Oocyte donors' physical outcomes and psychosocial experiences: a mixed-methods study

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Objective: To expand knowledge on physical outcomes and psychosocial experiences of oocyte donors after donation across 3 age cohorts.

Design: Cross-sectional mixed-methods survey.

Patients: A total of 363 participants (ages: 22–71 years, M = 38.8) recruited from Donor Sibling Registry and Facebook groups donated an average of 3.3 times, with 77.1% using nonidentified donation. Most were White (92.8%) and over half (59%) were married at the time of survey. Average length of time from initial donation to study participation was 13.75 years.

Exposure: Previous oocyte donation.

Main Outcome Measures: Self-reported physical outcomes and psychological experiences after donation.

Results: Most donors (89.5%) completing the online survey (N = 363) reported a positive overall experience. Self-reported physical outcomes, including changes to menstrual cycles, ovulation, or fertility, were reported by 21% of participants after donation. Many (41.4%) reported procedural pain, and 10.5% reported ovarian hyperstimulation syndrome. Anxiety (25.8%) and depression (23.2%) were the most common self-reported diagnoses. Validated measures (Patient Reported Outcomes Measurement Information System Bank V1.0 Depression, Patient Reported Outcomes Measurement Information System Bank V1.0 Anxiety) were used to assess mild or greater anxiety and depression (25.1% and 17.6%, respectively; *t*-score ≥ 55). Participants screened clinically significant rates of alcohol/drug misuse (11.5%; ≥ 2 Cut down, Annoyed, Guilty, Eye opener—Adapted to Include Drugs), with 50% of those reporting depressive symptoms. Anonymity was the most common qualitative response for reported emotional distress (17%) and regret (20%). Most participants (94.3%) reported no contact by clinics for medical updates after donation, despite 25% reporting they had changes in their health to communicate. Participants' open-ended responses detailed the 3 most important concerns: improved communication with clinics; desire for less anonymity; and more information on long-term donor health outcomes.

Conclusion: Most participants felt their oocyte donation experience was positive despite reported pain, menstrual cycle changes, and emotional distress. Depression and anxiety were the most common self-reported diagnoses. Depression rated higher than the national prevalence. Elevated Cut down, Annoyed, Guilty, Eye opener—Adapted to Include Drugs was associated with depression, indicating the importance of screening oocyte donors for mental health and drug/alcohol misuse. Concerns included lack of communication after procedure and lack of information provided on long-term health outcomes. Clinicians can incorporate these findings when counseling this population. (Fertil Steril® 2025;■:■–■. ©2024 by American Society for Reproductive Medicine.)

Key Words: Oocyte, donor, egg donor

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PHYSICAL OUTCOMES AND PSYCHOSOCIAL EXPERIENCES OF OOCYTE DONORS

In the United States, approximately 7%–10% of all reported assisted reproductive technology cycles use donated oocytes or embryos (1). The number of in vitro fertilization (IVF) oocyte donor cycles has continued to increase over the last decade (1, 2), leading to an increased demand for donor oocytes. Delayed childbearing, advancing maternal age, and declining fertility have all been cited as reasons for the increased use (2). In the recent International Committee for Monitoring Assisted Technologies world report (2), the United States and Spain decidedly lead in contributing the highest percentage of global oocyte donor cycles (22% and 23%, respectively). Even though the United States has one of the highest percentages of oocyte donation cycles (2), research examining physical outcomes and psychosocial experiences of donors is limited.

Given the increasing demand for oocyte donors in the United States, it is imperative to better understand physical outcomes and psychosocial oocyte donor experiences after donation, a notion also reflected in the recent American Society for Reproductive Medicine Ethics Committee Opinion (3). Regarding physical outcomes, most research on oocyte donors focuses on short-term or immediate postprocedural experiences. The most reported outcomes were bloating, weight and mood changes (4), cysts, ovarian torsion (4, 5), infection (5, 6), ovarian hyperstimulation syndrome (OHSS; 4–7), and pain (4, 6–9). Regarding OHSS, American Society for Reproductive Medicine's committee opinion reports severe OHSS occurs in 1%–2% of cycles (10), which is consistent with previously reported rates of <1% and 1.5% (5, 11). However, overall rates, which include mild and moderate OHSS, have been reported to range from 5% to 39% (4, 5, 6, 7, 12). Pain levels also vary across studies from mild (4, 6, 8, 9) to severe (4, 9). In studies evaluating long-term (average >9 years) physical outcomes associated with oocyte donation, donors report fertility 9.6% (3.8%–11.5%; 4, 6, 7) and menstrual cycles (4, 7) have been affected and fibroids (4, 6), cysts, and weight gain (4) have been reported.

