

RESEARCH NOTE

Donor Programs in Human Reproduction: Reviewing the Debate on Anonymity and Openness

Irina G. Polyakova

Ural Federal University, Yekaterinburg, Russia

Marina V. Valeeva

Ural Federal University, Yekaterinburg, Russia

Anastasia A. Lebedeva

V. F. Yakovlev Ural State Law University, Yekaterinburg, Russia

Alexandra Yu. Khramtsova

Ural Research Institute of Maternity and Child Care, Yekaterinburg, Russia

ABSTRACT

This study is a comprehensive review of English-language academic literature on donor anonymity in assisted reproductive technology (ART) procedures. It systematically examines arguments for and against anonymity, explores the risks associated with de-anonymization, and analyzes the motivations of recipients and donors in choosing either anonymity or openness. Psychological aspects related to these decisions, as well as the consequences of concealing a donor's identity, are also addressed. The review highlights how technological developments, particularly the increasing accessibility of genetic testing, are reshaping social and legal attitudes toward donor anonymity. Findings indicate that absolute anonymity is no longer feasible, a trend likely to drive many countries toward adopting the principle of openness. This shift necessitates careful review of mechanisms for informing donors (and, where applicable, recipients) while safeguarding their privacy. The study provides a foundation for future empirical research to confirm or challenge these conclusions and to formulate new

research objectives. Additionally, by synthesizing current knowledge, this review offers valuable insights for legislative bodies, regulatory agencies, medical institutions, and other stakeholders involved in ART, supporting evidence-based policymaking and practice.

KEYWORDS

gamete donation, sperm donation, oocyte donation, reproductive donation, anonymity

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Introduction

While reproductive technologies offer significant demographic and socio-psychological benefits, they also create challenges for society, participants in assisted reproductive technology (ART) procedures, and policymakers, which calls for in-depth scholarly analysis. A key question is whether donor anonymity should remain in place—an issue with sociodemographic, psychological, and legal implications.

Donor anonymity in reproductive processes helps protect the confidentiality of participants, particularly parents, enabling them to form traditional nuclear families without third-party interference, while safeguarding privacy, avoiding stigmatization, and maintaining psychological comfort. However, children conceived via anonymous donation may face identity-related challenges due to a lack of knowledge about their biological origins. For example, in Russia, the absence of a unified gamete donor registry and birth tracking from a single donor increases the risk of closely related individuals unknowingly entering into marriage.

Openness helps reduce social stigma, supporting the growing acceptance of reproductive technologies as a natural part of life and their integration into society's culture. However, the balance between anonymity and openness requires consideration of the rights of all participants involved in the reproductive process. Therefore, a key question arises: what should be prioritized—the child's right to know their origin or the donor's right to privacy? The answer to this question also depends on the cultural context. For example, openness is often seen as the norm in highly individualistic societies while in more sociocentric cultures, anonymity may be seen as essential to protect family status. The transition to more open practices can lead to changes in family values and result in a new parenting ethics, where biological origins may not always determine the social significance of parenthood.

Conversely, full openness may discourage donors from participating in ART programs due to concerns about losing anonymity, potentially leading to a shortage of donor material and limited access to reproductive technologies. Reproductive donation therefore involves balancing individual autonomy, in which freedom of choice

is central, with sociocentric pressures expressed through public expectations, norms, and regulations. It is also important to consider the inequality between individuals able to conceive and raise children naturally and those who cannot due to medical circumstances.

The study of this issue is complicated by fragmented research: national regulations on ART procedures, funding frameworks, and access to research materials (databases, respondents, etc.) make global or comparative studies particularly time-consuming. To address this, the paper reviews and analyzes current research on donor anonymity, applying an interdisciplinary and comparative approach to reach empirically grounded conclusions.

The discussion focuses on anonymity and the disclosure of donor information, primarily in relation to the rights and interests of the main parties in the in vitro fertilization (IVF) process: donors (sperm and/or oocyte), recipients, and donor-conceived children. The list of interested parties sometimes extends beyond donors, recipients, and donor-conceived children to include siblings born from the same donor, as well as donors' partners, their children, and other relatives. The decision to disclose donor information is often linked to another important choice: whether parents will inform the child about their conception through ART or not (Symons & Kha, 2024). Disclosing donor information is generally more complex than maintaining anonymity. While anonymity allows recipients to receive genetic material from an unknown donor through a clinic, agency, or other intermediary, disclosure requires coordination among the parties, active discussion, and consensus on the conditions of openness (Yee et al., 2011).

