important issue is that of the relationship of health provision itself with medical tourism, in the context of the tourism industry. The question that arises concerns the extent it is ensured that the medical benefits respond to the demand of health assurance and are not related to financial actions. The subject of marketing, advertising, and promotion of medical services with the aim of seeking patient-clients is introduced into the framework of the issue. The investigation of these ethical dilemmas will be the objective of this paper.

Surrogacy is a non-universally accepted method, due to potentially being an insult to human dignity, as previously argued. The insult includes both the surrogate mother and the child to be born. Consequently, the following question arises: human dignity vs. the right to have a child.

In the case where there is a commitment, let's say finding, of a surrogate mother with some kind of financial reward, basic ethical dilemmas and issues arise, as well as issues related to human dignity.

The concept of motherhood is blamed, while, in many cases, the question of who is the actual "mother" of the child is raised. On one hand, we have the woman that is pregnant and undergoes all the hormonal changes and disturbances and even the psychological processes of pregnancy, the possible emotional bond with the baby without sharing the same genes, and on the other hand, the woman who provides the genetic material through her egg or eggs, as well as her husband or partner, who has also made his own contribution (sperm).

Clearly, this is not the normal/conventional concept of motherhood but is reduced to a dry process of reproduction with the implantation of the fertilized egg(s).

Financial transaction not only involves risks for both unchecked moral challenges and issues of human rights protection of economically and socially vulnerable women, but also, grossly negates issues of women's autonomy and reproductive rights (Deonandan et al, 2015). Furthermore, on one hand, the poverty of the economically weaker women impedes them from hiring a lawyer to defend their rights, and on the other hand, the ability of the childless women to use every possible legal advice raises a question of social justice.

Poverty leads to the exploitation of poor women, who lend their wombs, just as in the case of prostitution, meaning they would not do it, if they had any other choice. In Thailand, for example, one can find prospective surrogate mothers advertised online (Hibino & Shimazono, 2013). But there are also the rest of the well-off women, who resort to agents/brokers (Cohen, 2015). These intermediaries are mainly hired or suggested by doctors, spouses, parents or relatives (Karandikar et al., 2014). As Fronek (2018) emphasizes, most women do have the ability to make a personal decision to become candidate surrogate mothers, which deprives them of any right to autonomy or ability for self-determination.

As far as the economic dimension of CBRC is concerned, Salama et al. (2018) argue that this includes brokers, clinics, suppliers, etc. The different language, socio-cultural context of different countries, different health and medical care systems, competition between fertility centres, etc. as is, for example, the case for India, possibly increase the costs and do not facilitate decision-making by the interested party regarding the most appropriate treatment and solution. Due to the increasing demand and insufficient supply of available egg (or eggs), a specialized business has developed, in which "agencies" help doctors with advertising, recruitment, screening and even "matching" of donors with recipients who need the specific services. The rise of the Internet has increased the number and visibility of these services and created a market, in which programs bid for women deemed to have desirable characteristics and superior pedigrees. However, presentations of medical information by websites, in general, have often been shown to be lacking in quality (eg, completeness, accuracy, timeliness, and transparency) (Cohen, 2015; Klitzman et al., 2008).

The costs for medical care in the country of residence also increase. Furthermore, costs are shifted from the private sector and private clinics to the public health system (Salama et al. 2018). Creating a global registry of information on assisted reproduction issues etc, would help with fertility treatment choice, transparency, cost etc. The principle of autonomy is extremely important in Bioethics. The issue of informed consent" (Tsinorema 2006:236-240) is of a major importance. Every act of coercion and deception removes the person's autonomy, as mentioned by Tsinorema (Tsinorema, 2006:239). Moreover, the application of NIPT, otherwise known as the non-invasive pre-genetic test, offers the possibility of carrying out diagnostic tests on the foetus from the first stages of its development and, at the same time, offers the path of DNA analysis, where intervention can be done on its genetic material. All this can be done easily in countries like India, Thailand, etc., where there is no possibility, of either legally protecting the surrogate mother, or of informed consent.

There are, clearly, issues of biological limitation/definition, as the baby grows inside the surrogate mother's body and a biological relationship is established. There is a possible violation of the surrogate mother's dignity, in case she wants to terminate the pregnancy, as she would do, if she became pregnant by her own choice. The "contract" between the parties involved does not allow this, and any possible breach carries legal consequences. So, the ability of a surrogate mother to manage her own body is nullified. There is also a potential violation of the surrogate mother's dignity, in case she develops feelings for the life she carries, while, simultaneously, not being able to have any rights over it (Van den Akker, 2007).