American Society for Reproductive Medicine's Ethics Committee emphasized a need for providers to discuss long-term psychological outcomes with potential donors, while also reporting a lack of scientific knowledge on donors' experiences (3). Additionally, Tober et al. (13) completed a retrospective survey showing just over half (55.2%) of oocyte donors did not feel well informed about potential long-term risks. Moreover, in the few studies addressing donors' experiences, timing of data collection has led to inconsistent psychological findings. For example, Blakemore et al. (14) reported that 50% of participants had anxiety and depression at any given time, whereas other investigators reported increased psychological stress during donation (11%; 8) or after donation (20%; 4). Kazemi et al. (15) evaluated changes from before to after donation and found statistically significant increased anxiety levels ($P=.007$) but no significant change in depression. Although other investigators reported overall positive psychological outcomes and experiences (16, 17), questionnaires were performed shortly after donation (i.e., 2 weeks–18 months). Given these inconsistent findings, variable data collection methods, and lack of long-term studies, the data used to counsel oocyte donors are limited.

The purpose of this study is to expand on the knowledge of physical outcomes and psychological experiences of oocyte donors by reporting their perceptions from 3 age cohorts (22–34, 35–49, 50–71 years old). Although other studies have evaluated the short-term physical and psychosocial health of oocyte donors, our study extends this work through 38 years after donation, which, to our knowledge, is the longest postdonation research to date in the United States.

MATERIALS AND METHODS

Study design and sample

Using a cross-sectional, convergent, mixed-methods design, an anonymous online Research Electronic Data Capture survey was developed to explore the demographic characteristics, physical outcomes, and psychosocial experiences among previous oocyte donors. Participants were recruited from the Donor Sibling Registry (DSR), an organization that connects donor siblings or donors with their genetic relatives (18), and 4 oocyte donor Facebook groups. The survey was open from June 5, 2021, to July 2, 2021. Inclusion criteria were previous oocyte donor; living in the United States; English speaking; and at least 18 years of age. This study was approved by the University of Illinois Chicago's Institutional Review Board (#2021-0148). The survey was developed by incorporating questions from previous oocyte donor surveys (7) and validated measures: Cut down, Annoyed, Guilty, Eye opener – Adapted to Include Drugs (CAGE-AID), Patient Reported Outcomes Measurement Information System (PROMIS) Bank V1.0 Depression, and PROMIS Bank V1.0 Anxiety (19, 20). Disclosure was also evaluated, but those results are beyond the scope of this manuscript. Before administering the survey, a pretest with 6 oocyte donors drawn from Facebook groups was completed. The pretest included in-depth interviews (ranging 31–65 minutes) using a cognitive "think aloud" approach (21). Participant feedback was incorporated into the final survey (available in Supplemental Table 1, available online).

Analysis

Consistent with convergent mixed methods, quantitative and qualitative data were analyzed separately and merged for final analysis (22). For the quantitative data, descriptive statistics were used to report participants' characteristics. Chi-square and Fisher's exact tests were used in comparing 2 groups when indicated. The quantitative analysis was completed using Stata/IC 15.1 (23). For qualitative open-ended responses, a conventional content analysis was used (24, 25). Using Dedoose V8.3.47, participants' initial responses were coded, followed by identification of themes and subthemes by the principal investigator (K.A.), who then repeated coding at a separate time to enhance rigor (26). Meetings with content experts from the research team throughout survey development, data collection, and multiple analyses further enhanced interpretation and rigor.

