

Perspectives, experiences, and choices of parents of children conceived following oocyte donation

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Abstract

This paper reports on and discusses the findings of an online survey initiated by the Donor Sibling Registry of 108 parents of children conceived following oocyte donation. Respondents generally supported early disclosure of donor conception to the child, although some bias in favour of disclosure cannot be excluded, given the recruitment source. Even so, extensive uncertainty regarding the optimum time for disclosure was evident. Around half of the parents who had either expressly chosen (50.0%), or had been given no choice of, an anonymous donor (54.1%) subsequently wished they had used an open-identity donor. A total of 87% of respondents showed interest in identifying and making contact with their donor and with other families containing children sharing the same donor, and 19% had already made such contact. The survey revealed considerable variations in respondents' experiences of clinic practices regarding the availability of counselling, information provided about choice of donor type, advice regarding disclosure and the reporting of births, indicating keys areas for improved professional practice.

KEYWORDS: counselling, donor information, oocyte donation

Introduction

The first successful use of donated oocytes was reported in 1984 (Lutjen et al., 1984). Since this time, oocyte donation has become a more common treatment option. In the UK, for example, formal recording of ART procedures began in 1991. The number of patients treated with donor oocytes increased from 389 in 1992 to 1,380 in 2010; in the same period the number of donor oocyte treatment cycles increased from 460 to 1,506, while the number of children born using donor oocytes increased from 122 in 1992 to 593 in 2009 (Human Fertilisation and Embryology Authority, 2012a,b). For treatments involving donor spermatozoa, the number of patients decreased from 1,208 in 1992 to 975 in 2010; in the same period the number of donor sperm treatment cycles decreased from 1,494 to 1,200, while the number of children born using donor spermatozoa decreased

from 1,781 in 1992 to 1,084 in 2009 (Human Fertilisation and Embryology Authority, 2012a,b). In the United States, the number of transfers involving donor oocytes increased from 11,627 in 2003 to 15,504 in 2010 (Society of Assisted Reproductive Technology, 2012); however available data do not enable accurate calculation of the number of children born using donor oocytes in the U.S. Neither are data available for the number of treatments using, nor for children born following, sperm donation. While non-existent or incomplete recording means that it is impossible to generate global data for either the prevalence or outcome of oocyte donation, a survey of 120 countries undertaken by the International Federation of Fertility Societies (Jones et al., 2010), showed general levels of acceptance for oocyte donation. Among 50 countries governed by statutes, oocyte donation was prohibited in 13 only; among 39 countries practising under guidelines, it was prohibited by 10 only, and among 31 countries operating under neither statutes nor guidelines it was not practiced in 12 only. Of the 50 countries operating under statute, sperm donation in conjunction with IVF was prohibited in 10, and prohibited in 9 for non-IVF purposes. Eleven of the 39 countries with guidelines prohibited sperm donation, and sperm donation was not practiced among nine of the 31 countries operating under neither statutes nor guidelines.

Historically, gamete donation (including oocyte donation) has been characterized by donor anonymity and concealment of the nature of the child's conception. A number of studies undertaken in various countries have explored parents' views regarding disclosure to their donor-conceived children of the means of their conception. To date, most of the study populations relating to oocyte donation have been recipients of anonymous donation whose children have been aged up to eight years (Petee and Weckstein, 1993; Weil *et al.*, 1994; Söderström-Anttila *et al.*, 1998; Baetens et al., 2000; Hahn and Craft-Rosenberg, 2002; Greenfeld and Klock, 2004; Klock and Greenfeld, 2004; Golombok *et al.*, 2004, 2006; Murray *et al.*, 2006; Mac Dougall *et al.*, 2007; van Berkel *et al.*, 2007; Laruelle et al., 2012), although one recent Finnish study has included parents of children aged up to 14 years (Söderström-Anttila *et al.*, 2010). These studies have revealed intended disclosure rates of between 26 and 81%, although not all parents indicating an intention to disclose will necessarily do so (Klock and Greenfeld, 2004; Golombok *et al.*, 2006; Murray *et al.*, 2006; Mac Dougall *et al.*, 2007; van Berkel *et al.*, 2007), and only three studies have included longitudinal data tracking parental disclosure behaviour. One of these was undertaken in Finland (Söderström-Anttila *et al.*, 1998, 2010) and two the UK (Golombok *et al.*, 1999; Murray *et al.*, 2006) and (Golombok *et al.*, 2004; Readings *et al.*, 2011). In the first stage of the Finnish study, children were aged up to four years old (Söderström-Anttila *et al.*, 1998), at which time 38% of parents intended to disclose the nature of the conception to their child. A later study of families built using oocyte donation when children were aged up to 14 years included parents who had participated in the original study (Söderström-Anttila *et al.*, 2010). Of all parents in the 2010 study population (113 mothers and 100 fathers), 14.6% had decided never to tell their child; 23.5% had already told their child; 37.1% had not told their child but intended to do so, and 24.9% had still to make up their mind. 27.8% of parents of children aged 13–14 years, all of whom had participated in the original study, had already disclosed and 16.6% still intended to do so (Söderström-Anttila, personal communication, August 18 2011). In the later study, while none of the parents of children aged under three years had

