Entendimento do consentimento livremente esclarecido na reprodução assistida

Amanda Albertoni Bazzaco [1], Pamela Olivieri Valelongo [2], Ivan Dieb Miziara [3], Caio Parente Barbosa [4]

Abstract

The use of in vitro fertilization (IVF) increased by about 5-10 % per year in the last decade. IVF creates a conflict between beneficence (successful treatment and pregnancy) and nonmaleficence (avoid multiple pregnancies and maternal and fetal complications). The aim of the study was to evaluate the Free and Informed Consent Form (ICF) used for performing IVF and its comprehension by the patient, including the possibility of discarding embryos. Semi-structured interviews were conducted with 95 women who would then undergo IVF, after signing the Informed Consent Form of the institution and of the study. About 85 % know the maternal and fetal risks of multiple gestation, and 47.9 % were aware of new CFM Resolution that allows discarding embryos. It was verified that the information provision regarding IVF is not accurate. The term does not cover all necessary aspects and seems to replace an adequate debate with health professionals.

Key words: Bioethics. Assisted reproduction. Consent.

Resumo

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O uso da fertilização *in vitro* (FIV) aumentou cerca de 5% a 10% ao ano na última década. A FIV gera conflito entre beneficência (sucesso do tratamento e gestação) e não maleficência (evitar gestações múltiplas e complicações materno-fetais). Este estudo objetivou avaliar o termo de consentimento livre e esclarecido (TCLE) utilizado para a realização da FIV e sua compreensão pelas pacientes, incluindo a possibilidade de descarte de embriões. Foram realizadas entrevistas semiestruturadas com 95 mulheres que se submeteriam à FIV, após assinatura do TCLE da instituição e do estudo. Cerca de 85% conhecem os riscos materno-fetais de uma gestação múltipla e 47,9% conhecem a nova resolução do Conselho Federal de Medicina que permite o descarte de embriões. Verificou-se que a transmissão de informações acerca da FIV ainda é falha e que, além de não abordar todos os aspectos necessários, o TCLE parece substituir a adequada discussão com o profissional de saúde.

Palavras-chaves: Bioética. Reprodução assistida. Termo de consentimento.

Resumen

Comprensión del consentimiento informado en la reproducción asistida

El uso de la Fecundación in Vitro FIV) se incrementó en alrededor de 5-10% al año en la última década. La FIV crea un conflicto entre la beneficencia (el éxito del tratamiento y el embarazo) y no maleficencia (evitar los embarazos múltiples y complicaciones maternas y fetales). El objetivo del estudio fue evaluar la Declaración de Consentimiento Libre e Informado (DCLI) que se utiliza para la realización de la FIV y su comprensión por las pacientes, incluyendo la posibilidad de desechar los embriones. Se realizaron entrevistas semiestructuradas con 95 mujeres que se someterían a FIV tras firmar la DCLI de la institución y del estudio. Cerca del 85% conocen los riesgos maternos y fetales de la gestación múltiple, y el 47,9 % conocen la nueva Resolución del Consejo Federal de Medicina que permite el descarte de embriones. Se verificó que la transmisión de informaciones sobre la FIV todavía tiene fallas, y que además de no abordar todos los aspectos necesarios, la DCLI parece sustituir la adecuada discusión con el profesional de salud.

Palabras-clave: Bioética. La reproducción asistida. Consentimiento.

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Research article

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Infertility is the lack of pregnancy after at least one year of regular intercourse without the use of contraceptive methods. Over that time, the fertility evaluation is justified after six months of fruitless attempts, or previously, if clinically indicated [1]. The infertile couple should be submitted for investigation before a definitive diagnosis [2].

From 1978, with the birth of Louise Brown, the product of a successful experiment of *in vitro* fertilization (IVF), new technologies for assisted reproduction (RA) were developed. In the last decade, their use has increased about 5% to 10% a year – in the United States of America (USA) they accounted for 1% of births in 2012 [3].