This review draws on English-language sources published in leading journals, including *Human Reproduction*, *Fertility and Sterility*, *Reproductive BioMedicine Online*, etc. Searches were conducted in the Web of Science¹ and Scopus² databases using keywords such as "gamete donation," "sperm donation," "oocyte donation," "reproductive donation," and "anonymity." The review is analytical: studies were categorized by research area, followed by a synthesis of issues and an assessment of key controversies.

The findings and conclusions of this review can inform further empirical research to confirm or challenge current results and to formulate new research objectives. Additionally, the discussion of donor anonymity and related ART practices provides valuable insights for legislators, regulatory authorities, medical institutions, and other stakeholders involved in ART.

New Reproductive Technologies and the Question of Anonymity

Advances in genetic technologies are reshaping decisions about what ART-related information should be disclosed. In particular, reproductive techniques such as intracytoplasmic sperm injection (ICSI), which allow fertilization even in cases of severe male infertility, may reduce or eliminate the need for donor sperm in the near future.

¹ <https://www.webofscience.com>

² <https://www.scopus.com>

This could effectively end concerns about anonymity for sperm donors, although the demand for egg donation is likely to continue.

In recent years, more and more attention in the research papers has been paid to the impact of affordable DNA testing on the issue of donor anonymity and openness. These technologies allow users to independently search for their relatives (Harper et al., 2016; Hibino & Allan, 2020; Ishii & de Miguel Beriain, 2022). For example, as of 2016, over three million people worldwide had used this technology to find information about their ancestry and relatives (Cahn, 2017). According to Mohapatra, “the so-called ‘anonymity’ is a facade,” given the pace at which the use of DTC (direct-to-consumer) genetic testing is developing (Pearlman, 2019).

According to Pennings et al. (2021), the increasing use of direct-to-consumer (DTC) DNA testing does not entirely eliminate donor anonymity, though the concept now carries a different meaning. First, it can refer to clinics or sperm banks withholding the donor’s identity. Second, it can indicate the level of contact the donor wishes to have in the future. When donors choose anonymous or non-ID-release donation, they are signaling a preference not to be traced or contacted, and recipients who select such donors are expected to respect this choice.

The question of whether donors should be kept anonymous or not is gradually transformed into the question as to what extent anonymity can be maintained and what are the social consequences of donor anonymity/openness in each specific case (Álvarez Plaza & Pichardo Galán, 2018). In light of advances in DNA technologies, the system for informing both donors and recipients about the likelihood of disclosure should be improved, as this may influence recipients’ decisions on whether to inform their child about their conception via ART or not (Harper et al., 2016).

The Main Arguments Against Anonymity

One of the main arguments for the disclosure of donor data is the child’s right to know about their origin and to receive information about the identity of their biological parent(s). As stated by Cahn and Kramer (2011), it is unfair to deprive children of the right to know about their genetic origin. Ignorance about their origin and/or their biological parents, or lack of information about them, can cause identity problems, increased anxiety, and behavioral problems. Allan (2017) refers to the “existential gap” experienced by donor-conceived children and notes that their psychological state is often described using the term “genealogical confusion,” originally applied to adopted children. Interestingly, arguments about the psychological harm to donor-conceived children frequently draw on analogies with adoption studies, despite important differences between adopted and donor-conceived children (Frith, 2001).

A British study of 149 families found that children aware of the circumstances of their birth showed more psychological problems than those who were not. Higher levels of maternal stress and anxiety also had a greater negative impact on children who knew about their origins. Nonetheless, on average, children born through ART did not differ psychologically from those born naturally (Golombok et al., 2013).

The notion that individuals born through ART experience “genetic bewilderment” or increased anxiety from not knowing their origins is contested in the research literature. It is also difficult to determine whether any identity issues stem from lack of information about biological parents or from the social context, which assumes that such information is essential for developing a sense of self (Melo-Martín, 2016).

A more significant concern is health, particularly when there is a genetic predisposition to certain diseases, as this may increase the risk of passing such genes to many individuals across multiple donors. Donor-conceived children are at a lower risk of genetically determined diseases compared to children born naturally, since reproductive clinics conduct genetic screening of donors and check their family history (Appleby et al., 2012). If a donor is found to carry certain diseases, doctors can inform the reproduction clinic, which can notify the donor and remove their gametes from the sperm bank without revealing the donor's identity to recipients (Riaño-Galán et al., 2021). Maintaining donor anonymity in such cases may be justified, as knowledge of hereditary disease risk does not significantly influence individuals' perceptions of health risks or their related behaviors.

