

Factors Influencing the Acceptance of the Gametes Donation in Côte d'Ivoire/West Africa

Ana Fatoumata Touré Écra*, Abdoul Koffi Koffi, Kacou Edele Aka, Minata Fomba, Perel Konan

University Félix Houphouët Boigny, Abidjan, Côte d'Ivoire

Email: *anaecra@yahoo.fr

How to cite this paper: Écra, A.F.T., Koffi, A.K., Aka, K.E., Fomba, M. and Konan, P. (2017) Factors Influencing the Acceptance of the Gametes Donation in Côte d'Ivoire/West Africa. *Open Journal of Obstetrics and Gynecology*, 7, 600-607. <https://doi.org/10.4236/ojog.2017.75062>

Received: November 29, 2016

Accepted: May 23, 2017

Published: May 26, 2017

Copyright © 2017 by authors and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Introduction: Africans ensure their offspring by transmitting their own genes. Even if adoption is a common thing in Africa, the biological kinship keeps its supremacy. The following study tries to identify socio-cultural factors that may influence the couples' attitude towards the gametes donation.

Methods: All female patients consulting for a childbearing desire and with an indication of an assisted reproductive technique with a third donor, were included in this longitudinal retrospective and prospective study at the teaching hospital of Yopougon and in a private clinic from 1st September 2014 to 31 October 2015. 100 couples were included. Chi square test was used for statistics data. The following factors were analyzed: age, sex, religion, profession, anterior procreation, existence of a common child, infertility duration. **Results:** Only the age had a significant link with the egg donation refusal rate.

Conclusion: This work makes it possible to foresee that Africans have the same conception of procreation because one finds this desire of childbearing in all the layers of the society.

Keywords

Gametes Donation, Acceptability, Factors, Côte d'Ivoire, Africa

1. Introduction

After the advent of *in Vitro* Fertilization (IVF) in the late 1970s, which allowed couples considered as sterile to procreate, the donation of gametes has given another shape to the individual infertility linked to a failure of the gametes of an individual.

While all these methods have definitely bridged couples in industrialized countries, in developing countries where the chain of generations necessarily passes through the blood chain, these reproductive techniques with the gametes donation really pose an ethical problem in terms of “the duty to the clan”.

The African ensures is off spring by transmitting his own genes. Even if adoption is common in Africa, “biological” parentage still retains its acclaim.

Studies conducted in Nigeria have proved once again that Africa is profoundly concerned about the genetic aspect of the gametes donation [1] [2] [3].

It was important to know the influence of the epidemiological context of the couples which conditions the perception of this ART (assisted reproductive technologies) with the gametes donation in order to help practitioners to talk about the subject with their patients according to their socio-cultural particularities and raise the last locks behind which the couples are often locked up.

2. Female Patients and Methods

It is about a longitudinal retrospective and prospective study which was held from 1st September to 31st October, for 14 months in the outpatients department of the Obstetric-Gynecology service of Yopougon teaching hospital and in a private clinic in Abidjan.

The survey concerned female patient’s consulting for a childbearing desire and their partners. Only, the infertile couples needing an ART with gametes donation were selected.

We obtained the couples’ written informed consent.

The selection criteria enabled to keep 100 couples for the study.

The informations were collected from the medical records of the patients consulting in the Obstetric-Gynecology service and were registered on a survey form.

The following parameters were analyzed:

- Sex;
- Age;
- Profession;
- Religion;
- Number of children in common;
- Number of children born of a prior union;
- Duration of infertility.

3. Data Processing

All data were processed under the software of the epidemiologic analysis EPI INFO7. For statistical test, we used the Chi square test, and p value less than 0.05 was considered statistically significant.

3.1. Epidemiology

See **Table 1**, **Figure 1**, **Figure 2**.

3.2. Acceptability

In the tables below, the acceptance rates of the gametes donation procedure are represented in percentages according to the factors indicated in the chapter dealing with methodology (**Tables 2-5**).

Table 1. Distribution of couples according to the type of ART.

