Medically assisted procreation : a new legal framework to overcome infertility in Morocco in the context of energy optimization

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Abstract. After more than a quarter of a century of the practice of medically assisted procreation (MAP) in Morocco in the absence of a legal framework, the Moroccan legislator passed Law 47-14, in April 2019, to make up for the considerable delay in the field of medically assisted procreation. Through this research work, we aim to explore the field of application of this law and demonstrate its contributions to the lives of couples aspiring to motherhood and fatherhood in order to achieve their parenthood project within the couple. From a methodological point of view, this research is based on the qualitative analysis of semi-directive interviews conducted with infertile couples having recourse to (AMP) and practitioners of this medical technique. One of the key findings of this work is that there are major differences between the provision of medically assisted reproduction services in the public and private sectors, and between insured and uninsured couples.

Keywords: ART law, Infertility, Maternity, medically assisted procreation, the desire to have children.

1 Introduction

Medical assistance to procreation (ART) or medically assisted procreation (MAP) [1]is a set of medical techniques on which infertile couples in Morocco bet to realize their kinship project within the couple.

[1]Both names are most used to describe medical techniques that help infertile couples conceive outside the natural process.

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Infertility affects 12% of couples in Morocco. [2] the use of medically assisted procreation is increasing in Morocco, with about 4,000 attempts at in vitro fertilization performed each year, apart from the number of couples registered in the waiting list at fertility centers.

After several attempts to conceive by the normal way, aspiring motherhood and fatherhood in Morocco are betting on the new reproductive techniques of medically assisted reproduction (ART) to increase their chances of starting a family and facing social hazards, taking advantage of scientific progress outside the natural biological process.

After more than a quarter of a century of the practice of ART in Morocco in the absence of a legal framework, the Moroccan legislator adopted Law 47-14 in April 2019 to compensate for the considerable delay in the field of medically assisted procreation.

A law that also highlights the changing nature of kinship and the contemporary family, in terms of recourse to ART, marked by the constant evolution of the use of this medical technique in order to remedy the defects of infertility and respond to the immense desire for children [3]. Law 47-14 comes in a social and legal context, reflecting the occurrence of a transition from normal biological procreation to medical assistance outside the body.

By combining the legal framework for MAP in Morocco with energy optimization efforts, it is possible to address both the reproductive needs of individuals and couples and promote environmental sustainability. This integrated approach ensures that access to MAP treatments is provided within a framework that considers the environmental impact and strives for energy efficiency.

This law appeared in a Moroccan socio-medical context where the desire for children is constantly expressed [4]. Similarly, the establishment of new centres for medically assisted procreation continues to increase in parallel with the growth in the number of infertile couples wishing to establish kinship relationships and the formation of a family.

The problem of infertility in Morocco affects between 105% [] and 12% of couples []6 aspiring to motherhood and fatherhood. However, fertility centers can only perform about 4,000 in vitro fertilization (IVF) attempts each year in Morocco [7], for 32.5 million inhabitants. [8]

2 According to a survey conducted in 2015 by the Averty panel and the Moroccan Society of Reproductive Medicine. The survey included 1034 couples aged 25 to 45 and covered 40 cities in Morocco's administrative regions.

[3]Which affects about 10% of couples according to estimates from the Ministry of Health.

[4]Second national conference of the Moroccan association of aspirants to maternity and paternity MAPA, May 15, 2015 at the Faculty of Medicine Casablanca in the presence of the representative of the Ministry of Health.

[5] 10.6% of married couples experience infertility according to the results of the National Population and Family Health Survey conducted in 2018. This figure was presented by officials of the Ministry of Health during the holding of the 7th conference of the Moroccan Association for Maternity and Paternity on May 29, 2022 in Casablanca.

[6] According to a survey conducted in 2015 by the Averty panel and the Moroccan Society of Reproductive Medicine. The survey included 1034 couples aged 25 to 45 and covered 40 cities in Morocco's administrative regionswww.smmrmaroc.com/ Study on infertility problems in Morocco, in 2016, on a sample of 1,34,000 cases aged 25 to 45.

[7] Perception study around infertility in Morocco, "Public authorities and health professionals facing infertility", Global Santé, July 2020.

[8] Ibid (P27)

Through this research work, we aim to explore the field of application of the ART law and demonstrate its impact on the evolution of the practice of medically assisted procreation in Morocco and its contributions on the lives of couples aspiring to motherhood and fatherhood.

Thus, this research focuses on the experience of infertile couples using medically assisted procreation (ART) techniques in the cities of Casablanca and Rabat in Morocco.

