

New realities for the practice of egg donation: a family-building perspective

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The practice of egg donation in the United States has been based on assumptions about secrecy, anonymity, and contact among the parties that require reexamination. This article argues for the need to acknowledge that secrecy and anonymity are no longer viable assumptions and that all parties may have a strong interest in contact and connection. A shift in the narrative for the practice of egg donation from a purely medical perspective to a broader family-building perspective is described. Significant practice changes to accommodate the new realities, rooted in a family-building perspective, are outlined in the arenas of medical record retention, informed consent, recipient and donor preparation and counseling, facilitation of contact among the parties, and outreach to other medical professionals, with the goal of promoting not only healthy pregnancy, but also long-term positive family functioning. (Fertil Steril® 2018;110:1194–202. ©2018 by American Society for Reproductive Medicine.)

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ince its inception in 1983, the practice of egg donation has increased steadily, now accounting for the majority of live births from in vitro fertilization (IVF) in women over 40 years of age (1). The purely medical perspective on egg donation showcases a highly successful treatment for infertility, with few medical complications for donor, recipient, and baby (2). The present Views and Reviews argues that this purely medical perspective has been based on three mostly unstated assumptions that require reexamination. First, it has been assumed that it is the decision of the parents whether the offspring will know they were donor conceived. Second, it has been assumed that in most cases the donor will remain anonymous. Third,

it has been assumed that there will be no contact among the parties. After a brief historical overview, this article demonstrates that none of these three assumptions hold any longer, that there is a need to acknowledge that secrecy and anonymity are no longer viable assumptions, and that all parties may have a strong interest in contact and connection. The main focus of the article is thus to describe a shift in the narrative for the practice of egg donation from a purely medical perspective to a broader family-building perspective and to outline significant practice changes to accommodate the new realities.

Much of what is discussed below applies equally to egg and sperm donation. In fact, the majority of research pertains to sperm donation owing to its longer history. However, because egg donation requires IVF and as such occurs solely within the realm of the IVF program, IVF programs have both greater responsibility and greater influence in egg donation than in sperm donation to enact policies that support positive family outcomes.

HISTORICAL OVERVIEW REGARDING "THE DISCLOSURE DECISION"

Historically, for both egg and sperm donation, the issue of whether or not to tell children about donor conception has been rooted in the concept of parental choice. That is, it has been considered to be the parents' decision whether or not the child will know they were donor conceived. The role of the professional has been to provide guidance to parents in making the decision. Until quite recently, there has been considerable uncertainty about how to best advise parents (3, 4). In the 1980s, when egg donation was

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developed, initial recommendations to parents reportedly discouraged disclosure with statements such as "Once conception occurs, you will forget how it happened" and "No one needs to know" (5). Heated moral/ethical debates swirled around the value placed on privacy and protection versus openness and honesty, and many argued that information about one's genetic origins is the "child's right" (6). Parents on both sides of the debate expressed motivation to do what was in the "best interests of the child," but had fundamentally opposing perceptions of what that was; disclosing parents often concluded that secrecy was the threat to child well-being, whereas nondisclosing parents concluded that openness was the threat (4, 7, 8).

Empirical research has now weighed in rather heavily on this debate in favor of early disclosure (9). Survey and qualitative research has revealed that: 1) children usually react to information about donor conception with curiosity or indifference rather than distress; 2) parents who disclose usually view the overall impact as neutral or positive; 3) offspring who report having been told as children are more comfortable with donor conception than those who learned as adults; and 4) those who learn as adults can have significant distress over having been misled by their parents throughout childhood (10-18). Furthermore, research with the use of standardized measures of child and family functioning by Golombok et al. (9) in the United Kingdom has shown that children and families seem to fare well regardless of whether the child has been told, but that superior outcomes are often seen for children who are aware (19-21). Perhaps the most compelling evidence to date in favor of recommending to parents to begin sharing early is Golombok's team's longitudinal study (9) in which families created with egg donation, sperm donation, and surrogacy were studied from infancy through adolescence. Families who had disclosed in the preschool years generally showed more positive child and family adjustment outcomes when their child reached adolescence than those who had disclosed later or not at all (22).

