

It takes two to tango: information-sharing with offspring among heterosexual parents following identity-release sperm donation

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STUDY QUESTION: How do heterosexual parents reason about and experience information-sharing with offspring following identity-release sperm donation?

SUMMARY ANSWER: Sharing information about using donor-conception with offspring is a complex process at several levels, with the parent's personal beliefs and the child's responses serving as driving or impeding forces for the information-sharing process.

WHAT IS KNOWN ALREADY: The overall view of disclosure in gamete donation has shifted from secrecy to openness, but there is still uncertainty among parents concerning how and when to tell the child about his/her genetic origin. Most research on donor-conceived families has focused on donation treatment under anonymous or known circumstances, and there is a lack of studies in settings with identity-release donations.

STUDY DESIGN, SIZE, DURATION: A qualitative interview study among 30 parents following identity-release sperm donation treatment. Interviews were conducted from February 2014 to March 2015.

PARTICIPANTS/MATERIALS, SETTING, METHODS: The present study is part of the prospective longitudinal Swedish Study on Gamete Donation (SSGD), including all fertility clinics performing gamete donation in Sweden. A sample of participants in the SSGD, consisting of heterosexual parents with children aged 7–8 years following identity-release sperm donation, participated in individual semi-structured interviews.

MAIN RESULTS AND THE ROLE OF CHANCE: The analysis revealed one main theme: information-sharing is a process, with three sub-themes; (i) the parent as process manager, (ii) the child as force or friction and (iii) being in the process. The first two subthemes were viewed as being linked together and their content served as driving or impeding forces in the information-sharing process.

LIMITATIONS, REASONS FOR CAUTION: The fact that the study was performed within the context of the Swedish legislation on identity-release donation must be taken into consideration as regards transferability to other populations, as this may affect parents' reasoning concerning their information-sharing with the child.

WIDER IMPLICATIONS OF THE FINDINGS: The present findings highlight the role of the donor-conceived child in the information-sharing process and may contribute to develop counselling that increases parents' confidence in handling children's reactions to information about their genetic origin.

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Introduction

Though gamete donation treatment was initially surrounded by secrecy, it has been suggested that openness about such treatment has increased during recent decades (Scheib et al., 2000; Golombok et al., 2004; Brewaeys et al., 2005; Daniels, 2007; Söderström-Anttila et al., 2010; Readings et al., 2011). Studies have shown that couples that receive treatment with donated gametes are generally open about their treatment and intend to share information about the conception with the offspring (Söderström-Anttila et al., 2010; Readings et al., 2011). Research has consistently reported that the disclosure decision is based on the same moral standpoint, that is, with the best interests of the child and the family in focus (Indekeu et al., 2013). Disclosers have commonly stated that the child has the right to know and have proclaimed their conviction that honesty within the family is the basis for building a secure child–parent relationship. In contrast, non-disclosers—who also state that they have the best interests of the child in mind—have commonly reported that they wish to protect the offspring from perceived stigma or potential negative consequences for family relationships by not disclosing the truth (Indekeu et al., 2013).

The vocabulary of disclosure concerning donor conception has changed during recent years. Earlier, disclosure was discussed in dichotomous terms, thus as either secrecy or openness (Daniels and Taylor, 1993). However, the reality for couples undergoing gamete donation has been reported to be more complex. Research has revealed that some couples tell their closest family about their donation treatment, but only talk about getting help with assisted reproductive technology (ART) with friends and acquaintances. Other parents talk about the donation with their family, but not with their offspring (Murray and Golombok, 2003; Klock and Greenfeld, 2004; Lalos et al., 2007; Daniels et al., 2009), an approach that has lately been described as ‘layers of disclosure’ (Readings et al., 2011) or ‘selective disclosure’ (Hershberger et al., 2007).

