

Beauty, Brains, or Health: Trends in Ovum Recipient Preferences

Homero Flores, MD,¹ Joseph Lee, BA,¹ Jorge Rodriguez-Purata, MD,¹ Georgia Witkin, PhD,^{1,2}
Benjamin Sandler, MD,^{1,2} and Alan B. Copperman, MD^{1,2}

Abstract

Background: What do ovum donation (OD) recipients request most from their ideal donor: beauty, brains, health, or physical self-resemblance? Previous data have shown recipients primarily requested “similar appearance or gene pool.” We consider the possibility that these criteria may have changed due to a positive social shift towards OD participation and have evaluated recipients’ requests for donor criteria over a span of 5 years.

Methods: Donor trait preferences of OD recipients ($n=438$) enrolled in a private, academic OD program from 2008–2012 were assessed in this retrospective cohort analysis. Requests were categorized by appearance, ethnicity, intellect, ability, and mental health. Statistical analyses were conducted by Cochran-Armitage trend tests with significance at $p<0.05$.

Results: The percentage of requests for “health” increased steadily from 2008 (50%) to 2012 (72%) ($p<0.05$). The percentage of requests for “intelligence” were highest in 2012 (55%), increasing from 2008 (18%) ($p<0.05$). Requests for “athletic ability” rose from 2008 (1%) to 2012 (17%) ($p<0.05$). Recipients requested a ‘similar gene pool’ most in 2009 (40%) and least in 2012 (25%), though this trend did not reach statistical significance.

Conclusions: Our study demonstrates an increase in the percentage of OD recipients’ requests for health, athleticism, and intelligence over our 5-year analysis. It appears that the current recipient is more likely to request a donor with practical traits that would serve their offspring overall quality of life rather than self-reflective traits such as physical resemblance or their genetic composition. We believe that improved awareness and acceptance of OD as a treatment of infertility will continue to inform practical considerations and approaches toward donor recruitment and the donor–recipient matching process.

Introduction

WHAT DO OVUM DONATION (OD) recipients request most from their ideal donor: beauty, brains, health, or physical self-resemblance? This highly debated topic is a source for ovum donor, recipient, and public interest has followed the use of OD and donor screening since the first reported live birth in 1984.¹ Thirty years later, the practice of OD has developed into an effective treatment for patients with otherwise untreatable infertility,^{2,3} yet the focus on recipient couple’s requests have presumed most recipients prefer donors with physical self-resemblances and/or genetic backgrounds.⁴ This could be due to the recipients desire to appear as the biological parent of their future OD offspring or, for some, to avoid the discomfort of disclosure with the offspring, family, and friends later in life.⁵

Since OD’s inception, gamete donation has provoked a number of controversies compromising legal, ethical, and social considerations.⁶ The American Society for Reproductive Medicine suggests possible indications for OD include: hypergonadotropic hypogonadism, advanced reproductive age, diminished ovarian reserve, evidence of genetic defect(s), poor oocyte and/or embryo quality, or a history of multiple failed attempts to conceive with assisted reproductive technologies.⁴ Debates focused on compensation, eligible patient criteria, post-menopausal pregnancy complications, donor egg “sharing,” and religious opinion persist, and these issues continue to create media interest that OD could be used not merely for the treatment of infertility, but as a means to create “made-to-order babies.”^{7,8}

Oocyte donor recipients often feel vulnerable, powerless, anxious, and insecure due to their infertility, contributing to

¹Reproductive Medicine Associates of New York, New York, New York.

²Obstetrics, Gynecology and Reproductive Science, Mount Sinai School of Medicine, New York, New York.

their anxiety to create a family through OD.⁵ Their active role in donor screening and selection alleviates some of this anxiety, enabling recipients to feel as if they are “taking control over their destiny,” allowing them to experience some sense of maternal sovereignty.⁹ The matching process can become complex, especially considering the differences in the recipient’s personal desires, their rationale for the overall best interest of their potential offspring’s quality of life, and the social influence of family, friends or religious community. Further, donor recruitment and selection has become more sophisticated with increasingly extensive screening for genetic, familial, infectious and environmental factors, adding to the complexity of choosing an oocyte donor.