Despite strong empirical evidence supporting early disclosure, the debate has continued to be largely framed as one of parental choice, even in countries with legislation prohibiting donor anonymity. For example, in Sweden, the first country to remove donor anonymity, in 1985, offspring can seek out their donor's identity at age 18, but they remain dependent on their parents to learn they were donor conceived (23). Similarly, in the U.K., parents are free to decide but are encouraged to consider the existing evidence carefully, as stated in the Neufield Council on Bioethics (2013): "In practice, it will fall to the parents of donor-conceived children to weigh the interests in any particular decision regarding disclosure, unless exceptionally there is a serious risk of harm to others." In the U.S., although ASRM ethics guidelines have encouraged disclosure since 2004, even in 2018 it was emphasized that the "decision is ultimately up to the parents" (24, 25).

THE NEW REALITIES: A CONVERGING PARADIGM SHIFT

New Reality 1: It is No Longer the Parent's Decision Whether Their Child Will Know About the Use of Donor Conception

A major shift is now occurring that renders the assumption of parental choice no longer viable (26, 27). The scientific advances emerging from the Human Genome Project in 2003, leading to the development of direct-to-consumer (DTC) genetic testing, such as 23 and me.com and ancestry.com, are experiencing astronomic growth in use and are game changing for our field (28, 29). Thus, at any point in their life, an uninformed donor-conceived person can order a simple inexpensive saliva DNA test and learn that their DNA does not match their presumed ancestry or their parents and family members, putting into question their genetic relatedness to their parents. These scientific advances render untenable the assumption that it is solely the parent's choice to determine whether their child learns of their donor origins. It is unrealistic to believe that secrecy can be maintained throughout the lifespan of a donor-conceived person. This does not mean that parents' choice about whether to tell their child is gone, but it is no longer their choice whether their child will find out. As IVF providers, we are obligated to share this likely eventuality with parents and not reinforce the false sense that this information will be under their control.

New Reality 2: Donor Anonymity is Anachronistic

We can still hark back to the time when donor anonymity was nearly impenetrable. Some early sperm-donor programs to ensure anonymity did not even maintain records at all about the donors or the matches (30). Historically, the use of anonymous sperm donation has kept thousands of children from learning the identity or source of one-half their genetic make-up. Today, many tools exist to penetrate anonymity, including facial recognition software when donor photos are provided to recipient parents, and social media, which exponentially increased the ease of connection with others we do not personally know (31). But the most powerful tool is DTC genetic testing, which now includes identifying linkage information of requesting parties with genetic relatives from their worldwide genetic databases (e.g., "relative finder" in 23andme), representing an end to assurances regarding anonymity (28, 32). One need not be seeking this information to find it or be found. Individuals may inadvertently learn about their donor origins in many ways, including if they seek DNA testing for a myriad of reasons (e.g., general interest, health information), or if others, including presumed genetic relatives or individuals conceived with the same donor, seek DNA testing and disclose their findings to them or to any of their family members. Crawshaw has described this as "the growing phenomenon of genetic relationships being 'discovered' by those not searching for 'donor relatives'" (33). Many instances of uncovering of genetic secrets, donor relationships, and birth parents have been reported in the media stemming from the new DTC genetic testing, and this

is only the beginning as the genetic databases grow and reach the critical mass needed to make discoveries increasingly common (28). Today, donor anonymity is not only a relative illusion, it is now truly anachronistic.

