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### Original article

# What influences oocyte donation when there is no financial compensation?



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#### ABSTRACT

**Aim:** To evaluate the influence of factors such as age, education level and previous treatment for infertility in the decision to donate or receive eggs.

**Methods:** Patients visiting our service for the first time answered the question: “Would you donate or receive eggs?”. We assessed whether the inclination to donate or receive was related to age, level of education and the previous unsuccessful treatment for infertility.

**Results:** 313 patients were included and most (56.9%) said they would donate eggs while only 34.5% would receive a donation. When giving and receiving were evaluated jointly we observed a positive correlation between them (Pearson correlation:  $r=0.537$ ,  $p<0.01$ ). Patients that underwent previous treatments for infertility were significantly more prone to egg donation (63.4% yes vs. 36.6% no,  $p<0.05$  vs no previous treatment group), but not to receive (41.8% yes vs. 58.2% no). In high and low levels of education most patients were in favor of donation (55.4% and 61.3%, respectively), but against the idea of receiving (33.9% and 37.5%, respectively). There was no significant differences between groups. The age of the patients (< 35 years old or > 35 years old) did not influence the will do donate (58.2% and 56.4% respectively) or receive eggs (36.9% and 33.0%, respectively).

**Conclusions:** Our results help understand the factors that may influence the decision to participate in an egg-sharing scheme. We could speculate that patients who have previously undergone unsuccessful treatments are more open to egg-sharing, despite their age or educational background. It would also be relevant to investigate the psychosocial reasons that make couples more willing to donate eggs than receiving.

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## O que influencia doação de óvulos quando não há compensação financeira?

### R E S U M O

#### Palavras-chave:

Doação de oócitos

Infertilidade

Fertilização in vitro

**Objetivo:** Avaliar a influência da idade, grau de escolaridade e tratamento anterior na decisão de doar ou receber óvulos.

**Pacientes e métodos:** Mulheres atendidas em nosso serviço responderam à pergunta: “Você doaria ou receberia óvulos?”. Avaliou-se a concordância de aceitação de ovodoação ou ovorecepção com a idade, o grau de escolaridade e tratamento anterior para infertilidade.

**Resultados:** Foram incluídas 313 pacientes e a maioria (56,9%) respondeu que doaria óvulos enquanto apenas 34,5% receberiam. Houve correlação positiva entre doação e recepção ( $r = 0,537$ ,  $p < 0,01$ ). Pacientes submetidas a tratamento anterior de infertilidade se mostraram significativamente mais propensas à doação (63,4% sim vs 36,6% não,  $p < 0,05$  vs sem tratamento anterior), mas não a receber (41,8% sim vs 58,2% não). Em níveis altos e baixos de escolaridade a maioria dos pacientes se mostrou a favor da doação (55,4% e 61,3%, respectivamente), mas contra a ideia de receber (37,5% e 33,9%, respectivamente), não houve diferenças significativas entre os grupos. A maioria das pacientes com menos ou mais de 35 anos de idade doaria (58,2% e 56,4%, respectivamente), mas não receberia (36,9% e 33,0%, respectivamente).

**Conclusões:** Nossos resultados são relevantes para entender os fatores que podem influenciar na decisão de participar em um esquema de partilha de óvulos. Poderíamos especular que pacientes previamente submetidas a tratamentos mal sucedidos são mais abertas à ovodoação, apesar de sua idade ou formação educacional.

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## Introduction

Egg sharing refers to a scheme in which a patient who is undergoing in vitro fertilization (IVF) treatment anonymously donates a portion of her eggs for an unknown recipient. In return, the woman who is receiving the oocyte grants to fund part of the donor's treatment or compensate her financially, depending on the laws of each country.<sup>1</sup> This procedure is indicated in cases of patients with premature ovarian failure, ovarian agenesis, in patients classified as poor responders to ovarian stimulation, patients with levels of FSH (follicle stimulating hormone) greater than 10 IU/ mL and older woman.<sup>2</sup> The egg donation schemes were first regulated in the United Kingdom in 1998<sup>3</sup> and have been the focus of numerous ethical and political debates since its introduction.<sup>4</sup> Over the years, discussions concerning the ethical acceptability of providing benefits in the form of IVF treatment as an incentive to donate eggs are being debated. In Brazil, seeking better regulation of this practice, the Federal Council of Medicine recently issued a resolution which states that the donation is never to be profitable or commercial and must be strictly anonymous. However, it is allowed that donor and recipient, both facing reproductive problems, share the biological material and financial costs involving the procedure, and the donor has the preference over the biological material to be produced.<sup>5</sup> In addition to the ethical and legal aspects, a wide range of psychosocial implications, particularly for donors, is involved in the process of egg sharing.<sup>1</sup> Since in Brazil there is no financial compensation for donors, this study sought to elucidate

