
Exploring Motivations, Awareness of Side Effects, and Attitudes among Potential Egg Donors

Lindsay B. Gezinski, Sharvari Karandikar, James Carter, and Melinda White

This research study surveyed prospective egg donors at orientation to (a) understand women's motivations to donate eggs, (b) assess awareness and knowledge of egg donation prior to entry into the egg donation program, and (c) explore attitudes toward egg donation. Ninety-two women completed the questionnaire at one fertility clinic located in the Midwest between August 2011 and August 2012. Descriptive and inferential statistics as well as textual analysis were used to analyze the data. Three themes emerged regarding participant motivations: (1) altruistic, (2) financial, and (3) desire to pass on genetic material. The majority of participants were unconcerned with potential physical and psychological side effects; however, differences emerged based on motherhood status and educational level. Although potential donors felt recipients should receive some information about the donor, they tended to value privacy regarding information giving to resultant offspring. This research study has implications for social work practice, policy, and future research. It is crucial that women receive adequate procedural and side effect information prior to engaging in egg donation.

KEY WORDS: *egg donation; fertility issues; oocytes; women*

Recent advances in reproductive technology have significantly expanded the treatment options available to the estimated 17 percent of couples who are unable to procreate (Winter & Daniluk, 2004). Over the last couple of decades, in vitro fertilization (IVF) techniques have played a more widespread role in the range of available fertility treatments in the United States (Kenney & McGowan, 2010). Through IVF, women are able to donate eggs to an infertile woman who cannot produce viable eggs (Winter & Daniluk, 2004). The process of egg donation is arduous and invasive and includes a month of daily medications to stimulate maximum egg growth followed by outpatient surgery to retrieve the eggs.

A variety of physical complications ranging from minor to severe can occur from these procedures, including ovarian hyperstimulation syndrome, ovarian torsion, infection, ovarian cysts, ovarian cyst ruptures, hematomas, urinary tract infections, and yeast infections (Maxwell, Cholst, & Rosenwaks, 2008). In a study of 886 retrieval cycles, Maxwell et al. (2008) found that 0.7 percent resulted in *serious complications*, which are defined as complications requiring hospitalization. In addition, minor com-

plications that prompted medical attention were seen in 8.5 percent of the cycles (Maxwell et al., 2008). There is also a potential for egg donors to experience adverse psychological effects such as

concern for and/or attachment to their eggs and/or potential or resultant offspring, concern that the donor or resultant child might want a relationship with them in the future, and unease or curiosity about the possible existence of genetic children related to them "out there in the world," . . . emotional changes related to hormone stimulation and/or stress resulting from the donation process as a whole. (Kenney & McGowan, 2010, p. 460)

The United States is one of few countries that allow anonymous, compensated donation (Kenney & McGowan, 2010). In 2010, the Centers for Disease Control and Prevention reported that there were 16,531 fresh and frozen donor egg transfers with success rates of 55.8 percent and 34.9 percent, respectively. Egg donation is largely unregulated by the U.S. government. Although the Ethics Committee of the American Society for Reproductive

Medicine (ASRM) has released guidelines for egg donation, individual clinics can choose to what extent they will adhere to them (Levine, 2010). For example, in regard to financial incentives ASRM stated that “sums of \$5,000 or more require justification and sums above \$10,000 go beyond what is appropriate” (Ethics Committee of ASRM, 2000, p. 219); yet in an analysis of 105 advertisements, 27 percent offered between \$5,000 and \$10,000 without clear justification and 23 percent of the ads offered compensation in excess of \$10,000 (Ethics Committee of ASRM, 2000; Levine, 2010). This is concerning because “there is a possibility that women will discount the physical and emotional risks of oocyte donation out of eagerness to address their financial situation” (Ethics Committee of the ASRM, 2000, p. 217).