Here, it is worth noting that a surrogate mother is not only used in case of infertility or illness of a woman who wants to have a child, but also in case of same-sex couples who want to have a child. Thus, in addition to moral issues, social issues are also raised, which focus on matters regarding family patterns, where both sexes are present, with the role of mother and father. A child belonging to a same-sex couple may face social and racial exclusion.

2. The Purpose of the Study

The goal of the present study is to discuss the issue of Cross-Border Reproductive Care known as CBRC and Reproductive Tourism. The subject is of great interest, as this type of tourism has been flourishing in recent years, without, however, being thoroughly researched regarding the very important, health, quality of medical care, financial, ethics, legality and transparency or illegality, aspects concerning the processes that are carried out for the desired result of human reproduction. In addition, one of the sharpest-increasing types of Cross-Border Reproductive Care is international surrogacy. Thousands of interested people travel abroad for IVF and ICSI treatment. or with the aim to employ the paid services of foreign surrogates. The search for solutions has made CBRC a global industry. It is a multibillion-euro international industry, introducing unique legal, financial, ethical, and risk-management challenges and disputes.

The current study addressed this gap by examining Greek citizens' attitudes toward Reproductive Tourism and Cross border reproductive and their legal, financial, ethical, consequences.

3. Statistical Methodology- Research Questions- Research Sample-Research Instrument

Statistical Methodology: To assess the research questions, a survey was conducted on 652 Greek citizens, who analysis, the study used the multiple correspondence analysis – MCA of sphere of multivariate data analysis. The analysis of data is done by the coefficient Correlation (Cor) and Contribution (Ctr).

Research questions: The study poses the following research questions:

RQ1: Are people are willing to choose Cross-Border Reproductive Care known as CBRC at any cost with a view to have a child?

RQ1: Are moral ethics issues into a serious consideration regarding Legal, Economic, Ethical issues and dilemmas, possibilities and limitations related to CBRC and Reproductive Tourism?

Research sample: The research sample comprises of 652 respondents, 324 of whom were men while 328 were female. With respect to the respondents' age, 78 were from 18 until 24 years old; 189 were from 25 until 34 years old, 186 from 35 to 44 years and 119 from 45 until 54 years. With respect to their marital status, 374 were single, 196 were married and 82 were separated or divorced. With respect to the number of children, 407 they have not any child, 154 have only one child, 73 have two and 18 have three children.

With respect to their place of residence, 278 of 652 respondents, lived in urban surrounding, while 374 in rural ones. As for the educational level of respondents, one stated that he has completed elementary education, 224 secondary, 360 tertiary and, finally, 67 hold a post-graduate or doctoral title.

Research Instrument: Research Instrument named ATCBRC (Attitudes toward Cross Border Reproductive Care) consists of five conceptual constructs (Legal, Economic, Ethical, Social Justice, and Intention to Purchase). Legal conceptual construct consists of 8 items (e.g. There are risks linked to issues of citizenship and nationality in case of a transnational surrogacy), Economic consists of 10 items (e.g. The cost of infertility treatment is one of the most basic reasons for me in order to seek an assisted reproduction service outside the borders of my country of origin and residence), Ethical consists of 15 items (e.g. The ability of a surrogate mother to manage her own body is nullified), and finally, Social Justice consists of 7 items (e.g. surrogate mothers from low and economic backgrounds do not have the possibility of legal support), Perceived Overall Reproductive Care Service Quality and Intention to Purchase consists of 7 items (e.g. I definitely purchase Cross border reproductive care).

The conceptual constructs of the proposed Research Instrument named ATCBRC is presented by the model below (Figure 1).