The IVF program is conducted in four stages: controlled ovarian stimulation for development of ovarian follicles; collection of the oocytes; fertilization of the egg and embryo growth; and embryo transfer to the uterus [2]. In IVF, the embryo transfer is what generates more controversy: *in vitro* fertilization increases by 25% the incidence of multiple pregnancies, which can result in maternal and fetal complications [4].

Seeking to minimize the possibility of such complications arise, the Federal Council of Medicine (CFM) issued regulations limiting the number of embryos to be transferred – by CFM Resolution 1.957/10, recently replaced by CFM Resolution 2.013/13 [5,6]. With this measure the rates of multiple pregnancy are reduced but, in contrast, the possibility of a successful treatment is also reduced. Thus, the confrontation between these two positions there is a clear conflict between the principle of beneficence (doing good) and non-malfeasance (to prevent damage) [7]. It is noteworthy that the aforementioned resolutions have the force of law, considering that in Brazil there is not a specific legislation regarding medically assisted fertilization, thus being the only rules establishing limits for its realization.

Based on bioethical principle of *beneficence*, the doctor, in the case of IVF, should seek success in the pregnancy and reduce the chance of multiple pregnancy, since this can cause damage such as maternal anemia, toxemia, hypertension, kidney failure, hard labor, and production of unfavorable psychological aspects before a stillborn [7]. Besides these, the multiple pregnancy influences the higher incidence of cesarean deliveries. Fetal losses are due to prematurity, neurological and gastrointestinal malformations and a high prevalence of low birth weight, still focusing on increasing the morbidity of fetuses to term [8]. Accordingly, the multiple pregnancy is considered a complication or dysfunction of RA techniques.

The relative increase in the incidence of multiple pregnancy in RA and its negative effects on children's health as well as physical, emotional, social and economic health of mothers and their families, favored the movement for single embryo transfer in the IVF treatment [9]. Seeking a consensus, the aforementioned resolutions of CFM limited embryo transfer according to the age of the patient: until 35 years old – maximum of two embryos; between 36 and 39 years old – maximum of three embryos; over 40 years – maximum of four embryos, prioritizing thus non-malfeasance before RA techniques [5,6].

Then one realizes the attempt to overcome or at least minimize the ethical dilemma that involves professional and patient, since the higher the number of implanted embryos, the greater the likelihood of pregnancy. In contrast, the smaller the number of embryos, the lower the risk of multiple pregnancy. The beneficence is also applied to the fetus, given that the physician should ensure good health for the future fetus [10]. Like this dilemma, other ethical issues of the embryo should be considered before starting treatment since its creation by artificial methods brings out new metaphysical and ontological perspectives [11].

As an inevitable result of IVF, technical and ethical problems arise from the handling of embryos that are not used. It is common the cryopreservation of these for future use. Thus, each year thousands of embryos are frozen by fertility clinics. Freeze a surplus embryo of a woman gives her the possibility to use it in new IVF cycles, avoiding any early stage of the process – which is emotionally exhausting and costly for the patient. To those who argue that embryos have the inalienable right to life, some possibilities, such as their simple disposal or donation for research, are morally unthinkable. However, even among those who do not believe that embryos are people with full rights, there is the idea that embryonic life should be treated with some moral value [12].

An effective factor to achieve a favorable outcome before these new ethical perspectives is related to informed consent that the patient must sign before undergoing IVF, which, if properly developed, explained and discussed with patients, can be extremely useful and effective to reduce or eliminate the ethical issues involved in assisted reproduction [13].

Thus, this study aims to evaluate the information contained in the term of free and informed consent signed by patients of a service that human reproduction who would be undergoing IVF and evaluate their understanding of the document.