Psychological counseling is suggested to cope with the confusion in this decision making process. Some clinics require such intervention before, during, and after the patient undergoes treatment.⁷ Psychological counseling is an important tool that aids many patients involved in OD—both recipients and donors alike—who deal with the psychological and social stresses associated with infertility treatments.¹⁰ In addition to providing emotional support, counseling is focused on setting and managing realistic expectations in the process, guiding patients in their decision-making process during the course of treatment(s), along with rationalizing the future downstream implications of using an oocyte donor that may affect them, their potential offspring(s), their loved ones or public perception.¹¹

A widely held assumption is that most OD recipients’ choice of donor is primarily motivated by their similar ethnic background. A study published by Lindheim et al. (1998) characterized recipients’ donor requests, and demonstrated over half of the couples (54%) choose primarily on the basis of ethnicity, with the goal of obtaining self-resemblance in their potential offspring.¹² Sixteen years later, this has changed. With better understanding in OD education and social progress, recipients’ choice may be affected and will be the basis for future evaluations.

Our study aimed to characterize ovum recipients’ requests for ovum donor characteristics and understand if their criteria have changed with the increased use of the process over time. We propose that more recent OD recipients are significantly more likely to have used on characteristics from donors that would enhance their future offspring’s mental and physical health throughout life, which stands in contrast to the tendency of earlier recipient’s preference for donors based on their physical similarity or common genetic heritage.

Materials and Methods

We conducted an observational, retrospective analysis of OD recipient’s ($n=438$) preference criteria for donors participating in a private, academic OD program based in New York City from 2008 to 2012. During psychological counseling, each recipient received a study ID number and was presented with the same set of standardized questions by a therapist during the course of the 5-year analysis. Intelligence (high IQ or smart), health (donor medical background and/or mental stability), physical ability (athletic), appearance (similar appearance) ethnicity (similar gene pool) were choices from which patient described their criteria for matching. Patients ranked their criteria into “essential,” “preferable” or “not important” groups. Criteria not chosen

by recipients were considered “not important” for statistical purposes. For statistical purposes, a rank of “essential” or “preferable” associated to a “yes” response; while answers of “not important” or “blank” were associated to a “no” response. Response data were de-identified and sourced from the OD program’s electronic medical records for statistical evaluation.

Recipients were also asked if they had “plans to tell/not to tell child about OD conception” as well as when and how in order to evaluate disclosure. Responses were identified as either “yes,” “no,” or “unsure”; response data were de-identified and sourced from the OD program’s electronic medical records for statistical evaluation. Male partner preference was not evaluated to eliminate any bias in the study for single female recipients participating in the OD program. We also examined the recipient’s age, partner’s age, and attitude on OD disclosure, ethnicity, and marital status through clinical intake forms. This study was approved by the Western Institutional Review Board. The Cochran-Armitage and chi-squared tests for linear time trends were applied to the data and trends were considered significant at $p < 0.005$.

Results

Recipient couples

Ages ranged between 24–53 years old for women and 26–71 for men, with 78.3% ($n=343$) of these women ≥ 40 years of age. Overall, women were on average 2.5 ± 2.1 years older than their male partners in this population. Of the women who were surveyed, 93.8% ($n=411$) were in a relationship, 84% ($n=345$) of whom were married, averaging 5.7 ± 4.1 years in length, and 7% ($n=27$) were single.

Disclosure

In 2008, nearly half (42.1%) of OD recipients responded “yes” to questions regarding planned disclosure. The following year, 2009, yielded the lowest percentage (21.1%) of those responding favorably to disclosure. Afterwards, the percentage increased roughly 8.5% yearly, peaking in 2012 (47.4%). Patients who planned to disclose cited future offspring are entitled to know their genetic background in order to understand their donor’s gene pool and health history and their subsequent long-term health risks. Additionally, these patients did not want to “keep a secret” in the household. OD recipients who did not plan to disclose remained consistent within a 10% margin over 5-year review, albeit 2012 achieved the lowest response (17.1%). Common reasons cited by patients who were reluctant to plan disclosure included cultural disapproval, fear of community ostracism and potential offspring confusion and self-perception (Table 1).

◀ T1

Health

In 2008, of the 114 OD recipients that were surveyed, 50% ($n=57$) requested “health” as a preference in their potential oocyte donor. “Health” reflects donors’ previous medical history. The percentage of recipients requesting “health” increased throughout the duration of the study, (55% in 2009; 57% in 2010 and 61% in 2011) demonstrating a significant increase in 2012 ($p < 0.005$), by which time 72% ($n=76$) of ovum recipients requested this characteristic in their oocyte donor (Table 2)

◀ T2

RECIPIENT PREFERENCES IN OVUM DONATION

TABLE 1. RECIPIENTS' DISCLOSURES OF OVUM DONATION USE TO OFFSPRING

OD disclosure	2008 (n=114)	2009 (n=109)	2010 (n=95)	2011 (n=44)	2012 (n=76)	2008–2012	p-Value
Yes	42%	21%	35%	41%	47%	43%	0.12
Unsure	15%	25%	18%	18%	28%	26%	0.13
No	27%	23%	33%	25%	17%	31%	0.27

OD, ovum donation.