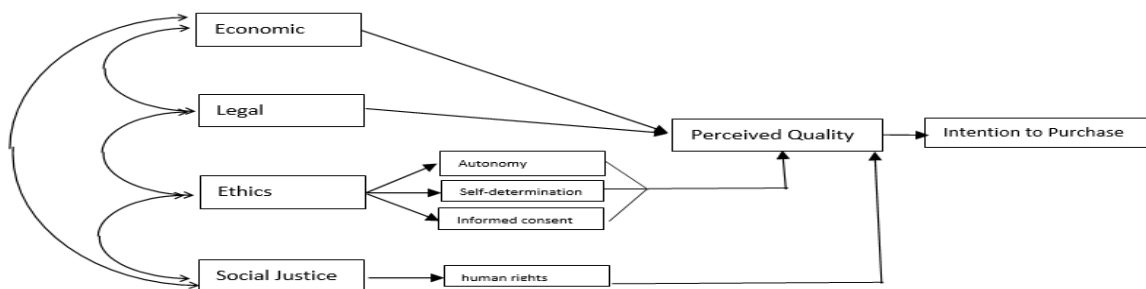


Figure 1: Conceptual Model

4. Results

Reliability and model fit: Instrument's reliability was evaluated by Cronbach alpha coefficient as well as Composite Reliability and AVE. Cronbach's alpha coefficient for ATCBRC scale counts for 0.931. Its conceptual constructs named, Legal, Economic, Ethical equals to 0.893, 0.872, 0.813, 0.822 and 0.895 respectively Anastasiadou & Karakos (2011), Anastasiadou (2012), Kofou & Anastasiadou (2013), Anastasiadou and Loukas (2009), Kapetanopoulou et al. (2021), Theodoridou et al. (2014), Valkanos et al. (2010) Papademetriou et al. (2022) for Cronbach alpha coefficient. Composite reliability for Legal, Economic, Ethical equals to 0.902, 0.923, 0.905, 0.931 and 0.897. These values are larger than the cutoff point of 0.70 and they indicate reliability in terms of internal consistency. Anastasiadou & Tiliakou (2014), Anastasiadou (2008), Anastasiadou, et al. (2011), Anastasiadou & Papa (2009). AVE Values larger than 0.5 are thought as satisfactory (Anastasiadou

2013a;2013b;2013c). AVE Values for Legal, Economic, Ethical for Legal, Economic, Ethical equals to 0.567, 0.591, 0.651, 0.598 and 0.607. The measurement model fits the observed data ($\chi^2/df=1.78$, CFI=0.95, GFI=0.94, RMSEA=0.0045, AGFI=0.90 and IFI=0.96) (Panitsides & Anastasiadou, 2015; Anastasiadou & Kofou 2012; 2013, Kofou & Anastasiadou, 2013).

Interpretation of the first factorial axis e1 based multiple correspondence analysis – MCA: More precisely, grounded on the answers by the respondents and as follows from MCA, the first axis – factor e1, with counted eigenvalue equal to 0.0876521 explaining 29.63% of the total inertia or variance is constructed from those variable classes that project a positive attitude with respect to CBRC and the intention to repurchase services based on CBRC and which are quoted on its left side and the neutral attitude with respect to perceived overall quality and intention to repurchase and a neutral attitude quoted on the right of the factorial axis.

We initially come across the respondents' views with respect to conceptual construct, which is in favour of artificial fertilization and reproduction, which support that they are willing to travel to a country abroad seeking for an access to fertility treatments and services where there are no legal restrictions regarding the age of the woman (Cor=629, Ctr=23), or the couple (Cor=598, Ctr=21), regarding unmarried couples (Cor=564, Ctr=20), regarding single woman (Cor=509, Ctr=20), regarding gay, transgender and same-sex couples (Cor=532, Ctr=18), regarding any kind of artificial fertilization and reproduction, as well as research on fertilized eggs (Cor=523, Ctr=18) are legal restrictions regarding the age of the woman or the couple, unmarried couples, single woman, gay, transgender and same-sex couples. Quoted on the right of the factorial axis are those variables projecting a neutral attitude with respect to the conceptual construct Overall Reproductive Care Service Quality Intention to Purchase. We initially come across the views by respondents who express a neutral attitude with respect to economically weaker countries and their health care systems (Cor=456, Ctr=32).