Material and method

A prospective, descriptive study was conducted in the Human Reproduction Service of the Faculty of Medicine of ABC (FMABC), in Santo André/SP, in the period from 1 October 2011 to 1 May 2012. Hundred women, who were in the queue and would be subjected to *in vitro* fertilization as they presented themselves to the service, were included in the study. However, five of them did not fulfill the term of free and informed consent (TCLE) proposed by human reproduction service of FMABC, for this reason they were excluded from the study.

We used the method of semi-structured interviews, according to Sugarman and Sulmasy, with personal interviews, through the questionnaire in the Annex. The analysis of results was performed according to these authors, after data reduction (as suggested by Miles and Huberman) and synthesis of these into a coherent whole.

The patients answered a mixed questionnaire, after signing the informed consent regarding the research, and the confidentiality of the data was guaranteed. The questionnaire consisted of twenty closed, binary or alternative questions, and six open questions. The questionnaires were administered by the first two authors of this study, from undergraduate scientific initiation scholarship funded by the Regional Council of Medicine of São Paulo, shortly after signing the informed consent of the institution.

The responses were quantitatively analyzed by the statistical program Stata 11.0 and described in simple frequency tables, aiming to indicate understanding or no understanding of TCLE by women who undergone assisted reproduction technique according to certain indicator variables, which were analyzed by their absolute and relative frequencies. The open questions were interpreted from the analysis of speech by the method of ordering, classification and final analysis proposed by Minayo [14]. The open questions were not discussed in this article. All participants had not undergone IVF at the time the study was conducted.

The TCLE object of this study was that routinely presented to patients who sought the Center for Human Reproduction of FMABC in order to be undergoing assisted reproduction. The document is presented as a kind of contract in which the patient states that comply with their financial obligations, and also describes all stages of treatment, including the observations of the new CFM resolution and expectations of success according to patient age. On the topic related to fertilization, it reports that exceeding embryos will be cryopreserved, in order to allow a new cycle if it is necessary, or intended to donation, without any discussion about the impact of that determination in the patient's beliefs. Throughout the document, this or any other ethical issues regarding treatment are not brought to surface.

Results

As a demographic criteria of patients included in the study, it was found that the majority (70%) lives in the cities of Santo André, São Bernardo do Campo and São Caetano do Sul; 63% of them have family wage less to BRL 6,000.00; 80% are Catholic; 60% declare themselves white or brown and 92% are aged 30 to 45 years old.

With regard to the information of health risks, 85.5% of patients claim to have been informed about the risks facing the possibility of multiple gestation and 84.2% argue that the risks to the baby were well elucidated. These risks were accepted by 93.1% of them (Table 1). However, in relation to financial issues involved in multiple pregnancy, only 31.5% stated that the matter was dealt with some professional before starting the treatment, although 97.8% of them ensure that the family's resources are sufficient to afford the consequences of treatment. For 94.7% multiple pregnancy would not stop them to try to be a mother. Additionally, 87.3% have a desire to get pregnant with twins, triplets or quadruplets (Table 2).

Although 47.3% claim to know the CFM Resolution 1.957/10, in force at the time the study was conducted, which defines the maximum number of embryos to be transplanted by age group, 93.6% of participants believed that life begins at fertilization (Table 1). The contrast of this information leaves room to that presupposes that the participants experience, somehow, the impasse presented in the beginning, which involves beliefs and moral decisions about the fate of embryos.

The analysis of the answers also showed that 44.1% of patients believe that the chances of getting pregnant through IVF are higher than 51%, and 17 (19.7%) consider that their chances are of 100% (Table 1).

