

Donor insemination – historical background and current developments

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Summary

Donor insemination (DI) was shrouded in secrecy for many years. The majority of doctors recommended parents not to disclose their use of DI neither to their child nor to friends or family members. In the last two decades, this secrecy has increasingly been challenged. This article outlines the historical background and discusses the current legal and professional regulations. Furthermore, it summarizes scientific knowledge regarding the development of children conceived by DI and provides the reader with our current understanding of the implications of DI on family dynamics. It also illustrates the donors' motivations and attitudes and concludes by highlighting the need for psychosocial counselling prior to treatment.

Historical Background

Treatment with donor sperm (also known as heterologous or donor insemination – DI) is likely to be one of the oldest methods of assisted reproductive technology. As early as in 1884, a woman was successfully treated with DI in the USA (Gregoire and Mayer 1965). However, from the beginning until the mid-20th century, DI was heavily criticized amongst professionals. Inseminating a woman with the semen of a man other than her husband was considered unnatural and immoral and professional organisations considered this to be incompatible with the ethics of their profession. Nevertheless, pioneers worldwide performed DI, albeit secretly. In Germany, it is assumed that until 1954, a total of 1000 children were conceived following DI. After this year, it is estimated that DI resulted in the birth of approx. 100 children per year (Katzorke 2008). However, critical voices in the post-war era did not cease. Many gynaecologists described DI as a perversity of thinking, feeling and acting. The German Society of Psychiatry and Psychology explained that the desire to become a mother without knowing or marrying the child's father resulted, in most cases, from a substantial neurotic personality disorder. The lawyer Dölle was convinced that DI was a fundamental offense against marriage, paternity and family – values that a culture and its legal system were dependent upon. As a result of these strong concerns, the 62nd German Physician Conference declared DI to be a treatment that should not be carried out by medical professionals. However, in 1970, the 73rd German Physician Conference de-

clared DI to be theoretically acceptable, but associated with so many problems that it could not possibly be recommended (for this historical overview see Katzorke 2008).

In the course of this liberalization, physicians in private practices and university clinics included DI in their programmes. However, as legal and professional guidelines were missing, many university clinics discontinued this treatment.

The unresolved legal situation and society's critical opinion also resulted in doctors to perform DI in secrecy and to recommend couples to disclose their use of DI neither to their children nor to others. This secrecy was meant to protect all parties involved (Thorn and Daniels 2007):

- It was uncertain whether the child's development and family dynamic, esp. the father-child relationship, may be impaired if the DI conception was known.
- Children as well as their parents were feared to be stigmatized if DI became known.
- Undergoing DI implies that the husband is infertile. The secrecy thus preserved the husband's dignity, as infertility was often associated with a lack of masculinity.
- As the donor did not enjoy any legal protection, secrecy and anonymity were an indirect means to protect him from any legal repercussions.
- Last but not least, secrecy also protected the doctor's reputation as he was offering a treatment frowned upon in public.

Keeping this treatment a secret was simple: The women fell pregnant and gave birth; the donor's contribution was easy to disguise.

Current legal and professional regulations

Since 1970, DI has resulted in the birth of approx. 100,000 children. Initially, this number increased by approx. 1500 to 2000 births per year (Katzorke 2008). In 1993 however, intracytoplasmic sperm injection was introduced, a method that enabled men to father a child despite severe male infertility. Since then, the number of births by DI has remained at approx. 500 (Thorn and Daniels 2000) to 1000 (Katzorke 2008) per year. As there is no central register for DI, this data is based on estimations and extrapolations.

In 1986, the 56th German Legal Forum declared DI to be neither immoral nor illegal. As DI was not mentioned in the German Embryo Protection Act of 1990, a punitive law, it remained exempt from punishment and consequently permitted. However, against the recommendation of Germany's former Minister of Justice Däubler-Gmelin (1986), the Embryo Protection Act did not provide any legal clarification for this method of assisted reproductive technology.

In Germany, 40 doctors currently offer DI and 15 sperm banks recruit donors. In 1995, they unified in the German Medical Society for Donor Insemination (Arbeitskreis für donogene Insemination e. V. – AKDI, www.donogene-insemination.de).

The first legal clarification was achieved with the implementation of a law that abolished the discrimination between children born to married and to de-facto couples. As a result of this change, treating de-facto couples was easier from a legal perspective. In 2002, a new act regulated the right to challenge paternity: if the woman and her male partner consent to DI, neither of the parents can contest paternity. The child is the only party that has right to do so. Following the introduction of the European Tissue Guidelines (2006), the existing (model) guidelines of the Federal Medical Chamber (2006), of the AKDI (Hammel et al. 2006) as well as the Organ Transplant Act (2007) were updated. These (model) guidelines and the act determine that the information regarding the sperm donor and the recipient woman must be documented for a minimum of 30 years. Donors are assured of their anonymity, i.e. the intended parents are not informed about the donor's identity and the donor himself does not receive any information on the recipient of his semen. The donor is informed that the child has the right to learn his identity once he/she has reached adulthood and voices interest in this information.

No further legal changes have been introduced. Therefore, the following aspects have yet to be resolved:

- In contrast to adopted children, there is no legislation for children conceived by DI granting them the right to access information about their biological genitor. Although this right was considered to be a vital privacy right by the Federal Constitutional Court (1989), it cannot be implemented as long as the documents are destroyed after the period of registration (10 years until 2006, from 2006 onwards 30 years).
- Adoption documents must be maintained for a minimum of 60 years. In order to adapt this regulation to the children conceived by DI, it is necessary to extend the period of documentation.
- Although the Federal Medical Chamber does not recommend the treatment of homosexual or single women, law does not prohibit it. However, the sperm donor is not sufficiently protected in such family constellations, as there is no man who consents to paternity. Even if the

lesbian co-mother in a civil partnership can adopt the child after birth, until then there is a risk that the donor has legal responsibilities. In the case of single women, the donor has no protection.