RESULTS

Sample and recruitment

A total of 363 participants (age range 22–71 years, M 38.8, SD 10.3) donated between the years 1983 and 2021, an average of 3.3 times, ranging from 1 to 11 times (Table 1). Most were White (92.8%), and 59% were married. Most (77.1%) opted for a nonidentified donation. The average length of time from the initial donation by age cohort was 22–34: 4.8 years, 35–49: 16.7 years, and 50–71: 26.6 years. Each cohort aligns with a different life stage: childbearing and typical age of donation (22–34 years old, n = 150), advanced reproductive age (35–49 years old, n = 142), and menopause (50–71 years old, n = 70). Cohorts were used for comparison and statistical analysis; variables compared by age cohort are listed in Table 2.

Most participants (84%) were recruited from the DSR email, the remainder (16%) were recruited through online links and 4 Facebook groups targeting oocyte donors. Because of the unknown number of people who viewed the online links, final metrics to calculate a total response rate were unattainable. However, emails were tracked, and of the 621 opened emails, 305 surveys were completed (response rate of 49%). The survey contained 4 sections and minimal attrition occurrence throughout the survey was as expected: Demographic and Self-reported Medical Diagnoses (100% completion, N = 363), Psychosocial Experiences (94.5%, n = 343), PROMIS Bank V1.0 Anxiety (94.2%, n = 342), and PROMIS Bank V1.0 Depression (93.4%, n = 339).

Physical outcomes

Most donors reported positive medical experiences (87.8%) and donated multiple times (74.7%). Participant 380 stated, “I feel that my thoughts about egg donation after having donated have become even more positive towards it.”

Although most donors reported positive medical experiences, 18.4% felt oocyte donation had a direct negative impact on their physical health. The most common negative experiences were general pain (41%), muscle/joint pain (13%), and OHSS (10.5%). For example, participant 212 wrote: “It was such an emotional and challenging process, all 6 times…during my worst cycle, I felt used and treated like a commodity. The doctor overstimulated me and retrieved 63 eggs, causing OHSS. I felt used and uncared for.”

The most common reported medical diagnoses were anxiety (25.8%) and depression (23.2%) (Table 3). Although anxiety was not significantly correlated with age, depression reports were higher in age cohorts >35 years ($P<.05$).

Most (n = 271) donors completed more than 1 donation cycle. Of the 92 participants who donated once, increased emotional distress (30% vs. 13%, $P\leq.01$) and higher rates of overall negative experiences were reported when compared with those who donated multiple times (18% vs. 6%, $P\leq.01$) (Table 4).

TABLE 1

Demographics.

Variables	N	Percentage
Age, y (mean 38.8)		
22–34	150	41.3
35–49	142	39.1
50–71	71	19.6
Marital status		
Single	102	28
Married	215	59
Ever married[a]	46	13
Race/ethnicity		
White	337	92.8
Asian	16	4.4
American Indian/Alaska Native	8	2.2
Black/African American	5	1.4
Native Hawaiian or Other Pacific Islander	3	0.8
Other	9	2.5
Hispanic, Latino, Spanish	27	7.4
Prefer not to say	3	0.8
Employment		
Employed part-time	34	9.4
Employed full-time	247	68.0
Disabled/ unable to work	6	1.7
Student	6	1.7
Both student and employed	29	8.0
Unemployed	24	6.6
Other	17	4.7
Education		
Less than 4-year degree[b]	120	28.1
Bachelor's degree	124	34.2
Master's degree	95	26.2
Doctoral degree	41	11.3
Prefer not to say	1	0.3
Household income		
Less than $24,999	16	4.4
$25,000–$49,999	59	16.3
$50,000–$99,999	112	30.9
$100,000–$199,999	108	29.8
More than $200,000	59	16.3
Prefer not to say	9	2.5
Donor type		
Anonymous (nonidentified)	299	77.1
Known donor (directed) (e.g., relative, family, or friend)	12	3.1
Open identity donor[c] (after 18)	72	18.6
Number of donations		
1	92	25.3
2	68	18.7
3	72	19.8
4	40	11.0
5	23	6.3
6	44	12.1
7	8	2.2
8	1	0.3
9	3	0.8
10	6	1.7
More than 10	6	1.7

[a] Widowed, divorced, separated.