LITERATURE REVIEW

Demographic Profile

Egg donors from various studies have ranged in age from 20 to 32 years at time of donation (Kenney & McGowan, 2010; Lessor, Cervantes, O'Connor, Balmaceda, & Asch, 1993; Sachs et al., 2010), with many donors undergoing the process more than once (Kenney & McGowan, 2010). Most donors self-identify as Caucasian or European American (Lessor et al., 1993; Sachs et al., 2010; Schover, Collins, Quigley, Blankstein, & Kanoti, 1991), even though there is a high demand for egg donors of color (Brulliard, 2006). Moreover, egg donors typically have some measure of educational achievement. For instance, Kenney and McGowan (2010) found that 45 percent of their sample were students when they first donated; Schover et al. (1991) found that 48 percent of the sample were college graduates. Another study of 80 donors found that many were employed full-time (57.5 percent) or part-time (22.5 percent), with occupations such as general service (that is, bartender, “barista”), teacher, teaching assistant, exercise physiologist, medical assistant, tattooist, mental health caseworker, and artistic performer (Kenney & McGowan, 2010). However, studies have found conflicting information regarding marital status and number of children. For example, Klock, Stout, and Davidson (2003) reported just over half of their sample were single, 38.5 percent were married, and 9.6 percent were divorced. Fifty-four percent had no children, 28.8 percent had a history of an elective abortion, and 61.5 percent had a previous pregnancy. In contrast, other studies have

found that most sampled donors were married with one or two children (Lessor et al., 1993; Sachs et al., 2010).

Attitudes

At the turn of the century, attitudes toward egg donation have become less restricted. Overall, studies have largely observed positive attitudes toward egg donation, particularly among the fertile populations (Purewal & van der Akker, 2009). Purewal and van den Akker (2006) found that approximately 40 percent of their sample of British women rated themselves as possible donors. Not surprising, possible egg donors had more positive egg donation attitudes than nondonors. In addition, those who labeled themselves as possible donors ranked high on sources of support and decisional control. Research has found significantly different attitudes toward egg donation based on gender, fertility status, and ethnicity (Purewal & van der Akker, 2009). For example, one study found that British Caucasian women were more likely to be possible egg donors than British Asian women (Purewal & van der Akker, 2006). Furthermore, attitudes regarding egg donation vary across nations. Whereas 38 percent of a German sample agreed that children should get to know the egg or semen donor, 83 percent of women and 75 percent of men in a Swedish study supported this (Stobel-Richter, Goldschmidt, Brähler, Weidner, & Beutel, 2009). Thus, national policy and liberalization may affect these attitudes.

Awareness and knowledge of egg donation has not been widely researched, especially in the United States. Fielding, Handley, Duqueno, Weaver, and Lui (1998) concluded that 62 percent of women first learned about egg donation through the media (mainly newspaper articles), 28 percent heard from family and friends, and only 8 percent heard from a medical source. In comparison, Kenney and McGowan (2010) found that the majority of women donors, 70.5 percent, first learned about egg donation through advertising or articles and reports in print. Of these women, a quarter noted that their first source of information on egg donation was a college or university newspaper. In addition, research has found that women are aware of the associated risks. Kenney and McGowan (2010) found that 80 percent of participants were aware of some physical risks and 72.5 percent were aware of some psychological risks.

Motivations

Research suggests that the two largest motivating factors in a woman's decision to donate are monetary compensation and altruism (Purewal & van den Akker, 2009); however, there are conflicting data about which motivation is primary. Financial compensation has been found to be a larger motivating factor among college students, who may have limited financial means of support (Kenney & McGowan, 2010; Patrick, Smith, Meyer, & Bashford, 2001). For example, 94.4 percent of students reported financial compensation as a significant factor in their decision to donate, as compared with only 56.8 percent who were not students (Kenney & McGowan, 2010).

Some women report financial incentive as the primary motivator when the payment is larger (Kalfoglou & Gittelsohn, 2000; Klock et al., 2003; Lindheim, Chase, & Sauer, 2001; Patrick et al., 2001). However, Kenney and McGowan (2010) found no significant correlation between compensation and a woman's decision to donate. In addition, repeat donors were found more likely to be motivated by financial compensation (Klock et al., 2003). However, another study found that 83 percent of first-time donors rated financial compensation as important to their decision, in contrast with only 69.6 percent of women who donated more than once (Kenney & McGowan, 2010). Women with children were significantly less likely to report monetary motives (Patrick et al., 2001). Moreover, in a retrospective study of deidentified former donors, nearly 71 percent reported that they would not have donated if monetary compensation had not been provided (Patrick et al., 2001). Finally, in countries where compensation is prohibited, there are far fewer egg donors, suggesting that financial compensation is a very large motivating factor.