- Independent of the family constellation, the child has the right to contest paternity. In order to protect the various family constellations and the sperm donor, it is necessary to implement a general exemption for the donor, as is already put into practice in Great Britain (HFEA 1990). In Great Britain, the child has the right to access the identity of the donor, however, no paternity responsibilities can be passed on to him.

When the AKDI was founded in 1995, guidelines for DI procedures were published. These were updated in 2006 and do not only regulate the period of documentation but also indications for treatment, medical requirements, the practical procedures as well as the medical examination of and information provided to donors (Hammel et al. 2006, see also: www.donogene-insemination.de). Likewise, the Federal Medical Chamber updated their (model) guidelines in 2006 that also include instructions on the DI procedures. According to these guidelines, DI or donor in vitro fertilization in married or de-facto heterosexual couples can be carried out without any reservations. However, homosexual and single women should be excluded from the treatment in order to provide all children with a stable relationship to both parents. Müller (2008) criticizes this exclusion. According to her, the Federal Medical Chambers that implemented these guidelines have neither legislative powers nor power to implement treatment restrictions, esp. as there is no legal restriction. According to Thorn and Wischmann (2008) the arguments of the Federal Medical Chamber also lack psychological justification. Research carried out in Anglo-Saxon countries has demonstrated that the psychological and social development of children conceived by DI living with a single mother or with two mothers do not differ from children growing up with mother and father (see below).

Current knowledge of the development of children and family dynamics

Many concerns have been raised regarding the psychological development of children conceived by DI. Split paternity, the deviation from the traditional family constellation and the contribution of an anonymous semen donor led to concerns about the child's development and the family dynamics. As the method of conception was often kept a secret, it was difficult to carry out research (Golombok et al. 2004; Thorn and Daniels 2007). Even nowadays, research in this area is characterized by small sample sizes, a lack of long-term studies and distorted results as it is possible that respondents keen to participate in research were particularly distressed by their experiences. The following overview is thus based on data that has yet to be expanded.

Child development

First studies at the beginning of the 1980's observed no adverse effects of DI treatment on the child's physical development and found that the vast majority of parents continued to feel positive about the DI conception after their child's birth (Amuzu et al. 1990; Clayton and Kovacs 1982; Leeton and Blackwell 1982). Towards the end of the 1990's, several other studies were performed that explored the children's psychosocial development. One of the most extensive study was the "European Study of Assisted Reproduction Families". It compared 94 DI families to 102 families with children conceived spontaneously, 102 adoptive families and 102 IVF families in four European countries. Both the DI children and their families were studied in phase 1 aged 4 to 8 years (Golombok et al. 1996) and phase 2 aged 11 to 12 years (Golombok et al. 2002a). Their development was within the norm and the parent-child-relationships were stable. The results of the third phase of the study which was carried out at the age of 18 have not yet been published, but according to the director of the study, the children continue to develop normally (Golombok 2008). However, when interpreting the results, a potential selection bias must be taken into consideration, as the response rate of DI families (47%) was significantly lower than in IVF or adoptive families (over 70%). Further investigations that examined children aged 9 to 12 months (Golombok et al. 2004) and 12 years (Golombok et al. 2002b) as well as a meta-analysis that evaluated data from 10 studies with children aged 0 to 11 years (Brewaeys 2001) support these observations and confirm that the social development of children conceived by DI does not differ from that of children conceived spontaneously. In some studies, the parent-child bond in families created by DI was found to be stronger than in families with children conceived spontaneously.

However, it must be taken into account that in these studies, only a small proportion of the children growing up in heterosexual families were informed about their genetic origin. In conclusion, until puberty, the secrecy does not seem to have an adverse impact on the child's development (Golombok 2002a, b).

Children growing up with lesbian or single mothers

As has been observed in other countries, an increasing number of lesbian couples and single women is likely to use DI in Germany (Thorn et al. 2008a). Because of the absence of a male partner or a second parent, these family constellations are particularly looked upon with scepticism. There are concerns that lesbian women are less maternal, thus children in these families may be affected in their emotional and gender development or may be stigmatized as a result of the unusual family constellation. However, research indicates that these family constellations have no negative impact on the development of DI children with regards to their gender development and the relationship to their parents. Also the concerns regarding an increased stigma resulting from living in a lesbian household have proven to be unfounded. Overall, the prejudices regarding these alternative family constellations are likely to be unjustified (Brewaeys 2001; Brewaeys et al. 2005; Golombok et al. 2003; Herrmann-Green 2006; Hunsfeld et al. 2002; Scheib et al. 2003, for an overview see Patterson and Hastings 2007). Several studies have also investigated single mother families. This distinct subgroup of women choose to become mothers by DI if they have a strong desire for a child but do not have or want a partner and, because of their advanced age, consider DI to be their only chance to have a child (Murray and Golombok 2005a). In a follow-up study, Murray and Golombok (2005a, b) compared 21 single mothers to 46 married couples with children conceived by DI. In the first phase of the study conducted when the children were one year old, the children's socio-emotional development was within the norm. However, single mothers were observed to show less mother-child interaction and lower levels of sensitivity toward their infant than married mothers. This was attributed to the fact that the presence of a partner allowed the married mothers more time for their children, thus permitting more empathetic behaviour (Murray and Golombok 2005b, p. 1656). In the follow-up study one year later, these differences had levelled and the bond between mother and child of single mothers was as stable as that of married mothers. The authors ascribed these differences to the different study designs: In the second study, not the quantity of parent-child interaction but its quality was measured. These measures indicated no differences between single and married mothers. Landau and colleagues (2007) investigated 11 Israeli women who had conceived a child with the help of DI, some in addition with the help of donated oocytes due to their advanced age. The children included in this study were aged 1 to 6 years and their development