The aim of this research is to collect couples' representations of their attempts at medically assisted procreation. A journey marked by the expectations of the couple, their strategies and experiences in order to achieve a transition from the status of couples to that of parents.

This work also attempts to demonstrate the strengths and possible limitations of ART in improving the quality and accessibility of infertility management services for couples.

Indeed, this article is important insofar as it brings a new knowledge relating to the perceptions of practitioners of reproductive medicine and infertile couples around the adoption of a law on the social life of people aspiring to a kinship project.

To date, the field of sociological research in Morocco has not yet been interested in evoking the impact of the adoption of the law of medically assisted procreation (ART) on the experience of infertile couples using this medical method.

The choice of this subject comes in a context where the Moroccan legislator has framed, for the first time, the practice of medically assisted procreation by the ART law, bearing the number 47-14 approved in April 2016 and unanimously adopted by the House of Representatives at second reading, on February 12, 2019, after having sparked a legislative debate that lasted more than two years. [9]

This law fills a legal vacuum, which has lasted since the 1990s when the first assisted reproduction techniques were carried out in Morocco [10]. Since then, the medical scene has seen the establishment of several fertility centers offering services to infertile couples. This law comes in response to the demands of infertile couples and in reactivity with the social changes that Morocco is experiencing in terms of procreation, As a result, the Moroccan legislator links the filiation of children from ART to their parents on the basis of the use of their own gametes.

Before the adoption of this law, infertility was not considered a disease, while the World Health Organization (WHO) considers infertility as a pathology, since 2009. Similarly, sexual and reproductive health (SRH) is part of the Millennium Development Goals through MDG 5 entitled "Improve Maternal Health". [11]

Among the criticisms made of this new law, the lack of measures to manage the modalities of medical care.

The legal framework of the GPA was not a priority in Morocco. Health authorities have devoted considerable effort to reducing maternal mortality and morbidity through the expansion of antenatal and obstetric care and family planning services. Measures are taken to achieve reproductive health goals without paying attention to infertility. This had led to a

[9] 1 Official Gazette number 6766/ Law on Medical Assistance to Procreation; Dahir n°1-19-50 of rejeb 1440 (March 11, 2019)
[10] Ministry and mapa
[11] Sexual and Reproductive Health Strategy in Morocco, Population Department, Ministry of Health, 2022

large difference between the availability of obstetric care and family planning services and the availability of infertility management services, including ART techniques. [12]

Currently, Law No. 47-14 recognizes infertility as a pathology, it defines the principles of organization of medically assisted procreation, also sets the conditions for its use and subjects the health institutions concerned to the obligation to have accreditation for the use of these techniques.

Health professionals say they reject several provisions of this law and call for its revision. For them, it is a text that makes it difficult to practice MPA techniques in Morocco; According to the professionals we have interviewed on this subject, there are more urgent legal measures, such as the opening of the practice of insemination that has not been respected by the legislator, under the threat of the risk of eliminating the practice of this technique in Morocco [13]. Similarly, they claimed the need to replace the concept of "pathology" with "disease" to ensure full recognition of infertility as a disease in the text of the law.

According to the first results of this work, people using ART in Morocco are especially childless and sterile couples, they are in their majority socially and economically from the middle class and disadvantaged.

One of the striking results of this work is that there are strong differences between the provision of medically assisted reproductive care between the public and private sectors, between insured and non-medically insured couples. However, the desire to be parents is not conditioned by socio-economic category.

Participants in this research mentioned that the laws do not offer a comprehensive coverage of the expenses of ART, which is the first barrier on the way to infertility care because of the high cost of treatments and therapeutic solutions. The cost of a single attempt per menstrual cycle, in the private sector, varies between 25,000 and 45,000 Dirhams. [14]

To date, infertile couples are demanding the rapid implementation of implementing texts, which have not seen the light of day, while the GPA is retained at the level of the objectives of sustainable development. They stipulate that by 2030 they will ensure universal access to sexual and reproductive health care services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes.

The first results show the importance of the implementation of the implementing texts of the said law to improve the accessibility of couples suffering from infertility in the service of

[12] Management of infertility of the couple, practical guide, Ministry of Health in Morocco, 2016 edition
[13] Conference organized by the Citizen Collective for Kinship Rights (CCDP) on June 22, 2016. The collective created after adoption, after Adoption of this law, in April 2016 https://telquel.ma/2016/06/27/des-gynecologues-appellent-a-considerer-linfertilite-comme-une-maladie-au-maroc_1503534
[14] The memorandum sent by the Moroccan Association of Aspiring Motherhood and Paternity, MAPA, to the Head of Government and Minister of Health, in 2016, in the form of a statement of demands, which includes details on the situation of couples who live in the situation of sterility or fertilization difficulties. Through this memorandum, MAPA calls for taking into account the needs of aspiring maternity and paternity and alleviating the suffering that further complicates the lives of infertile couples due to the lack of medical coverage facilitating access to care related to medically assisted procreation. The association calls for an end to the rejection of medical records by insurance companies (mutuals), whether in the public sector or in the private sector.