Although the overall view of disclosure in gamete donation has moved from secrecy to openness, there is a clear distinction between legislation requiring identity-release in cases of donation and legislation allowing anonymous donation as concerns the possibility for offspring to receive information about the donor as well as potentially make contact. Disclosure may have different meanings for parents who conceived with gametes from anonymous donors (i.e. when the donor and the recipient/offspring remain unknown to each other), identity-release donors (i.e. when the identity of the donor can be released to donor offspring at mature age) or open-identity donors (i.e. when the donor’s identity is known to the recipient). In several countries, only anonymous donation is allowed (e.g. France, Greece, Portugal and Spain). In these countries, the donor remains unknown to the offspring, unless they establish contact through donation networks such as the Donor Sibling Registry (DSR). Other countries (e.g. Sweden, Finland and the UK) only allow identity-release donation, which means the recipient couples must consider the potential future role of the donor, whom their offspring may contact at some later point.

Most research on parents following gamete donation has focused on donation treatment under anonymous or known circumstances (Indekeu et al., 2013) or on parents who are actively seeking contact with their donor child’s siblings and donor through donation networks (Freeman et al., 2009). There are some reports from studies on parents who have actively chosen an identity-release donor, and in

these studies, lesbian couples or single women constitute a significant proportion of the informants (Scheib et al., 2003; Brewaeys et al., 2005; Goldberg and Scheib, 2015). Studies on heterosexual couples’ information-sharing with offspring in settings that only allow identity-release donation are limited to the Swedish context and, with one exception (Lindblad et al., 2000), are based on quantitative data (Gottlieb et al., 2000; Lalos et al., 2007; Isaksson et al., 2011, 2012).

Previous results from a national cohort of Swedish parents following identity-release gamete donation revealed that 16% of parents with young children (1–4 years of age) had already started talking with their child about the donor conception and that 78% of parents intended to do so later on (Isaksson et al., 2012). Although parents want to be open with their child and share information about the use of a donor as well as about the offspring’s right to identifying information about the donor, it is not always easy to translate this intention into practice (Daniels, 2004; Nordqvist and Smart, 2014). In a previous quantitative study following identity-release gamete donation in Sweden, parents reported uncertainty as to how and when to tell the child about his/her genetic origin (Isaksson et al., 2012). Therefore, the aim of the present study was to explore how heterosexual parents with school-aged children reason about and experience information-sharing with offspring following identity-release sperm donation.

Materials and Methods

Participants and procedure

The present study is part of the longitudinal Swedish Study on Gamete Donation (SSGD), which is a multicentre study that has been following a cohort of gamete recipients in Sweden since their treatment in 2005–2008. The present sample was identified from the sample of 127 heterosexual couples undergoing sperm donation treatment that initially agreed to participate in the SSGD (response rate 81%). See Isaksson et al. (2012) for information about the criteria for inclusion in the multicentre study. The fourth data assessment of the longitudinal study is ongoing (data collection 2014–2017) and consists of a questionnaire that is distributed to participants with donor-conceived offspring when the child is 7–8 years old. Inclusion criteria for the present interview study were being heterosexual recipients of donated sperm that resulted in a child aged 7–8, having participated in the fourth assessment of the longitudinal study and accepting contact regarding further study participation. During the time period February 2014–February 2015, a consecutive sample of 51 parents who met the inclusion criteria received a letter including information about the interview study and an informed consent form with a prepaid return envelope. If no written response was received within a few weeks, the researchers phoned the parents regarding their interest to participate. This recruitment procedure was performed continuously until data saturation was reached, thus until no new information related to the study aim emerged from the interview data. In the present study, 17 parents responded by mail (14 agreeing to participate and 3 declining participation), 18 parents were contacted by telephone (16 agreed to participate and 2 declined) and remaining 16 non-responding parents were not contacted by telephone as data saturation already had been reached.

Thirty parents (19 women and 11 men) representing sperm recipients from seven fertility clinics in Sweden participated in individual interviews. The informants consisted of nine cohabiting couples and 10 mothers and 2 fathers from couples where only one parent agreed to participate. Five of the informants had separated from the other parent of the donor offspring

and three of them lived in new relationships. All interviews were conducted at a time chosen by the informant. Because the informants were geographically spread over the entire country, interviews were performed in the context of both face-to-face and telephone meetings.