Other studies cited altruism as the biggest motivating factor (Fielding et al., 1998; Schover et al., 1991). In a study of 80 egg donors across 20 U.S. clinics, donor motivation was more altruistic than monetary, but both motivations were predominant in most donors (Kenney & McGowan, 2010). Thirty-two percent reported that they decided to donate entirely on the basis of wanting to help others, whereas 18.8 percent reported that their motivations were strictly financial. A greater proportion (41.2 percent) reported that both factors contributed to their decision to donate. Moreover, 73 percent indicated that financial compensation played a significant role in their decision to donate.

Another study found that 100 percent of egg donors sampled reported a positive attitude toward helping another woman, and only 74 percent reported a positive attitude toward receiving financial compensation (Schover et al., 1991). Klock et al. (2003) also showed altruism as a primary motivating factor. Factors rated very important were "helping another woman" (77 percent) followed by "financial gain" (30 percent) and "being a donor" (29 percent). Factors that were rated not at all important included "making up for previous miscarriage" (94 percent), "making up for previous abortion" (86 percent), and "know about my fertility" (46 percent). Altruistic attitudes were reflected in another retrospective survey in which donors reported positive experiences related to "helping another woman" (100 percent), "being a medical pioneer" (96 percent), and "receiving payment" (74 percent) (Schover et al., 1991).

Women's perceptions of the benefits of donating may be fluid over time (Kenney & McGowan, 2010). Donors who were initially motivated by monetary reasons developed a stronger sense of altruism over time (Kalfoglou & Gittelsohn, 2000); however, it was unclear if this change came from the emotions associated with the process or because the donor adopted the motivation that clinics find more acceptable (Almeling, 2006; Kalfoglou & Gittelsohn, 2000). In addition, a desire to appear altruistic to donor recruiters might also unduly influence outcomes toward favoring altruism (Almeling, 2006; Kenney & McGowan, 2010).

Purpose of the Study

This research study surveyed prospective egg donors at orientation to (a) understand women's motivations to donate eggs, (b) assess awareness and knowledge of egg donation prior to entry into the egg donation program, and (c) explore attitudes toward egg donation.

METHOD

Participants and Procedures

Ninety-two prospective egg donors completed the questionnaire at one fertility clinic located in the Midwest. These women had approached the fertility clinic to donate their eggs. At this particular clinic, women are required to complete an in-person orientation prior to donation. This orientation includes an overview of the egg donation process as well as completion of various forms. For this research study, before the start of the orientation a

hard copy questionnaire was distributed to the prospective egg donors by a nurse practitioner employed at this fertility clinic. The first page of the questionnaire consisted of an informed consent form explaining that participation was completely voluntary and participation may be stopped at any time. Completion of the questionnaire indicated consent to participate in the study. Data were collected from August 2011 to August 2012, and the study was approved by the institutional review board at Ohio State University.

Instrument

The survey instrument took approximately 15 minutes to complete and consisted of 37 items. The first section of the survey instrument included demographics and asked how the participant first learned about the possibility of being an egg donor. This “first learned” item was open ended. The next section consisted of four items related to participant motivations. The motivations section started with the open-ended item “Why are you considering egg donation at this time?” and continued with two closed-ended items. Both “How significant is the offer of payment to your decision to donate eggs?” and “How important is the idea that you would be helping others have children to your decision to donate eggs?” were scored on a Likert scale ranging from 1 = very significant to 6 = not significant at all. Finally, the participant was asked, “How would you evaluate the level of payment you could receive for the egg donation?” Three options were available: 1 = too little, 2 = just about right, and 3 = too much.

The next section contained eight items used to assess participant awareness. Two open-ended items began the section: (1) “Prior to this orientation, what did you know about the procedures involved in ovarian stimulation and egg harvesting?” (2) “What was (were) the major source(s) of that information?” In addition, the participant was asked, “Are you aware of any physical risks associated with egg donation?” The response choices for this item were yes and no. If the answer was yes, the open-ended item asked, “What risks are you aware of?” Finally, the participant was asked to score how serious she considered the physical risks of egg donation on a Likert scale ranging from 1 = very serious to 6 = very minor. The risk questions were asked regarding psychological risks, as well. First, the participant was asked to choose yes or no in response to the question, “Are you aware of any possible

psychological risks associated with egg donation?” If “yes,” the participant was asked, “What risks are you aware of?” Finally, the participant was asked to score how serious she considered the psychological risks of egg donation on a Likert scale ranging from 1 = very serious to 6 = very minor.