Table 1. Distribution of women undergoing IVF depending on the degree of understanding about the risks and ethical questions related to the embryo

Indicative variables of understanding	N (%)
Has she been informed about the risks of multiple pregnancies in relation to baby?	
Yes	80 (84,2)
No	15 (15,7)
Has she been informed about the risks of multiple pregnancy in relation to child?	
Yes	70 (81,3)
No	16 (18,6)
Has she been informed about the risks of multiple pregnancy in relation to mother?	
Yes	77 (85,5)
No	13 (14,4)
Has she been informed about the social and family consequences of multiple pregnancy?	
Yes	60 (75,9)
No	19 (24,0)
Has she understood the risks of a multiple pregnancy?	
Yes	81 (89,0)
No	10 (10,9)
Has she agreed with the risks of a multiple pregnancy?	
Sim	81 (93,1)
Não	6 (6,9)
Would she choose embryo reduction?	
Yes	21 (22,3)
No	73 (77,6)
She considers as life beginning	
Fertilization	89 (93,6)
Fourth month of pregnancy	0 (00,0)
Emergence of the nervous system	4 (4,0)
On birth	2 (2,1)
Is she aware about the new resolution of the Federal Council of Medicine?	
Yes	45 (47,3)
No	50 (52,6)
She believes that her chances to get pregnant are	
0% - 25%	17 (19,7)
26% - 50%	31 (36,0)
51% - 75%	16 (18,6)
76% - 95%	05 (05,8)
96% - 100%	17 (19,7)

Table 2. Distribution of women undergoing IVF depending on the degree of understanding about the financial issues involved in a multiple pregnancy

Indicative variables of understanding	N (%)
Would she like to get pregnant with twins, triplets or quadruplets?	
Yes	83 (87,3)
No	12 (12,6)
Would she have financial resources to support children of a multiple pregnancy?	
Yes	93 (97,8)
No	2 (2,1)
Has some professional discussed about the financial issues of a multiple pregnancy?	
Yes	30 (31,5)
No	65 (68,4)
Would she prevent from trying to be a mother or run the risk of a multiple pregnancy?	
Yes	5 (5,2)
No	90 (94,7)

Discussion

The principle of autonomy is within the context of an ethic of respect for the person based on duty, which differs from other forms of ethical approaches focused in producing good consequences and bad consequences. While consequentialist ethics determines what is morally correct by examining the consequences of actions, the ethics of respect for people considers certain actions as correct simply because it is the duty of everyone, regardless of the consequences. According to this view, actions are right or wrong not by the consequences they produce, but by their inherent content. Some people also called it as deontological ethics, based on the duty of everyone, and they consider that the human being is respected when certain duties are observed [12].

Respect for autonomy requires more than obligations of non-interference in the decisions of people, because it includes obligations to support the capacity of others to choose autonomously, reducing fears and other conditions that ruin their ability to free decision. In this conception, respect for autonomy implies treating people in order to empower them to act autonomously, while the disregard involves attitudes and actions that ignore, insult or degrade their capacity for autonomy. So, respecting the human person necessarily passes for respecting their autonomy, and the foundation for the use of informed clinical practice and in research consent derives precisely this principle [7,15].

The TCLE aims to ensure the autonomy of the patient regarding the choice about the procedure which she will be submitted, in this case, the IVF. Therefore, the document should be easy to understand, accessible to the reader's understanding. Furthermore, the principles of revocability and temporality should be explained in the document and respected in practice [16,10]. Among the benefits of the consent process, it is possible to highlight the creation of reasonable expectations in the patient and reduction dissatisfaction with failures and complications, and, of course, making sure that their choice is conscious and autonomous [17,18].

In this research, the primary ethical issue referred to the understanding and agreement of the women interviewed for the possibility of multiple pregnancy and its consequences, the destination of exceeding embryos in compliance with the resolution of CFM and the success of the procedure [19]. However, it was observed that in the TCLE used at the Center for Human Reproduction of FMABC little is said about treatment options and complications, although the IVF procedure is well elucidated. Despite the risks inherent in the procedure are not discriminated, it is important to note that the patients who answered that they understood the explanations very well, including those related to multiple pregnancies, which can demonstrate a few points: the first is that the information may have been received by oral communication; the second is that, despite they have not been properly informed, for some other reason the patient thought that her knowledge about the subject was satisfactory. The third one, perhaps, is that the desire to get pregnant is so pressing that there is, among the patients, a lack of deeper interest about the risks to undergo such a procedure or which they might not consider as "risk", for example, the possibility of twin pregnancy.