was also within the normal range. In contrast to heterosexual parents, most lesbian or single mothers disclosed the conception to their children or intended to do so. Current knowledge thus suggests that concerns regarding this family constellation are unfounded. Nevertheless, more research, especially follow-up studies with older children will have to be carried out on this particular family constellation to expand our knowledge.

Disclosure to the child

Sharing the conception with the child remains a controversial issue, and especially medical professionals tend to recommend to parents to disclose this neither to their children nor to significant others (Katzorke 2008; Thorn and Daniels 2000). In the last two decades, however, the number of psychosocial professionals recommending disclosure has increased (e. g. Baran and Pannor 1989; Blyth 1999; Daniels and Taylor 1993; Haines 1988; McWhinnie 2003; Thorn 2001). Currently, not only psychological aspects, but also medical, ethical and legal arguments support disclosure:

- Secrecy may affect family relationships negatively, i. e. it can disturb the balance between fairness and trust. Furthermore, secrets may be revealed unintentionally which can traumatize children (e.g. Imber-Black 1995; Karpel 1980; Papp 1995; Wiemann 2001).
- They can mislead or mystify the children. In the case of adoption, experts have pointed out for many years that early disclosure prevents a disruption of the child's identity development (e. g. Haines 1988; Kirk 1964; Triseliotis 2000; Wiemann 1994) and argue that this is likely to be similar for children conceived by DI (e. g. Baran and Pannor 1989; Haines 1988; Feast 2003; McWhinnie 2003; Triseliotis 1993).
- In recent years, the increasing relevance of genetic knowledge has made medical ethicists criticize secrecy and question the donor's anonymity (e.g. Cooper 1997; Greenslade 1998). Professional societies such as the American Society for Reproductive Medicine (2004) support identifiable donors so that offspring can access health information.
- Discussions concerning the welfare of the child have resulted in more and more countries to pass legislation granting offspring the right to access identifiable information on their donor (e. g. Sweden, Austria, Switzerland, Great Britain). As a result of these legal changes, children conceived by gamete donation are granted the same rights as adopted children (for an international overview see: Blyth and Landau 2004).

For a number of years, personal stories and anecdotal evidence have illustrated that secrecy can negatively affect child development and family dynamics (e. g. Lorbach 1997; Stevens 2005). Several research projects have started to support this evidence. Turner and Coyle (2000) investigated a group of 16 offspring that had only learnt about their

conception when adults. As a result of this late disclosure, many experienced a loss of trust to their parents and a disruption in their identity development. They also felt that they did not belong to their family and, most importantly, reported feelings of loss and grief as they did not have access to information on their donor's identity and thus their biological background. Cordray (1999/2000) and Hewitt (2002), both conceived by DI, observed similar results in surveys examining their peers' experiences. In addition, these particular studies as well as further research (Golombok et al. 1996; Schilling 1995) and anecdotal evidence (Lorbach 1997) suggests that some parents intend to keep the conception a secret from their children but inform others about it. In these cases, there is a risk of the child inadvertently learning about his/her conception. This is likely to traumatize the child and lead to a loss of trust to his/her parents: Not only did the children find out about their conception from others than their parents, outsiders - and not the children themselves - had this information.

In the last years, the number of heterosexual families intending to disclose the method of conception to their children has been increasing. Some parents argue that it is important to avoid the burden of a family secret and the risk of accidental disclosure, others regard it the information of one's biological origin to be a fundamental right of every human being (e. g. Daniels et al. 2007; Golombok et al. 2004; Lalos et al. 2007). Several studies have found that early disclosure (typically at preschool age) is no burden for the children. On the contrary, it either had no or a positive effect on the parent-child-relationship (Gottlieb et al. 2000; Lycett et al. 2004; Rumball and Adair 1999; Scheib 2004; Vanfraussen et al. 2001). In contrast to prior assumptions, some studies also suggest that children can easily differentiate between the father and the donor's role. Scheib and colleagues (2004) investigated 29 children in different family constellations (heterosexual, lesbian as well as single parents) aged 12 to 17 who knew about their conception. This study recruited families from an American sperm bank that exclusively accepts identifiable donors. Thus, all children had the possibility to access information on their genitor. All children had a positive attitude towards their donor and many were curious to learn more about him. Similar to another study (Kirkman et al. 2007), the donor was sometimes referred to as the "biological father" but only few saw him in the father's role. More than 90% preferred a rather loose or no relationship at all to him and wanted only occasional contact or communication via the clinic, but no personal contact. This indicates that early disclosure can result in children easily differentiating between the father or co-mother and their biological genitor and in considering the father or the co-mother to be the second parent. Similar to anecdotal evidence, (Lorbach 1997), the children participating in this study were interested in establishing contact to half-siblings, children conceived by the same donor.