TYPES OF ART	NUMBER	PERCENTAGES
Egg donation	63	63%
Sperm donation	33	33%
Embryo donation	4	4%
Total	100	100%

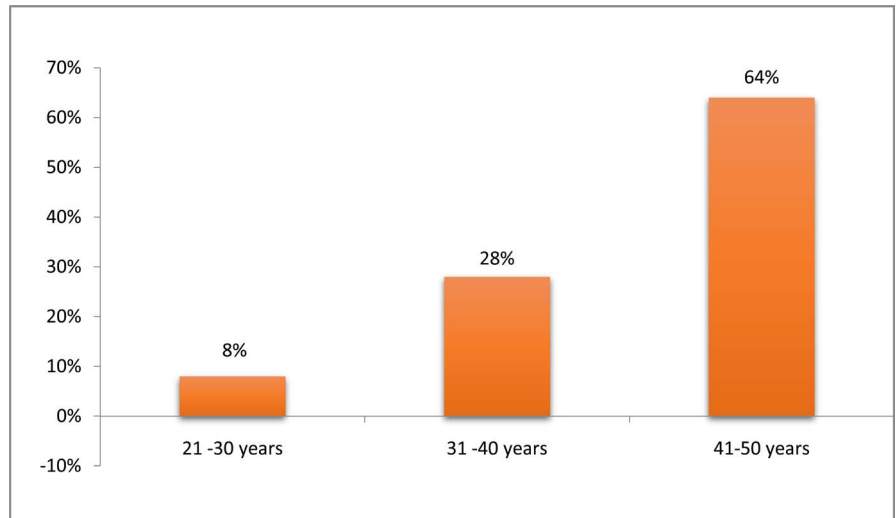


Figure 1. Age of the women. The average age of the women was 41 years \pm 64 with extremes of 21 years and 50 years.

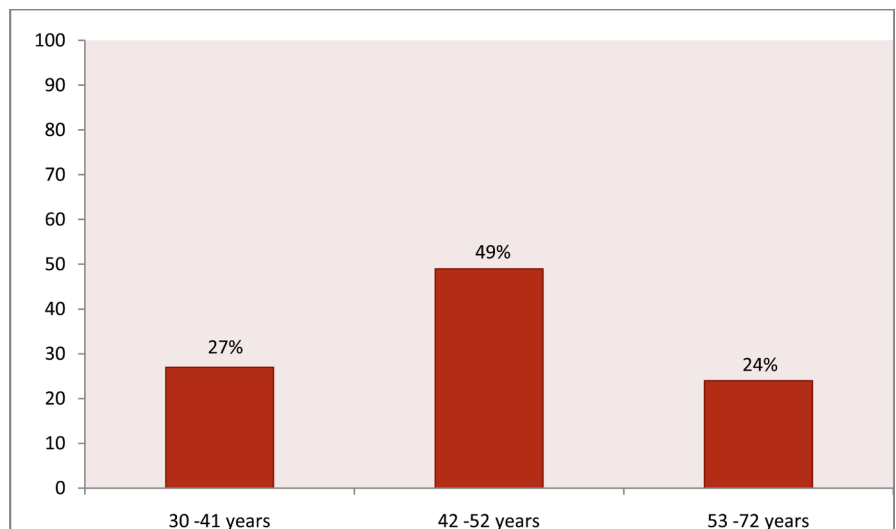


Figure 2. Age of the men. The average age of the men was 46.5 years \pm 7.3 with extremes of 30 years and 72 years.

Table 2. Acceptability.

	MEN	WOMEN
Acceptance	82	89
Refusal	18	11
Total	100	100

Table 3. Factors influencing decision in men.

Religion	Muslim 50%	Christian 60.9%	Animist 100%	p value 0.37
Profession	Informal 52.6%	Civil servant 52.6%	Liberal 59%	0.87
Age (years)	30 - 41 85.7%	42 - 52 52.4%	53 - 72 40%	0.03
Previous paternity	Yes 81.6%	No 82.3%		0.06

Table 4. Factors influencing decision in women.

Religion	Muslim 57.7%	Christian 71.7%	Animist 100%	p value 0.30		
Profession	Informal 74.4%	Civil servant 60%	Liberal 100%	Student 100%	Unemployed 100%	0.20
Age (years)	30 - 41 33.3%	42 - 52 100%	53 - 72 57.1%			0.02
Previous maternity	Yes 89.2%	No 88.8%				0.06

Table 5. Factors influencing decision in couples.

Sex	Men 82%	Women 89%	p value 0.98	
Duration of the infertility (years)	<5 66.6%	5 - 10 78.4%	>10 82%	0.37
Child in the couple	Yes 76.9%	No 79.7%		0.07

4. Debate

The interest of this study is that it allows to understand what will motivate the couples in their decision to accept or not the gametes donation.

Many studies have explained the reasons why the couples were reserved regarding the gametes donation, but socio-cultural and economic factors were not been taken into account.

4.1. Epidemiological Aspects

Even if modernism has led African women to reduce the number of their children to a more reasonable proportion, it's clear that that it has not alleviated the need of procreation.

African women believe that they can still as long as they have menstruation.

