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REPRODUCTIVE PERSPECTIVES OF FEMALE HOMOSEXUAL INDIVIDUALS

MAIN RESEARCHER

António de Pinho

MD. Resident in Obstetrics and Gynecology. Teaching attendant of Histology and Embryology

Centro Hospitalar Tâmega e Sousa (Penafiel, Porto, Portugal)

Faculdade de Medicina da Universidade do Porto (Porto, Portugal)

SENIOR RESEARCHER

Pedro Brandão

MD, MSc, EFOG. Obstetrician/Gynecologist. ESHRE Fellow in Reproductive Medicine

Instituto Valenciano de Infertilidad (Valencia, Spain)

Faculdade de Medicina da Universidade do Porto (Porto, Portugal)

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ABSTRACT

For the last decades homosexuality has gradually been more accepted by the society, especially in more developed countries. Countries have progressively open legal partnership, marriage and assisted reproduction to gay couples. With respect to female couples reproduction, both intrauterine insemination and in vitro fertilization with donated sperm are viable options. Also, the ROPA (in Spanish: Recepcion de ovócit0s de Pareja, in English: Reception of partner's oocyte), in which the oocytes of one of them ("donor" or "genetic mother") are fertilized with donated sperm and the resulting embryo is transferred to the other member of the couple's uterus ("recipient" or "gestational mother"), is an emerging technique that allows both members of lesbian couples to have an active role in procreation.

There is few information on the international scientific literature concerning the preferences of female couples regarding medically assisted reproduction and what motivates their choices. Also, concerning ROPA method, even though the first study has been published more than 10 years ago, few research has been developed so far concerning this method.

This study is part of the "Madres Mías" project, an approach to the ROPA technique - Lesbian Shared IVF, covering five main aspects of this assisted reproduction technique (1 – ethics, 2 – legislation, 3 – social, psychological and motherhood aspects, 4 – clinical and laboratory aspects). The purpose of this work – Madres Mias 3A - is to study preferences, choices and points of view of female couples in respect to reproductive treatments and the importance of pregnancy and genetics to future motherhood.

KEYWORDS

Adoption, Assisted reproduction technology, Homosexuality, Legislation, Marriage.

ACRONYMS AND ABBREVIATIONS

APA	American Society of Psychiatry
ART	Assisted reproductive techniques
DSM	Diagnostic and Statistical Manual of Mental Disorders
ENTOG	European Network of Trainees in Obstetrics and Gynecology
ICSI	Intracytoplasmic sperm injection
ILGA	International Lesbian and Gay Association
IUI	Intrauterine insemination
IVF	In vitro fertilization
PDICSS	PhD Program in Clinical and Health Services Research
ROPA	Recepcion de ovocitos de pareja (Reception of partner's oocytes)

INTRODUCTION

For the last decades homosexuality has gradually been more accepted by the society, especially in more developed countries. It was in 1973 that the American Society of Psychiatry (APA) performed its first amend to Diagnostic and Statistical Manual of Mental Disorders (DSM) regarding this matter, but it was only in 1987 that homosexuality was definitively removed from DSM and thus not to be considered a disease anymore. ^[1]

Countries have progressively open legal partnership and marriage to gay couples. The possibility of reproduction has also been gradually extended to gay couples, despite its naturally implicit difficulties, which imply the need to resort to medically assisted reproduction in most cases. Nowadays it's still not possible to sustain pregnancy without a uterus, a fact that naturally leads to an easier pathway for female couples to achieve their procreation goals. Biologically, healthy female couples only need a donated gamete to achieve pregnancy, in contrast to male couples who also need to resort to surrogacy, which is a much more complex process, implying more biological, clinical, legal and ethical concerns. ^[2]