This study showed in a direct way, how this could happen. Regarding the occurrence of multiple births, 87.3% of respondents wish to get pregnant with twins, triplets or quadruplets, although about 85% of them claim to understand the risks that multiple pregnancy can cause to their health and their children. This indicates that the desire for motherhood is so intense that emotion can overlap the reason and even to the preservation of her own body.

One option, which is legally improper but that was brought to the discussion by questionnaire, is on embryo reduction. For 77.6% of patients embryo reduction is not contemplated as an option to minimize the risk of multiple gestation and 93.8% of them life begins at fertilization. These positions, however, establish an impasse to the interviewees. If fertilization is *in vitro* and not all embryos will be implanted in compliance with CFM Resolution 2.013/13 and in respect of non-malfeasance the underlying question is: will they be committing an assault on the embryonic surpluses, which will be discarded or cryopreserved?

Despite being an inference, which can be seen from the responses of the interviewees is that the generational act by IVF itself could incur an attempt on the life of those embryos ("children") not intended for uterine implantation, given that most believe life begins at fertilization [9]. In other words: most interviewees believe that life begins at fertilization and that IVF generates viable fetuses. Thus, any other destination of these embryos than implantation in the mother's womb could be considered a form of abortion, which, for most of them (77.6%) contrary to fetal reduction, could be considered morally unacceptable. But the patients motivated by emotion and not invited to reflect do not seem to realize the paradox generated, so they do not question about the fate of embryos formed by IVF.

Additionally, 52.6% of the patients are unaware of the CFM resolution [6], i.e., they were not informed or did not seek information about the single national rule establishing limits for the procedure that they will be submitted, which again indicates that emotion and expectations may be overriding the rationally well-founded decision, and that attitudes and moral values can be in a conflicting situation.

This contradiction identified in the responses points to the need for the professional to discuss with the patient regarding the status of the embryo. The emergence of IVF by an extra uterus entity, able to survive for years if it is cryopreserved [11,19], can establish a challenge in some basics of patients – that should be discussed in order to assist them in making their decision. Besides offering the comfort of a so reflected and conscious decision, therefore autonomous, this process of discussion is critical because the way how patients notice the possible disposal of surplus embryos or their freezing can affect the approach to be adopted, limiting or not the number of eggs that will be fertilized. Not discussing these aspects can bring psychological consequences and questions to the couple during the treatment, when impulsive decisions that guided the conduct adopted can no longer be undone.

Statistically, cryopreservation generates cumulative pregnancy rates, about 31.4% after the fourth cycle [20]. Accordingly, the patient should be asked to reflect on the possibility of staying of the extra uterus embryo and on how it affects her moral values and religious beliefs, especially those related to early life. This is a way to preserve the autonomy of the patient, which is also secured, in a normative way, by Article 24 of Chapter V of the Code of Medical Ethics (CEM), which cites: *The physician shall not fails to assure the patient the exercise of the right of decide freely on their person or their welfare and to exercise their authority to limit it* [21].Thus, in IVF treatment, ensuring beneficence –for the woman herself – can conflict with the unrestricted fulfillment of their autonomy, which at desire to be mother, under an extreme emotional vulnerability, agrees with the fertilization of numerous oocytes.

The CEM also ensures, in the paragraph 1 of Article 15 of Chapter III, that, *in the case of assisted reproduction, fertilization should not inevitably lead to the occurrence of supernumerary embryos,* and in its second paragraph: *the physician should not perform medically assisted procreation with none of the following objectives: I- create genetically modified human beings; II - create embryos for research; III - create embryos for purposes of sex selection, eugenics or to create hybrids or chimeras* [21]. Therefore, there is great concern in the CFM to standardize these procedures to ensure compliance and the bioethical principles of medical ethics; however, without the awareness of physicians about conflicts that could emerge in the IVF process without a proper doctor-patient relationship and also a tool to ensure the full exercise of their autonomy by the patient, this attempt at standardization may not be effective, failing to qualify their primary target – the patient [21].