New Reality 3: Contact and Connection is Happening and May Become the Norm

The corollary to the old narrative of secrecy and anonymity was that donors would not think much about the offspring of their donation in the future, parents would place little attention on the topic once their child was conceived, offspring would remain ignorant, and thus there would be no contact among the parties (34). This assumption also proves to be unfounded. A burgeoning area of research addresses the experiences and desires of donor-conceived children and adults. Findings reveal that, when they are aware of their donor conception, many donor-conceived persons have a strong interest in contact with their donor as well as with other people born from the same donor (sometimes referred to as "donor siblings") (35-37). For example, The Sperm Bank of California's research with adults born from their open-identity program showed that about one-third of adult offspring requested their donor's identity when they turned 18, the age of eligibility (35). While simple curiosity appears to be the driving factor, donor-conceived people are often interested in obtaining information about their genetic heritage and health history for themselves and to share with their children, to look for commonalities due to genetics ("Am I like him?"), and to help them better understand themselves and their identity (17, 38). There is a clear sense in the research findings that some donor-conceived people consider access to genetic information to be their "right" and strongly oppose the concept of donor anonymity (39). They sometimes see themselves as the voiceless party in third-party reproduction and powerfully resent that their interests were not considered at the time of conception by their parents, their parent's medical providers, and society at large (40).

Evidence suggests that most donor-conceived people express modest expectations about contact with their donor, and when able to make contact, most seem to view it as neutral or positive; most do not see meeting as a chance to initiate an ongoing parent-child type of connection (12, 35, 41). However, interest in the donor can also extend beyond contact to connection and relationships (42, 43). For example, some donor-conceived people view the donor, and perhaps even more so, others born from the same donor, as their extended family (43, 44). While most of those who contact their donor or others born from the same donor meet only once, some have interest in ongoing deep connections and relationships (43).

Interest in contact and connection extends to donors as well, strongly drawing into question the notion that donors would not consider the offspring of their donation years later (41, 45). There is strong evidence that donors desire to learn the outcome of their donations and are less satisfied with having donated if not given that opportunity (41, 46–49). As with donor-conceived people, some donors show openness to and interest in connecting with and meeting the offspring

of their donation (41). In Sweden, where all donors are non-anonymous by law, the majority of donors feel positively about personal contact with offspring (50). As with offspring, if they are able to meet, most donors view the meeting as positive, although some donors reported complexities in their own family's reactions (45, 50). The work of Eric Blyth and Marilyn Crawshaw concerning the voluntary government-initiated donor-linking registry in the U.K. illustrates this desire for contact with donor statements such as: "I just felt a strong need to meet my donor offspring and to offer them the chance to ask questions, etc. It was very important to me that my son got the chance to meet his half-sister and brother, as I hoped it would give him an extra sense of family" (41, 51).

In addition, the concern that the donor pool would dwindle if donors were told that identification and future contact was a possibility has overall proved to be unfounded. Many sperm and egg donors originally recruited under an anonymous system report that they are interested or willing to meet (52, 53). After anonymity was removed in the U.K. in 2004, there was a brief reduction in donor volunteers, but the numbers soon increased again to previous levels (54). How the concept of openness is presented to the donor appears to influence their willingness for future contact, such that when donors are fully informed about the idea of nonanonymous donation, they are more likely to be comfortable with it (55-57). In fact, some donors report resenting that they were not given a choice about anonymity (37, 53). Thus, the argument that donors would only donate if promised anonymity is of questionable

One important caveat to all this is that much of the research about how offspring and donors feel about contact and connection comes from self-selected samples biased toward openness and desire for contact (e.g., online surveys with members of the Donor-Sibling Registry (DSR) who are inherently interested in contact and information), and therefore we do not know what proportion of donor-conceived people and donors express these views (38). The bias in research samples is inevitable due to the challenges in studying those who do not know they were donor conceived and those who know but are not interested in it, as well as donors who donated years ago and are no longer thinking about it. But despite the biases, the number of participants in the research described above is now in the thousands and therefore undeniably represent the desires and experiences of many donors and donor-conceived people and as such can no longer be simply ignored in how we practice egg donation.