yet told their child, 83.3% indicated that they intended to do so (Söderström-Anttila, personal communication, August 18 2011). Although this latter group is not directly comparable to the 1998 study participants, the increase between 1998 and 2010 in the proportion of parents intending to disclose is remarkable.

In the first UK study, trends over time are difficult to discern accurately because of differences in the way findings are reported in the first (Golombok *et al.*, 1999) and follow up (Murray *et al.*, 2006) studies, and conflation of discrete data in both reports. Twenty-one sets of parents of children conceived following oocyte donation who were aged between 3½ and eight years old were recruited to the study. Of these, one set of parents had already told their child about the nature of her or his conception, and 38% had decided not to tell their child. The plans of the remaining 53% of parents are not specified. Although, given the possible options, it seems reasonable to assume this group comprises parents who were planning to tell later and those who were unsure about disclosure, the respective proportions of these groups are not indicated. Seventeen sets of parents participated in a follow-up study when the children were 12 years old (Murray *et al.*, 2006). The only information provided regarding parental disclosure is that 35% of these parents had either told their child about her or his conception already, or intended to do so, but the respective numbers in each group are not specified. Furthermore, no distinction is made between parents who remain unsure about disclosure and those who have definitely decided not to tell.

In the second UK study parents were first interviewed when their child was aged between birth and twelve months (Golombok *et al.*, 2004). Fifty one families with a child conceived following oocyte donation took part in the study. At that time, none of the parents had told their child, 29 (56%) parents stated their intention to tell their child about the circumstances of her or his conception in the future, eleven (22%) were uncertain and eleven (22%) planned not to tell. Thirty two of these parents - 62.8% of the original group - were interviewed again when their child was aged seven years. Thirteen (40.6%) had already told their child, ten (31.3%) were planning to tell, four (12.5%) were unsure whether to tell or not, and five (15.6%) had decided not to tell (Readings *et al.*, 2011). Unfortunately, the later disclosure plans are not paired with participants' initial disclosure plans, thus it is not possible to track the parents' specific decision making trajectories. Nevertheless, these three studies suggest an underlying changed ethos regarding disclosure among parents of children conceived following oocyte donation – at least in Finland and the UK.

MacDougall *et al.* (2007) identified two alternative parental disclosure strategies that impacted the timing of disclosure. The 'seed planting' strategy, adopted by parents to ensure that their child 'always knows', favors early disclosure, while later disclosure tends to be employed by parents who prefer to wait until the 'time is right', when they believe their child would have the maturity to understand biologic concepts and have developed a sense of discretion, and who therefore conceive the child's early years as rendering them 'too young' to be told. In MacDougall *et al.*'s (2007) study, parents who disclosed early were more at ease with doing so, whereas those who disclosed later were less certain about how and when to disclose, and wished they had received more peer

and/or professional support and guidance. A Dutch study of 44 families built using oocyte donation, in which the donor was known to the recipient in all cases, indicated considerable variation among parents as to the age at which they intended to disclose (van Berkel *et al.*, 2007). Of the 36 recipient mothers who intended to disclose, only four (9%) – including two who had already disclosed to their child (the only ones to do so) - said they would do so when their child was younger than six years, five (11%) would disclose when the child was between 6 and 12 years of age, seven (16%) would wait until the child was older than 12 years, nine (21%) would disclose when the child was ‘old enough’ – although giving no indication when this might be - and the remaining eleven (25%) had not decided on the age at which they would disclose.