In 2004, the first comparative study analyzed whether disclosure impacted on family dynamics. Lycett et al. (2004) compared 18 families that had informed their children or were intending to do so to 28 families that had decided to keep the DI a secret. The child's development in both groups was described to be within the norm, but in families that intended to inform their children, the parent-child relationships were more intensive and fewer conflicts were reported between mother and child. Furthermore, parents who had disclosed the mode of conception to their children considered themselves to be more confident than the control group. The European study (Golombok et al. 2002a) suggested similar dynamics: in families in which children were aware of their DI conception, the number of conflicts was smaller than in families that decided to keep the conception a secret. This suggests that the secrecy can have a subtle effect on family dynamics and that disclosure may increase parental confidence. Golombok and colleagues (2002a) therefore point out that contrary to the concerns of DI parents, disclosure does not necessarily have a negative impact on family dynamics but may in fact be beneficial.

For several years, young adults have been supporting openness. The American Cordray (1999/2000, p. 5) states: "It is not necessary to protect us from the truth. DI is not only a medical technology that enables infertile couples to become parents. It has lifelong impact on the children created. (...) first and foremost, we want our autonomy as adults to be respected, and we consider any information on our identity as our fundamental right. The secret is an abuse of power towards vulnerable people that are without a voice." In Germany, young adults conceived by DI voice similar demands: they support the abolition of donor anonymity, speak out for keeping records for a minimum of at least 50 years, recommend donors to be protected from legal responsibilities and demand compulsory counselling of recipients and donors prior to medical treatment (www.spenderkinder.de).

While there is professional medical treatment by DI, there are also questionable sources on the internet (e.g. www.gofeminin.de, www.spermaspende.de) that allow women or couples to directly establish contact to men offering semen donation. However, in these cases, donors tend to be anonymous, making it impossible for the child to access information on the donor's identity or establishing contact later in life.

The role of the donor

For a long time, little meaning was attributed to semen donors. In 1981, for example, it was recommended to regard semen as material of anonymous testes and to consider the donor to be nonexistent (Glezerman 1981, p.185). This attitude reflected the moral reservations, the association with masturbation and extramarital affairs as well as legal uncertainties (Daniels 1998). Until the end of the 1980s, there were many speculations concerning the donor's motivations. In the first studies, the donors were mainly medical students who had a financial interest (e.g. Sauer et al. 1989). In the last decades, several studies examined the motivation of donors. In an international review, Daniels (1998) identified altruistic motives as well as a combination of financial and health-related reasons for donating semen. In a recent study performed on 63 donors living in Germany, the financial compensation (in Germany, semen donors receive 80 Euros per donation) was as important as the wish to help infertile couples conceive a child or to undergo a thorough fertility investigation (Thorn et al. 2008b). In addition, one third of the donors participating in this study favoured openness and supported parental disclosure. They did not only agree for unidentifiable information to be passed on to the children but were also willing to be contacted by the offspring once they were adults. One third was uncertain about the disclosure and one third opposed. Those donors who were against parental disclosure feared a negative impact on the child's development as well as problems arising within the child's family.

Interestingly, donors in this study had a rather liberal attitude as to which recipient groups they were willing to donate to: more than 50% were prepared to donate to lesbian as well as to single women. However, the study also indicates that the donors were inadequately informed about the legal implications. Some assumed that they had no legal responsibilities towards their offspring, independent of the recipient group. In addition, the study revealed that semen donors have the desire to be acknowledged as individuals. Many were interested in the outcome of their donation and regretted that clinics were not willing to provide this information.

Similar to the situation in other countries, a recent study carried out in Germany indicated that there was not only a lack of organ donors (Ärzteblatt 2008), but also a lack of semen donors. A survey revealed that five out of seven clinics had problems recruiting donors (Thorn et al., work in progress). In Great Britain, the number of donors has been reduced by 50% in the last 14 years (British Fertility Society 2008). It is unclear whether this development is similar in Germany as there is no nationwide register of semen donors. Great Britain is currently working on strategies on how to face this challenge. One approach of the British Fertility Society (2008) is to raise the number of offspring conceived per donor or implementing “sperm-sharing” analogously to “oocyte-sharing”. In “oocyte-sharing”, women undergoing assisted reproductive treatment for male-factor infertility can donate oocytes to other couples. Similarly, in “sperm-sharing”, men who are being treated as a result of their partner’s infertility could donate semen to other couples. Treatment costs for donating couples could be reduced as a form of compensation. Another challenge is overcoming the reluctance of men to donate semen. The challenging legal situation is likely to impact negatively on donor recruitment in Germany.

The importance of psychosocial counselling

As DI results in a family composition deviating from the norm, professionals recommend counselling prior to treatment, as is the case in adoption processes (e.g. Blood 2004; Mahlstedt and Greenfeld 1989; Thorn and Daniels 2003; Thorn 2006a). Couples themselves tend to be open to psychosocial counselling (Thorn and Daniels 2007), especially if the general framework (i.e. connected to the medical treatment, flexible timetable, professional competence) makes it easy to access. Counselling aims at providing intended parents with information, explain the implications arising from the use of DI and explore the impact of sperm donation on family dynamics. The decision to undergo DI treatment should be based on informed consent which includes taking into account the welfare of the child. Couples should be able to discuss any concerns and fears in order to be able to start medical treatment with confidence. The “Beratungsnetzwerk Kinderwunsch Deutschland e.V.” (Infertility Counselling Network Germany – BKID) established guidelines for counselling in the area of gamete donation (Thorn and Wischmann 2008, see also: www.bkid.de/gs_leitlinien.pdf). According to these guidelines, counselling