Athletic ability

A highly significant rise from 2008 to 2012 ($p < 0.0001$) was observed in recipients' requests for donors with "athletic ability," increasing from 1% ($n = 1$) in 2008 to 17% ($n = 13$) in 2012 (Table 2).

Intelligence

The preference for intelligence was scored by request by the recipient for a donor with "high intelligence," which included those described as "smart," having a "good education" or having a "high IQ scores." A highly significant increase in preference for this characteristic was observed over the time studied ($p < 0.0001$), going from 18% ($n = 21$) in 2008 to 55% ($n = 42$) by 2012 (Table 2).

Similar appearance/similar gene pool

"Similar appearance" was requested in 15% ($n = 17$) of the surveys in 2008, reaching a peak in 2011 with 27% ($n = 12$), yet decreasing slightly to 22% ($n = 17$) in 2012. "Similar gene pool" was requested in 30% ($n = 34$) in 2008, and that percentage decreased slightly to 25% ($n = 19$) in 2012. There was no significant difference over the duration of the survey in the preferences for oocyte donors who displayed a physically "similar appearance" or shared a "similar gene pool" (Table 2).

Discussion

Over the 5 recent years studied, the study's results demonstrate a consistent increase in the percentage of oocyte recipients' preferences in ovum donors with good health, athletic ability, and intelligence characteristics. Over the same time, their preferences for donors with a similar ethnic background or physical resemblance were unchanged. Such trends demonstrate that recipients choice of donor continues to rely heavily on finding those with similar genetic and aesthetic to themselves, albeit demand for additional attributes has served to formulate a more strict selection process in recent years.

Infertile women that have applied to an OD program may want a child that resembles her both genetically and physi-

cally.¹² In a study published in 1998 by Lindheim et al., couples ($n = 80$) awaiting anonymous oocyte donation made a wish list of characteristics they were looking for in their prospective donor. The study's results showed that the top-ranked categories were medical history (33%) and ethnicity (23%). Fourteen years later, our study demonstrates that recipients' preferences for donors from a similar gene pool (25% in 2012), which is essentially equivalent to ethnicity, remained unchanged over the time studied and was reported by similar number of recipients between the two studies.

In our study, by 2012, 17% of recipients did not intend to disclose the use of OD to their offspring, leaving 47% that intended to disclose with 28% that were currently unsure at the moment (8% of patients in 2012 did not give a response to this question). Our data on the tendency for prospective oocyte recipients to disclose to their potential offspring his/her provenance are lower than those observe in a follow-up study by Söderström-Anttila et al.¹³ In that study, 93% of women following treatment with oocyte donor use ($n = 55$) reported they "have already told" or "planned to talk to their child about the donation." Seven percent responded that they did not intend or were unsure if they were going to share the donation process with their child. We realize that the difference in openness by our study participants compared with the referenced study may have been influenced by the early stage at which the participants were asked. A more comprehensive follow-up, conducted in the same vein as the one by Söderström-Anttila et al., may find a boost in disclosure "yes" responses. If this were to hold true we could confirm that a recent trend toward a more positive outlook on international adoptions and openness to third-party support described by Neimann et al. may additionally impact recipient requests as the acceptance of family building outside of the couple may become more accepted and common.¹⁴ This potential move could be due to both a social shift towards a more reception in OD use, and/or a change in current gender roles when compared to previous family-building couples.

Conclusions

Our study demonstrates OD recipient's preferences for health, intelligence and athleticism in their prospective donors increased significantly over our 5-year analysis. Ovum

TABLE 2. RECIPIENTS' REQUESTS FOR OVUM DONORS

Characteristics	2008 (n=114)	2009 (n=109)	2010 (n=95)	2011 (n=44)	2012 (n=76)	p-Value
Intelligence	18%	21%	26%	50%	55%	<0.0001
Athleticism	1%	7%	9%	14%	17%	<0.0001
Health	50%	55%	57%	61%	72%	0.002
Appearance/gene pool	45%	57%	46%	66%	47%	0.20

recipients appear to choose donor qualities that would serve their offspring well, in addition to the recipient's desire for offspring with a similar genetic background and appearance. We believe that improved social awareness, acceptance, and education of OD as a treatment of infertility will continue to enhance practical considerations and approaches toward donor recruitment and the donor–recipient matching process.

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Disclosure Statement

No competing financial interests exist.

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Address correspondence to:

*Joseph Lee, BA
Reproductive Medicine Associates of New York
635 Madison Avenue
10th Floor
New York, NY 10022*

E-mail: jlee@rmany.com