

# Perceived negative consequences of donor gametes from male and female members of infertile couples

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**Objective:** To determine the views toward donor sperm and eggs of both men and women. The use of donor sperm or ova becomes an option for some infertile couples.

**Design:** Prospective cohort of infertile couples.

**Setting:** Eight California reproductive endocrinology practices.

**Patient(s):** Infertile couples (n = 377) were recruited after an initial infertility clinic visit.

**Main Outcome Measure(s):** From questionnaires administered at recruitment, ratings concerning the impact of the use of donor gametes were assessed. Differences between men and women in attitudes toward donor gametes were compared with analysis of variance (ANOVA). Linear regression was used to identify independent predictors of attitudes toward gametes.

**Result(s):** Women's attitudes toward donor sperm were significantly more negative than their attitudes toward donor eggs ( $5.1 \pm 1.4$  vs.  $4.7 \pm 1.6$ ). Similarly, male donor gamete attitude scores were higher for donor sperm compared with donor eggs ( $4.9 \pm 1.6$  vs.  $4.1 \pm 1.6$ ). Both men and women agreed that the use of donor sperm was more likely to have negative effects on their relationship and negative societal ramifications. Female donor gamete attitude scores were predicted by marital status, race, and education, whereas men's scores were independent of all measured factors.

**Conclusion(s):** Both men and women view the use of donor sperm with more skepticism compared with the use of donor eggs, suggesting a unique underlying perception regarding the use of male donor gametes. (Fertil Steril® 2010;94:921–6. ©2010 by American Society for Reproductive Medicine.)

**Key Words:** Gametes, in vitro fertilization, intracytoplasmic sperm injections, infertility, sperm banks, spermatozoa, ovum

An estimated 12% of couples are unable to conceive after 1 year of unprotected intercourse and are considered infertile (1). For some couples the use of donor gametes becomes a necessary option to have an offspring. Donor sperm may be used when the male partner is unable to fertilize (as with azoospermia or severe oligospermia), which can occur in up to 10% of men (2, 3). Similarly, the woman may be unable to conceive (e.g., diminished ovarian reserve) and require the assistance of donor eggs (2).

When asked about the use of donor gametes, in a hypothetical sense, many individuals remain open to their use (4). However, despite the risks of a low chance for reproductive success or the possibility of spreading genetic defects, most couples prefer to use their own gametes rather than donors to avoid relinquishing genetic relatedness (5–7). After conception, investigators have explored how couples continue

to wrestle with the difficult decisions of whether to reveal the genetic origins to their offspring (8, 9).

Although the impact on the use of donor gametes after delivery has been explored, less is understood about the beliefs regarding the use of donor gametes before conception. As couples jointly decide on appropriate technologies to use toward the goal of a pregnancy, each member's perceptions contribute. We sought to determine the views toward donor sperm and eggs of both men and women in infertile heterosexual couples.

## MATERIALS AND METHODS

### Study Design and Subjects

After approval of the Institutional Review Board (IRB), couples were recruited into the study cohort from eight participating reproductive endocrinology clinics in the Bay Area, after the female partner presented for an initial infertility appointment. The inclusion criteria for the study were defined as: currently trying to get pregnant with a male partner, English-speaking, no prior treatment with IVF, no prior sterilization or hysterectomy, living in the greater Bay Area, and able to schedule an initial home visit interview within 6 weeks of the index clinic visit. Study participants completed questionnaires at the time of enrollment, which contained medical and surgical histories, socioeconomic and demographic data,

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**TABLE 1****Demographic, socioeconomic, and infertility characteristics of cohort.**

	<b>Female observations (%)</b>	<b>Partnered females observations (%)</b>	<b>Male observations (%)</b>
No.	436	377	377
Age (y)			
≤35	205 (47.3)	181 (48.1)	160 (42.4)
36–39	130 (30.0)	111 (29.5)	110 (29.2)
40–44	85 (19.6)	74 (19.7)	71 (18.8)
≥45	13 (3.0)	10 (2.7)	36 (9.6)
Years married			
Not married	53 (12.2)	42 (11.2)	34 (9.3)
≤5	235 (54.0)	168 (44.7)	177 (47.1)
6–9	97 (22.3)	127 (33.8)	124 (33.0)
≥10	50 (11.5)	39 (10.4)	41 (10.9)
Annual household income			
≤\$100,000	139 (34.2)	112 (31.9)	113 (32.0)
\$100,001–200,000	206 (50.6)	185 (52.7)	186 (52.7)
≥\$200,001	62 (15.2)	54 (15.4)	54 (15.3)
Education			
≤ Some college	121 (28.3)	101 (27.2)	119 (31.8)
≥ College degree	307 (71.7)	270 (72.7)	255 (68.2)
Race			
White	303 (70.0)	272 (72.3)	283 (75.1)
Other	130 (30.0)	104 (27.7)	94 (24.9)
Religion			
None	87 (20.1)	74 (19.7)	77 (20.4)
Catholic	134 (31.0)	121 (32.2)	107 (28.4)
Protestant	61 (14.1)	55 (14.6)	54 (14.3)
Other christian	58 (13.4)	48 (12.8)	59 (15.7)
Jewish	29 (6.7)	25 (6.7)	32 (8.5)
Other	64 (14.8)	53 (14.1)	48 (12.7)
Perceived diagnosis			
Female	197 (45.8)	168 (44.9)	166 (46.6)
Male	48 (11.2)	44 (11.8)	44 (12.4)
Both	50 (11.6)	46 (12.3)	56 (15.7)
Unknown	135 (31.4)	116 (31.0)	90 (25.3)

*Eisenberg. Perceptions of donor gametes. Fertil Steril 2010.*

history of prior maternity or paternity, and an assessment of attitudes toward the use of donor eggs and donor sperm. Participants were also interviewed in person within 6 weeks of their initial appointment.

### Item Development

Items were developed based on previous literature by experts in the fields of psychometrics, clinical psychology, and reproductive medicine. A pilot test with a small number of individuals recruited in the same manner as the primary study was performed, and problematic items were revised or discarded. Questions regarding the impact on the individual, the partner, the child, and the infertile couple's relationship were used.

### Outcome Measures

Three sources were used to identify items to use in the attitude scales: [1] review of positive and negative consequences reported in the literature; [2] consequences suggested by experts in the fields of psychology, epidemiology, and reproductive medicine; and [3] pilot interviews with a small number of infertile individuals. The initial group of items was pilot tested on a separate group of individuals similar to those recruited in the main study and subsequently the number of items was reduced after discarding problematic items. The final set of items reflected consequences across a range of domains, including consequences of donor gamete use for the individual, the partner, the marital relationship, and the child. Separate scales were created to assess attitudes toward donor sperm

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