ART and strengthen the quality of care for infertile couples by taking into account the evolution of ART practices and the socio-cultural context.

Interviews show that citizens in rural and urban areas do not benefit from the same offer of care. [15] Reproductive health based on medically assisted reproduction is no exception. As infertility care is not widespread across the country, access to ART continues to widen the geographical gap between patients in large and small cities. [16] In addition, infertility treatments are almost absent in rural areas. [17]

As a result, the three public fertility centers have not been able to meet the needs of all infertile couples across the kingdom, due to the lack of long waiting lists, the permanent availability of all materials, consumables and human resources sufficiently trained to handle the large number of cases.

Taking this reality into account, infertile couples are forced to travel to specialized infertility centers and laboratories in the private sector. The goal is to carry out analyses, treat oneself, even make simple diagnoses. This displacement is far from being qualified as medical tourism related to medically assisted procreation that several countries are experiencing. [18]

This displacement of cities and villages of residence to the large agglomerations of Morocco, is not without negative impact. The majority of these centers are centralized in the Rabat and Casablanca axis. [19]

These displacement constraints, in addition to increasing the moral burden on infertile couples, also increase their financial expenses for housing and food during their care stay, which lasts between 8 to 15 days in the cities of fertility centers. In the same way, this displacement has an impact on energy consumption and the natural resources of our environment. Couples who do not have the possibility to stay near fertility centers they are obliged to make shuttles from their cities, villages of residence during the days of treatments. [20] This trip, in most cases, is done using a car, personal or rental.

In Morocco, the transport sector consumes 38% of the country's final energy, with a dependence on fossil fuels of 99% and accounts for 23% of greenhouse gas (GHG) emissions.21 However, the use of cars remains a means of transport for the infertile couple to avoid the stress related to the use of public transport [22]. This is also part of the strategies

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[15] Ministry of Health, National Population and Family Health Survey (ENPSF 2011), Rabat, December 2012, p.138.

[16] The National Plan for Medically Assisted Procreation, 2020-2030; Population Directorate, Family Planning Division, Family Planning Programming and Activities Service. Ministry of Health and UNFPA. (P13).

[17] Global Santé Radius and MAPA Association, Study: Public authorities and health professionals facing infertility - Perception study, July 2020 https://global-sante.com/?r3d=les-pouvoirs-publics-et-les-professionnels-de-la-sante-face-a-linfertilite

[18] Virginie Chasles and Marion Girer, "Medical tourism and reproductive health: the example of surrogacy in India", Francophone review on health and territories [Online], Tourism, Mobilities and Health, published online on October 25, 2016, consulted on May 24, 2023. URL: http://journals.openedition.org/rfst/514; DOI: https://doi.org/10.4000/rfst.514

[19] According to the Moroccan College of Fertility - CMF, Morocco has only 17 In Vitro Fertilization – IVF centers, 16 of which are owned by private clinics. This number remains very low compared to the needs of the Moroccan population and in comparison with the rest of the continent (Tunisia 12 centers for 7 million inhabitants, Egypt 250 centers). https://global-sante.com/?r3d=les-pouvoirs-publics-et-les-professionnels-de-la-sante-face-a-linfertilite

[20] Virginie Chasles, "Moving to be treated: an expanding mobility, generally called "medical tourism"", Géo confluences, *February 2011.http://geoconfluences.ens-lyon.fr/doc/typespace/tourisme/TourScient2.htm*

[21] https://www.mem.gov.ma/Pages/secteur.aspx?e=3&prj=47

[22] ITF "Decarbonising Transport in Morocco: Some Ways Forward", (2021), International Transport Forum Analytical Report, No. 89, OECD Publishing, Paris.

mobilized by the couple to keep their privacy when they need to make stops adapted to the schedules of the injection.

To this end, this care behavior has an impact on the environment in terms of increasing the bill for the use of diesel.

Several studies have confirmed that the car is a polluting mode of transport in terms of spreading particles harmful to human health and the planet through global warming [23]. The frequent travel of patients in search of medical care, including infertile couples, reveals a problem where social, medical and energy resources are mixed.

Undoubtedly, these trips contribute to energy waste, which could have an impact on the planet and increase the bills of patients.