[b] Trade school, Associate, High school.

[c] Open ID donor becomes known (directed) to recipient and/or offspring when offspring is age 18 years.

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TABLE 2

Quantitative and qualitative joint data table: by variable.

Quantitative data				**Qualitative data**
Age cohort	22–34	35–49	50–71	N/A
Depression[a] $P < .05$	15.3%, N = 23	26%, N = 37	31%, N = 22	I feel like it took years for my hormones to stabilize and the constant up and down led to periods of depression. ID 347
Anxiety[a] $P = .158$	20%, N = 30	30%, N = 42	27%, N = 19	The “not knowing” has created or exacerbated my day-to-day anxiety. I haven't felt depression or emotional distress, just a lot of anxiety and uncertainty. ID 76
Pain $P = .243$	46%, N = 68	40%, N = 54	34%, N = 24	My physical health was impacted for a short time after each donation due to the fertility hormones and the extraction procedure. I had pain on and around the cervix during sex for up to 6 months after each donation. I had hormonal weight gain in my stomach for up to a year. ID 189
Regret $P < .05$	15%, N = 22	27%, N = 36	17%, N = 11	I have had intermittent regret and anger issues…mostly related to potential impact on my fertility and risk of cancer related to donation simulation. ID 337
Children[b] $P < .001$	29%, N = 44	71%, N = 101	83%, N = 59	N/A
Income $P < .001$	<50,000, N = 50, 33% 50–99,999, N = 54, 36% >99,999, N = 46, 30% No response 0%	<50,000, N = 17, 12% 50–99,999, N = 40, 28% >99,999, N = 79, 56 % No response 4%	<50,000, N = 8, 11% 50–99,999, N = 18, 25% >99,999, N = 52, 59% No response 4%	N/A
Marital status $P < .001$	Single, N = 77, 51% Married, N = 69, 46% Ever, N = 4, 3% Married[c]	Single, N = 20, 14% Married, N = 97, 68% Ever, N = 25, 18% Married	Single, N = 5, 7% Married, N = 49, 69% Ever, N = 17, 24% Married	N/A

[a] Diagnoses from self-report.

[b] Having ≥1 biological child they are raising.

[c] Ever married = divorced, widowed, separated.

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TABLE 3

Medical diagnoses.

Variables	N (%)	Age at diagnoses, y, range (mean)
Anxiety	91 (25.8)	12–51 (28)
Depression	82 (23.2)	13–43 (25)
Muscle or joint pain	45 (12.7)	23–55 (37)
Ovarian hyperstimulation syndrome	37 (10.5)	21–35 (26)
Sexually transmitted infections (STIs)	32 (9.1)	16–40 (26)
Hypothyroidism	31 (8.8)	16–55 (33)
Endometriosis	31 (8.8)	16–45 (30)
Bipolar, OCD, PTSD	21 (5.9)	18–50 (33)
Hypertension	19 (5.4)	23–55 (37)
Poly cystic ovarian syndrome (PCOS)	15 (4.2)	13–37 (28)
Other reproductive disorder	14 (4.0)	25–40 (33)
Cancer	12 (3.4)	27–66 (41)
Hyperthyroidism	7 (2.0)	30–53 (37)
Heart disease	5 (1.4)	48–53 (50)
Diabetes	2 (0.6)	29–48 (39)
Other medical or health condition	33 (9.3)	Not reported
No medical conditions	131 (37.1)	N/A

OCD = obsessive-compulsive disorder; PTSD = post-traumatic stress disorder.

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Many participants (n = 146, 41.4%) reported experiencing procedural pain directly related to oocyte donation with an average numerical rating of 6.68 out of 10 (minimum 2, maximum 10, SD 2.2) on the Numeric Rating Scale (27). Of those, 7.5% recalled pain as mild, 50% reported moderate pain, and 42.5% reported severe pain. Self-reported pain levels remained constant across age cohorts, as did reports of OHSS (11% for 22–34 years old, 10% for 35–49 years old, and 10% for 50–71 years old).