The interviews were semi-structured and focused on informants' (i) experiences of parenthood, (ii) experiences of and need for emotional support during treatment and parenthood, (iii) how they are received in society, (iv) their reasoning about and experiences of information-sharing concerning the treatment and (v) their thoughts about the donor. When necessary, the informants were asked to clarify what they meant or follow-up questions were posed, such as: *Can you give an example?*, *What do you mean?* or *Tell me more*. The interviews lasted between 40 and 120 min and were conducted by the co-authors S.I. or C.L., who are trained in qualitative interviewing and have no professional connection to the clinics where the participants underwent the donation treatment. The study was approved by the Regional Ethics Review Board in Linköping, Sweden.

Data analysis

All interviews were digitally recorded, transcribed verbatim and analysed using qualitative thematic content analysis, in accordance with [Burnard et al. \(2008\)](#). For the present study, only data on information-sharing with the child and thoughts about the donor were included in the analysis. First, the transcripts were read to get a sense of the entire interview. The transcriptions were then read several times, keeping in mind the aim of the study. This step was followed by open coding, during which key phrases were identified and summarized using notes or short phrases. In the next step, the notes or phrases were grouped together into categories with subheadings based on their content. To reduce and refine the number of categories, overlapping and similar categories were subsequently grouped together. During research group discussions on the identified categories, an overall theme finally emerged, which provided a deeper understanding of the participants' reasoning and experiences on a more latent level. The main analysis was conducted by the first author, but several meetings were held with co-authors C.L and L.L. during the analysis process to discuss the different steps in the analysis and the categorizations until consensus was reached.

Results

The analysis resulted in one main theme: *information-sharing is a process* and three subthemes: (i) *the parent as process manager*, (ii) *the child as force or friction* and (iii) *being in the process*. The first two subthemes include categories that describe driving or impeding forces in the information-sharing process.

The fact that information-sharing with a child about his/her conception is considered a process means that information-sharing is not limited to a single occasion of disclosure when everything is revealed. In the present study, four levels in the process were observed, each level containing varying informational content: (i) the story of how babies are made, (ii) that the parents needed help at the hospital, (iii) that the parents received help from a sperm donor and (iv) that the child will be able to obtain information about the donor when he/she is older. At the time of the interview, most parents had begun the information-sharing process, but were at different levels. Moving forward in the process was influenced by several factors, which are described below.

The parent as process manager

The first subtheme—*The parent as process manager*—implies that the parent is the person who assumes responsibility for initiating the

process and keeping it moving forward. This subtheme includes the sub-categories described below, which served as driving or impeding forces in the process.

The child has the right to know

The opinion that the child had the right to know about his/her conception was for many informants the basis for sharing information and served as a driving force in information-sharing. Several informants stated that disclosure had always been self-evident to them and that the child had the right to identifying information about the donor.

I haven't even considered hiding it, instead the fact that we've presented this for our children together and said 'this is how it is' has been natural for me (Male 10).

They have a right to that knowledge and to know what has happened and how, what their biological origins are (Male 18).

For some, fear that the child would learn about the donor conception from someone else and not wanting any family secrets were reasons for wanting to talk with the child about his/her origins. Several mentioned having experienced family secrets while growing up. These secrets had been a burden on the family or revealing them had resulted in a crisis. None of the parents intended to keep the donor conception a secret from the child.

There will never be a better opportunity to start talking

All informants were convinced that the child had to receive the information in a positive manner. For some, the driving force behind information-sharing was giving the child a sense of always having known the whole story, everything from how babies are made to the ability to later learn the donor's identity. They expressed a conviction that there would never be a better opportunity to start the process than talking with the child from the outset.

There just doesn't seem to be a better way than starting to talk about this from the very beginning (Male 8).

Some also mentioned the importance of avoiding problems, such as the child accidentally realizing the donor conception during a biology class at school.