Disclosure is not, in any event, a simple, one-off event, but a longer-term process that involves dealing with a child’s – and often parents’ – potential desires for information, including – for some – the wish to identify and connect with the child’s half-siblings and/or donors (for a recent review of the extant literature on donor-conceived individuals’ views see Blyth *et al.*, 2012). Some jurisdictions facilitate this process through the establishment of confidential registers of gamete and embryo donors, recipients and children born as a result of donation, and by instituting open-identity donation, requiring donors to agree to be identifiable to any offspring who have reached either ‘maturity’ or a specified age (Blyth and Frith, 2009). The number of such jurisdictions is gradually enlarging and currently includes Austria, Finland, Germany, the Netherlands, New South Wales, New Zealand, Norway, South Australia, Sweden, Switzerland, the U.K., Victoria and Western Australia. In Canada, the outcome of an appeal against a ruling by the Supreme Court of British Columbia to end gamete donor anonymity is awaited (Hall, 2011).

While services in the U.S. are characterized by both anonymous and – to a lesser extent - open-identity donation, according to clinic or agency policy (Scheib and Cushing, 2007), in 2011 Washington became the first American state formally to afford donor-conceived people a qualified right to learn the identity of their donor, although the donor may veto disclosure of his or her identity (Washington State Legislature, 2011).

Suggestions from research findings that more parents may be inclined to disclose to their donor-conceived child the nature of her or his conception have paralleled increasing promotion of the desirability of disclosure among professional groups, for example, the American Society for Reproductive Medicine (2004) and the Australian National Health and Medical Research Council (2007). Advocacy of early disclosure has statutory reinforcement in the U.K., where clinics providing ART services are required to inform those contemplating donor conception of:

- “(a) the importance of informing any resulting child at an early age that the child results from the gametes of a person who is not a parent of the child, and
- (b) suitable methods of informing such a child of that fact” (Human Fertilisation and Embryology Act 1990 Section 13(6C)).

Guidelines for ART providers in the U.S. issued by the American Society for Reproductive Medicine (ASRM, 2004) advocate advance agreement on how and when programs and sperm banks will release donor information to recipients and the storage of

medical and genetic information concerning donors. ASRM considers that counseling and informed consent about disclosure are essential for both donor and recipients. It advises ART programs and sperm banks to expect inquiries from donor-conceived people and to consider developing a written policy to respond to these. It is worth noting as regards the current paper, that the ASRM guidance does not extend to agencies that recruit oocyte donors. However, since the intervention of an ART provider is required in order to undertake oocyte donation, both donors and recipients should have access to services as proposed by ASRM.

As part of a drive to improve the availability of information following donor conception, both in the US and internationally, the second author co-founded the Donor Sibling Registry (DSR) in 2000. The DSR is open to a global membership and helps parents of donor-conceived children to search for and contact their child's donor and other families with children sharing the same donor, donor-conceived individuals to search for and contact their donor and/or half-siblings, as well as supplying support, news and education for former donors, prospective donors, families that have used gamete donation to build their family and those interested in doing so. Matches between donor siblings and/or donors are facilitated by use of the unique ID number assigned to donors by clinics, sperm banks or agencies where these are provided to recipients at the time of donor selection. The DSR website is used as an information and communication resource for both members and non members, receiving approximately 10,000 unique visitors and more than 800,000 "hits" each month. As of January 2010, when the survey that forms the basis of this study closed, 26,400 donors, donor-conceived individuals and parents had registered on the site and 7,034 individuals had been matched. As an indication of the pace at which both registrations and matches take place, by June 2012, 36,942 donors, donor-conceived individuals and parents had registered on the site and 9,310 individuals had been matched.

The current study is derived from an online survey conducted by the DSR in order to enhance the quality of services to its members by extending the current evidence base concerning the perspectives of parents of children conceived following oocyte donation.

Materials and Methods

An online survey of donor oocyte recipients was designed by the second author, based on her experience of working with individuals and families through the DSR, and on previous research conducted with families built using gamete donation (Freeman *et al.*, 2009; Kramer *et al.*, 2009; Beeson *et al.*, 2011; Jadva *et al.*, 2010, 2011). The survey comprised open-ended and multiple choice questions that were designed to generate both qualitative and quantitative data concerning: information respondents had received about their donor, their views about using an anonymous or an open-identity donor, and about disclosure to their children about their genetic origins, their plans for disclosure, whether or not they have identified or hope to find their child's donor or any half siblings, and what advice they would give to parents who are unsure whether to tell their child(ren). The survey was available on the DSR's website, Blog and Yahoo Group and Facebook pages, and was open to both DSR members and non-members from November 2009 to

January 2010. Consequently, neither the total potential survey population nor the response rate are known. Since the initial survey was undertaken as an in-house management exercise, no prior ethics review or approval were required or sought. However, approval of the Research Ethics Panel of the School of Human and Health Sciences at the University of Huddersfield was obtained on 10 March 2011 to enable the first author to participate in the secondary analysis of data derived from the survey and on which the current paper is based.