Changes to one's menstrual cycle, ovulation, fertility, or menstrual pain occurred in 21% of participants after donation. Of those, the 2 most common complaints were "irregular menses" (34%) and "pain, cramping or heavy menstrual bleeding" (42%). Participants reported infertility and attempting to conceive their own children using IVF (9.1%) and intrauterine insemination (9.3%). Only 37.4% of participants reported receiving counseling on the potential impact on fertility after donation. Of the 62.6% who did not receive counseling, approximately half (53%) were <40 years of age. Participant 299 reported the sentiment of many participants when she commented on her infertility experiences:

> "I believe it [donation] made me infertile…I spent a fortune trying to get pregnant after donating. I was NEVER [emphasis added] warned about infertility and was told there was no evidence donating could cause infertility. No one disclosed that was because no one was following up with donors to find out if they became infertile after donating."

Psychosocial experiences

Most (90.6%) donors rated their overall personal experience as positive or very positive, as conveyed by participant 352:

> "My status as an egg donor is very important to my identity. Though I donated anonymously I feel a connection to the resulting offspring and families raising them and that connection, although invisible, is of the utmost importance to me."

Although most donors felt positively about their experience, 17.2% reported it directly caused anxiety, depression, or emotional distress. Anonymity was the most frequent reason given in open-ended responses for feelings of emotional distress (32.2%), regret (45%), or why their feelings changed over time (46%). Open-ended responses supported these findings and provided context. One participant (participant 81) stated, "Not knowing whether I have biological children is a very uncomfortable feeling. The clinic I used was extremely strict about not telling the donor anything at all, and I think that is unfair."

Depression

Participants' self-reported rate of depression was 23.2%. Because of the limitations of self-reporting, the validated PROMIS Bank V1.0 Depression measure was also used, and 17.6% of participants scored "mild or greater" symptoms in

TABLE 4

Comparison of donation amount on reported experiences.

Reported experience[a]	Donated 1 time (N = 92)	Donated more than 1 time (N = 271)	*P* value
Emotional distress	30% (N = 26)	13% (N = 33)	< .01
Regret	24% (N = 21)	19% (N = 48)	.31
Pain	43% (N = 39)	41% (N = 107)	.66
Anxiety	25% (N = 23)	25% (N = 91)	.99
Depression	27% (N = 25)	21% (N = 57)	.22
Overall positive experience	82% (N = 72)	94% (N = 239)	< .01
Overall negative experience	18% (N = 16)	6% (N = 6)	< .01

[a] Sample size varied for reported experiences.

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the past 7 days (t-score ≥ 55). Of the 11.5% of participants who had a clinically significant indication of drug/alcohol use (CAGE-AID $\geq$ 2), 50% also reported depression. Age >35 years, unemployment, and disability were all significantly correlated with depression ($P < .05$). One participant (308) recalls the effect depression had on her life:

> "Being used as a cash cow feels odd - they pumped me with whatever was needed to get an outrageous donation (volume) – to the point it shocked their own GYNs. When I told the psychiatrist post-donation, I was having erratic and severe mood swings, it was dismissed as normal. I developed depression and had to drop out of grad school because I couldn't concentrate or retain information."

Anxiety

Anxiety was the most overall self-reported medical diagnosis (25.8%). Of note, 25.1% of participants reported mild or greater symptoms of anxiety in the past 7 days (t-score $\geq$ 55) with the validated PROMIS Bank V1.0 Anxiety measure.

Regret

Overall, 80% of participants did not regret their decision to donate oocytes, and most (75%) donated multiple times. Of the 20% of subjects who reported regret, a subset (45%) primarily attributed their regret to the requirement of maintaining anonymity. Of note, the 35–49 cohort reported higher rates of regret (27%, $P < .05$) in comparison with the other 2 cohorts.