Moreover, not all naturally born individuals are fully aware of their family's health history, as parents may withhold or deem such information unnecessary. Importantly, modern medical technologies now allow the assessment of genetically determined health risks even in the absence of detailed family medical history (Melo-Martín, 2016).

Thirdly, the disclosure of donor identity may be necessary to prevent consanguineous relationships between descendants of the same donor, which is especially important for small populations or if a large number of children were born from one donor. According to Allan (2017), the main concern may not be the risk of consanguinity itself, but the increased anxiety and stress experienced by a child conceived with donor gametes, stemming from the fear of unknowingly entering such a relationship.

Finally, banning donor anonymity promotes a broader culture of openness, making individuals who use ARTs more willing to share this information with their children and others. However, the effect of such laws on the number of recipient parents who choose full disclosure remains unclear and may change as more empirical evidence becomes available (Melo-Martín, 2016). Paradoxically, legislation emphasizing the genetic link between the child and the donor can sometimes have the opposite effect, prompting parents to be more careful in keeping the child's birth a secret (Melo-Martín, 2016).

The Balance Between the Right to Know and the Right to Privacy

Discussion of anonymity hinges on whose rights are prioritized. For example, a donor-conceived child's right to information about their donor may conflict with the donor's right to privacy. This imbalance is evident when donors lack a corresponding right to access information about their biological children. Sauer (2009) quotes a 26-year-old student who participated in an ART program as an oocyte donor: “I do not see how a child can be given the right to find out my identity if I am denied

the right to find out theirs" (p. 920). The author concludes that "the parties involved in each IVF procedure have unique interests that should be delicately balanced against each other in determining whether the disclosure of identifying donor information is appropriate" (Sauer, 2009, p. 954). Instead of introducing a single law prescribing or, conversely, prohibiting donor anonymity, Sauer believes that courts and legislators would be better advised to consider requests for information on a case-by-case basis (Sauer, 2009, p. 954). De Jonge and Barratt (2006) share a similar view, pointing out that the diversity of social contexts should be considered when developing relevant laws; they emphasize that a dual-option system ensures the highest level of fairness, thus enabling prospective parents to choose between an open or anonymous donor.

Government involvement in donor anonymity would also constitute interference in the private lives of recipient families, undermining their right to manage these matters independently and protect themselves from external intrusion (Nelson et al., 2016). In particular, recipient couples may choose anonymous donation to preserve clear family boundaries and explicitly exclude the donor. This motivation is understood and supported by those sperm donors who choose anonymous donation:

"The general thinking was that both parents would feel threatened by the donor's role, which is part of the reason why donation was anonymous"; "I thought I would cause conflict [if I were known]"; "[I was anonymous] to protect myself and the Couple and their child(ren)." (Nelson et al., 2016)

Recipients' Motives in Choosing Donor Anonymity or Openness

A substantial body of research examines donor anonymity from a psychological perspective, focusing on the motivations and attitudes of donors and recipients. One of the early studies of oocyte recipients (Bertrand-Servais et al., 1993) highlighted an interesting observation: when an unknown donor participates in IVF, any emotional connection between the donor and the recipient is effectively absent, and the donation is perceived by the recipient as a singular act of generosity—an expression of sympathy from a fertile woman toward an infertile woman. As one donor explained, the act reflected a desire to help another woman experience motherhood. In this context, oocyte donation is viewed similarly to organ donation. Furthermore, recipients report a weaker sense of moral obligation toward an anonymous donor compared with a known donor (Bertrand-Servais et al., 1993).

According to a Belgian study of 135 infertile oocyte-recipient couples (Laruelle et al., 2011), half of the recipients chose gametes from an anonymous donor, while the other half preferred a known donor. The choice of a known donor was primarily influenced by genetic or physical connections as relatives served as donors in 61.9% of cases or by an emotional bond with the donor (59.5%). For only 16.7% of recipients, the main motive was the child's potential access to information about their biological origin. Among those choosing anonymous donation, the main reasons were maintaining "clear boundaries and roles" in ART procedures (26.1%), lack of access

to a known donor (17.2%), and the desire to keep the donation secret (8.7%). The wish to establish clear family boundaries and exclude the donor figure remains a primary motivation for choosing anonymity

Recipients who opt for anonymous sperm donors may experience complex and ambivalent feelings toward the donor, ranging from gratitude and curiosity to a desire never to meet them and concern that the child might view the donor as a parent (Blake et al., 2014). Many recipients' motives align with the principle of minimizing the connection between donor and child and maximizing distance between them (Bauer, 2022). When describing their choice, respondents often use the term "ignorance," reflecting their wish to remain unaware of the donor's identity, and to have the child, relatives, and wider social circle remain unaware as well (Bauer, 2022).