One hundred and eight individuals participated in the survey. Of these 68, (63.0%) were gestational mothers via oocyte donation; 34 (31.5%) gestational mothers and fathers via oocyte donation responding jointly; three (2.8%) single non-gestational mothers via oocyte donation; two pairs (1.9%) of gestational and non-gestational mothers via oocyte donation responding jointly; and one (0.9%) non-gestational mother and a father via oocyte donation responding jointly. In addition to using donor oocytes, 33 respondents (30.6%) also used donor sperm. With the exception of four couples who used a gestational carrier, each of the respondent mothers was the gestational mother of the resultant child. Responses to all questions were optional; thus, not all respondents answered each question.

Of 104 respondents providing information regarding their marital status, two (1.9%) indicated that they were single lesbians, 19 (18.3%) single heterosexual women, 68 (65.4%) married heterosexual women, one (1.0%) married lesbian; two (1.9%) in a civil union/domestic partnership, three (2.9%) same sex cohabiting, and nine (8.7%) heterosexual cohabiting.

Of the 95 respondents who provided information about their geographical location, 58 (61.1%) resided in the U.S., 22 in the U.K. (23.2%), eight in Australia (8.4%), and five in Canada (5.3%). The remaining two respondents were from European countries other than the U.K. Declared religious affiliation included 33 Protestants (35.8%), 14 “spiritual but not religious” (15.2%), 13 Catholic (14.3%), 10 agnostic (10.9%), nine Jewish (9.8%), eight atheist (8.7%) and five “other” (5.4%). Thirty seven respondents (34.2%) declared their membership of DSR.

At the time of first donor conception, of the 101 respondents providing information, 72 (71.3%) had never had a baby before, four (3.9%) had a child who had died, and seven (6.9%) had had a stillbirth or had miscarried. Of the 93 respondents providing information, 66 (71%) became pregnant within one year of trying with donor oocytes, most of these within one month (i.e. at the first attempt). Participants’ age at first conception with donor oocytes ranged from 29 to 49 years (mean age 41.0 years; SD 3.26). Respondents had a total of 143 children conceived following oocyte donation aged 1-15 years (mean age 5.2 years; SD 3.89). Respondents’ children were clustered towards the younger pole of the age spectrum, with 84 (58.7%) aged under five years. Fifty-four respondents reported the birth of a single child, 34 the birth of two children and seven the birth of three children resulting from oocyte donation. Among these children were 32 sets of twins and two sets of triplets.

Results

Choosing an anonymous or open-identity donor

To facilitate donor selection, many potential recipients received a summary profile of their donor (57 of 85 responses to this question – 67.1%), a three-generation health record (46 of 85 responses – 54.1%), a personal statement by the donor (43 of 85 responses – 50.6%), the donor’s fertility history (45 of 85 responses – 52.9%), and child and/or adult photos of the donor (40 of 85 responses – 47.1%). They were also usually told the donor’s year of birth (53 of 89 responses – 59.6%), country of birth (41 of 89 responses – 46.1%), educational institution attended (41 of 89 responses – 46.1%), and the numbers and ages of any siblings the donor may have (53 of 89 responses – 59.6%)

The clinic or agency is in the position to advise parents regarding the choice of an anonymous versus open-identity donation and what – if anything – to tell their child. Table 1 provides information from respondents concerning their recollections of clinic/agency discussions and advice.

Table 1: Discussions and advice given by clinics or agencies regarding choice of anonymous or open-identity donor

	Discussed	Advised not to	Advised to	Not discussed	Total
Use of anonymous donor	24 (26.7%)	1 (1.1%)	14 (15.6%)	51 (56.7%)	90
Use of open-identity donor	12 (14.6%)	0	7 (8.5%)	63 (76.8%)	82

Ninety-three respondents with at least one child conceived following oocyte donation provided information about the type of donor they had used. Thirty-two (34.4%) chose an open-identity donor, 24 (25.8%) an anonymous donor, and 37 (39.8%) used an anonymous donor because their clinic or agency offered no choice. Two recipients who had chosen an open-identity donor subsequently discovered that the donor was in fact anonymous. Two main reasons given for a preference for an anonymous donor were that respondents did not consider the genetic relationship between donor and offspring to be important, or feared that the donor might interfere in their family. When asked about their current views about anonymous versus open-identity donation, respondents were evenly divided as regards their current satisfaction: twenty (54.1%) of those who had been given no choice about using an anonymous donor now wished they had utilized an open-identity donor, as did twelve (50%) of those who had chosen an anonymous donor. The survey did not ask whether any respondents subsequently regretted using an open-identity donor.