- provides basic information regarding medical treatment and the legal implications of DI,
- acknowledges the efforts of the couples to have a child biologically related to both parents and supports mourning this loss,
- explores the attitudes towards biological and social parenthood,
- reflects the meanings of DI for relatives, especially other siblings and grandparents-to-be
- recommends early disclosure of the child and provides intended parents with suggestions for disclosure,
- clarifies the donor’s role for the parents and the offspring,
- explores individual topics, for instance defining the donor’s role in cases where the donor is known (e.g. brother of the father, friend of the parents),
- In addition, the donor himself is offered counselling in order to reflect his motivations and to ensure that donating semen does not result from economic hardship or emotional coercion, to explore the meaning of a child conceived with his semen and to explore if and how he can share his semen donation with significant others, especially his future family.

Furthermore, educational literature can support intended parents in the decision-making process (Thorn 2008) and the disclosure to the child (Thorn 2006b). DI has increasingly been discussed in the media, which helps to destigmatise it. Clinical experience of the author indicates that not only parents with younger children but also parents of

teenaged or adult children consider disclosing the method of conception and explore this during counselling. Avoiding an identity crisis and the prevention of a loss of trust within the family is one of the major aims when counselling these families. The increasing destigmatisation and the growing rate of disclosure are likely to result in more and more children voicing interest in contacting the semen donor. However, many children belonging to this first generation will not be able to access information on the donor's identity, as in many cases, the documents are likely to be destroyed. Not only doctors performing DI, but also psychosocial professionals will be confronted with this matter. It will be their task to empathize with these patients and to constructively and realistically judge the possibilities for contacting the donor. If it is possible to establish a contact between donor and offspring, prior counselling should be carried out in order to explore the expectations of the child, the family as well as the donor. In addition, the counsellor should mediate the first contact, as it is common practice in the area of adoption.

Conclusion

- For a long time, semen donation was frowned upon and legislation providing legal clarity in this area was missing. This resulted in a taboo and stigma for this family composition.
- In the last years, changes in legislation and new guidelines have been implemented. Nevertheless, even nowadays, several aspects remain unclear, such as the child's right to access identifiable information on the donor or the legal protection of the donor regarding their responsibilities towards the offspring.
- Current research indicates that the psychosocial development of children conceived by DI does not differ from children conceived spontaneously. The family composition (heterosexual, lesbian parents or single mothers) does not impact on the child's development, either. However, long-term studies with larger samples have to confirm these findings.
- Parental disclosure has been a controversial issue. For a number of years, an increasing number of professionals have supported disclosure at an early age in order to prevent a negative impact on the child's psychosocial development and family dynamics. Contradictory to former assumptions, studies now indicate that informing the child about his/her conception has a neutral or even positive influence on the parent-child relationship.
- Recent studies have investigated the donors' attitude towards disclosure. Many support parental disclosure at an early age and are willing not only to donate to heterosexual couples but also to lesbian and single women.

- As DI results in a specific family composition deviating from the norm, psychosocial counselling prior to treatment is recommended. Semen donors should also be able to access counselling services.

Keywords

Donor insemination, legislation, psychology, counselling, openness

References

- AMERICAN SOCIETY FOR REPRODUCTIVE MEDICINE.** Informing offspring of their conception by gamete donation. *Fertil Steril* 2004; 81(3): 527–31.
- AMUZU B, LAXOVA R, SHAPIRO SS.** Pregnancy outcome, health of children and family adjustment after donor insemination. *Obstet Gynecol* 1990; 75: 899–908.
- ÄRZTEBLATT.** Umfrage: Organspendebereitschaft leidet unter Vorurteilen. *Ärzteblatt* 31.10.2008 (<http://www.aerzteblatt.de/v4/news/news.asp?id=34231>, letzter Zugriff: 04.11.2008).
- BARAN A, PANNOR R.** Lethal secrets: The shocking consequences and unsolved problems of artificial insemination. New York: Warner 1989.
- BLOOD J.** Mandatory counselling. *J Fertil Counselling* 2004; 11(2): 31–5.
- BLYTH E.** Secrets and lies: Barriers to the exchange of genetic information following donor assisted conception. *Adoption and Fostering* 1999; 23(1): 49–58.
- BLYTH E, LANDAU R (Eds).** Third party assisted conception across cultures: Social, legal and ethical perspectives. London: Kingsley 2004.
- BREWAES A.** Review: Parent-child relationship and child development in donor insemination families. *Hum Reprod Update* 2001; 7(1): 38–46.
- BREWAES A, DUFOUR S, KENTENICH H.** Sind Bedenken hinsichtlich der Kinderwunschbehandlung lesbischer und alleinstehender Frauen berechtigt? *J Reproduktionsmed Endokrinol* 2005; 1: 35–40.
- BRITISH FERTILITY SOCIETY.** Working Party on Sperm Donation Services in the UK. Report and Recommendations. *Hum Fertil* 2008; 11(3): 147–58.
- BUNDESÄRZTEKAMMER.** (Muster-)Richtlinie zur Durchführung der assistierten Reproduktion – Novelle 2006. *Dtsch Arztebl* 2006; 103(20): A1392–A1403.
- BUNDESVERFASSUNGSGERICHT.** 1 BvL 17/87, 1989.
- CLAYTON CE, KOVACS CT.** AID offspring: Initial follow-up of 50 couples. *Med J Aust* 1982; 1: 338–39.
- COOPER S.** Ethical issues associated with the new reproductive technologies. In: Leiblum S (Ed). *Infertility: Psychological issues and counseling strategies* (S. 41–66). New York: Wiley 1997.
- CORDRAY B.** An open letter to the HFEA. *Donor Conception Network Journal* 1999/2000: 3–5.
- DANIELS K.** The semen providers. In: Daniels K, Haines E (Eds). *Donor insemination: International social science perspectives* (S.76–104). Cambridge: Cambridge University