The choice of anonymity/openness may also be culturally determined. For example, couples from Central and North Africa overwhelmingly preferred the secrecy of birth and anonymity (Laruelle et al., 2011); whereas a Canadian study of oocyte recipients and donors showed that, in general, the overwhelming majority of respondents in both groups expressed support for the principle of openness, although the respondents disagreed on the exact age at which the child should be informed about his or her origin (Yee et al., 2011).

There is evidence showing that heterosexual couples are more likely to conceal the fact of IVF procedures and choose anonymous donors (Álvarez Plaza & Pichardo Galán, 2018), while single women and lesbian couples, on the contrary, are more likely to adhere to the principle of openness and show more interest in the donor (Pearlman, 2019). Moreover, heterosexual recipient couples may not inform the clinic about the birth of a child, so that the clinic could not subsequently use this information (Álvarez Plaza & Pichardo Galán, 2018). In heterosexual couples, one reason for concealing IVF-assisted conception and the use of a sperm donor may be to protect the male partner from the stigma of infertility. Unlike homosexual couples, heterosexual couples seek to reproduce the traditional family model, which may be compromised by the disclosure of information about donation and artificial insemination (Frith, 2001). Indekeu et al. (2013) emphasized that children have the right to know about their origins, and that the parent-child relationship should be grounded in truth and trust; withholding this information can be a source of stress. Parents who chose not to disclose their child's parentage often cited the child's best interests, fearing that disclosure could harm their sense of self or induce shame (Indekeu et al., 2013).

A British study of 101 families found that donor anonymity significantly influenced parents' decisions about disclosure. Recipient parents worried that the inability to identify the donor might be more traumatic for the child than complete ignorance of their birth story. The study also highlighted a contrast between official perceptions, where openness is seen as beneficial for children, and parents' views, who may prefer silence to protect the child from psychological distress (Readings et al., 2011).

Allan (2011) notes that recipients may welcome disclosure of donor information when it aligns with their intention to be open with the child: in this case, they may want to know the name of the donor in order to further use it in conversation with the child instead of the more impersonal designation "donor." They also want to be able to

express their gratitude to the donor (Allan, 2011). Another reason why recipients seek information about the donor and their child's genetic siblings is curiosity. According to the parents, this is done in the best interests of the child, as it will allow them to enhance their child's sense of identity. In general, the majority of parents who managed to find a donor recognized the experience of meeting a donor as positive, which brings Allan to the conclusion that "kinship relationships are based on both direct and indirect genetic connections and shared understandings and experiences, out of which new concepts of the family are being defined and negotiated" (Allan, 2011, p. 367). Moreover, there is evidence that a significant number of recipients who initially chose an anonymous donor later regretted their decision (Bauer, 2022).

Anonymous vs. Known Donors: Psychological Aspects

There may be a certain dynamic in the attitude of recipients towards an anonymous donor: while the child is small, it is easier for them to think of the donor as an impersonal sperm supplier and generally an insignificant figure, but as the child grows up, parents may begin to think more often about the donor's personal qualities character (Blake et al., 2014; Burke et al., 2021). Recipients of gametes from anonymous donors and donor-conceived children often construct the donor's figure creatively, attributing different qualities at different times. In most cases, however, the donor remains on the periphery of parents' and children's consciousness, occasionally coming to the forefront (Blake et al., 2014).

French research with a large sample of sperm donor recipients (714 individuals) found similar patterns, showing a dynamic in heterosexual couples' attitudes toward anonymous donors over time (Kalampalikis et al., 2018). Notably, recipients' perceptions differ between sperm and oocyte donors. This distinction is particularly evident regarding the anticipated reaction of the donor to the child's contact: the motivation to "protect the child from the harmful consequences of seeking contact" appears only in studies of attitudes toward sperm donors (Bauer, 2022). Moreover, "whilst verbal expressions of concern by parents were most often directed towards their children, the overall impression was that secrecy was maintained because of the benefits it would bring to the parents, and in particular to the father" (Readings et al., 2011, p. 493).

Oocyte Donors' Attitudes Toward Anonymity and Openness

A separate group of studies examines donors' perspectives on anonymity and openness. A notable example is a Finnish study of 482 oocyte donors conducted between 1990 and 2012, spanning the introduction of Finland's 2007 assisted reproduction law (Miettinen et al., 2019). The study focused on donors' willingness to have contact with, or support, a child born via IVF, and their attitudes toward informing the child about the donation.