For bioethical principles are observed in relation to the patients, TCLE should fulfill its role. Our study showed that the ethical discussion was not deepened and impasses, perhaps arising from the lack of understanding of the conflict between moral values involved in the IVF process, have not been brought up before the start of treatment, even if they are key issues to meet the patient's and couple's expectations.

Thus, the analysis of the responses offered also showed that 38 patients (44.18%) believe that the chances of getting pregnant through IVF are higher than 51%. Among these, 17 patients believe their chances of pregnancy are around 100% (Table 1). It is evident that there are considerable gaps in the communication of information relating to treatment success. The IVF treatment ensures pregnancy per cycle from 20% to 30% of patients according to age, which contributes to percentage considerably lower than 50% that the patients interviewed had estimated.

An extremely worrying point detected in this study was the replacement of the doctor-patient relationship and informed consent by a "contract". This contract is similar to those used in "buying and selling" transactions of material goods. The presentation and signing of "TCLE/contract" portrays in practice the defensive vision of medicine, contrary to its primary purpose, which is the actual explanation to the patient. The merger of the consent form, whose function is to ensure the autonomy of the patient, with a contract of service, which deals with the payment, of duties and rights, is totally inadequate, since it can affect the understanding of the procedure and undermines the autonomy of the patient. Worse still: it places the patient in a state of emotional vulnerability without the option of choice. Payment must be discussed, but at another time and in another document, regardless of TCLE.

It is worth noting that ethical conflict is inherent in the IVF and it is not liable for univocal resolution, since individual religious beliefs and moral values are involved in the whole process. In such a pluralistic context, sometimes confusing, it is up to the professional dialogue with the patient, asking her to reflect on their search for truth and inner convictions. Therefore, it is essential to check whether the patient understood what was explained to her, in order to ensure smooth interaction between reason and emotion [22], when decisions are taken.

In the study it was revealed that patients are not being properly explained in the consent process and they are unaware of the conflicts inherent in the procedure. Their emotion is clearly touched on and their consciousness is obscured due to the lack of suitable clarifications provided by the professionals and the presentation of TCLE and "contract" in the same document, indicating that professionals and service are not properly prepared to deal with all moral conflicts involved in IVF treatment.

Final considerations

The study indicates that the communication of information essential to autonomous choice is still lacking, especially regarding the destination of surplus embryos – in the light of moral and religious values of each patient. From the foregoing, it appears that the TCLE is not fully written in a proper language nor addresses all aspects needed to decide on the best treatment to be adopted, since, as the destination to be given to surplus embryos there is no written or even oral discussion with the patient. The doctor should make sure that the patient is, in fact, well-informed and prepared to face both the benefits and harms that will be exposed as morally justify to herself the option adopted.

In parallel, the original idea for the TCLE to ensure freedom of choice to one who undergoes treatment or procedure should not be distorted, so that the information and clarification are prioritized. A discussion with health professionals, in short, a true and humane doctor-patient relationship cannot be replaced by simply signature of a contractual commitment term. This document, by its peculiar characteristics and importance, must be separated from any other paper that the patient has to sign – and this signature requires previously an extensive discussion on all technical, ethical and moral issues involved in the procedure.

The consent form must contain, in addition to patient identification, the name of the procedure and its technical description in lay terms, as well as possible treatment failures and complications. The destination to be given to surplus embryos should also be part of their preparation. The possibility of changes in behavior during treatment must be properly understood. It will also be necessary to confirm the authorization by the patient and the possibility of withdrawal of assumptions made at any time without any cost to the patient, followed by the signature of witnesses. However, it is essential that the question of the destination of the surplus embryos should be discussed individually with each patient and, if applicable, with their spouse, in light of their moral values and religious beliefs – given that certain relevant aspects of this discussion are not satisfactorily presented to patients, inducing them, through the desire to become mothers, to make decisions that may conflict with those beliefs and values.

