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RESEARCH

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Knowledge, beliefs, and attitudes toward parenthood following gamete donation in Italy

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Abstract

Objective: This study aimed to explore the knowledge, beliefs, and attitudes toward parenthood following gamete donation among the general population in Italy.

Background: In Western societies, where genetic continuity often defines kinship, couples using gamete donation to conceive may face societal stigma and lack of acknowledgment, potentially impacting their well-being. As openness about donor conception is encouraged in donor-conceived families' social networks, research on public perceptions of parenthood after gamete donation is necessary.

Method: Six hundred twenty-four participants completed an online survey exploring their beliefs toward parenthood after gamete donation. Participants also assessed hypothetical parental abilities in five randomly presented scenarios depicting couples having a child using different conception methods.

Results: Participants showed limited knowledge of donor conception pathways and positive beliefs about parenthood following donor conception. Greater concerns were expressed regarding parenting abilities in spontaneously conceiving couples compared to those using donor and nondonor assisted reproduction technologies and concerns about the stability of relationships in donor-conceiving couples.

Conclusion: Couples using donor assisted reproduction technologies are perceived as more committed to

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parenthood despite concerns about genetic asymmetry and limited understanding of donor conception.
Implications: The societal unawareness of donor conception may present challenges for families in legitimizing their family building within their social contexts.

KEYWORDS
attitudes, donor conception, donor-conceived families, gamete donation

INTRODUCTION

Over the last decades, the advent of new assisted reproductive technologies (ART)—particularly third-party reproduction—has contributed to challenging the conventional understanding of family and kinship as rooted in a biogenetic connection (Finkler, 2001; Schneider, 1980; Strathern, 1992). Indeed, donor-conceived (DC) families—that is, families formed when a single parent or a couple opts for donated eggs, sperm, or embryos to conceive a child through ART treatments (Cahn, 2013)—introduce a third-party, the donor(s), into the family-building process (see Table A in the supplemental materials for key terms and definitions). Particularly within European and North American cultures, this implies a departure from traditional family ideals, where the common assumption is that the ties between parents and children arise from the "natural facts" of biological procreation (Bell, 2019; Parry, 2005), making the study of societal perceptions of new reproductive technologies crucial for advancing family-building equality (Yee et al., 2024).

From traditional kinship narratives to new family forms

Previous literature indicates that a common reference point for evaluating parental configurations has been the first-marriage nuclear family with two parents of different genders conceiving a child spontaneously (e.g., Valiquette-Tessier et al., 2019). Traditionally characterized by patriarchal authority and economic arrangements, the conceptualization of family structure began shifting in the late 19th century toward a "modern family" model, emphasizing emotional fulfillment, personal well-being, and more personal partner choices, with children increasingly seen as expressions of marital love (Beck & Beck-Gernsheim, 2002; Giddens, 2005). Moreover, kinship and family ties have traditionally been based on "blood relations," with the nuclear family—typically a different-sex couple and their biological children—serving as the cultural "norm" across many sociocultural contexts (Schneider, 1980; Strathern, 1992). However, this representation could threaten the social and personal adjustment of individuals and couples not conforming to this standard and seeking ART, potentially constituting an additional burden to the physical, financial, and psychological costs of assisted reproduction treatments in different-sex and same-sex couples of intended parents (Fusco et al., 2024; Valiquette-Tessier et al., 2019). To ensure clarity and consistency throughout the paper, we will use the terms *different-sex* and *same-sex* couples to refer to couples formed by different- or same-gender partners, as these terms are more widely used in the literature (e.g., Fantus & Newman, 2019; Yee et al., 2024).