The final section of the survey contained 14 items to assess participant attitudes regarding egg donation. Ten of the attitudes items were drawn from the literature (see *Skoog Svanberg, Sydsjo, Ekholm Selling, & Lampic, 2008*). The first three items relate to information to donor/recipient, and the other seven items pertain to disclosure to offspring. These items were scored on a Likert scale ranging from 1 = strongly agree to 6 = strongly disagree; however, they were collapsed into the following categories: agree, neutral, and disagree. Additional attitudes questions were (a) “To what degree do you think a woman should have control over who receives her donated eggs?” This item was scored on a Likert scale ranging from 1 = no control to 6 = total control. (b) “Why?” (c) “How often do you think you will think about any child(ren) that may result from your egg donation?” Item was scored on a Likert scale ranging from 1 = not at all to 6 = all the time. (d) “How concerned are you that the child(ren) you bear and raise will unwittingly have a romantic or sexual relationship with a genetically related individual resulting from your donation?” Item was scored on a scale ranging from 1 = not at all to 6 = very concerned.

Data Analysis

Responses were entered into SPSS. Descriptive and inferential statistics were used to analyze the data. Chi square was used to examine the relationship between demographic variables (that is, having children and education level) and awareness as well as attitudes. In addition, coding of some open-ended items was done for qualitative analysis. Textual analysis was used for identifying themes pertaining to motivations (*McKee, 2003*).

RESULTS

Description of Sample

The sample ranged in age from 21 to 32, with a mean age of 25.6 years. The majority of the sample were white (75.6 percent), followed by African American (14.4 percent), multiracial (8.9 percent), and Asian (1.1 percent). The average level of education for the sample was high. Almost half of the sample had a college degree, 38 percent had some college experience

but no degree, and 13 percent had a high school diploma/GED only. Approximately 40 percent of the sample indicated that they were currently a student. The answers to the open-ended item pertaining to occupation were categorized and distributed as follows: technically skilled (31.5 percent), service (25 percent), no answer (18.5 percent), administrative (14.1 percent), labor (6.5 percent), home-based (2.2 percent), and student (2.2 percent). The majority of participants (64.1 percent) indicated that they were married or in a committed relationship. Whereas 60.4 percent of participants did not have any children, 39.6 percent had at least one child. Over half of the sample indicated Christian religion, and a third indicated agnostic, atheist, or not applicable. Finally, over 40 percent of the sample first learned of egg donation via an electronic medium, such as the Internet, followed by friend (30.4 percent), relative (4.3 percent), educational setting (2.2 percent), and agency (2.2 percent). Approximately 20 percent of the sample did not provide an answer for this item (demographics are presented in Table 1).

Motivations: "I Will Change Their Lives"

Approximately 98 percent of participants ranked "helping others to have children" as significant to their decision to donate eggs. The majority (81.32 percent) indicated that the offer of payment was significant to their decision, whereas only 2.2 percent indicated that the offer of payment was not significant at all. Moreover, participants tended to report that the level of payment was just about right (89.0 percent) followed by too much (7.7 percent) and too little (2.2 percent).

Three themes emerged regarding motivations: (1) altruistic motivation, (2) financial motivation, and (3) desire to pass on genetic material. However, the majority of participants indicated multiple sources of motivation rather than a singular motivator. The most common theme described was altruism, with 89 percent of participants mentioning their aspiration to help infertile couples. Numerous participants expressed a sense of personal fulfillment at the idea of donating their eggs. Many participants with children of their own mentioned their desire to share the joy that comes with being a mother. One donor equated egg donation with giving blood when she stated, "[I] feel that it would be good contribution to deserving folks, also donate blood regularly. I guess it's just another form of giving back." Another potential egg donor desired to share the joy of being a mother:

Table 1: Demographics of Sample (N = 92)