SHIFTING THE NARRATIVE TO A FAMILY-BUILDING PERSPECTIVE

Based on the three new realities described above, a shift from a purely medical perspective to a family-building perspective as a guide to the practice of egg donation is critical. Whereas a purely medical perspective considers gamete donation to be a treatment for infertility with the ultimate goal of a healthy pregnancy, the family-building perspective considers it to be an alternative method of building a family when

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autologous conception is not available, with psychosocial implications far beyond establishment of pregnancy, and with the ultimate goal of positive family functioning (58, 59). The family-building perspective carries with it an entirely new set of assumptions on which to guide practice. First, it assumes the relative inevitability that the donor-conceived person will eventually learn they are not genetically related to both parents, and that the process of information sharing about the method of conception with the child is important for optimal family functioning. Second, the focus is not on disclosure versus nondisclosure in the dichotomous sense but instead as an ongoing process of information sharing across time, people, and circumstances (34, 60, 61). Information about the role of the donor is seen as part of the narrative of becoming a family (i.e., "the family's story") which draws the family together, as opposed to something that sets the child apart (58). It is not a secret to be revealed at one moment or at a particular age when the child is ready, but instead a part of a child's gradual making sense of their world, such that as a teen or adult the donorconceived person would describe it as something they had "always known" (18, 38). This is the approach advocated for families created via adoption and has been advocated by mental health professionals in ASRM for many years, and now we have empirical evidence of its suitability. A final assumption of the family-building perspective is that any of the parties may desire future contact, connection, and even relationship, and that these interests may or may not coincide. Suggested arenas for change rooted in a family-building perspective are described below.

Permanent Maintenance of Records and the Consent Process

Permanent maintenance of records of donor information and donor-recipient matches is arguably the most essential step IVF clinics can take to accommodate the new realities. Linkage records are the cornerstone of our ability to address the future needs and interests of all parties, and therefore this responsibility should not be taken lightly. Maintenance of records does not imply exchange of identifying information against the wishes of any of the parties, but instead is a commitment to making exchange possible. The second most essential step is to address the new realities in the consenting process. Recipients and donors must be made aware that: 1) children born from egg donation can easily learn that they were donor conceived even if the parents do not choose to tell them; 2) it is recommended that parents share their story of donor conception with the child when the child is young; and 3) donor-conceived people may be interested in learning more about their donor and even in meeting either online or in person. Notably, these changes regarding maintenance of records and consenting have been emphasized in the most recent ASRM Ethics Committee guidelines, but existing evidence suggests that most practices have not implemented them (62, 63). Implementing procedures and policies that will last through new staff, management, and even ownership of IVF clinics will require administrative, legal, and technical expertise.

Recipient Pre- and Postconception Psychoeducational Counseling

From a family-building perspective, recipient preconception psychoeducational counseling focuses on helping prospective parents grapple with the experience of infertility, the decision to build a family with the help of a donor, and the long-term implications for the family and child that are often unforeseen at the time of conception (64). Psychoeducational counseling is the psychosocial complement to the IVF physician's counseling regarding medical aspects of egg donation. The focus is psychoeducational, not evaluative (65–67).

Recipient psychoeducational counseling is recommended or required by many professional groups and regulatory bodies, including the ASRM, the Victorian Assisted Reproductive Authority (VARTA) in Australia, and the Human Fertilisation Embryology Authority in the U.K., and most recipients recognize the potential value of professional guidance (18, 68). Although not yet given much research attention, one study found that counseling increases intended parents' intention to disclose (68). However, it is clear that prospective parents do not want or benefit from pressure, personal opinions, biases, or moral mandates. Instead they desire information, options, and guidance about how and when to talk about donor conception, as well as language and script ideas for disclosure (7, 8, 66, 68-72). Counseling should educate prospective parents about outdated assumptions about the viability of secrecy or anonymity, address effective methods for sharing egg donation with the child and others, and address the potential for contact.

Recipient counseling can sometime make intended parents feel anxious and resentful, particularly if they have not yet come to terms with not being able to use their own eggs and expect that the use of the donor can be minimized or even forgotten. Mental health professionals sometimes become frustrated working with intended parents who plan not to disclose (73). This frustration can lead to the use of pressure and fear-based strategies in attempts to convince the couple (e.g., warning the couple of how difficult it will be for their child if they learn through accidental disclosure as an adult). The problem with these strategies is that when we engender fear, instead of changing their minds, discomfort and avoidance is likely the result; it is well known from psychologic research that brief exposure to fear-inducing stimuli increases fear and behavioral avoidance (74). There is evidence that the more effective strategy is to help couples build confidence and comfort with this alternate form of family building. Daniels, Thorn, and Westerbrooke (75) showed that a group intervention focused on sharing experiences (not advice about disclosure) had the result of increasing comfort with gamete donation and the intention to disclose. Similarly, Benward (76) argued that the intention to keep gamete donation a secret stems from couples' fears, and that discussing fears is more effective in recipient counseling than unilaterally trying to convince couples to disclose.