In rural areas, infertility treatments are almost absent. Infertile couples are forced to travel to urban centres for care and treatment, or even for simple diagnoses.

This energy waste seems to be avoidable by the adoption of government measures targeting the implementation of infertility care at the local and local level.

2 Methodology

Methodologically, this research is based on the qualitative analysis of semi-structured interviews conducted with infertile couples using ART techniques, on the cities of Casablanca and Rabat and health professionals.

The interviews made it possible to collect information around the care of infertile couples at the level of health care structures as they highlighted the importance of developing regulations through texts and implementing decrees in order to implement Law 47-14 legislating the practice of ART in Morocco.

An ethnographic approach was adopted to understand the representations of infertile couples. In this regard, observation of WHATSAP groups and infertile couples discussion groups helped to gather information around the topic.

3 Discussion

In Morocco, infertility is becoming more and more a health problem that encourages the infertile couple to consult and request care including medical techniques of medically assisted reproduction (ART).

Infertile couples in Morocco are betting on ART which gives a new impetus to motherhood and fatherhood to cope with the problems of infertility, acquire a social status and enjoy a long-awaited parenthood within the couple. 35% of infertile people in Morocco have been

[23] Not to mention the other impacts including professional absenteeism to get treatment.

expecting a child for more than 3 years and more than a third of infertile people cannot talk about it to those around them. [24]

The consequences of infertility-related problems are severe: nearly half suffer from depression and many mention marital conflicts and the risk of divorce. [25]

The lack of full coverage of the expenses of the ART due to the lack of non-recognition of the medical acts used in the management of infertility. This constitutes the first barrier on the way to ART which forces couples either to abandon therapy and their maternity project, or to go into debt or give up their property to carry out their project.

As a result, infertile couples without social security or health insurance are waiting their turn on the waiting lists of the 3 public fertility centers in the cities of Rabat, Marrakech and Oujda continues to increase. [26]

Thus, aspirants to motherhood and paternity continue to pay, at their own expense, for all care and therapy, starting with the first examinations. The cost of a single attempt per menstrual cycle, in the private sector, varies between 25,000 and 45,000 Dirhams. This budget differs according to the nature of the infertility, the scientific technique used: artificial insemination or in vitro fertilization and the age of the couple. [27]

In Morocco, access to ART care is not guaranteed in all Moroccan regions. [28]The difficulties related to geographical accessibility to infertility care, is considered insufficiently democratic in view of the chances of aspiring motherhood and paternity.

In rural areas, infertility treatments are almost absent. Infertile couples are forced to travel to urban centres for care and treatment, or even for simple diagnoses. They go there after traveling hundreds of kilometers to stay often in hotels, which increases their financial burden.

In addition, all centers and laboratories are centralized in the Rabat, Casablanca and Marrakech axis. Despite the creation of public centres in Rabat, Marrakech and Oujda, these services remain insufficient to meet the large numbers of requests from couples suffering from infertility due to a lack of the necessary equipment and sufficiently trained human resources to handle the large number of cases. [29]

Indeed, government authorities seem to be invited to promote the provision of local or regional care with a view to reducing costs and expenses related to energy resources throughout the process of medically assisted procreation.

[24] Study on the problems of infertility in Morocco, the Moroccan Association of Reproduction (SMMR) June in 2015. www.smmrmaroc.com/ Study on the problems of infertility in Morocco, in 2016, on a sample of 1,34,000 cases from 25 to 45 years old.
[25] Ibid
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4 Conclusion

Among the first conclusions of the work of the exploration of the field of this work, is that despite the adoption of a framework law on medically assisted procreation (ART), infertile couples still experience the strong differences between the offers of care between the public and the private, between insured and non-medically insured couples, which highlights the inequalities of opportunities in the face of medically assisted procreation.

The lack of full coverage of ART expenses is the first barrier on the road to ART as infertility becomes more and more a health problem that encourages the infertile couple to consult and seek medically assisted procreation.

In Morocco, access to ART care is not guaranteed in all Moroccan regions. In rural areas, infertility treatments are almost absent. Infertile couples are forced to travel to urban centres for care and treatment, or even for simple diagnoses. They go there after traveling hundreds of kilometers to stay often in hotels which increases their financial burden.

As a result, infertile couples are forced to abandon therapy and their maternity project, either to go into debt or to give up their property to carry out their project.

In order to achieve a quality of care for infertile couples at a lower cost, it seems important to implement solutions based on the reduction of the moral, financial and energy burden related to travel. The goal is to minimize the indirect costs associated with regional travel.

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