Variable	n (%) ^a	M (Range)
Age (years)		25.6 (21–32)
Number of children		0.7 (1–4)
Race ^b		
African American	13 (14.4)	
Asian	1 (1.1)	
White	68 (75.6)	
Multiracial	8 (8.9)	
Education		
High school diploma/GED	12 (13.0)	
Some college	35 (38.0)	
Associate's degree	11 (12.0)	
Bachelor's degree	28 (30.4)	
Master's degree	4 (4.3)	
PhD or professional degree	2 (2.2)	
Currently a student ^c		
No	55 (60.4)	
Yes, part-time	13 (14.3)	
Yes, full-time	23 (25.3)	
Occupation		
No answer	17 (18.5)	
Service	23 (25.0)	
Administrative	13 (14.1)	
Labor	6 (6.5)	
Home-based	2 (2.2)	
Technically skilled	29 (31.5)	
Student	2 (2.2)	
Married/committed relationship		
Yes	59 (64.1)	
No	33 (35.9)	
First learned about egg donation through		
No answer	18 (19.6)	
Friend	28 (30.4)	
Relative	4 (4.3)	
Agency	2 (2.2)	
Electronic medium	38 (41.3)	
Educational system	2 (2.2)	

^aPercentages may not add to 100 due to rounding.

^bn = 90.

^cn = 91.

"I love being a mom. My son is my world. I think that whoever wants to be a parent should have the chance. I will change their lives." Another wrote, "I believe it is a very good thing, what [fertility clinic name] is doing for these women, and I would like to be able to say that I was a part of it."

A subtheme within altruistic motivation was personal exposure to an acquaintance, friend, or family member who had struggled with infertility. Approximately 20 percent of those motivated by altruism had such exposure. One donor wrote, "Couple at church

that both cannot have children and [it] breaks [my] heart. Even though not them specifically, [I love] that [I have] a chance to help someone." Another stated, "Good friend and sister have a lot of problems having a child. My friend went through a successful egg donation, which motivated me to donate for people like her!" In addition, one donor wrote, "My sister's best friend was not able to have children. She chose to use the egg donor program to conceive. She recently became pregnant. She told me about the process and said I would make a good donor."

The second most common theme emerged around financial need, with 48.35 percent of participants mentioning this motivation; however, financial compensation was rarely disclosed as the primary motivator. Participants mentioned that compensation would be used for items such as for school loans and tuition, medical debt, and to buy a house. One donor indicated that she was "currently in second master's degree [program] and money would help with tuition." Another said she "feels comfortable with procedure and [that it's a] small investment of time for the financial compensation awarded." A different potential egg donor wrote that the egg donation "will benefit me financially to provide for my family."

Finally, 23.08 percent of participants indicated the desire to pass on their genetic material, because they either had no desire to have children themselves or they were done having their own children. A potential egg donor specified, "As a student pursuing a professional degree and an extremely career-motivated person, I'm not certain that having my own children will be part of my future. That being said, I'd like to contribute to the next generation." Another wrote, "Don't want kids of own, but would like to pass on genes." Finally, one egg donor stated, "I come from a healthy family and am very healthy myself, but have no desire to have children of my own. I would want my healthy eggs to be available for someone else who does want a baby."

Also, it is important to note that one outlier was present in this study. This individual stated that she had "terminated pregnancy in the past, [had] negative feelings about that, [and this was a] way to make up for that." However, the desire to donate as a result of regret was not a common motivator.

Awareness of Physical and Psychological Risks

This research study also examined participants' awareness of the procedures involved in egg donation,

including potential physical and psychological risks. Sixty-seven percent of participants indicated that they were aware of physical risks; however, 65.48 percent of participants reported the perceived severity of said risks as somewhat minor to very minor. A chi-square analysis found a significant association between perceived awareness of physical risks and having children [$\chi^2(2) = 24.806, p = .000$]. Whereas 85.5 percent of participants with no children indicated that they were aware of physical risks, only 23.3 percent of participants with at least one child indicated that they were aware. A chi-square analysis also found that educational level was significantly associated with perceived awareness of physical risks [$\chi^2(2) = 9.643, p = .008$]. Approximately 73 percent of those with lower education (that is, high school diploma/GED or some college) reported no awareness of physical risks; whereas 26.3 percent of those with higher education (that is, associate's degree or higher) reported no awareness of physical risks.