Societal perception of donor ART and DC families

As the practice of gamete donation and the formation of DC families have witnessed a global increase, and given the rising rates of infertility worldwide (Vander Borght & Wyns, 2018),

understanding the perception of ART treatments and gamete donation has become increasingly relevant (Adashi et al., 2000; Eisenberg et al., 2010; Fauser et al., 2019; Hudson et al., 2009; Szalma & Bitó, 2021). Although psychological studies about assisted reproduction have mainly focused on short- and long-term outcomes for couples and children born through donor ART techniques (e.g., Golombok et al., 2023; Ilioi et al., 2017; Imrie et al., 2020), the success of donor conception relies not only on the acceptance within the parental couple but also on the broader societal context that forms the environment of these families (Indekeu & Lampic, 2021a; Nijs & Rouffa, 1975). For instance, studies involving LGBT+ samples have shown how the motivations for parenthood and their psychological correlates can be hindered or promoted by several factors, such as inclusive environments and societal acceptance of nontraditional family forms, particularly when accessing parenthood may involve invasive medical procedures like ART (Fantus & Newman, 2019; Gato et al., 2017; Yee et al., 2024). Thus, social networks can potentially serve as either a source of support or stress for nontraditional families, such as DC families, thereby influencing family well-being and how knowledge of, and information about, donor conception is managed within the family (Golombok et al., 2023; Nachtigall et al., 1997). Indeed, nontraditional family forms are often excluded from public discourse and visibility, which can discourage them from disclosing the family-building methods they have used (Yee et al., 2024). Research has shown how feelings of stigma, shame, and fear of societal rejection can impact parents' decisions to disclose donor conception to their children and others (Hargreaves & Daniels, 2007; Nachtigall et al., 1997; Thorn & Daniels, 2007). Donor-conceiving parents may also face difficulties with public discussions about physical resemblance, often referred to as "resemblance talk" (Becker et al., 2005), as well as societal norms surrounding parenthood, genetics, and family (Kirkman, 2008; Payne, 2016). These norms emerge through daily conversations, media representations, and national policies (e.g., Becker et al., 2005; Holohan, 2012). Therefore, addressing societal perceptions seems to be key to advancing family-building equality by improving knowledge of assisted reproductive options, removing disparities in access to reproductive services, and reducing social stigma against families belonging to minority groups (Yee et al., 2024).

Research analyzing perceptions toward ART practices has shown favorable attitudes about IVF, gamete donation, the need for public funding for these procedures, and the use of ART among new family forms (e.g., single mothers and same-sex couples; Fauser et al., 2019; Meissner et al., 2016; Szalma & Djundeva, 2019). In particular, a recent systematic review and meta-analysis (Demissei et al., 2024) examining studies of both infertile people and those from the general population confirmed the overall positive attitudes toward gamete donation and donor conception across different countries worldwide. However, the authors observed that the acceptance of donor conception using donated gametes was higher than the prevalence of positive attitudes toward conception with donated embryos—that is, using an embryo resulting from spermatozoa and oocyte fertilization that is not from the recipient woman and her partner. This may result in less acceptance and increased stigma toward DC families using donated embryos or double gamete donation due to the "blood bias"—the cultural primacy attributed to the genetic and biological connection in family building (e.g., Bell, 2019; Parry, 2005). Such bias may raise more prejudice toward those families where none of the intended parents has a genetic connection with the child.

However, just a few studies addressed societal perceptions, awareness, attitudes, and beliefs specifically in regard to parenthood in DC families. Indekeu and Lampic (2021a) showed that Belgian and Swedish gamete-recipient parents were challenged by cultural norms and representations about parenthood as inherently biological and had to face a societal lack of knowledge and awareness of donor conception, resulting in levels of perceived social stigma similar to those of adoptive parents (Goldberg et al., 2011). More recently, Indekeu and Lampic (2021b) compared the knowledge, awareness, and attitudes toward DC families among Belgian and Swedish teachers. Although an open attitude toward DC families was observed, teachers