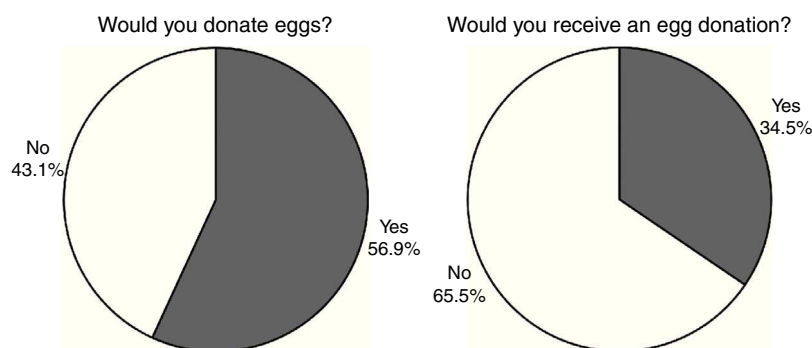
and their willingness to donate or accept an egg donation, seeking to understand factors relevant to these decisions.

## Methods

This study was conducted with patients attending our clinic for the first time between January 1 and September 20, 2012. All participants signed an informed consent form as part of the treatment protocol and this project has met all ethical principles in accordance with Brazilian law. When filling out the initial questionnaire on their first visit, patients were asked to answer the following question: “Would you donate or receive eggs as a treatment option?” We evaluated the association of answers to this question to factors such as level of education, age and any previous treatment for infertility. The results were evaluated using chi-square ( $\chi^2$ ) and Pearson's coefficient ( $r$ ) provided the correlation analysis. All analyzes were performed using SPSS 15.0 software and the results were considered significant where  $p < 0.05$ .

## Results

In the aforementioned period, 323 patients were treated for the first time in our clinic. Of these, 10 (3.1%) did not answer the question. Among the remaining 313 patients, the majority (56.9%) answered that they would donate eggs while only 34.5% would receive a donation (Fig. 1). When giving and receiving were evaluated together, we identified a positive correlation between them (Pearson correlation:  $r = 0.537$ ,  $p < 0.01$ ).



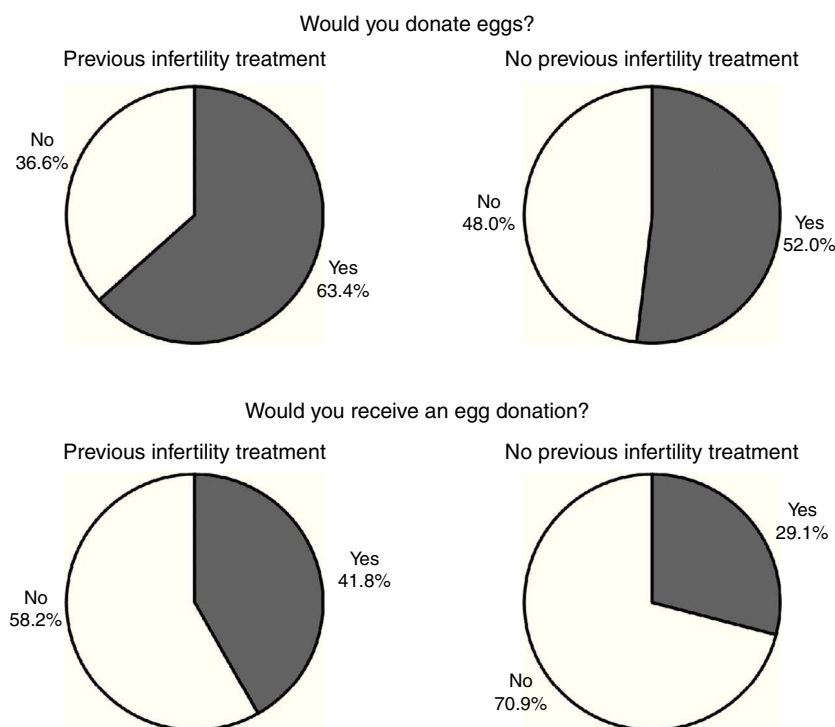
**Figure 1 – Distribution of answers (yes or no) to the questions: ‘would you donate eggs?’ And ‘would you receive donated eggs?’.**

One hundred thirty-four patients had undergone some form of previous infertility treatment (intra uterin insemination or ivf) and these women were significantly more prone to egg donation (63.4% YES vs. 36.6% NO) compared to women who had never done any treatment (179 patients, 52.0% YES vs. 48.0% NO;  $p < 0.05$ ). In relation to the possibility receiving oocytes in the group that had been treated, although most women in the group with previous treatment answered no (41.8% YES vs. 58.2% NO), the number of patients saying yes was significantly higher than in the group without intervention (29.1% YES vs 70.9% NO;  $p < 0.05$ ) (Fig. 2). In high and low levels of education most patients turned out to be in favor of donation (55.4% vs 44.6% YES and 61.3% YES vs 38.8% NO respectively), but against the idea of receiving (33.9% YES vs 66.1% NO and 37,5% YES vs 62,5% NO, respectively). There were no significant differences between groups high and low level of education