Approximately 54 percent of all participants indicated that they were aware of potential psychological risks. However, 69.51 percent of participants reported that the perceived severity of potential risks was somewhat minor to very minor. Again, a chi-square analysis found a significant association between perceived awareness of psychological risks and having children [$\chi^2(2) = 9.475, p = .009$]. Whereas 66.7 percent of participants with no children indicated they were aware of psychological risks, only 36.1 percent of participants with at least one child indicated awareness. No significant difference was found with regard to education level and perceived awareness of psychological risks.

Information-Giving Attitudes

Attitudes items assessed opinions regarding donor/recipient knowledge and offspring knowledge. Although there was overwhelming agreement that "the recipients should receive some information about the donor," other items were more divisive. For example, whereas 28.1 percent of participants felt that offspring should receive some information about the donor as a mature adult, approximately 23 percent disagreed with this statement and close to half were neutral (see Table 2).

Significant differences were found between those who did and did not have children for two attitudes items. Whereas 55.6 percent of childless adults disagreed that the donor should be informed if the donation results in a child, only 27.8 percent of adults with

Table 2: Participant Attitudes toward Information Giving

Statement	Response	%
The donor should be informed if donation results in a child.	Agree	18.7
	Neutral	36.3
	Disagree	45.1
The donor should receive some information about the recipients (for example, education, interests).	Agree	28.1
	Neutral	24.7
	Disagree	47.2
The recipients should receive some information about the donor (for example, education, interests).	Agree	81.1
	Neutral	11.1
	Disagree	7.8
Offspring should receive some information about the donor during childhood (through the parents).	Agree	11.0
	Neutral	47.3
	Disagree	41.8
Offspring should receive some information about the donor as a mature adult.	Agree	28.6
	Neutral	48.4
	Disagree	23.1
It is in the best interest of the child that he/she never be informed of his/her genetic origin.	Agree	19.8
	Neutral	47.3
	Disagree	33.0
Parents should be honest with the child with regard to his/her genetic origin.	Agree	52.1
	Neutral	42.4
	Disagree	5.4
The child's relationship with parents could be disturbed if he/she learns of the donation.	Agree	40.2
	Neutral	34.8
	Disagree	25.0
It is in the best interest of the child to be able to learn (as an adult) the identity of the donor.	Agree	14.2
	Neutral	35.9
	Disagree	50.0
Contact with the donor can be harmful for the offspring (as an adult and/or for the family).	Agree	44.6
	Neutral	42.4
	Disagree	13.0

children indicated this [$\chi^2(2) = 7.250, p = .27$]. In addition, 60.0 percent of childless adults disagreed that it is in the best interest of the child to be able to learn (as an adult) the identity of the donor; 33.3 percent of adults with children disagreed with this statement [$\chi^2(2) = 6.211, p = .045$]. However, no significant differences were found for educational level.

DISCUSSION

This study reinforces earlier findings that altruism and monetary compensation are key motivators among egg donors (Fielding et al., 1998; Kenney & McGowan, 2010; Purewal & van den Akker, 2009; Schover et al., 1991), although altruism stood out as the primary motivator. This research study contributes new knowledge to the literature. For example, this study highlighted the role personal relationships can have in one's motivation as well as the desire to contribute to the next generation. Awareness of side effects is another important con-

tribution to the literature. It is quite possible that mothers do not partake in the research of egg donation to the same extent that nonmothers do, resulting in less knowledge of physical and psychological risks. Perhaps childbirth gives mothers a false sense of security in regard to egg donation.

It is interesting to compare this research to a recent study conducted by Isaksson et al. (2011). For that study, the researchers examined Swedish oocyte recipients' attitudes regarding information giving to resultant children. Whereas much of our sample seemed concerned with information giving, the Swedish sample appreciated honesty. For example, whereas 89 percent of the female oocyte recipients and 92 percent of male oocyte recipients in the Swedish study agreed that parents should be honest with their children regarding their genetic origin, just over half of our sample agreed. Moreover, the majority of the Swedish oocyte recipients agreed that it was in the "best interest of the child to be able to learn (as an

adult) the identity of the donor.” In contrast, only 14.2 percent of our sample agreed with this statement. Two factors could contribute to this difference in attitudes. First, differing cultural expectations could affect the attitudes around disclosure. It is possible that the Swedish population is more comfortable than the U.S. population is with this type of disclosure. It is also possible that differing positionalities in the egg exchange could affect these differing attitudes. It is quite possible that egg donors favor anonymity to a greater extent than egg recipients. However, it is also possible that egg donors in this study experienced a social desirability effect, presuming that disconnection from potential offspring was desirable to the fertility clinic or researchers.