Recipients can also benefit from psychoeducational counseling after conception regarding turning their

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disclosure intentions into reality. Some couples report limited usefulness of preconception counseling because they were too overwhelmed or unable to picture themselves as parents at that time (18, 71, 77). Recent data suggest that the majority of donor-egg recipients do intend to disclose to their child compared with heterosexual couples using sperm donation (78). However, many parents feel anxious about the prospect of sharing and are unsure when or how to do so. Evidence suggests that families who disclose early tend to feel confident in their choices, whereas those who are waiting for the "right time" express fear and uncertainty (8). Fears can lead to continued delay, feelings of immobilization, regret over not having disclosed earlier, and ultimately not turning the intention into reality (8, 16, 50, 79–85).

Furthermore, today many parents who otherwise would not have been inclined to openness may now feel forced to do so to avoid the risk of their child finding out later (86). Although observational research suggests benefits of early disclosure, we can not be sure if all parents would experience the same outcomes (38). Some parents, such as those who value privacy over openness as a family communication style, may simply be unprepared for the communication challenges posed by information sharing; for them, early disclosure might lead to more child and family problems (87). Those families in particular may need further guidance and support in how to approach information sharing.

If they were to adopt a family-building perspective, all IVF clinics providing gamete donation would offer in-house psychoeducational counseling or provide referrals for appropriately trained mental health professionals, and these services would be clearly advertised on clinic websites so that interested current and former patients could easily access it (see the ASRM website under Mental Health Professionals for a complete list of referrals: https://www.reproductivefacts. org/resources). In addition, we should develop group programs to assist families similar to those that have proven to be highly successful in the U.K., Germany, and Australia (75, 82, 88). As described above, in Germany, educational preparation workshops were shown to increase comfort with gamete donation and the intention to disclose (75). In the U.K., the Donor Conception Network has run "Preparation for Parenthood" workshops with the use of peer-led facilitators that focus on comfort and confidence with donor conception, considering the donor as a person as opposed to only a set of traits, and emphasizing that children's curiosity about the donor is normal rather than an indication of dysfunction (82). In Australia, VARTA, operating under government direction to provide public education, offers "Time to Tell" workshops that focus on how, when, and what to communicate so that parents are empowered and children feel enriched by the unique way in which they came into this world. Speakers include counselors, parents from different family constellations, donors, and donor-conceived young people (88).

Donor Preparation

The new realities regarding anonymity and future contact between donors and donor-conceived people have implications in several arenas related to egg-donor selection and preparation. The importance of education and preparation of donors takes on even greater significance when we consider that donation has long-term implications and may involve later contact with the offspring. The limited evidence to date suggests that most donors feel prepared in advance, satisfied with the experience, and do not have regrets, but a significant minority report concerns, including unresolved medical issues that they attribute to the donation and feeling that they did not receive enough information about procedures and risks, were not offered follow-up care, were not treated with respect and appreciation, and were not able to learn the outcome of their donation (49, 89-91). Because there is plenty of evidence that donors often desire to know the outcome of the donation, this should be part of any egg-donation program. Egg donors must be fully educated about the medical and psychosocial risks of donation, as well as prepared for the possibility of future contact with offspring and its potential impact on them and their future family.

Although the topic has not yet been given much research attention, one study reported that donors are more supportive of disclosure of egg donation to children and are more comfortable with the idea of future contact after receiving counseling than before (68). In the program in which I practice, we provide a special orientation session that educates donors regarding all of the medical procedures and risks, as well as asks them to consider how they might feel about their donation in the future, how donation might affect their future family, the reasons donor-conceived people might request contact, the options for contact, and their feelings about all of these topics. This is in addition to the standard one-onone psychological screening and counseling appointment with a mental health professional. Furthermore, we have developed a tool for assessing knowledge, satisfaction, and readiness, which is useful to ensure the completeness of the informed consent process (92).