Expectations and communication

Participants felt communication and care from clinics did not meet expectations. Most participants (94.3%) reported they were not contacted by clinics for medical updates after donation, despite 25% of participants feeling there were important medical changes to report. Of those, 47.7% attempted to contact a clinic, recipient, or agency, and 62% felt their clinic was dismissive. "…The clinic was extremely dismissive of me when I tried to report a significant development in my health that I think the offspring should know about." (participant 81). As another participant (254) reported: "…I wish I had advocated for myself better…in the fertility clinics, I feel like I am a donor rather than a patient…"

Participants were asked if they had additional comments or topics to discuss not addressed in the survey. Three themes emerged: the desire for "improved communication or counseling" (n = 39), for "change in anonymous donation" or to know outcomes of their donation (n = 36), and for "more information on long-term health impacts" (n = 31).

DISCUSSION

This study is the first to report on the longest-term (>10 years) oocyte donor data in the United States, with most study participants (60%) donating more than 10 years ago. Like other research (6, 16), participants reported high overall satisfaction with their donation, medical, and personal (nonmedical) experiences. Donating more than once was associated with higher rates of satisfaction. High satisfaction rates may shed light on the complex explanation of why 75% of participants donated multiple times despite reporting mostly moderate to high levels of pain with the procedure, menstrual changes, anxiety, depression, and other physical and psychosocial changes.

Moderate to severe pain related to the medical (retrieval) procedure was reported by 41% of participants; this finding adds to prior research where procedural pain varied from mild to severe (4, 6, 8, 9). Because of advances in medication protocols (2, 12) and less invasive procedure techniques, improved pain levels would be expected by younger age cohorts. However, pain and self-reported OHSS remained constant across age cohorts. Participants did not feel postdonation healthcare adequately addressed pain. Thus, providers should more thoroughly assess procedure-related pain.

Self-reported cases of OHSS (10%) were not distinguished by severity in this study. Although research consistently shows that severe OHSS rates are low (2, 5, 10, 28), mild and moderate rates vary greatly by study. Even when considering advancements in medications such as gonadotropin-releasing hormone antagonists, 39% of donors in a recent study still reported moderate OHSS (12). Factors also affecting this are the lack of standard definitions (28) and variations in reporting mechanisms. It is important to consider that only reporting severe OHSS statistics may not provide the most comprehensive counseling for potential donors; mild and moderate OHSS symptoms impacted oocyte donor's lives and perceptions of their care. Participants' qualitative reports of feeling "abandoned" as a patient and "not believed" when trying to report OHSS have clinical significance to prospective donors as well as providers who are initiating follow-up care. These reports deserve further investigation to identify best methods for providing safe, comprehensive follow-up care.

Menstrual cycle and reproductive changes were concerning physical outcomes for some study participants. Participants (21%) reported changes to their fertility, ovulation, menstrual cycle, or menstrual pain after donation. Although only 9% of participants used IVF, others qualitatively reported fertility issues due to problems such as cancer, tubal rupture, developing endometriosis, or other age-related challenges. Klock et al. (16) similarly reported 17% of participants had concerns about their fertility and reproductive care, and those researchers felt medical providers needed to address both prevalence and age-related fertility concerns in predonation education sessions. Kramer et al. (7) also reported similar findings regarding rates (26.4%) of infertility and menstrual cycle changes. Despite previous research and calls for action, only 37% of participants reported they were counseled on any potential postdonation fertility complications. Of the 63% who were not counseled, over 50% were <40 years, indicating their donations and counseling sessions occurred recently (within 1–17 years). Although the reported participant IVF rate in this study does not exceed the national prevalence of 12% (1), taken with other evidence, fertility and fertility-related changes should be an important counseling topic in predonation education sessions. Of note, in 2022, the ESHRE Working Group recommended oocyte donors be informed about hormonal-related health risks (29), thereby extending counseling to include a future fertility focus.

Depression and anxiety are leading mental health disorders in the United States. Participants' self-reported depression (23.2%) rates well above the national female prevalence of 8.7% (30), a finding that is further supported by the validated PROMIS measure (17.6%). Older participants had statistically significant higher rates of self-reported depression (35–49-year-olds, 26%; 50–71-year-olds, 31%, $P < .05$), warranting more frequent screening or follow-up in this population. Similar rates were reported in participant levels of anxiety (23.5%). Although anxiety was not significantly higher than the national female prevalence of 23.4% (31), these findings are clinically significant and should be considered when providing care.