Of the 88 responses to a question inquiring whether anonymous donation should be permitted that enabled respondents to indicate which of three pre-set answers most strongly supported their reasoning, 42 (47.7%) supported anonymous donation on the grounds that “some women that aren't interested in having contact with offspring would otherwise not choose to be donors”, 40, (45.5%) disapproved of anonymous donation because “it is not fair to the offspring never to have the right to know their genetic origins”, five (5.7%) disapproved of anonymous donation because “it shields dishonest

donors from being found out and inadvertently encourages dishonesty”, and one respondent (1.1%) provided her own rationale for supporting anonymous donation on the grounds that “I would never want to give my child the opportunity to know his/her maternal genetic origins” In response to a separate question regarding anonymity and donor probity, to which 89 respondents replied, 41 (46.1%) agreed that “anonymous egg donors are more likely to lie about their attributes than open-identity donors”, while 48 (53.9%) disagreed.

Disclosure to children about their origins

A key issue for families with a donor-conceived child is what to disclose to the child about his or her conception (Human Fertilisation and Embryology Act 1990; ASRM, 2004; National Health and Medical Research Council, 2007). However, respondents reported various experiences in their dealings with clinics.

First, as regards access to counseling, more than 70 per cent of respondents reported that this was offered by the clinic or agency, most of whom made it compulsory. Almost three quarters of the 105 respondents providing information had received professional counseling in advance of using donor oocytes (Table 2).

Table 2: Did you have any professional counseling before you started out along the egg donor route? (n= 105)

	N	%
No, it just never occurred to me/us	11	10.5
No, did consider it but decided against it	4	3.8
No, the agency/clinic offered it but I/we declined	6	5.7
No, for other reasons	6	5.7
Yes, I/we discussed it with a counselor whom I/we sought out alone.	8	7.6
Yes, the agency/clinic arranged counseling - it was mandatory	66	62.9
Yes, the agency/clinic arranged counseling - it was optional	4	3.8

Sixty-seven of the 78 respondents who had received counseling (85.9%) provided further information regarding what, if anything, had been discussed in counseling regarding disclosure to the child. More than 70 percent indicated that they had been advised to disclose at some point in their child’s life, all except one recalling that they had been advised to do so “early in [the child’s] life” (Table 3).

Table 3: If you had professional counseling prior to using donor eggs, did the counselor advise you* (n=67)

	N	%
To tell the child that s/he was donor conceived early in life	47	70.1
To tell the child that s/he was donor conceived at adolescence	1	1.5
To tell the child that s/he was donor conceived at adulthood	0	0
Not to tell the child that s/he was donor conceived	2	3
Genetics don't make a family	26	38.8
A child would likely have curiosity about his/her maternal heritage	31	46.3
Knowing one is donor conceived is important for health care reasons	24	35.8

Your child could have half siblings	23	34.3
Telling a child s/he is donor conceived may prevent unwitting incest	0	0
About the existence of the DSR	5	7.5
About other support groups for gamete donor families	17	25.4

* Respondents were asked to indicate all responses that applied, so the total number is greater than 67.

Of 94 persons who responded to the question, 48 (51%) indicated that they had already told their child about her or his conception by means of oocyte donation. Of these, 40 (83.4%) made their initial disclosure before their child was five years old, four (8.3%) when the child was 5-7 years old, and two (4.2%) at age 8-10 years. Two (4.2%) had told their child as a teenager. Thirty-two of 43 respondents (74.4%) providing information indicated that they had imparted this information to children in stages over time, whereas eleven (25.6%) disclosed on a single occasion. In retrospect, 92.9% (39 out of 42) believed the timing of disclosure had been right; one thought it was too early, one too late, and one “felt the mood was wrong”. None of the parents who had disclosed to their children reported regret or feeling conflicted about doing so.