- Press 1998.
- DANIELS K, TAYLOR K.** Secrecy and openness in donor insemination. *Politics Life Sci* 1993; 12(2): 155–70.
- DANIELS K, THORN P, WESTERBROOKE R.** Confidence in the use of donor insemination. An evaluation of the impact of participating in a group preparation programme. *Hum Fertil* 2007; 10(1): 13–20.
- DÄUBLER-GMELIN H.** Künstliche Befruchtung: Rechtliche Probleme und Herausforderungen für den Gesetzgeber. *Psychosozial* 1986; 9(10): 38–43.
- EMBRYONENSCHUTZGESETZ.** Vom 13.12.1990.
- EUROPÄISCHE GEWEBERICHTLINIE.** Richtlinie 2004/23/EG des Europäischen Parlaments und des Rates 2006.
- FEAST J.** Donor-assisted conception: What can we learn from adoption? In: Singer D, Hunter M (Eds). *Assisted human reproduction: Psychological and ethical dilemmas* (S. 76–98). London: Whurr 2003.
- GLEZERMAN M.** Two hundred and seventy cases of artificial donor insemination: Management and results. *Fertil Steril* 1981; 35: 180–87.
- GOLOMBOK S, BREWAEYS A, COOK R, GIAVAZZI M, GUERRA D, MANTOVANI A, VAN HALL E, CROSIGNANI P, DEXEUS S.** The European Study of assisted Reproduction Families. *Hum Reprod* 1996; 11: 2324–31.
- GOLOMBOK S, BREWAEYS A, GIAVAZZI M, GUERRA D, MACCALLUM F, RUST J.** The European study of assisted reproduction families: the transition to adolescence. *Hum Reprod* 2002a; 17(3): 830–40.
- GOLOMBOK S, MACCALLUM F, GOODMAN E, RUTTER M.** Families with children conceived by donor insemination: a follow-up at age 12. *Child Dev* 2002b; 73(3): 952–68.
- GOLOMBOK S, PERRY, B, BURSTON A, MURRAY C, MOONEY-SOMERS J, STEVENS M.** Children with lesbian parents: a community study. *Dev Psychol* 2003; 39(1): 20–33.
- GOLOMBOK S, LYCETT E, MAC CALLUM F, JADVA V, MURRAY C, ABDALLA H, JENKINS J, MARGARA R.** Parenting infants conceived by gamete donation. *J Fam Psychol* 2004; 18(3): 443–52.
- GOLOMBOK S, JADVA V, LYCETT E, MURRAY C, MACCALLUM F.** Families created by gamete donation: follow-up at age 2. *Hum Reprod* 2005; 20(1): 1286–93.
- GOLOMBOK S.** Auf die Liebe kommt es an. *Die Zeit online*, 23/2008, S. 37 (www.zeit.de/2008/23/M=Golombok-Interview) (letzter Zugriff: 03.11.2008).
- GOTTLIEB D, LALOS O, LINDBLAD F.** Disclosure of donor insemination to the child: The impact of Swedish legislation on couples' attitudes. *Hum Reprod* 2000; 15(9): 2052–56.
- GREENSLADE J.** Truth and health. In: Blyth E, Crawshaw M, Speirs J (Eds). *Truth and the child 10 years on: Information exchange in donor assisted conception* (S. 23–26). Birmingham: British Association of Social Workers 1998.
- GREGOIRE AT, MAYER R.** The impregnators. *Fertil Steril* 1965; 16(1): 130–34.
- HAIMES E.** »Secrecy«: What can artificial reproduction learn from adoption? *Int J Law Fam* 1988; 2: 46–61.
- HAMMEL A, BISPINK G, KATZORKE T, SCHREIBER G, THORN P.** Empfehlungen des Arbeitskreises für Donogene Insemination (DI) zur Qualitätssicherung der Behandlung von Spendersamen in Deutschland in der Fassung vom 8. Februar 2006. *J Reproduktionsmed Endokrinol* 2006; 3: 166–74.
- HERRMANN-GREEN L.** Unconventional conceptions – family planning in lesbian-headed families created by donor insemination. Dresden: TUD Press 2006.
- HEWITT G.** Missing links: Identity issues of donor conceived people. *Br J Infertil Counselling* 2002; 9: 14–20.
- HFEA.** Human Fertility and Embryology Act (c 37) 1990.
- HUNSFIELD J, FAUSER B, DE BEAUFORT I, PASSCHIER J.** Child development and quality of parenting in lesbian families: no psychosocial indication for an a-priori withholding of infertility treatment. *Hum Reprod Update* 2002; 8(6): 579–90.
- IMBER-BLACK E (HRS G).** Geheimnisse und Tabus in Familie und Familientherapie. Freiburg im Breisgau: Lambertus 1995.
- KARPEL MA.** Family secrets: Conceptual and ethical issues in the relational context, ethical and practical considerations in therapeutic management. *Fam Process* 1980; 19: 295–306.
- KATZORKE T.** Entstehung und Entwicklung der Spendersamenbehandlung in Deutschland. *J Reproduktionsmed Endokrinol* 2008; 1: 14–20.
- KIRK H.** Shared fate: A theory of adoption and mental health. New York: Free Press 1964.
- KIRKMAN M, ROSENTHAL D, JOHNSON L.** Families working it out: adolescents' views on communicating about donor-assisted conception. *Hum Reprod* 2007; 22(8): 2318–24.
- LALOS A, GOTTLIEB C, LALOS O.** Legislated right for donor-insemination children to know their genetic origin: a study of parental thinking. *Hum Reprod* 2007; 22(6): 1759–68.
- LANDAU R, WEISSENBERG R, MADGAR I.** A child of »hers«: older single mothers and their children conceived through IVF with both egg and sperm donation. *Fertil Steril* 2007; 90(3): 576–83.
- LEETON J, BLACKWELL J.** A preliminary psychosocial follow-up of parents and their children conceived by artificial insemination by donor (AID). *Clin Reprod Fertil* 1082; 1: 307–70.
- LORBACH C.** Let the offspring speak. Georges Hall, New South Wales: The Donor Conception Support Group of Australia 1997.
- LYCETT E, DANIELS K, CURSON R, CHIR B, GOLOMBOK S.** Offspring created as a result of donor insemination: A study of family relationships, child adjustment, and disclosure. *Fertil Steril* 2004; 82: 172–79.
- LYCETT A, DANIELS K, CURSON R, GOLOMBOK S.** School-aged children of donor insemination: a study of parents' disclosure patterns. *Hum Reprod* 2005; 20(3): 810–19.
- MAHLSTEDT P, GREENFELD D.** Assisted reproductive technology with donor gametes: The need for patient preparation. *Fertil Steril* 1989; 52(6): 908–14.
- MCWHINNIE A.** Disclosure and development: Taking the baby home was just the beginning. In: Singer M, Hunter M (Eds). *Assisted human reproduction: Psychological and ethical dilemmas* (S. 129–153). London: Whurr 2003.
- MÜLLER H.** Die Spendersamenbehandlung bei Lebenspartnerinnen und allein stehenden Frauen – ärztliches Handeln unter dem Diktum vermeintlicher Illegalität? Gesundheits-