Depression was associated with an elevated CAGE-AID, indicating participants had higher than average rates of clinically significant concern for drug/alcohol misuse (11.5%) compared with The National Survey on Drug Use and Health (32) that estimated alcohol disorder rate of 4.1% among American female adults and the substance use disorder estimate of 19.7 million American adults. Drugs and alcohol, as potential coping mechanisms, may impact overall health and healthcare delivery.

Although most participants felt positive about their donation experience, it is important to understand why 17% felt their experience "directly caused their emotional distress" and why 20% reported regret. Understanding the why can help improve overall care for oocyte donors. Most participants reported their "regret," "emotional distress," or "feelings that changed over time" were due to "anonymity." Significant bias exists with this sample because 84% were recruited from the DSR, indicating they desired to connect with offspring (18). However, the push for less anonymity has been a shifting paradigm within the world of infertility (33) and the desire for openness about the donor is due, in part, to emerging literature indicating more positive family relationships and higher levels of adolescent psychological well-being when parents inform children about their conceptual origins before they reach 7 years of age (34). Even though the findings in this study indicate this desire for contact and openness is also applicable to some oocyte donors, it is important to highlight that a major limitation of this study is bias toward less anonymity due to recruitment from the DSR. Therefore, it is unclear if these topics of emotional distress, regret, and anonymity are generalizable to the larger oocyte donor population. Despite a bias toward less anonymity, participants still maintained a high overall satisfaction rate for the donation experience, which is consistent with prior research (6, 16).

This study has several additional limitations. A 49% response rate (for email) is a limitation; however, both the span of time these data cover and the depth of the qualitative responses add a valuable contribution to the limited data on oocyte donors. Because of the retrospective design, self-reported recall bias is a limitation; yet this study addresses a significant gap by providing insights into oocyte donor's perceptions of their long-term experiences. It is possible that participants took the survey multiple times. However, because of average time for survey completion (27 minutes) and unique, qualitative responses, this is unlikely. Although it is possible that employment and income statistics are skewed due to participant age, most are not past retirement age (65–67 years) (35) and report being currently employed. Participants were mainly White women; future research should include more racial and ethnic diverse samples. The findings may not be generalizable to the overall oocyte donor population, especially directed donors.

This study adds to the current knowledge of oocyte donors' physical outcomes and psychosocial experiences. It also provides direction for clinical and regulatory changes that should be considered for follow-up care. Almost 60% of participants donated 10 years ago or longer; most (77.1%) were nonidentified donations. Although only 20% reported regret and 17% reported emotional distress related to donation, the most common reason given for these responses was "anonymity." Providers can incorporate these findings when educating and caring for those considering oocyte donation.

CONCLUSIONS

Most participants' experiences were positive despite reported pain, physical changes, psychological impacts, and reproductive related concerns after donation. The self-reported physical outcomes provide needed information on long-term oocyte donor outcomes. Improved education and communication on fertility options and counseling, postprocedural discomforts, potential menstruation changes, and screening for anxiety, depression, and alcohol/drug misuse is needed for individuals contemplating oocyte donation. Consideration should be given to improving follow-up reporting and a structured postdonation communication plan to ensure safe, effective, evidenced-based care. To date, no large-scale, prospective, longitudinal studies have been performed addressing the gap in knowledge for this population despite reports calling for this information. Further prospective studies are needed to confirm the findings in this study and provide direction for future care.

CRediT Authorship Contribution Statement

Kirby Adlam: Writing – review & editing, Writing – original draft, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Mary Dawn Koenig:** Writing – review & editing, Supervision. **Crystal L. Patil:** Writing – review & editing, Supervision. **Alana Steffen:** Writing – review & editing, Supervision, Formal analysis. **Sana Salih:** Writing – review & editing. **Wendy Kramer:** Writing – review & editing. **Patricia E. Hershberger:** Writing – review & editing, Supervision, Conceptualization.

Declaration of Interests

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