Thirty-nine respondents believed their children were still too young to be told. Thirty-six (92.3%) of these had children aged under five years. The eldest child still considered to be “too young” was aged eleven years, although the mother also stated that lack of information about the donor had also impacted her decision to withhold this information from her child. Four respondents had not yet decided whether to tell or not (children in these families ranged up to 10 years of age); and three had decided not to tell. The data provided an opportunity to undertake an initial investigation of any relationship between parental choice or use of an anonymous or open-identity donor and subsequent disclosure of donor conception to their child. Understanding of this relationship is limited by the high number of parents in the study who had children aged under five years and whom they considered to be “too young” to be told. While it is likely that some of these parents may disclose at a later date, it is also possible that some will never disclose. The analysis of the data that we were able to undertake, and which has been reported separately (Stephenson et al., 2012), indicates that parental use of an anonymous or open-identity donor makes very little difference to the timing of parental disclosure to children.

Seventy respondents provided free text replies to the question: “What would you advise to parents who are not sure they want to tell their child(ren)?” Sixty-four of these (94.4%) unambiguously indicated that the child should be told about her or his conception, and none advocated non-disclosure. Of the remaining six responses, one stated “I don't think it's up to me to advise”. Three others, two of whom had children aged under four years, had not yet made up their minds about telling their own child. Another advised:

“Decide early on what you want to do but be aware that secrets always come out in the end”,
and the sixth wrote:

“I don't have any advice other than that we don't want to tell our children but are planning on telling them because we don't want trust issues later in life if they found out on their own.”

Twenty-two respondents (31.4%) not only advocated disclosure, but advised that this should be undertaken early, seven following this through by specifically endorsing disclosure as a process over time rather than as a one off event. Sixteen (22.9%) explicitly emphasized that the “story” of egg donation was the child’s story to which the child had a right. Twenty-three respondents (32.9%) mentioned inter-related themes clustering around the negative impact of secrets in families and parental obligations to be truthful to their children.

Nine respondents (12.9% of those providing free text responses) also used this opportunity to affirm oocyte donation as a positive means of family building rather than seeing disclosure either as an apology to the child for using a less-than- ideal means of bringing them into the world or simply as a strategy in damage-limitation, as the following examples illustrate:

“Families come together in many ways - we are proud of all our children, and their origins - they have a right to know their history/identity”.

“I think of it as a positive that all these people collaborated so that this special child could be born”.

“I told her that I had wanted her for a very long time and someone gave me a precious gift which allowed her to be born into my life. I told her I would not want it any other way because she is absolutely perfect and I cannot imagine her being anyone than who she is”.

“Tell your child how thankful you are that someone else helped you become a parent”.

Identifying and making contact with donors and other families with donor siblings

Respondents were asked about their interest in knowing their oocyte donor, making contact with her and finding out about other families with donor siblings who shared the same donor.

Twelve respondents had both identified and contacted their donor, 19% of the 63 respondents providing information, eight of whom indicated that they had located her via the clinic or agency, and two undertook a successful internet search. Another seven respondents had identified their donor but had not contacted her (11.1%). Ten respondents indicated that they were still searching (15.9%), while 26 were potentially interested in identifying their donor, but had not begun to search (41.3%) and eight (12.7%) indicated that they had no interest in identifying her. Respondents who had established contact with their donor reported that the information about her provided by the clinic or agency was mostly accurate, although one said that medical information provided was “a complete lie”; two reported “partially correct but misleading” information concerning the cause of death of immediate family members; two reported “partially correct – a serious omission/fiction” information concerning skills, talents and interests, while one reported this in relation to the donor’s occupation and another in relation to the donor’s personal medical history.

Fourteen respondents had established contact with other families who included donor siblings to their own children. Of these, five were in email contact, one had phone contact, three had met, one had visited at the home, one family reported that they had stayed in each other's home, and three respondents said they "regard each other as relatives."

Respondents were asked if they had been requested by their clinic or agency to report any birth resulting from oocyte donation. Ninety-three provided a response, of whom more than half indicated they had been requested to do so either formally (20; 21.5%) or informally (34; 36.6%). Almost a quarter (21; 22.6%) said they had taken the initiative to report their child's birth without being asked to do so. Thirteen (14.0%) said they did not recollect being asked and five (5.4%) said that this was neither mentioned to them nor did they know about the recording of births.

They were further asked their views about the establishment of a mandatory national gamete donor registry in the US for the purposes of:

1. Maintaining a database of donors and their identities;
2. Keeping track of where donors donate, and the births reported;
3. Recording donors' genetic test results and health information supplied by donors, recipients and offspring;
4. Making available health information to recipients and offspring;
5. For the permanent maintenance of all such records including donor profiles;
6. Monitoring the sperm banks, egg donor clinics and other agencies compliance with regulations and screening procedures,

The question made explicit that the DSR was actively campaigning for the establishment of such a register. Of 73 responses, nearly three quarters, 54, explicitly supported the establishment of such a register, while two only (2.7%) did not want such a registry to be set up.