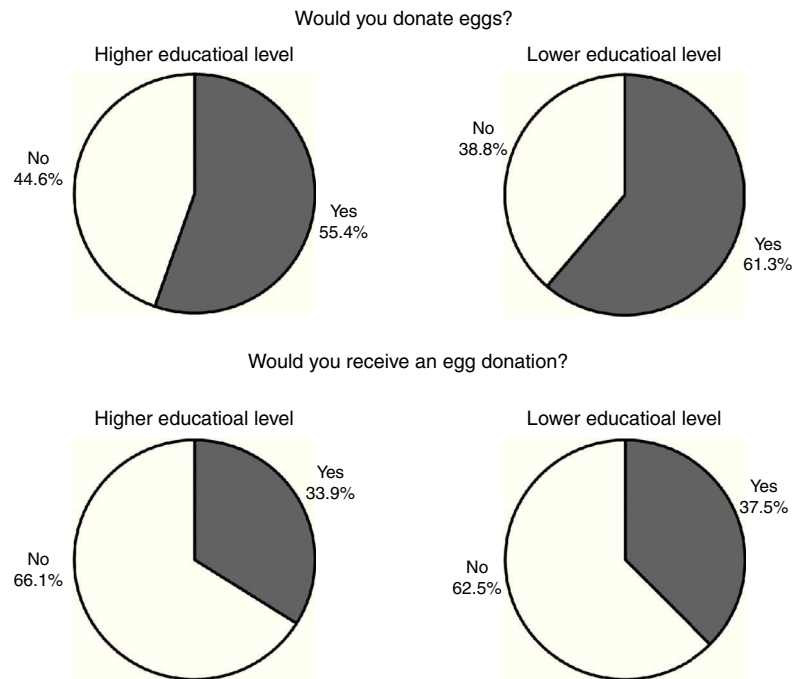
(Fig. 3). Regarding age, the patients were divided into two age groups: under 35 years or between 35 and 40 years (Fig. 4). We detected that the age did not significantly influence the responses of patients. In both age groups, again most of the patients were in favor of donation (58.2% - less than 35 years, 56.4% between 35 and 40 years) but unfavorable to accept a donated egg (36.9% - less than 35 years, 33.0% between 35 and 40 years). There was no significant difference between the responses in the two age groups.

## Discussion

During the last two decades, the use of egg donation as an alternative in infertility treatment for women who, for whatever reason, cannot produce healthy eggs is growing.



**Figure 2 – Distribution of answers (yes or no) to the questions: ‘would you donate eggs?’ And ‘would you receive donated eggs?’ Divided into groups who underwent previous treatment for infertility or not.**



**Figure 3 – Distribution of answers (yes or no) to the questions: ‘would you donate eggs?’ And ‘would you receive donated eggs?’ According to the level of education.**



**Figure 4 – Distribution of answers (yes or no) to the questions: ‘would you donate eggs?’ And ‘would you receive donated eggs?’ According to age.**

Unlike sperm donation, more accepted and consolidated, egg donation still sparks intense ethical debate. In many countries the act of donating oocytes can be compensated financially, according to particular rules regulating the practice and preventing commercial features.<sup>6</sup> In Brazil, the most recent regulation prohibits any direct financial compensation for the donor. The patient who donates should be undergoing an

infertility treatment and can receive a maximum compensation of the costs of their own treatment. Also, the donor has priority over produced biological material.<sup>5</sup> When examining the ethical implications of widespread egg donation, it is crucial to understand how such laws would affect the individual's autonomy and personal choice.<sup>7</sup> Since in Brazil egg donation has an altruistic motivation, our interest was to evaluate

the factors that could potentially influence the decision for the donation. The patients in our study answered questions 'Would you donate eggs?' and 'Would you receive donated eggs?' in their first consultation in our clinic, which means they still did not know if egg sharing would be an option in their treatment. When we performed correlation analyzes of the responses obtained with three potential factors influencing this decision, we observed that higher propensities to giving and receiving eggs are positively correlated only with the completion of any previous treatment for infertility. Factors such as age and level of education had no significant influence on the responses. We suggest, from our results, that previous unsuccessful treatment would represent a shift in in patient's will to donate or receive eggs. We can speculate that patients who made no previous attempt did not see the egg sharing as an option, but, as the treatment progresses without success, they would accept such a possibility. It is also interesting to note that in all groups the option of giving was always greater than the acceptance receiving a donation, which indicates that even women who accept to share their oocytes with other patients did not seem as open the possibility of having a child from without their own eggs. In general, we suggest that egg sharing is still seen as a secondary treatment option. However, we believe that a better understanding of the factors relevant to the decision of sharing eggs as a therapeutic option may assist in the evaluation and monitoring of patients undergoing infertility treatments.

## Conclusions

Our results are relevant to understanding the factors that may influence the decision to participate in an egg sharing scheme. We could speculate that patients who previously underwent

unsuccessful treatments are more open to egg sharing despite their age or educational background. It would also be relevant to investigate the psychosocial reasons that make couples more willing to give than to receive eggs and exploring this subject should help physicians provide appropriate counseling to their patients.

## Conflicts of interest

The authors declare no conflicts of interest.

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