Limitations

The previous mention of a possible social desirability effect leads us to the limitations of this research study. The location of this study (that is, an assisted reproductive technology [ART] clinic) is a limitation of this study. The participants completed the questionnaire during their first encounter with the ART clinic. They had not yet been selected as oocyte donors, so it is possible that participants presented themselves in a manner that they felt was desirable to the clinic, disconnected from offspring that could result from donation. Moreover, because this study sampled women at one fertility clinic only, the findings cannot be generalized to the larger population of egg donors.

The cross-sectional nature of this study represents another limitation. Women were questioned at one point in time only. We have no way of knowing which women actually participated in oocyte donation, nor do we know the longitudinal effects of oocyte donation. It is possible that oocyte donors' attitudes change post donation. Finally, the quantitative nature of this study is a limitation. Most of the questionnaire items forced the participants to make a choice, precluding us from understanding the nuances of their answers.

Implications for Practice

This research study suggests that fertility clinics provide thorough information and knowledge about egg donation at the orientation stage. However, clinics should tailor orientation differently for different groups. For example, mothers and those with lower education may need more extensive, substantive information than others who likely research the

process more intensively before orientation. Social workers working in ART clinics can play a significant role at the orientation stage by providing counseling support to women and being available to answer questions. Since 48.35 percent of participants reported financial compensation as a motivation to donate, some women may be at risk of exploitation based on economic need. Through in-person counseling, social workers can help women articulate and verbalize their motivations and attitudes toward egg donation and ensure that they are aware of the risks involved at the initial orientation stage. This can help women make informed decisions regarding the procedure. In addition, this study reveals that the Internet plays an increasingly significant role in one's first exposure to egg donation. This suggests the need for fertility Web sites to provide accurate substantive information for protecting donors. As previous research suggests, these types of Web sites need improving and should provide women with an accurate picture regarding the implications of egg donation as well as accurate and timely procedural information they can read before making a decision (Carter, Gezinski, & Karandikar-Chheda, 2012).

Implications for Policy

The procedures that are followed in individual clinics vary to some extent. These procedures need to be examined and monitored to ensure all parties are protected at sufficient levels. The policy around egg donation should safeguard women's health and protect them from malpractice and unethical standards. Currently, the United States lacks regulation around egg donation and only rudimentary policy exists in a patchwork fashion (Asch & Marmor, 2008). Development of a sound policy to protect all current and future involved parties is important. For example, this study showed division in information-giving attitudes with only some women in favor of potential offspring having access to information about the donor. A firm policy must be made for consent to be truly informed. Social workers need to be at the table, making important policy decisions around egg donation to ensure that women's rights are safeguarded and their health and safety are put at the forefront.

Implications for Research

This research study has implications for future research. Research is needed that examines motivations, awareness, and attitudes during the egg donation process as well as post donation to assess changes

in these constructs over time. Future research should incorporate longitudinal design to measure the impact of egg donation on all participants in the process, including children conceived through such procedures. Longitudinal research into the psychological impact, as well as future health implications, is very important. It would also be beneficial to examine which egg donors decide to donate multiple times and why. Additional questions that stem from this research include the following: (a) Of prospective egg donors, who decides to participate in egg donation? Are there differences between those who participate post orientation versus those who do not? (b) What types of egg donors are chosen by the agency to participate in egg retrieval? What types of egg donors are chosen by recipient parents? How quickly are they chosen? **HSW**

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Lindsay B. Gezinski, PhD, is assistant professor, College of Social Work, University of Utah, 395 South 1500 East, Salt Lake City, UT 84112; e-mail: lindsay.gezinski@utah.edu.
Sharvari Karandikar, PhD, is associate professor, College of Social Work, Ohio State University, Columbus. **James Carter, PhD**, is assistant professor, Social Work Department, Wright State University, Dayton, OH. **Melinda White, MSW, CSW**, is a PhD candidate, College of Social Work, University of Utah, Salt Lake City.

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