showed limited understanding of the implications of donor conception for families. Furthermore, different attitudes toward the various types of DC families were observed, with more thoughts and concerns toward parental equality among the genetic and nongenetic parents in heterosexual sperm donation families, and the least in the case of heterosexual egg donation families (Indekeu & Lampic, 2021b). Although it has been observed that egg donation mothers actively negotiate the donor's significance and the role of genetics within their families (Zadeh et al., 2016), these findings might indicate the belief that the gestational bond between the mother and child could offset the absence of a genetic tie in DC families, or that discussing the donor may be especially sensitive for men due to social stigma surrounding male infertility (Indekeu & Lampic, 2021b). Moreover, among different family forms, different-sex DC families have to deal with specific challenges, primarily because, unlike single, lesbian, or surrogacy families, it is less likely that the child's conception origins could be questioned by the child or others, leaving different-sex gamete-recipient parents the possibility to choose whether, how, and when to disclose donor conception to the child and their social networks (Indekeu et al., 2013). As cross-cultural studies have highlighted so far (e.g., Bronfenbrenner & Morris, 2006; Lansford, 2022), exploring societal expectations and representations about what a "good" parent is seems relevant, as they can eventually affect parenting experiences and behaviors themselves.

The Italian context

In the international landscape, Italy represents a peculiar context regarding ART application and reproductive rights. Although the Italian cultural context is characterized by pronatalism, valuing all births as favorable to individual, family, and social well-being (Agrillo & Nelini, 2008), the Italian legal framework concerning the application of ART stands out as one of the most restrictive in Europe. In Italy, access to ART can be provided only to different-sex married or cohabiting couples, excluding single individuals and same-sex couples, while also limiting the range of available techniques, forbidding embryo donation and surrogacy—that is, when a woman carries a pregnancy, using intended parent(s) and/or a third party's gametes, with an agreement that she will give the offspring to the intended parents (who might be a single parent, same-sex couple, or different-sex couple; Zegers-Hochschild et al., 2017). Indeed, donor ART treatments have been legal in Italy only since 2014, removing the ban posed by Law 40/2004 (Constitutional Court, resolution n. 162/2014). Nevertheless, the practice is still regulated by several restrictions, including that gamete donation must be anonymous and voluntary. Alongside this strict legal approach, research points out the prevalent cultural belief that reproduction should occur naturally (Bonaccorso, 2004) and the critical standpoint of the Catholic Church toward ART (Zanini, 2011). These aspects may support the societal stigma surrounding both the use of ART treatments and infertility itself while, at the same time, highly valuing motherhood and family (Czarnecki, 2015; Zanini, 2011).

Although psychological literature has consistently proven the overall adequate social and psychological adjustment of "new" families and of the children raised in these families, recent studies have shown that negative attitudes toward nontraditional family forms persist in Italy (e.g., Di Battista et al., 2021). A growing body of literature (e.g., Di Battista, 2021; Lingiardi et al., 2005; Santona & Tognasso, 2018) has focused on societal attitudes and perceptions of same-sex couples and LGBT+ parenthood, whereas the understanding of public attitudes toward different-sex gamete-recipient parenthood is still limited. Therefore, in this study, we drew upon the existing literature on attitudes toward same-sex parenthood to broaden the focus and examine the public perception regarding gamete-recipient parenthood in different-sex families, which are increasing in number. Indeed, in Italy, 15% of couples of reproductive age face infertility and a growing number of them seek to use donor ART treatments to conceive a child

(i.e., 12,053 different-sex couples used ART with egg, sperm, and double gamete donation in Italian ART centers in 2022), leading to the birth of 3,719 DC children in 2021 (Italian Register of Medically Assisted Procreation, 2023). Thus, given the coexistence of conflicting sociocultural attitudes and public policies toward reproduction and ART, Italy represents a compelling context for examining beliefs and attitudes toward parenthood in new families—such as DC families. This is especially relevant given the contrasting cultural trends oscillating, on the one hand, toward the promotion of parenthood in general and, on the other, toward a closure regarding nontraditional family structures.