This vision is relayed by traditional medicine where the menses condition the delivery of a treatment.

For the young women in the sample involved in the gametes donation, these are mainly sperm donation.

In both sexes, the civil servants are the most numerous. The teaching hospital is the flagship of public facilities. There is a good proportion of people of the middle-class people. The civil servants have a regular monthly income enabling them to forecast their expenses.

The muslim and Christian religions are the main religions of Côte-d'Ivoire with respectively 42% and 34%, are worth approximately according to the last population census in 2015.

In our sample, 74% of the couple had no children in common.

This work helps us to understand the pressing need for procreation at an age that is sometimes so advanced (**Figure 1**).

The desire of a child is also a reflection of the image of the couple that African society does: A couple really does exist, or at least is legitimate only by the presence of a child within this couple [4] [5]

Most couples in our study have a long duration of infertility.

That is certainly due to the long medical cursus according to many studies [6] [7] but to the high cost of techniques which obliges the couple to realize their desire after many years of saving money.

Indeed, an attempt of IVF amounts to 1,000,000 F CFA (1520 euros) preferential tariff applied in the public hospital structures against 3,000,000 FCFA (4560 euros) in the private clinics.

As for the analysis of the profession of patients, we can evaluate their incomes that do not exceed 400,000 CFA francs (609.79 euros) per month

Unfortunately, this delay is attributable to the practitioners who do not know the level of the medical technical support of their countries. Even this year, during scientific meetings, some physicians were surprised to know that these artificial reproductive techniques were available in Côte-d'Ivoire.

4.2. Acceptability

Nothing can stop couples in their plan to procreate.

In the African traditional thought, the child represents everything. It's is life and therefore a blessing and everything naturally converges towards him. The child symbolizes not only the continuity of life, or perpetuation of the human species, but also the clan or the lineage.

In fact, we identified the socio-demographic and anthropological factors that can influence the acceptability of the gametes donation.

Our findings are as follows: gender, religious affiliation, socio-occupational status, duration of infertility, whether pre-existing or existing, did not affect the provision of couples to accept gametes donation (**Tables 3-5**).

Adherence to procreative techniques with gametes donation is very important in couples (over 80%) (**Table 2**).

The only factor that influenced acceptability in the sense of refusal was age: less than 30 years for women, and more than 51 years for men.

Young girls refused the egg donation because they experience infertility as an injustice first, then they cannot understand that as young, their reproductive or-

gan is already failing, and do not want to believe in diagnosis. This is often in fact a denial of their infertility.

For them, only older women cannot procreate. This refusal is due to an optimism: they are still at childbearing age.

As far as men are concerned, culturally in Africa, it is considered that when a man has a child, it also belongs to the woman. Therefore the man cannot accompany his partner in the quest for what she is supposed to possess, especially since the steps before the completion of this procreative project are complex and costly.

This is the reason why elderly men have refused to donate gametes since at this age they are already mostly fathers.

Nevertheless, the tables show that the need to feel father is not negligible up to 50 years, because at this age 40% accept the donation method (**Table 3**).

As for religion, despite the firmness of the high catholic hierarchy on one hand, and the restrictions formulated by some religious authorities on the other we note that religion has not influenced the acceptability of the gametes donation, because the African remains very instinctive regarding procreation.

Monotheist religions are considered as imported religious [8] because, originally there was our ancestor's religion. Here, Africanity first manifests itself in the behavior of couples.

The African is first human before being spiritual, with all his impulses, his instincts.

But what do religions really say about the ART?

Regarding ART perception by the religious, the answers vary from one religious leader to the other.

The position of the Catholic Church is radical. It is completely opposed to any artificial reproductive technique. Although sterility is a hardship, it's possible to solve the lack of procreation by leading a meaningful social life and having relational fecundity.

For Judaism, although the Torah has well-established opinions, rabbis have a certain freedom to interpret the scriptures, so the answers to the questions vary according to the religious representative to whom they are addressed.

Concerning Islam, the artificial insemination and *In Vitro* Fertilization (IVF) are allowed, if the couple is heterosexual, married and in a legal framework wedding, with the husband's gametes.

Like the religions mentioned above, Protestantism is not on the fringes of the debate on reproductive techniques. It considers that the personal responsibility of the believers must guide their choice. Most of the techniques are authorized including donations of sperm, egg and embryo. The only formulated restrictions are that these techniques must only serve a heterosexual and married couple. [9] [10] [11].