Discussion

Before discussing the findings from this study or drawing conclusions from these, we need to acknowledge its limitations. It was based on a relatively small number of respondents, and from a potential study population of unknown size. Data were self-reported by a self-selected group of anonymous respondents. In addition, since some respondents had to rely on their memory of events taking place up to sixteen years previously, responses may be subject to recall errors. These factors, and the absence of interaction between the researchers and respondents, emphasized the study's dependence on information whose accuracy could not be independently verified. Since the purpose of the DSR is to facilitate access to information for families built using donor-conception and its views regarding access to information are well known, responses may over-represent individuals with similar views. Indeed, the two main reasons given by DSR members for joining are "to aid my child with his/her curiosity" and "to find out about half siblings". Additionally, knowledge of the DSR's "mission" may encourage

respondents to respond in socially desirable ways or to misrepresent their “real” views in relation to the information they provide. Although only just over one third of respondents declared their membership of DSR, nevertheless it is possible that non-members accessing the DSR website are sympathetic to the orientation of DSR and that the sample as a whole might be more favorably disposed towards disclosure and contact with the donor and donor sibling families than the wider population of parents of children conceived following oocyte donation. Therefore, we make no attempt to extrapolate these findings to the wider population of parents of children conceived following oocyte donation. Further it should be noted that the survey was designed as an information tool for DSR rather than as a research instrument.

Anonymous versus open-identity oocyte donation

Attitudes towards the use of anonymous donors among ART professionals, policy makers, lawmakers and people contemplating use of a donor conception procedure are evolving over time. Current evidence shows considerable variations across communities and among different jurisdictions. More than 30% of respondents to this survey resided in Australia and the UK, where the use of anonymous donors is no longer permitted, in the case of the UK by statute and in Australia by virtue of legislation in several states and by professional body accreditation applying to all clinics in Australia (Fertility Society of Australia, 2008). Sixty percent of respondents resided in the U. S., where current practice is to use both anonymous and open-identity donors. The majority of respondents, more than 70%, had used an anonymous donor, although 40 of this group (all from the U. S.) stated that they did so because their clinic or agency had not offered them the choice of an open-identity donor, and nearly half of those who had used an anonymous donor now wished that they had used an open-identity donor instead. (As noted previously, the survey did not ask if those who had chosen an open-identity donor now regretted doing so, although the overall results indicate that very few respondents, if any, were likely to have done so).

Although most respondents indicated their personal preference for using an open-identity donor, they were divided as to whether anonymous donation should be prohibited, with only slightly more than half agreeing that it should be. For the most part, those who opposed prohibition did so because they thought it would deter some potential donors. Similarly, respondents were divided as to whether they thought anonymous donors were more likely than open-identity donors to provide false information about themselves, with a slight majority (53.9% vs 46.1%) discounting such a risk. All respondents who were concerned about the provision of false information were from the U.S., where the availability of both anonymous and open-identity donors is compounded by the general practice of paying donors (which is prohibited in the three other countries outside the US – Australia, Canada and the UK – from which most of the non-U.S. respondents were drawn).

The survey findings suggest that, especially in the U.S. where the choice of using either an anonymous or open-identity donor exists, clinics and agencies need to do more to widen the options available to their clientele and to facilitate discussion of the

implication of those options. Especially since reproductive autonomy is a prized value, those using oocyte donation to build their family should not be faced with unnecessarily restricted choices that they may later regret. This conclusion is supported by the observation that half of all respondents who had utilized an anonymous donor reported that they now wished they had used an open-identity donor. This is perhaps not surprising given the mode of recruitment for the study via the DSR. The findings that nearly one third of respondents reported that they had not been offered counseling, that more than half said that the use of an anonymous donor had not been discussed with anyone at the clinic or agency and that more than three-quarters related that the use of an open-identity donor had not been discussed with anyone at the clinic or agency provide further reinforcement of the need for improvements in professional practice.

Related to the historic trend in the U.S. for use of anonymous donation is the apparent reluctance of some IVF clinics to obtain follow-up information on births. A surprisingly large number of respondents were never requested by their agency or clinic to report their child(ren's) birth, a practice that contributes to the problem of generating accurate data about the number of children born in the U.S. following oocyte donation.