With respect to female couples reproduction, both intrauterine insemination and in vitro fertilization with donated sperm are viable options. The former is simpler, cheaper, requires less medication and is associated with higher risks; the later, however, has higher rates of success and allows the creation of exceeding embryos which can be used in posterior treatments in case of treatment failure or desire of a second child. During the last decade, a new method has been used to allow both members of female couples to be biological mothers of the same child – the ROPA (in Spanish: Recepcion de ovócitios de Pareja, in English: Reception of partner's oocyte), in which the oocytes of one of them ("donor" or "genetic mother") are fertilized with donated sperm and the resulting embryo is transferred to the other member of the couple's uterus ("recipient" or "gestational mother"). This method allows both members of lesbian couples to have an active role in procreation. ^[3,4]

Assisted reproductive techniques are not risk-free and some concerns have been raised concerning if it would be ethical to submit a biologically fertile woman to these treatments. However, it's generally accepted that the importance of these treatments to the individual's well being highly overwhelms potential damages, given moreover that it corresponds to patient's desire. ^[5]

Since the change in many national laws, a great demand for reproductive treatments by female couples have been observed. ^[6] The vast majority of female couples that go to a fertility clinic search for a sperm donor. Nevertheless, up to 40% of the couples may also have a fertility issue. ^[7] Some studies report that the clinical background of lesbian patients who search for assisted reproduction is similar to general population, concerning medical and surgical history. ^[8] Also, the outcomes of treatments do not appear to be influence by sexual orientation. ^[9] Although the majority of the female couples do not present infertility, more than half of the patients end up undergoing in vitro fertilization instead of intrauterine insemination. ^[7] Interestingly, one study reported that more than 75% of female couples chose a "one parent only" reproductive treatment, which means that only one quarter of the patients chose to be both actively involved, either by undergoing independent concomitant treatments or ROPA. ^[10]

There is few information on the international scientific literature concerning the preferences of female couples regarding medically assisted reproduction and what motivates their choices. Also, concerning ROPA method, even though the first study has been published more than 10 years ago, few research has been developed so far concerning this method.

This study is part of the "Madres Mías" study, an approach to the ROPA technique - Lesbian Shared IVF, covering five main aspects of this assisted reproduction technique (1 – ethics, 2 – legislation, 3 – social, psychological and motherhood aspects, 4 – clinical and laboratory aspects). The purpose of this work – Madres Mias 3A - is to study preferences, choices and points of view of female couples in respect to reproductive treatments and the importance of pregnancy and genetics to future motherhood.

AIMS

The main aim of this study is to evaluate general lesbian population opinion concerning:

- Their knowledge of the various reproduction techniques,
- The importance of motherhood, pregnancy and genetics
- Their plans respecting future pregnancies

CRITERIA FOR RESEARCHERS RECRUITMENT

CRITERIA:

- Candidates must be graduated or current university students with interest on the field.

FAVORABLE ASPECTS:

- Researchers with good relations and broad networking with LGBT associations worldwide.
- With easiness to contact those associations, obtain their collaboration and reach lesbian people.
- with connections to different countries worldwide.
- From different countries

METHODS

Study Design

This is a prospective observation study based on the application of an anonymous inquiry to female people.

Reference Population

Female (biologic gender) gay

Subject Inclusion/exclusion criteria

- INCLUSION
 - o Female gay people or women mainly attracted to women
- EXCLUSION
 - o Transgender patients
 - o Patients who cannot read any of the languages of the questionnaire
 - o Patients who had already participated in this study.
 - o Patients who refuse to participate

Intervention and Follow-up

Questionnaires will be given to female people through online social networks, LGBT associations and other ways of communication.

Each person is asked to fulfill the questionnaire once and only once.

The answers will be stored anonymously.

Each researcher will disseminate the questionnaire through national and international LGTB associations and gay public through social networks and all the ways of communication available to reach that specific public.

Researchers will be asked to translate the questionnaire in their native languages or those they master in a proficient level. If needed, researchers may be asked to search for a native or proficient translator to specific languages. The inquiries may be given the choice of language they felt more comfortable, between those languages available.

The main and senior researchers were responsible for designing the initial questionnaire, the protocol, and they will actively participate and monitor all the phases of this study, they will recheck all the translated questionnaires to evaluate its likeness to the original one, they will gather all the information, process data and write the results and final report.