recht 2008; 11: 573–80.

MURRAY C, GOLOMBOK S. Going it alone: solo mothers and their infants conceived by donor insemination. *Am J Orthopsychiatry* 2005a; 75: 242–52.

MURRAY C, GOLOMBOK S. Solo mothers and their donor insemination infants: Follow-up at age 2 years. *Hum Reprod* 2005b; 20: 1655–60.

PAPP P. Der Wurm in der Knospe: Geheimnisse zwischen Eltern und Kindern. In: Imber-Black E (Hrsg). *Geheimnisse und Tabus in Familie und Familientherapie* (S. 85–108). Freiburg im Breisgau: Lambertus 1995.

PATTERSON C, HASTINGS P. Socialization in the context of family diversity. In: Grusec J, Hastings P (Eds). *Handbook of socialization: Theory and Research* (S. 328–351). New York: Guilford 2007.

RUMBALL A, ADAIR A. Telling the story: Parents' scripts for donor offspring. *Hum Reprod* 1999; 14: 1392–99.

SAUER MV, GORRILL MJ, ZEFFER KB, BUSTILLO M. Attitudinal survey of sperm donors to an artificial insemination clinic. *J Reprod Med* 1989; 34: 362–64.

SCHEIB J, RIORDAN M, RUBIN S. Choosing identity-release sperm donors: the parents' perspective 13–18 years later. *Hum Reprod* 2003; 18(5): 1115–27.

SCHEIB J, RIORDAN M, RUBIN S. Adolescents with open-identity sperm donors: reports from 12–17 years old. *Hum Reprod* 2004; 20(1): 239–52.

SCHILLING G. Zur Problematik familiärer Geheimnisse am Beispiel der heterologen Insemination. *Psychother Psychosom Med Psychol* 1995; 45: 16–23.

STEVENS B. Wer ist mein Vater? Auf der Suche nach dem unbekanntem Samenspender [Fernsehfilm]. Arte: Straßburg 1. Februar 2005.

THORN P. Familienbildung mit Spendersamen. Eine systemische Innen- und Außenbeobachtung. *Kontext. Zeitschrift für systemische Therapie und Familientherapie* 2001; 32(4): 305–18.

THORN P. Donor Insemination Recipient Counselling. In: Covington A, Hammer Burns L (Eds). *Infertility counselling: A comprehensive handbook for clinicians* (S. 305–318), Second Edition. Cambridge, New York: Cambridge University Press 2006a.

THORN P. Die Geschichte unserer Familie. Ein Buch für Familien, die sich mit Hilfe der Spendersamenbehandlung gebildet haben. Mörfelden: FamART 2006b.

THORN P. Familiengründung mit Spendersamen – ein Ratgeber zu psychosozialen und rechtlichen Fragen. Stuttgart: Kohlhammer 2008.

THORN P, DANIELS K. Die Praxis der donogenen Insemination in Deutschland. *Geburtshilfe Frauenheilkd* 2000; 60: 630–37.

THORN P, DANIELS K. A group work approach in family building by donor insemination – Empowering the marginalized. *Hum Fertil* 2003; 6: 46–50.

THORN P, DANIELS K. Pro und Contra Kindesaufklärung nach donogener Insemination – Neuere Entwicklungen und Ergebnisse einer explorativen Studie. *Geburtshilfe Frauenheilkd* 2007; 67: 993–1001.