IVF programs should ask all donors to detail their openness to future contact, and this information should be shared with intended parents so that they can select donors who match their expectations. Most U.S. sperm banks now offer information regarding "willingness for contact," and this should be included in egg-donation programs as well (57). An unresolved lingering question is whether programs should elect not to work with donors who, after detailed counseling and education, still express discomfort with being identifiable or who refuse to consider contact with offspring, given that we know that many offspring will desire such contact. Similarly, evidence suggests than most donors receiving financial compensation also have altruistic motives, but that those who do not are later less satisfied with having donated (46, 91). Programs should consider not including purely financially motivated donors, because not only are they more likely to be dissatisfied, they may also be less likely to respond positively to future requests for contact.

Facilitation of Contact

There are several emerging models for how contact between parties in gamete donation is occurring, each with significant strengths and weaknesses (93). Some countries are addressing this need through government-initiated efforts. For example, in the U.K., since 2004, all prospective gamete donors must agree to government disclosure of identifying information about them to adult offspring. A voluntary donor-linking program called the Donor Conception Registry was established to address the needs of donor-conceived persons before 2004, and it is the first registry in the world to use DNA as the basis for enabling donor-conceived adults, people linked through the same donor, and donors, to identify each other voluntarily and if mutually agreed, to share identifying information; experience with this program to date is largely positive (42). A U.S. government–sponsored or any national effort of this sort has been advocated but seems highly unlikely to be initiated (94).

Another model for facilitating connection is the DSR website, the largest donor-linking registry in the world. The DSR is a remarkable resource and has reportedly facilitated thousands of linkages through previous sperm bank numbers or other information. However, we should not rely solely on the DSR as the source of assistance for our patients seeking contact with their donors.

Why should IVF clinics take on the complex challenge of facilitation of contact? As stewards of the technology that made egg donation possible, we have an inherent moral obligation to address this need. The ASRM Ethics Committee report on this topic supports this assertion:

"Donors and programs must recognize that they have a unique and ongoing moral relationship with each other, as well as with the recipients and their children, and this obligation does not end with the procurement of gametes" (63).

Although this role has been largely ignored to date, the IVF clinic is uniquely positioned to facilitate contact while balancing the needs of all parties and to provide guidance and appropriate referrals when complex situations develop (33). Because the IVF clinic enacted the match and thus has the linking information, this eliminates the need for searching, guessing, or DNA testing.

Because there is no research to date on facilitation of contact through U.S. IVF clinics, below are some of my own considerations regarding this work. There are two types of facilitation in which IVF clinics may participate: at the time of the donation; and in response to later requests for contact by any of the parties. At the time of the donation, IVF clinics can offer and host meetings between donors and hopeful parents. In my experience, these meetings are very positive for both donors and recipients, allowing them to get a personal feeling for each other and to acknowledge the intentionality of the donation, and for the recipients to offer appreciation. Donors are usually willing and even eager to meet, whereas the uptake by recipients is relatively low, likely owing to fears and uncertainties at the time.

Such meetings can occur with or without exchange of contact information. The benefits of sharing contact information at this juncture are that parents and donors would not have to rely on clinics or agencies for this information in the future, and it would be simplest for the clinic as it removes

them from need to facilitate further. However, given that unpredictable complexities can arise, it is also reasonable to wait until there is in fact a child born from the arrangement and that both parties still desire contact once the reality of the child born from the donation sets in psychologically.

The other type of facilitation occurs later, when any of the parties contacts the clinic requesting information or connection. The clinic must decide how to respond to these requests, what steps they will take to contact the other parties, and provide the opportunity for exchange of contact information to those parties in which mutual consent is provided. Facilitation of contact in the IVF clinic between the parties can feel unnerving, because there is not much of a roadmap yet for how to do this effectively and respectfully (95).