Interpretation of the second factorial axis e2 based multiple correspondence analysis – MCA: More specifically, based on the answers given by the respondents and as follows from multiple correspondence analysis, the second axis, e2, with eigenvalue equal to 0,0222617 explaining 23.11% of total inertia is structured from variable classes projecting the negative attitude toward surrogate motherhood. Quoted on the right of the second factorial axis come across the views by respondents pointed out that there is a possible violation of the surrogate mother's dignity, in case she wants to terminate the pregnancy, as she would do, if she became pregnant by her own choice (Cor=445, Ctr=31), there is a possible violation of the surrogate mother's dignity, as surrogate mothers are forced to consent to predictive diagnostic tests (Cor=421, Ctr=26), the ability of a surrogate mother to manage her own body is nullified (Cor=406, Ctr=26), there is a potential violation of the surrogate mother's dignity, in case she develops feelings for the life she carries, while, simultaneously, not being able to have any rights over it (Cor=421, Ctr=20), there is a potential postpartum depression that can have great consequences for the surrogate mother (Cor=416, Ctr=20), there is a potential minimization of fundamental freedoms like autonomy and privacy (Cor=410, Ctr=19), there is a potential minimization of informed consent of any medical action regarding the surrogate mother (Cor=408, Ctr=19) and finally surrogate mothers from countries with a low income easily become victims of instrumentalization (Cor=406, Ctr=19).

Interpretation of the third factorial axis e3 based multiple correspondence analysis – MCA: More specifically, based on the responses and as ensured from multiple correspondence analysis. More specifically, based on the responses and as ensued from factor analysis, the third axis-factor e3, with eigenvalue 0.0113236 explaining 15.32% of the total inertia or dispersion and constructed from classes referring to possible parental rights issues (Cor=553, Ctr=23), surrogate mothers from low and economic backgrounds do not have the possibility of legal support (Cor=525, Ctr=21) and finally only wealthy people can possibly hire surrogate mothers, fact that can arise issues regarding social justice (Cor=481, Ctr=13). All those statements are quoted on the left of the third factorial axis. Quoted on the right of the second factorial axis come across the views by respondents pointed out that there in favor of artificial fertilization and reproduction, as well as research on fertilized eggs (Cor=345, Ctr=12) and embryos (Cor=395, Ctr=12) and the willingness to purchase Cross border reproductive care services (Cor=308, Ctr=11).

5. Conclusions

The study debates the cost of treatments, health and care benefits, the economic exploitation of women from countries with weak economies, the instrumentalization of surrogate mothers, the ethical and legal issues regarding rights of surrogate mothers, informed consent for the medical procedures to be performed, as well

as many others because the list is long. According to the study the need that is obvious, due to the great impact of the CBRC, concerns the creation of a universal protocol through the European Council and the College of Obstetrics and Gynaecology (EBCOG) as well as the American College of Obstetrics and Gynaecology (ACOG) to remove all the above mentioned issues, issues and moral dilemmas that above all will guarantee the good of health, justice, non-harm, the good of justice, autonomy and self-determination and finally, human rights.

The present quantitative study for the first time introduced a model with the help of a new research instrument named ATCBRC and explore attitudes toward Reproductive Tourism and Cross border reproductive care on Legal, Economic, Ethical issues and dilemmas, possibilities and limitations framework based on the literature review of this study (Salama et al., 2018; Cohen, 2015; Klitzman et al., 2008; Fronek, 2018). The model was a reliable and valid. It indicated reliability in terms of internal consistency and had a good fit of the observed data. The present study for the first time pays attention to Greek citizens perception toward artificial fertilization and reproduction, in an era that these techniques are demanded more and more frequently. The research findings reveal that respondents' views are in favour of artificial fertilization and reproduction, additionally to fertilized egg. They are willing to travel to a country abroad seeking for an access to fertility treatments and services where there are no legal restrictions, although Greece is a quite conservative society. Respondents showed negative attitude toward surrogate mothership considering possible violation of the surrogate mother's dignity, autonomy, and self-determination. According to their views major parental rights issues, surrogate mothers' rights issues as well as social justice issues are raised up.

Although the current study presented some important literature review, the limitation was that there was not based on a systematic literature review. Thus a systematic literature review needs to be conducted drawing data from significant academic bases and publishers as Emerald, Taylor and Francis, Elsevier and Science Direct, PubMed and IEEE. Still more research ought to be done with big data sets with the algorithms related to Pipeline-Based Linear Scheduling of Big Data Streams in the Cloud in order to study citizens opinions, attitudes, perceptions and behaviours toward Reproductive Tourism and Cross border reproductive care (CBRC): Legal, Economic, Ethical issues and dilemmas (Souravlas & Katsavounis, 2019; Souravlas, 2019; Tantalaki et al., 2020; Souravlas & Anastasiadou 2020;2022; Souravlas et. al, 2020; 2021a; 2021b; 2021c; 2022).

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