Assisted fertilization is a procedure that has brought great benefits to individuals and infertile couples. However, this benefit cannot outweigh the clarification of certain issues that may even cause the refusal of patient to undergo such a procedure – as in the case of disposal of embryos. Only with full explanation of the procedure, its ethical aspects and its consequences it is that it can in fact exercise their autonomy in this matter and decide the best for themselves.

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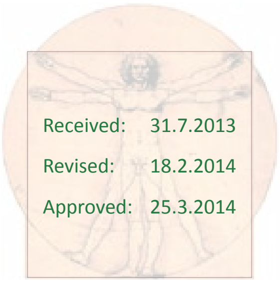
Participation of the authors

Amanda Bazzaco and Pâmela Valelongo: application of the questionnaire, wording of the article. Ivan D. Miziara and Caio P. Barbosa: guidance and revision of Article.



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Annex
QUESTIONNAIRE

Assessment of the degree of understanding on the informed consent of couples undergoing assisted reproduction techniques in the light of the new resolution of the Federal Council of Medicine

1. Have you been informed of the risks of multiple pregnancy (fetal, pediatric, maternal, social and family aspects)?

Risks ti the baby Yes ( ) No ( )

Risks to the child Yes ( ) No ( )

Risks to the mother Yes ( ) No ( )

Social and family consequences

Yes ( ) No ( )

2. Have you understood these risks?

Yes ( ) No ( )

3. Have you agreed with these risks?

Yes ( ) No ( )

4. Would you have the desire to get pregnant with twins, triplets or quadruplets?

Yes ( ) No ( )

5. Would your financial resources or from your family be able to maintain properly the needs of twins, triplets or quadruplets throughout their lives?

Yes ( ) No ( )

6. Has some professional discussed with you on financial issues of a possible multiple pregnancy?

Yes ( ) No ( )

7. Would this prevent you from trying to be a mother or run the risk of having a multiple pregnancy?

Yes ( ) No ( )

8. If more than one embryo is viable and if you could decide, would you choose the reduction of some implanted embryo, i.e., an embryo which could develop into a baby?

Yes ( ) No ( )

For you, when does human life begin?
At fertilization ( )

In the fourth month of pregnancy ( )

When there is emergence of the nervous system ( )

When the baby is born ( )

9. Are you in favor of abortion in other situations than those permitted by law (rape and maternal risk)?

Yes ( ) No ( )

10. Do you have a religion or belief?

Yes ( ) No ( )

11. In affirmative case to the previous question, what is your religion?

____

12. Do you know the new resolution of the Federal Council of Medicine that prevents any embryo reduction in case of multiple pregnancy and that limits the number of embryos implanted?

Yes ( ) No ( )

13. What do you think of that resolution?

____
____
____
____
____

14. Have you always wanted to be a mother?

Yes ( ) No ( )

15. Is the desire to have children yours or of your companion?

Yes ( ) No ( )

16. What did mean to you when you realized you cannot have children naturally?

____
____
____
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____
____

17. How do you feel towards other women who may become pregnant naturally?

____
____
____

18. What do you feel when you see a pregnant woman?

____
____
____
____
____
____

How is the relationship between you and your companion during treatment?

____
____
____
____
____
____

19. Has something changed between you both since you began to seek assisted reproduction treatment?

____
____
____
____
____
____

20. Do you believe that your chances of getting pregnant with this treatment are about:

0% - 25% (   )

26% - 50% (   )

51% - 75% (   )

76% - 95% (   )

96% - 100% (   )

21. Have you considered the possibility of adopting a child?

Yes (   )   No (   )

22. Is a biological child different from a adoptive child for you?

Yes (   )   No (   )

23. If success in assisted reproduction is not obtained, would you adopt a child?

Yes (   )   No (   )

Research article