THORN P, KATZORKE T, DANIELS K. Samenspender in

Deutschland – liberaler als die Vorgaben des Berufsrechts? Zum Druck eingereicht in: *Geburtshilfe Frauenheilkd* 2008a.

THORN P, KATZORKE T, DANIELS K. Semen donors in Germany. A study exploring motivations and attitudes. *Hum Reprod* 2008; 23(11): 2415–20.

THORN P, WISCHMANN T. Leitlinien für die psychosoziale Beratung bei Gametenspende. *J Reproduktionsmed Endokrinol* 2008; 3: 147–52.

TRANSPLANTATIONSGESETZ. Gesetz über die Spende, Entnahme und Übertragung von Organen und Gewebe. Neugefasst durch Bekanntgabe vom 4.9.2007.

TRISELIOTIS J. Identity formation and the adopted person revisited: The dynamics of adoption social and personal perspectives. In: Treacher A, Katz I (Eds). *The dynamics of adoption: Social and personal perspectives* (S. 81–98). London: Kingsley 2000.

TRISELIOTIS J. Donor insemination and the child. *Politics Life Sci* 1993; 12(2): 195–97.

TURNER A, COYLE A. What does it mean to be a donor offspring? The identity experiences of adults conceived by donor insemination and the implications for counselling and therapy. *Hum Reprod* 2000; 15, 9: 2041–51.

VANFRAUSSEN K, PONJAERT-KRISTOFFERSEN I, BREWAEYS A. An attempt to reconstruct children's donor concept: A comparison between children's and lesbian parents' attitudes towards donor anonymity. *Hum Reprod* 2001; 16: 2019–25.

WIEMANN I. Ratgeber Adoptivkinder. Hamburg: Rowohlt 1994.

WIEMANN I. Wie viel Wahrheit braucht mein Kind? Von kleinen Lügen, großen Lasten und dem Mut zur Aufrichtigkeit in der Familie. Hamburg: Rowohlt 2001.

WWW.BKID.DE (letzter Zugriff: 29.01.2009).

WWW.DONOGENE-INSEMINATION.DE (letzter Zugriff: 29.01.2009).

WWW.GOFEMININ.DE (letzter Zugriff: 29.01.2009).

WWW.SPENDERKINDER.DE (letzter Zugriff: 29.01.2009).

WWW.SPERMASPENDE.DE (letzter Zugriff: 29.01.2009).



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Conflict of interest

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CME-Continuing Medical Education

Donor insemination

Question 1

Why was donor insemination shrouded in secrecy for a long time?

- a. The potential consequences of this form of reproduction on a child's development were unknown.
- b. For many years, donor insemination was prohibited.
- c. Associations recommended parents to keep the conception of their child a secret.
- d. The secrecy was necessary for legal reasons.
- e. The risk that the donors would attempt contacting their offspring was too high.

Question 2

How many children are currently conceived by donor insemination annually?

- a. 100 to 200
- b. 500 to 1000
- c. 1000 to 2000
- d. 2000 to 5000
- e. more than 5000

Question 3

Which of the following aspects are legally regulated?

- a. Similar to adoption documents, donor insemination records must be kept for a minimum of 60 years.
- b. All offspring are granted access to the donor's identity.
- c. Heterosexual parents cannot contest paternity of the intended father if both agreed to carry out DI.
- d. In lesbian couples, the co-mother is automatically conferred parental rights.
- e. The semen donor is legally protected from paternal responsibilities, even if the recipient is a lesbian couple.

Question 4

The psychosocial development of children conceived by DI

- a. suggests that they have difficulties understanding the donor's role,
- b. is dependent on whether they grow up with heterosexual or lesbian parents,
- c. is negatively affected,
- d. is within the norm,
- e. is better in comparison to the development of children conceived spontaneously.

Question 5

Children with lesbian or single mothers

- a. have an impaired gender development,
- b. suffer from the extraordinary family constellation,
- c. have strong fantasies about their donor,
- d. cope well with their family situation,
- e. are often stigmatized by others.

Question 6

Disclosure to the child is necessary because

- a. family secrets can be destructive,
- b. many couples have informed others about the treatment with donated semen, which may result in accidental disclosure,
- c. from a medical point of view, the information about a person's origin and genetics has increasing relevance,
- d. the secret can signify a burden for the parents
- e. all answers are correct.

Question 7

Children who are aware of their conception by DI

- a. have the desire to establish a close and personal contact to the donor,
- b. find it difficult to differentiate between father or co-mother and the semen donor,
- c. do not suffer from this,
- d. do not indicate any interest in their half-siblings,
- e. refuse any contact to the donor.

Question 8

Offspring conceived by DI

- a. speak out for being informed about their conception,
- b. consider it to be their fundamental right to have access to the donor's identity,
- c. regard the non-disclosure as a loss of autonomy,
- d. support changes in legislation,
- e. all answers are correct.

Question 9

Semen donors in Germany

- a. are not willing to be contacted by the children conceived with their semen,
- b. occasionally develop an interest in the outcome,
- c. only donate for financial reasons,
- d. are not willing to donate for other than married heterosexual couples,
- e. do not support parental disclosure.

Question 10

Psychosocial counselling of intended parents prior to treatment is relevant in order to

- a. assess that the couples are prepared for the DI,
- b. provide them with information on donor insemination and explore the long-term implications arising from the use of DI,
- c. ensure that parents disclose the type of conception to their children,
- d. find a suitable donor,
- e. discuss this problematic family situation.