The child needs to be mature enough

Some parents wanted the child to be mature enough to be able to understand all the different aspects of the conception, and to be able to discuss these aspects when they revealed that there was donor sperm involved in the conception. This notion of maturity served as an impeding force for talking with the child at a young age. One man, who only had told his son that they needed help from the hospital, elaborated on why he had not yet talked about the use of donor sperm:

When your son finds out you somehow want him to have a certain level of understanding, so he can take it in, the information. So there can be a discussion, or something (Male 4).

Tell the environment

Talking to others about the donation treatment was a strategy that often appeared to act as a driving force for the information-sharing process. Some mentioned that they had involved family members in the information-sharing so that the child would also be able to hear the

story about his/her conception from others. Another view expressed was that by being open with friends and family, one can avoid gossip and de-dramatize the situation, thus avoiding the risk of the child being picked on by other children.

We told my partner's family and my family and our closest friends. . . . So that it would. . . . Well, it's a big deal for some friends who like to spread gossip and it was. . . . So the best thing we did was to 'Let people talk a while then it's not as interesting and then it's like "Yeah, right, something about the IVF clinic". Then it's really not a big thing. No ammunition that can be used at school: 'Did you know those kids are sperm donation kids?' (Female 14).

Losing control

The sense of losing control when talking with the child about his/her conception with donor sperm was an impeding factor, and included the feeling that 'the entire world' would learn about the couple's use of sperm donation because the child could tell anyone.

When they [the children] begin to understand more and find out and all, then sometimes I think, 'God, what will they say at school and how . . . will the school staff start talking? Will they look at A [the husband] differently after that?' / . . . / it's sort of scary, not being in control, that's how it is (Female 16).

One woman said that when she had shared information about the sperm donation with her daughter, she also asked her daughter not to tell anybody outside the family about the donor conception, in order to protect the family and her infertile husband. Some parents also expressed their belief that the child in fact owned his/her own story and had to be mature enough to handle it before being told anything about the use of a donor. With that in mind, they had only told their closest family members. This would allow the child to choose whether or not to talk to others about his/her origins.

It is not an easy thing to talk about

Despite expressing values in favour of openness and having firm intentions to tell the child all about his/her conception, for many parents this was not an easy task. They had postponed it and not come as far along in the information-sharing process as they had wished.

We've described how we got help with the actual fertilization, so to speak. But we haven't talked about, we haven't gone the whole way . . . to say that he, that I'm not his father, we haven't got that far, not one hundred per cent. So well . . . but that's, that's our goal (Male 4).

It's kind of like dieting, if you know what I mean, 'I'll start tomorrow' (Male 15).

Finding a suitable vocabulary adjusted to the child's age and level of understanding was not always an easy task, and some had searched on Internet forums, borrowed books or talked to other family members to find guidance in this matter.

Fear that the child would ask difficult questions was a source of friction that prevented the information-sharing process from moving forward. One man described how he had talked with his son about how some dads need help to have children and about him being such a dad, but he had postponed talking about the IVF treatment and donor sperm in order to avoid having to deal with the potentially difficult questions the child might ask.

Plan conversations or seizing opportunities to talk about it

The age of the child when parents had started the information-sharing process varied. Some had begun when the child was an infant, while others had started recently. Some parents had actively initiated the process with a planned conversation with the child, while others had seized the opportunity when the child had asked questions about where babies come from.

When she was little I told her a bit just so she'd hear it but she wasn't even, I mean she hadn't asked I just told her like / . . . / then she said something 'uh huh, yeah' like that / . . . / But then, you know how it is in the car after football practice / . . . / listening to really loud music / . . . / and the right in the middle, during the music she yelled out 'Hey, how do babies get made?' You know like kids do, and I looked at E [the husband] and he was, he looked at me like, he was driving, and I felt 'okay, let's do it'. So I told her how it happens but that we couldn't so we had to have help from the hospital, like we had adopted a 'tadpole' we said to avoid all the terms. . . . 'Okay' she said. / . . . / then later she asked 'did you do it at the hospital because daddy couldn't have kids or because you didn't what to "do that"?' (Female 6).