Among donors participating after 2007, 64% believed that a donor-conceived child has the right to know about the use of donated gametes, compared with 36%

before 2007, indicating increasing support for openness (Miettinen et al., 2019, p. 676). Furthermore, 74% expressed a positive attitude toward future contact with the donor-conceived child, and 44% had informed their children about the donation, with 50% planning to do so in the future. However, since 72% of respondents were unaware of whether the IVF procedure had been successful, they may not be psychologically prepared for potential contact with their biological offspring.

The significant time gap between donation and the child reaching adulthood also means that donors' perspectives may change, as well as their personal and family circumstances. Similarly, donors who initially wished to remain anonymous may, over time, become more inclined toward openness (Allan, 2011, 2017).

A British study of a small sample of open oocyte donors (Blake et al., 2014) found that, although all donors agreed that donor-conceived children have a right to know their donor's identity and contact them upon reaching adulthood, they were concerned about potential negative effects on the recipient parents' psychological well-being and the impact of such contact on their own families (Graham et al., 2016). Furthermore, British authorities send contradictory messages to gamete donors: while donors are strongly reminded of the importance of their role in creating new life, they remain unaware of the identity of the recipient, the outcome of the donation, or the implications of providing identifying information, which is justified solely by the child's "right" to know their origin (Graham et al., 2016). As a result, egg donors experience uncertainty regarding the consequences of identity-release donations. A single donation can evolve into a long-term engagement with potential complications if the child reaches adulthood and seeks contact. Information asymmetry is also evident: recipients may obtain information about their egg donor, sometimes selecting a specific donor, while donors receive no information about the recipient or the success of the fertilization (Graham et al., 2016).

Craft and Thornhill (2005) examined the impact of legislatively mandated openness on gamete donors and noted that, in the case of oocyte donors, anonymity can protect donors from emotional trauma in egg-sharing schemes. In these schemes, a patient undergoing IVF may donate some of their eggs in exchange for reduced or free treatment. If the recipient successfully becomes pregnant while the donor does not, later contact with the donor-conceived child could cause significant distress to the donor. Similar to Allan (2011), Craft and Thornhill emphasize that the concept of "openness" involves more than providing personal, family, or medical information. Ideally, it also includes prior acquaintance between donor and recipient, the donor's consent to meet the child, and a willingness to maintain contact throughout the child's life (Craft & Thornhill, 2005).

Sperm Donors' Attitudes Toward Anonymity and Openness

Similar studies were conducted among sperm donors: for example, in 2020, an American team led by Guido Pennings conducted an online survey involving American and Danish donors (Pennings et al., 2021). The majority of anonymous donors stated that if they did not have the opportunity to donate sperm anonymously, they

would have to completely abandon donation. At the same time, donors who adhere to the principle of openness have indicated that they will continue to donate sperm even if their data are classified. Interestingly, donors who preferred open donation were generally significantly older than donors who preferred anonymity. They were also more likely to be in relationships and have families, unlike anonymous donors (Pennings et al., 2021). These correlations are confirmed by other studies (see, for example, Freeman et al., 2012). Donors express mixed feelings about the prospects of communicating with the child, pointing out the importance of understanding the goals that are pursued in establishing such contact, the prior consent of the family, but also noting their common interest in the child and his fate (Álvarez Plaza & Pichardo Galán, 2018). The fear of removing anonymity is precisely that of opening the Pandora's box of contact between donor and genetic offspring, as well as the consequences for the donor's own family (Álvarez Plaza & Pichardo Galán, 2018).

A British study of 133 sperm donors found that the possibility of deanonymization raised concerns primarily about legal and financial responsibility, as anonymity was seen as a form of protection against unwanted consequences. The study suggests that increasing donors' awareness could influence their decision to become open donors (Frith et al., 2007). Donors also frequently mentioned anxiety over the offspring "just turning up on the doorstep" and the potential impact of contact on their own families. The authors recommend providing donors with psychological support and mediation services to address these concerns (Frith et al., 2007).

A Spanish study (Álvarez Plaza & Pichardo Galán, 2018) found that, regardless of altruistic or commercial motives, sperm donors often conceptualize their relationship with the child in terms of family and kinship, occasionally using the term "father," while consistently emphasizing that they do not assume the role of the child's social parent.

In a similar American study, sperm donors also described themselves using the word "father," while oocyte donors described themselves as "non-mothers," which indicates significant gender differences among gamete donors in their perceptions of their role (Almeling, 2006).