The childbearing desire is cultural for Africans and surpasses all beliefs. With the scientific progress, we realize that procreation or reproduction is rather conferred by the pregnancy, which is visible, than by the genes. Therefore, the social

and communal consideration of childbearing is more important than that of the individual himself. It is society which gives the stamp which attests that the individual is fertile.

The taboo surrounding sex, in general, and procreation in particular, means that donation does not disturb couples in the search for parenthood.

5. Conclusions

Nowadays, infertility is a real public health problem. According to the world Health Organization (WHO), 15% to 30% of couples in developing countries are affected by this problem, compared to 5% to 10% in developed countries.

In developed countries, the ART has enabled many couples to have children, while in Africa where couples are the most affected by this emerging phenomenon which attracts less political authorities, the ART is less known to most of the populations. That is the reason why like some patients suffering from pathologies such tuberculosis, HIV/AIDS infection, and diabetes, who benefit lower-cost therapy. It is important for health authorities to elaborate a national prevention program against the couple's infertility because infertility is borderless, and it affects all socio-professional strata.

In addition to the lack of information on the ART and the medical technology which is failing, one of the major difficulties in the practice of ART in Africa remains the high cost of the gametes donation. The acceptance of the gametes donation in and of itself doesn't generally constitute an obstacle. Succeeding in such a project requires the involvement of various health authorities, religious guides, media and private insurances.

Conflict of Interest

Authors have no conflict of interest to declare.

References

- [1] Adesiyun, A.G., Ameh, N., Avidime, S. and Muazi, A. (2011) Awareness and Perception of Assisted Reproductive Technology Practice among Women with Infertility in Northern Nigeria. *Open Journal of Obstetrics and Gynecology*, **1**, 144-148. <https://doi.org/10.4236/ojog.2011.13027>
- [2] Nana, P.N., Wandji, J.C., Formulu, J.N., M'Bu, R.E., LEKE, R.J.I. and Woubinwou, M.J. (2011) Aspects psycho-sociaux chez les patients infertiles à la maternité principale de l'hôpital central de Yaoundé, Cameroun. *Clinics in Mother and Child Health*, **8**, Article ID: C100601.
- [3] Onah, H.E., Agbata, T.A. and Obi, S.N. (2008) Attitude to Sperm Donation among Medical Student in Enugu, South-Eastern, Nigeria. *Journal of Obstetrics and Gynaecology*, **28**, 96-99. <https://doi.org/10.1080/01443610701811928>
- [4] Binet, C. and Gastineau, B. (2008) Mariage, fécondité et autonomie à Madagascar. *Autrepart, revue de sciences sociales au sud*, **3**, 43-56.
- [5] Le père ISSOMO MAMA P. (2015) La famille vu d'Afrique: réinventer le sens de la fécondité. <http://blog.jeunes-cathos.fr/2015/10/13/>
- [6] Nzau-Ngoma, E. (2010) Itinéraire thérapeutique de la femme à la recherche des soins d'infertilité à Kinshasa. Publications des cliniques universitaires de Kinshasa.

- [7] Pambou, O., Silou, J., Mokondjimobe, E., Lolo, F. and Para, H.J. (2013) Parcours de la femme dite stérile en milieu africain: Le cas de BRAZZAVILLE. *Médecine d'Afrique Noire*, No. 6002, 65-69.
- [8] Pourtier, R. Les territoires des religions en Afrique: Enjeux et acteurs. Table ronde: Aires et frontières religieuses en Afrique.
- [9] Fortier, C. (2010) Le droit musulman en pratique: Genre, filiation et bioéthique. *Droit et cultures*, **59**, 15-40.
- [10] Gürtrin, Z.B., Inhorn, M.C. and Tremayne, S. (2014) Islam and Assisted Reproduction in the Middle East: Comparing the Sunni Arab World, Shia Iran and Secular Turkey. In: Brunn, S.D., Ed., *The Changing World Religion Map*, Springer, Berlin, 3137-3153.
- [11] Mathieu, S. (2012) Religion et Assistance Médicale à la Procréation. *Sociologie*, **3**, 267-281. <https://doi.org/10.3917/socio.033.0267>



Submit or recommend next manuscript to SCIRP and we will provide best service for you:

Accepting pre-submission inquiries through Email, Facebook, LinkedIn, Twitter, etc.

A wide selection of journals (inclusive of 9 subjects, more than 200 journals)

Providing 24-hour high-quality service

User-friendly online submission system

Fair and swift peer-review system

Efficient typesetting and proofreading procedure

Display of the result of downloads and visits, as well as the number of cited articles

Maximum dissemination of your research work

Submit your manuscript at: <http://papersubmission.scirp.org/>

Or contact ojog@scirp.org