Parents often felt a need to keep the story alive and tried to achieve this in a natural way by bringing up the topic when the opportunity presented itself.

Every opportunity I get when they talk about kids and babies I usually say, 'and as you know, like I've told you mummy and daddy had to get help from a doctor to make you' and that's enough for that time. It doesn't need to be the whole story all the time instead. . . . Just so they've heard it, 'IVF clinic, swimmers, doctor, mummy, daddy, baby', well you know, so that . . . so it's natural (Female 14).

The child as force or friction

The second subtheme—'The child as force or friction'—implies that the child plays a part in the information-sharing process through his/her reactions to the information provided by parents. This subtheme includes the subcategories described below, which served as driving or impeding forces in the process.

Neutral or curious reactions from the child

Many of the parents who had come at least to the second level in the process (i.e. talking with the child about them getting help to conceive) mentioned some occasion when the child had reacted to the information.

Most parents felt that the child had no preconceptions about how things should be and that his/her reactions were neutral, for instance, just an 'okay', but in some cases, the child had been curious and asked questions about the 'daddy seed'. The child's curiosity was a driving force that made it natural to move on to the next level, thus to talk about the donor and about the child's right to access donor information later on. The child's questions also enabled the parents to explain and try to comprehend how much the child actually understood about conception.

But this time I'd explained a little bit to C [the daughter] about eggs and sperm and the birds and the bees and the like. And it was pretty funny because in the middle of it all she said 'But mummy, I don't understand at all, do you mean my daddy is a rooster?' (Female 9).

When information-sharing reached the third or fourth level, including information about the use of a donor, it sometimes caused the child to reflect on the role of the father, including questions about whether the

child had two dads, who the other dad could be or what he was doing at the moment. One man, who had told his two sons that they could contact the donor, explained how the boys were sometimes curious and wanted to meet the donor. However, the same man also stated that there had been occasions when the boys had been sad, saying that they did not want another dad. The man described how he had had to reassure them that he would remain their father regardless of their decision to contact the donor.

Non-interest from the child

When the child had no reaction or did not seem to be interested in talking about how he/she was conceived, this often had an impeding effect on the information-sharing process, as parents felt unsure as to how to move forward and bring up the topic again. One father elaborated on his attempts to continue the information-sharing process he had recently started with his son:

It's almost like S, my oldest son, he said 'Okay then stop talking about this now dad', I mean he, he thought I was nagging. 'But I've already heard you say all this'. Kind of like that, so I . . . then I've thought okay, I guess I shouldn't push it too much (Male 18).

Being in the process

The last subtheme—*being in the process*—implies that while in the process, the parents deal with different emotions and thoughts concerning how they have built their family and the consequences this might have.

Handling conflicting emotions

Starting the information-sharing process was connected to emotions of grief about the fact that the couple had been unable to achieve a pregnancy and have a child on their own as well as thankfulness for finally having a child after a long period of struggle. Practicing what one would say when changing nappies on the changing table was one way of handling the emotions and protecting the child from the grief connected to the infertility diagnosis and childlessness. In addition, it was a way of preparing for the child's reactions when he/she was older. One woman described how lack of communication with her partner and the family during the infertility process made her unsure about how to talk about her child's conception. In order to get comfortable with what she planned to say, she had practised with her child on the changing table.

I remember that our youngest child was lying on the changing table when I started trying to find the right words. And then . . . then, it was more for my own sake of course, because . . . he was so small. And couldn't understand at all what I was saying. / . . . / if my husband and I had talked more about it, then we'd have had the words and ways of expressing ourselves about it. But then it was my own thing, like . . . thoughts. / . . . / I didn't want to convey to the children the feeling . . . that they had been conceived in a way that made me sad. / . . . / That we were sad when we couldn't have kids on our own. But then we got help, and it, it all turned out fine. To find those words, to find them . . . to find a way to express myself that I feel satisfied with. So I sound satisfied with things (Female 29).