The Attitude of ART-Conceived Individuals to the Anonymity/Openness of Donation

Donor-conceived children are evidently the stakeholders most interested in the disclosure of donor information (Nelson et al., 2015). There are data on thousands of such children who are trying to find their donors or other children born from the same donor using non-profit registries like the American Donor Sibling Registry³ (Cahn, 2017). According to Allan (2011), similar to adopted children seeking to meet their biological parents, some donor-conceived individuals may feel a strong need to connect with, or obtain detailed information about, their donor to gain a fuller sense of identity. This desire often exists independently of the love and affection they receive from their non-biological parent(s) and the strength of those relationships. The curiosity

³ <https://donorsiblingregistry.com>. This site is also widely used to recruit participants for sociological and psychological research, including studies on the impact of donor gamete anonymity and openness (see, for example, Freeman et al., 2013; Kalampalikis et al., 2018).

about their donor and the propensity for donor-conceived individuals to search for information is not related to the desire to escape negative family issues; rather, most donor-conceived individuals report positive relationships with their parents (Allan, 2011, p. 358). Like adopted children, donor-conceived children are often curious about their biological parents beyond basic demographic and health information, including physical appearance, personality traits, hobbies, occupation, family background, whether the parent is alive, and the motivation for donation (Crawshaw et al., 2013).

Not all donor-conceived children wish to find their donor; many are satisfied with anonymity (Vanfraussen et al., 2001). The earlier children learn about their conception via IVF, the more neutral their reaction tends to be, with three or four years considered the optimal age, as this allows the fact of their donor conception to become part of their life story (Freeman et al., 2012; Ishii & de Miguel Beriain, 2022). Learning about donor conception in adolescence or adulthood can provoke anger, frustration, and a sense of betrayal, particularly if the disclosure occurs amid traumatic events such as parental divorce (Blake et al., 2014; Ishii & de Miguel Beriain, 2022). Research suggests that it is not the information itself that is most distressing, but the fact that parents initially concealed it (Blyth et al., 2012).

A child's psychological state can also be affected by overall family stress associated with hiding information about their genetic origin. Families that disclose this information before the child turns eight generally have lower anxiety levels than those who wait (Cahn, 2017). Evidence also shows that children raised by a single mother tend to show more interest in finding their donor than children raised in two-parent heterosexual families, likely because mothers in single-parent households encourage this search, believing it benefits the child (Freeman et al., 2012).

Conclusion

As our review has shown, there is no clear consensus on the impact of open versus anonymous gamete donation on the well-being of all stakeholders—recipients, donors, and donor-conceived children. It is evident, however, that the child is generally the most interested in obtaining identifying information about the donor, whereas donors and recipients hold diverse views on anonymity and the conditions under which information should be disclosed. These differing motivations influence decisions to maintain anonymity, choose an anonymous donor, or opt for openness.

Key issues in both legal and ethical discussions include:

- the child's right to know the truth about the specifics of their birth,
- recipients' right to form a full nuclear family,
- donors' right to privacy,
- the right of individuals, including single people, to be parents,
- the right of citizens to marry without fear of consanguinity.

Academic literature generally agrees that affordable genetic testing makes complete donor anonymity increasingly impossible. This trend is likely to encourage many countries to adopt the principle of openness and will necessitate reviewing mechanisms for informing donors (and possibly recipients) while protecting their

privacy. Patterns observed in European countries may differ significantly from those in Asian and Latin American contexts. Additionally, policies promoting open donation may reduce the number of available donors. Such policies should be implemented carefully to avoid disadvantaging vulnerable recipient groups, such as those with limited financial resources or from certain ethnic minorities, who could be disproportionately affected by a reduced donor pool.

References

Allan, S. (2011). Psycho-social, ethical and legal arguments for and against the retrospective release of information about donors to donor-conceived individuals in Australia. *Journal of Law and Medicine*, 19(2), 354–376.

Allan, S. (2017). *Donor conception and the search for information: From secrecy and anonymity to openness*. Routledge.

Almeling, R. (2006). “Why do you want to be a donor?”: Gender and the production of altruism in egg and sperm donation. *New Genetics and Society*, 25(2), 143–157. <https://doi.org/10.1080/14636770600855184>

Álvarez Plaza, C., & Pichardo Galán, J. I. (2018). The construction of the “good sperm donor”: Selection, choice, anonymity and traceability. *Papeles del CEIC*, 2018(2), Article 194. <https://doi.org/10.1387/pceic.18846>

Appleby, J. B., Blake, L., & Freeman, T. (2012). Is disclosure in the best interests of children conceived by donation? In M. Richards, G. Pennings, & J. B. Appleby (Eds.), *Reproductive donation: Practice, policy and bioethics* (pp. 231–249). Cambridge University Press.