Collection of samples and information

Biological sample gather protocol and objective of sample collection

Not applicable, there are no biological samples. The questionnaires will be applied via an electronic platform and the answers will also be stored in an electronic database that only the main and researchers have access to.

Sample identification protocol

There are no biological samples.

The inquiries are completely anonymous and do not include patients' real or coded.

Preservation

The answers will be stored in an electronic database that only the main and senior research will have access to.

Statistical methodology

Study Variables

Outcome measures (Dependent)

Code	Typology	Description
Q2A	Categorical ordinal	Information about IUI
Q2B	Categorical ordinal	Information about IVF
Q2C	Categorical ordinal	Information about ROPA
Q3B	Categorical	Previous methods
Q4A	Categorical Ordinal	Motherhood desire
Q4B	Categorical Ordinal	Importance of pregnancy to self
Q4C	Categorical Ordinal	Importance of genetic links to self
Q4D	Categorical Ordinal	Importance of pregnancy to mother-child bonding
Q4E	Categorical Ordinal	Importance of genetic links to mother-child bonding
Q5A	Categorical Ordinal	Desire of future childhood
Q5B	Categorical	Type of method in future MAR

Other variables

Code	Typology	Description
AGE	discrete numeric	Age
NATION	categorical	Nationality
RESID	categorical	Country of residency
GENDER	categorical	Gender with which the inquired person identifies
RELAT	Categorical	Current relationship
EDUC	categorical	Educational level
Q3A	discrete numeric	Number of children

Sampling method and sample size

The snowball sampling method will be used. Thus, sample size will be dependent on the number of answers obtained.

Statistical data analysis

A descriptive analysis (numerical and graphical) will be carried out, according to the type of the variable:

- For quantitative variables, the usual summary statistics will be used (maximum, minimum and quartiles, and measures of dispersion such as the mean and standard deviation). Graphically, the data will be represented by histograms and box-and-whisker plots or bar diagrams, depending on whether the quantitative variable is continuous or discrete.

- For categorical variables, tables of frequency and proportions will be provided along with 95% confidence intervals. Graphically, bar charts will be used to represent the data.

Objectives assessment

In case comparative analysis has to be undertaken, depending on the distribution of continuous variables, parametric (t-tests) or non-parametric (Mann-Whitney test) will be used to compare continuous variables between the 2 groups. For comparison of proportions, the Chi-square test will be used. To carry out multivariate analysis, linear or logistic regression will be used, for continuous or categorical dependent variables respectively.

ETHICAL CONSIDERATIONS

This Research Project respects the fundamental principles of the Declaration of Helsinki, the Council of Europe Convention on Human Rights and Biomedicine, the UNESCO Universal Declaration on the Human Genome and Human Rights, as well as the requirements of national requirements in the field of biomedical research, as required by Organic Law 3/2018, of December 5, on Protection of Personal Data and guarantee of digital rights and bioethics and the Good Standards of Clinical Practice.

The personal data will be treated according to Regulation EU 2016/679 of the European Parliament and of the Council of April 27, 2016 concerning the protection of natural persons with regard to the processing of personal data and the free circulation of such data.

There isn't any kind of identification of the subjects, either real or coded identification, so anonymity is guaranteed.

FINANCIAL SUPPORT

No funding is expected to be needed.

If there any unexpected side costs, these will be covered by the main or senior researchers.

PUBLICATION

This study is part of the PhD thesis in Clinical Research and Health Services (Programa Doutoral em Investigação Clínica e em Serviços de Saúde - PDICSS) of the Faculty of Medicine of the University of Porto (Faculdade de Medicina da Universidade do Porto), of the senior researcher - Pedro Brandão. This PhD thesis consists of an holistic approach to the ROPA technique or Lesbian Shared IVF, a group of studies collectively known as the "Madre Mías" project. Thus, this specific study may be used to complement other studies of the PhD project and it is going to be part of its final presentation.

In addition, submission for potential publications in scientific journals, presentations at scientific events and / or publication / presentation in other social media are expected. However, it is still not possible to assert the specific journals, platforms or events

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