A sense of relief

The parents often expressed a sense of relief when they felt that the child had grasped the shared information, and that it did not seem to be a major issue in the child's life at the moment. One woman had postponed telling her daughter about the involvement of a donor because she was unsure about how to talk about it and concerned about how her

daughter would react. Once when her daughter asked questions about adopted children, the women took the opportunity to tell her about the donor conception. The daughter's reaction was neutral, and the mother expressed great relief about having moved forward in the information-sharing process and about the child having reacted in a neutral fashion.

The future is unknown

For most parents, their use of donor conception to build a family was not perceived as a major concern in their life at the moment. However, most parents spontaneously began discussing their thoughts about the future and mentioned that teens, in particular, could be unpredictable. Concerns were raised that the child would brood over his/her identity, want to be 'like everyone else' and that a time would come when he/she would question whether 'daddy' was his/her real father. Helping the child become a stable person with a strong character was one way in which the parents attempted to deal with these concerns.

For parents with two or more offspring following donation treatment, knowing the siblings had the same history and would have someone to share their feelings and experiences with also felt reassuring. Several parents mentioned how important it had been for them to have at least two children through donor conception, so that the child would have a sibling to share his/her story with.

Dealing with the existence of a donor

The idea of a donor that could be identified in the future was still rather abstract, and the parents felt that receiving information about him was something the child should decide about. Some parents had thought a lot about the donor and were interested in getting more information about him and having the opportunity to thank him for his gift; thus, they were hoping the child would choose to seek out the information and make the contact. Others expressed having no interest in receiving information about the donor. However, if the child wanted to know more about his/her identity, they would support him/her, but also discuss the significance of knowing the donor's identity and what a potential subsequent meeting with the donor could entail. One woman had told her children that they were donor conceived, but feared that her children would start asking questions about the donor's identity. She did not like the idea of them getting identifying information about the donor and would rather prefer the donor to be anonymous, though she would not lie to her children if they started asking questions about him. She felt that it could be awkward for the donor and his family to be contacted several years after the donation. In addition, like several other parents, she had concerns that a meeting would reveal that the donor was not in fact the ideal person she had made him seem to be.

Somehow you hope that this is a fantastic person, like you feel he must be because of the children, but what if that isn't true, that would be awful. Because, uh, it is really. . . . Really it's them. In a way. I don't want . . . then I don't want to know. No, I want things to be like they are now, now everything's great (Female 6).

Discussion

The present results revealed that sharing information about donor conception with offspring is a complex process that involves different levels, with parents' beliefs and offspring responses serving as driving or

impeding forces in the information-sharing process. We were able to identify four different levels in the process that entail sharing different amounts of information about the child's conception. The levels extend from telling the general story of how babies are made to providing information about the child's right to access identifying information about the donor when the child is old enough.

Findings from the present study are consistent with previous results on parents' reasons for sharing information with the offspring; these reasons are that the donor child has a fundamental right to knowledge about his/her origins, a desire for honesty and openness within the family and a desire to avoid the risk of accidental discovery (Lalos et al., 2007; Indekeu et al., 2013). None of the parents intended to keep the donor conception a secret from the child.

The strategies for information-sharing were found to be similar to those presented previously, i.e. the 'seed-planting' strategy or the 'right-time' strategy (Indekeu et al., 2013). When the parents shared information with the child, many felt that at some point, the child gave a reaction to the information. Previous findings on children's reactions to information-sharing are similar to results from the present study (MacDougall et al., 2007; Blake et al., 2010). However, sharing information with someone requires (at least) two individuals, both an information provider and a recipient. To our knowledge, no previous study has taken into account the offspring's importance in the process to the same degree as in the present study. The child's curious or neutral reactions to the information served as a vital force in moving the process forward and giving parents the confidence they needed to share information more frequently and extensively. In contrast, non-interest on the part of the child served to prevent the information-sharing process from moving forward. This shows that information-sharing is not about the parent *giving* information to the offspring, but about the parent *sharing* information with the child. As in a tango, one person takes the lead in the dance and the other follows, but they cannot continue dancing unless they both exert a certain force. Clinicians and counsellors conveying this to parents and prospective parents might help to increase the parents' confidence in handling their child's reactions to information about his/her genetic origin.