Bauer, T. (2022). A systematic review of qualitative studies investigating motives and experiences of recipients of anonymous gamete donation. *Frontiers in Sociology*, 7, Article 746847. <https://doi.org/10.3389/fsoc.2022.746847>

Bertrand-Servais, M., Letur-Könirsch, H., Raoul-Duval, A., & Frydman, R. (1993). Psychological considerations of anonymous oocyte donation. *Human Reproduction*, 8(6), 874–879. <https://doi.org/10.1093/oxfordjournals.humrep.a138158>

Blake, L., Jadva, V., & Golombok, S. (2014). Parent psychological adjustment, donor conception and disclosure: A follow-up over 10 years. *Human Reproduction*, 29(11), 2487–2496. <https://doi.org/10.1093/humrep/deu231>

Blyth, E., Crawshaw, M., Frith, L., & Jones, C. (2012). Donor-conceived people’s views and experiences of their genetic origins: A critical analysis of the research evidence. *Journal of Law and Medicine*, 19(4), 769–789.

Burke, R., Lavery, Y. O., Katzenelson, G., North, J., Boyd, J. W. (2021). *How do individuals who were conceived through the use of donor technologies feel about the nature of their conception?* Harvard Medical School Center for Bioethics. <https://bioethics.hms.harvard.edu/journal/donor-technology>

Cahn, N. (2017). What's right about knowing? *Journal of Law and the Biosciences*, 4(2), 377–383. <https://doi.org/10.1093/jlb/lx018>

Cahn, N. R., & Kramer, W. (2011, September 13). Sperm donors should not be anonymous. *The New York Times*. <https://www.nytimes.com/roomfordebate/2011/09/13/making-laws-about-making-babies/sperm-donors-should-not-be-anonymous>

Craft, I., & Thornhill, A. (2005). Would “all-inclusive” compensation attract more gamete donors to balance their loss of anonymity? *Reproductive BioMedicine Online*, 10(3), 301–306. [https://doi.org/10.1016/s1472-6483\(10\)61787-7](https://doi.org/10.1016/s1472-6483(10)61787-7)

Crawshaw, M., Gunter, C., Tidy, C., & Atherton, F. (2013). Working with previously anonymous gamete donors and donor-conceived adults: Recent practice experiences of running the DNA-based voluntary information exchange and contact register, UK DonorLink. *Human Fertility*, 16(1), 26–30. <https://doi.org/10.3109/14647273.2012.731714>

De Jonge, C., & Barratt, C. L. (2006). Gamete donation: A question of anonymity. *Fertility and Sterility*, 85(2), 500–501. <https://doi.org/10.1016/j.fertnstert.2005.07.1304>

Freeman, T., Appleby, J. B., & Jadva, V. (2012). Identifiable donors and siblings: Implications for the future. In M. Richards, G. Pennings, & J. B. Appleby (Eds.), *Reproductive donation: Practice, policy and bioethics* (pp. 250–269). Cambridge University Press. <https://doi.org/10.1017/CBO9781139026390.014>

Frith, L. (2001). Gamete donation and anonymity: The ethical and legal debate. *Human Reproduction*, 16(5), 818–824. <https://doi.org/10.1093/humrep/16.5.818>

Frith, L., Blyth, E., & Farrand, A. (2007). UK gamete donors' reflections on the removal of anonymity: Implications for recruitment. *Human Reproduction*, 22(6), 1675–1680. <https://doi.org/10.1093/humrep/dem061>

Golombok, S., Blake, L., Casey, P., Roman, G., & Jadva, V. (2013). Children born through reproductive donation: A longitudinal study of psychological adjustment. *Journal of Child Psychology and Psychiatry*, 54(6), 653–660. <https://doi.org/10.1111/jcpp.12015>

Graham, S., Jadva, V., Freeman, T., Ahuja, K., & Golombok, S. (2016). Being an identity-release donor: A qualitative study exploring the motivations, experiences and future expectations of current UK egg donors. *Human Fertility*, 19(4), 230–241. <https://doi.org/10.1080/14647273.2016.1221148>

Harper, J. C., Kennett, D., & Reisel, D. (2016). The end of donor anonymity: How genetic testing is likely to drive anonymous gamete donation out of business. *Human Reproduction*, 31(6), 1135–1140. <https://doi.org/10.1093/humrep/dew065>

Hibino, Y., & Allan, S. (2020). Absence of laws regarding sperm and oocyte donation in Japan and the impacts on donors, parents, and the people born as a result. *Reproductive Medicine and Biology*, 19(3), 295–298. <https://doi.org/10.1002/rmb2.12329>