Disclosure vs non-disclosure

More than 70 percent of respondents indicated that they had been advised to tell their child about her or his conception at some point, all except one recalling that they had been advised to do so early in the child's life. This is consistent with formal guidance to clinics (Human Fertilisation and Embryology Act 1990; ASRM, 2004, National Health and Medical Research Council, 2007). However, it is of concern that almost 30% of respondents reported that they had received no such advice. Since these respondents were not confined to those with older children, it is unlikely that lack of professional encouragement or parental disclosure can be accounted simply by changes in professional ethos over time. In keeping with the advice that most respondents recollected having received, nearly all indicated their intention to tell their child, close to half having already done so, and almost all who provided information said that they had done so before their child reached the age of seven years, thus illustrating the preference of respondents for the "seed planting" strategy of disclosure over the "right time" approach (MacDougall et al., 2007). The emphasis on disclosure, and on early disclosure in particular, is reinforced in respondents' advice to other parents of a donor-conceived child. Despite the possibility that parents favoring disclosure might be over-represented in this survey, these findings are consistent with other studies reporting high levels of both actual and intended disclosure among parents of children conceived following oocyte donation (Söderström-Anttila et al., 2010; Readings et al., 2011). However, although children were aged under five years in more than 80% of cases where parents had already told their child, 90% of children who had not been told because they were deemed to be "too young" were also aged under 5 years. It is plausible that "too young" may both serve as a rationalisation for postponement of disclosure by parents who find it very difficult to tell their child and as a convenient cover for parents who do not intend to tell their child at all, as well as pointing to considerable uncertainty among parents of young children as to the optimum time of disclosure. This is an issue that warrants further research.

Seeking out donors and families with donor siblings

There is an emerging interest in identifying and making contact with gamete donors and donor siblings, both by the parents of donor-conceived children, and by donor-conceived persons themselves, although most of this research has focused on sperm rather than oocyte donation (see for example, Scheib *et al.*, 2003; Scheib and Cushing, 2007; Scheib and Ruby, 2008; Freeman *et al.*, 2009; Cushing, 2010; Mahlstedt *et al.*, 2010; Beeson *et al.*, 2011; Hertz and Mattes, 2011; Blyth, 2012a, b). This trend is also exemplified by the number of individuals registering with DSR and using its website and, specifically in relation to oocyte donation, by respondents to the present survey. Currently very little empirical research has been undertaken concerning the experiences and views of oocyte donors, recipients of donated oocyte and their partners and individuals born as a result of oocyte donation. A retrospective study of 155 U.S. oocyte donors who were surveyed a mean of 9.4 years after their first donation (range 1-22 years) found an overwhelming willingness to have contact with their donor-conceived children (Kramer *et al.*, 2009). Only 36.7% (57 out of 155 respondents) reported having been counseled on the potential interest of the future children in their donor and any donor siblings.

A recent study of sperm and oocyte donors' experiences of anonymous donation and subsequent contact with their donor-conceived offspring included 11 oocyte donors, only one of whom had contacted and met a recipient and her son (Jadva *et al.*, 2011). She reported that she had been in frequent contact with the family and described this as a 'very positive' experience:

“Having met one of the recipient moms and her son conceived from my oocyte, I know how wonderfully healing and affirming such contact can be for all involved.” (Jadva *et al.*, 2011: 643).

The present study makes a modest beginning contribution as regards recipients of donated oocytes. Obviously, more research is required in order to gain a fuller understanding of the experiences of donor-recipient-offspring-sibling contact in oocyte donation.

Conclusions

This study complements previous surveys undertaken via the DSR website involving gamete donation (Freeman *et al.*, 2009; Kramer *et al.* 2009; Jadva *et al.*, 2010, 2011). It has highlighted what appear to be emerging trends in oocyte donation as regards anonymous and open-identity donation, disclosure to donor-conceived children, and contact between donors and recipient families and between families containing donor siblings. It has indicated where current practice in some clinics and agencies needs to be refined as regards choice of donor type made available to recipients, opportunities for discussion regarding donor type and access to counselling. At the same time, as the majority of respondents to this survey have indicated, it has shown some of the positive

experiences enjoyed by parents who have chosen to build their family through oocyte donation.

Authors' roles

WK undertook the research design. EB and JS drafted the manuscript. All authors undertook analysis and interpretation of data and contributed to the drafting and revision of this manuscript and have approved the final version.

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