Four levels of the information-sharing process were observed, and some parents had not progressed beyond talking about having needed help at the hospital to conceive, sometimes because the child's reactions had not encouraged them to disclose more information. One father also felt that he held back the information out of fear that the child would start asking questions that would be too difficult for him to handle. Readings et al. (2011) presented similar 'layers of disclosure' in UK surrogacy and gamete donation families. In their research, Readings et al. suggested that, nowadays when IVF is so common and widely accepted among the general public, it is easy to talk with family, friends and the child about having used IVF to build a family. The use of donor gametes and genetic relatedness is, however, still rather unknown and more difficult to approach when talking with the child (Readings et al., 2011; Crawshaw and Montuschi, 2013). This may be evident in Sweden as well. Although Swedish society is open and there is public awareness of sperm donation as an option for lesbian couples and single women to build a family, the use of donor gametes due to infertility in heterosexual couples still appears to be a sensitive topic. This sensitivity was observed in the present study, in that some parents were afraid of what others would say if the child talked to people outside the family about being donor-

conceived, and some even encouraged the child not to discuss the topic with anyone outside the family.

Some parents had actively chosen not to talk about their use of donor conception to anybody, but their closest family, as this approach would allow the child to choose whether or not to share this information with anyone else, i.e. recognizing the child as the primary owner of information about his/her genetic origin. On the one hand, it may be seen as a considerate way of giving the child the 'copyright' to his/her story. On the other hand, there is a risk it may convey that the information is taboo or shameful to talk about and give the child a feeling of being unnatural and separated from the family. Sweden is considered to be an extremely individualistic country, with high secular-rational and self-expression values, including low recognition of traditional family values and high recognition of, e.g. freedom of choice (World Values Survey Association, 2008), which may be one explanation for these findings.

Information-sharing in terms of parents sharing the story of how the family was built rather than sharing the story of how the child was conceived, i.e. a 'family-building approach' that recognizes the child as an integral part of the family history, have previously been discussed (Daniels and Thorn, 2001; Daniels, 2004). In the present study, some parents were convinced that the best way to protect the child against gossip in the community was to be totally open about the donor conception from the start, so that all such talk would have died out by the time the child was old enough to understand it. In this way, the parents strived to give the child a sense that family building through sperm donation might be uncommon, but certainly not unnatural. This can be seen in the parents who adopted the family-building approach by sharing how they built their family with the people around them.

Some parents elaborated on their belief that it was important not to convey a feeling of grief to the child, but only a feeling of happiness about having received this precious gift. One way of handling these emotions and protecting the child from the parents' sorrow was by practising talking about the conception while the child was still too small to understand. This method of practising 'a script' for what could be a difficult task has also been reported previously (Hunter et al., 2000). For one woman, whose husband was not interested in communicating with her about their infertility, practising at the changing table was also a way to use words and expressions she had never been able to use with her husband or anyone else. This woman had dealt with the lack of communication with her husband by talking with her infant child.

The notion that the donor would be identifiable in the future was perceived as rather abstract, as the parents had at least 10 years until this might be a reality that must be dealt with. In their study among parents who chose identity-release sperm donation, Scheib et al. (2003) revealed that although parents had positive attitudes towards release of donor identity, they were nevertheless concerned about how the process would unfold. It is not known what proportion of offspring from identity-release donations actually search for donor identity and subsequently seek contact with the donor. In Sweden, since the legislation abandoning donor anonymity came into effect in 1985, 20 donor offspring (of ~500 possible) have requested identifying information about their donor (personal communication with K. Wånggren, 6 October 2015). Whether this is a sign of disinterest or of unawareness of mode of conception on the part of the offspring is not known. Research has suggested that sperm donation offspring's interest in establishing a relationship tends to be lower among offspring from heterosexual couples than among offspring from lesbian couples and