There are a plethora of psychosocial challenges, including whether to share identifying information from the beginning, or only in response to offspring request, how to respond when requests for contact are made but no records were kept, and how to respond when the desire for contact is not mutual (47). It is clear that unsuccessful efforts to connect are associated with disappointment and frustration; unmet expectations and mismatch in openness and desire for contact among parties are clearly concerns (96, 97). Furthermore, there is an ongoing need for support for both donor-conceived people and donors in negotiating these connections and their associated feelings (35, 36, 50, 98).

Practical challenges include that most clinics lack the knowledge, motivation and commitment to establish policies that will withstand the test of time. In addition, the costs for reestablishing contact with previous participants and for ongoing counseling services would need to be addressed. There is clearly an ongoing need for mental health professionals in clinics to help develop and implement policies regarding facilitation of contact, but most IVF clinics do not yet provide or refer to mental health services for infertility-coping assistance, much less for facilitation of contact (99). Surely some IVF clinics would consider these challenges so great as to be unrealistic to overcome.

A further concern is how to deal with donor fatigue. Connecting and answering questions of one or two offspring may be of interest to donors, but today, given the sharp rise in donor egg banking, it is easily possible that one egg donor could help to create ten or more offspring. Parents, donors, and offspring have argued for placing limits on the number of offspring from each donor (37). Scheib and Ruby (100) argued that limits ought to be made based on donor fatigue considerations, not only on the risk of accidental consanguinity. Another completely uncertain area for consideration regarding eggdonation programs is whether we should be offering linking to families who have children from the same donor. Some sperm banks offer this type of registry and have had positive outcomes, but it is unknown if any IVF programs offer this yet, or the interest of families if they did (44, 101).

FINAL THOUGHTS

We are entering an entirely new paradigm for the practice of egg donation, and clearly there are more questions than answers. The complex task of grappling with these challenges should no longer be relegated solely to the mental health professional. IVF doctors, nurses, and managers must be educated about disclosure recommendations, anonymity, and contact between parties. If they are not, we run the risk that some parents discount the information if they hear about it from only one person, the counselor.

Further, just as family building does not end with pregnancy, the role of the health professional should not either. The IVF clinic should not be the only place in which families can receive education, guidance, and support in navigating the challenges of gamete donation. If no other professionals with whom parents interact regarding their pregnancy, child, and family are knowledgeable and prepared to assist and guide, there is a serious risk that once graduated from our IVF programs, families may feel isolated and uncertain about the meaning of egg donation for their future. They may feel at a loss when forced to face complex issues regarding disclosure, anonymity, genetic testing, and the child's interest in contact with their donor and others conceived via the same donor. Therefore, we need to welcome our colleagues in obstetrics, prenatal genetics, and pediatrics into our work. Although the medical implications of egg donation have been addressed in obstetrics journals, the psychosocial implications are largely absent (102, 103). Similarly, there is almost nothing written about how prenatal genetic counselors should address the role of the donor, despite the critical importance of the donor's age and genetic history in judging risks (104). Furthermore, pediatricians appear largely unprepared to help families to consider how to address gamete donation, a significant gap because pediatricians are often the first and only contact families have with professionals regarding how to approach childrearing issues (105). Pediatricians can play significant roles in helping families by modeling positive language about donation, sharing knowledge and information from research findings, supporting parents as they communicate with their children about donor conception, and supporting the child's self-esteem as a donor-conceived person, similar to the role of the pediatrician in assisting adoptive families (106). We should eagerly reach out to each of these professions to provide education about our work and its implications so they can be ready to better assist our families.

In consideration of the future of egg donation, it is essential to note that the meaning of donation is not static over time or over generations. We currently know little about how adults from egg donation feel about donor conception, because it is still so new, and the issues may prove to be slightly different from adults conceived via sperm donation, owing to differences in indications for use, family types, or gender roles. Furthermore, how adults from egg donation (i.e., those that were conceived in 1984-2000, the early days of egg donation) feel today may be radically different from the next generation. For example, not being told about one's donor origins may carry very different meaning in a context in which nondisclosure and anonymity was the norm than in a time when openness is recommended, anonymity questioned, and contact reasonably possible, as it is today (38). Therefore, to address the needs of the next generation of families conceived via egg donation, we need to think and plan ahead of the game.

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