Indekeu, A., Dierickx, K., Schotmans, P., Daniels, K. R., Rober, P., & D'Hooghe, T. (2013). Factors contributing to parental decision-making in disclosing donor conception: A systematic review. *Human Reproduction Update*, 19(6), 714–733. <https://doi.org/10.1093/humupd/dmt018>

Ishii, T., & de Miguel Beriain, I. (2022). Shifting to a model of donor conception that entails a communication agreement among the parents, donor, and offspring. *BMC Medical Ethics*, 23, Article 18. <https://doi.org/10.1186/s12910-022-00756-1>

Kalampalikis, N., Doumergue, M., Zadeh, S., & French Federation of CECOS (2018). Sperm donor regulation and disclosure intentions: Results from a nationwide multi-centre study in France. *Reproductive BioMedicine & Society Online*, 5, 38–45. <https://doi.org/10.1016/j.rbms.2018.02.001>

Laruelle, C., Place, I., Demeestere, I., Englert, Y., & Delbaere, A. (2011). Anonymity and secrecy options of recipient couples and donors, and ethnic origin influence in three types of oocyte donation. *Human Reproduction*, 26(2), 382–390. <https://doi.org/10.1093/humrep/deg346>

Melo-Martín, I. (2016). How best to protect the vital interests of donor-conceived individuals: Prohibiting or mandating anonymity in gamete donations? *Reproductive Biomedicine and Society Online*, 3, 100–108. <https://doi.org/10.1016/j.rbms.2017.01.003>

Miettinen, A., Rotkirch, A., Suikkari, A.-M., & Söderström-Anttila, V. (2019). Attitudes of anonymous and identity-release oocyte donors towards future contact with donor offspring. *Human Reproduction*, 34(4), 672–678. <https://doi.org/10.1093/humrep/dez009>

Pearlman, A. (2019, May 23). *Gamete donor anonymity is a myth: Q&A with Seema Mohapatra*. Bill of Health. <https://blog.petrieflom.law.harvard.edu/2019/05/23/gamete-donor-anonymity-is-a-myth-a-qa-with-seema-mohapatra/>

Nelson, M. K., Hertz, R., & Kramer, W. (2016). Gamete donor anonymity and limits on numbers of offspring: The views of three stakeholders. *Journal of Law and the Biosciences*, 3(1), 39–67. <https://doi.org/10.1093/jlb/lsv045>

Pennings, G., Mocanu, E., Herrmann, J. R., Skytte, A.-B., Burke, C., & Pacey, A. (2021). Attitudes of sperm donors towards offspring, identity release and extended genetic screening. *Reproductive BioMedicine Online*, 43(4), 700–707. <https://doi.org/10.1016/j.rbmo.2021.06.025>

Readings, J., Blake, L., Casey, P., Jadva, V., & Golombok, S. (2011). Secrecy, disclosure and everything in-between: Decisions of parents of children conceived by donor insemination, egg donation and surrogacy. *Reproductive BioMedicine Online*, 22(5), 485–495. <https://doi.org/10.1016/j.rbmo.2011.01.014>

Riaño-Galán, I., Martínez González, C., & Gallego Riestra, S. (2021). Ethical and legal questions of anonymity and confidentiality in gamete donation. *Anales de Pediatría (English Edition)*, 94(5), 337.e1–337.e6. <https://doi.org/10.1016/j.anpede.2021.02.004>

Sauer, J. L. (2009). Competing interests and gamete donation: The case for anonymity. *Seton Hall Law Review*, 39(3), 919–954. <https://scholarship.shu.edu/shlr/vol39/iss3/5>

Symons, X., & Kha, H. (2024). An ethical examination of donor anonymity and a defence of a legal ban on anonymous donation and the establishment of a central register. *Journal of Bioethical Inquiry*, 21(1), 105–115. <https://doi.org/10.1007/s11673-023-10265-4>

Vanfraussen, K., Ponjaert-Kristoffersen, I., & Brewaeys, A. (2001). An attempt to reconstruct children's donor concept: A comparison between children's and lesbian parents' attitudes towards donor anonymity. *Human Reproduction*, 16(9), 2019–2025. <https://doi.org/10.1093/humrep/16.9.2019>

Yee, S., Blyth, E., & Tsang, A. K. T. (2011). Views of donors and recipients regarding disclosure to children following altruistic known oocyte donation. *Reproductive BioMedicine Online*, 23(7), 851–859. <https://doi.org/10.1016/j.rbmo.2011.06.003>