single mothers (Scheib *et al.*, 2005; Jadva *et al.*, 2010; Beeson *et al.*, 2011). Additionally, offspring from dual-parent heterosexual families reported lower comfort with expressing feelings of curiosity about their donor (Beeson *et al.*, 2011). The present study showed that although most parents felt comfortable with the child possibly searching for identifying information, there was one parent who would have preferred using an anonymous donor. Interestingly, despite this preference, the feeling of having a moral obligation to be honest with the child and share information was stronger. This finding supports the notion that identity-release legislation prioritizes the child as the main stakeholder, whose interests supersede those of the parent and the donor as regards possessing information about the conception and deciding whether or not to search for identifying information on and/or to contact the donor. This has also been shown among Swedish donors, whose views on potential future contact also take into account the best interests of the offspring (Isaksson *et al.*, 2014).

Methodological considerations

Regarding the trustworthiness of the study, the concepts of credibility, dependability and transferability were addressed (Guba, 1981; Graneheim and Lundman, 2004). Recruiting informants from all fertility clinics in Sweden that perform sperm donation treatment provided a variety of informants from different geographical areas, both urban and rural. The informants included both men and women whose relationships remained stable since the time of treatment (married or cohabiting) and parents whose couple relationship had ended; the latter were at the time of the study either living alone or in new relationships, which meant variation in experience among the informants. By the end of the data collection, no new information emerged, which can be seen as a sign of data saturation.

To reduce the risk of researcher bias, investigator and analysis triangulation were used. Moreover, to further increase the study's credibility, representative quotations from the transcribed text were presented. Note that our sample was based on participants in the longitudinal Swedish study on gamete donation and that we have no information about the views of sperm recipients who chose not to participate in the main study or who were lost due to attrition. However, based on parents' interest in participation in the present study when being contacted by telephone, we believe that the sample can be regarded representative of long-term participants in the main study. Thus, it is possible that we have not captured all possible views on information-sharing among heterosexual parents of children with identifiable sperm donors, in particular views that do not support information-sharing about the child's donor conception. However, the parents' views did not unanimously support the Swedish legislation on identity-release donations, which indicates that the informants felt they could speak freely about their opinions and experiences. To achieve dependability, a study-specific interview guide, developed by the research team, was used to ensure that the same topics were covered in all interviews.

Conducting interviews over the telephone as well as through face-to-face interviews has both advantages and disadvantages. Face-to-face meetings have been the tradition of qualitative interviewing, but there is a growing popularity of telephone interviewing (Ward *et al.*, 2015). It has been revealed that informants may feel more comfortable and less judged on the telephone since the researcher's body language cannot be registered (Ward *et al.*, 2015). For the interviewer, there is a greater challenge in a telephone interview to recognize different

shades and facets in the informant as no facial expression or body language can be registered. However, it has been argued that non-visual paralinguistic cues such as intonation or hesitation may be as useful as body language (Ward *et al.*, 2015).

Regarding transferability, the present study was performed in the context of the Swedish legislation requiring that donors be identifiable if the donor offspring should wish to search for them when the offspring reach maturity. This fact must be taken into consideration, because knowing that the child has a legal right to access information about his/her donor does affect the parents' reasoning concerning their information-sharing with the child. In addition, Swedish people are highly individualistic with low endorsement of traditional family values and high value for freedom of choice (World Values Survey Association, 2008), thus the findings of this study of Swedish informants may not be fully transferable to parents in other cultures.

Conclusion

The present study adds knowledge about the process surrounding information-sharing with offspring conceived through sperm donation and highlights in particular the complex interplay between parents and offspring in the information-sharing process.

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Authors' roles

S.I., C.L., A.S.-S. and G.S. planned and designed the study. S.I. and C.L. were responsible for data acquisition. S.I. analysed the interviews, engaging in critical discussions with C.L. and L.L. S.I. was primarily responsible for writing the paper. All authors were involved in drafting and revising the manuscript.

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Conflict of interest

None declared.

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