Current study

Because DC families' well-being is strictly linked to their acceptance in their social networks and broader communities (Indekeu & Lampic, 2021a; Nijs & Rouffa, 1975), the present study aimed to explore knowledge, beliefs, and attitudes toward different-sex parenthood following donor conception in the general population in Italy. In line with previous studies investigating attitudes toward DC families, we were interested in explicit attitudes—that is, those attitudes of which the perceiver is consciously aware (Indekeu & Lampic, 2021a, 2021b). Specifically, explicit attitudes have been defined as the conscious and intentional evaluation of a specific social object, which manifests in beliefs, feelings, and behaviors, characterized by a varying degree of favor or disfavor (Eagly & Chaiken, 1993; Fazio & Olson, 2003). We were interested not only in attitudes toward DC families but, in particular, in the perception regarding donor-conceiving couples' parenting abilities compared to those of parents who conceived their children spontaneously. Moreover, we considered existing literature highlighting how negative attitudes toward nontraditional family forms are highly related to sociodemographic variables, such as age, education, marital and economic status, religiosity, political orientation, and direct knowledge of nontraditional families (e.g., Crawford et al., 1999; Di Battista et al., 2021; Webb et al., 2017). Therefore, the specific aims of the present study were to (a) explore the knowledge and awareness of donor conception and beliefs on different-sex parenthood following gamete donation; (b) investigate whether specific sociodemographic characteristics may be associated with the beliefs about parenting abilities of different-sex gamete-recipient parents; and (c) explore the attitudes toward parenthood following different conception methods, namely donor ART treatments (i.e., egg, sperm, and double gamete donation), nondonor ART treatments (i.e., using couples' own gametes for conception), and spontaneous pregnancy.

METHOD

Procedure

Participants were recruited using calls posted on different social media (e.g., Facebook and Instagram) with the aim of having a balanced sample across all demographics. After explicitly agreeing to participate in the study, participants were asked to complete a 30-minute online survey on the Qualtrics platform. The initial page of the survey provided participants with instructions on how to fill out the questionnaire and the aims of the study. It was emphasized that participation was voluntary and anonymous and that participants could withdraw from the study at any time. No compensation was offered for participating in the research. After providing consent for participation, each respondent was asked to complete a survey about their knowledge and beliefs on gamete donation and parenthood following donor conception. Then, through Qualtrics' randomization feature, they were randomly presented with one of five vignettes describing a different-sex couple accessing parenthood using a different conception

method. Finally, they were asked to evaluate the parenting characteristics and abilities of the couple described in the vignette they were assigned to. The study measures were presented as they are listed in the present paper. The Ethics Committee of the University of Milan-Bicocca approved the research project before starting the data collection (protocol number: RM-2023-672). Data were collected from August 2023 to January 2024.

The inclusion criteria were being Italian citizens, being over 18 years of age, and not being part of a DC family (i.e., being a gamete-recipient couple, having siblings born through donor conception, and being a DC person). The inclusion criteria were chosen as we intended to explore the public perception and attitudes toward parenthood after gamete donation. Following Hudson et al. (2009), we considered the term *public* to refer to those groups of people who have not had direct experience using ART with donated gametes to conceive a child, thus distinguishing *public* from *users* (i.e., people who have personally engaged in the process of donor conception).

Participants

We collected a total of 947 responses. Of these, we had to exclude 323 responses: 45 were excluded because participants did not give consent to personal data treatment and use, 12 participants were not Italian, 11 participants reported being part of a DC family, and, finally, 255 respondents did not complete the questionnaire and were therefore excluded from the analysis. Thus, the final sample comprised 624 participants.

Most participants ($N = 389$, 62.3%) identified as women, with a mean age of 39.1 years ($SD = 14.9$, range: 18–86 years). Respondents mainly reported being heterosexual, living in northern Italy, having an educational level equal to or higher than a bachelor's degree, and having an income below 50,000 euros per year. Participants were mainly in a committed romantic relationship or married, did not have children, and reported having not experienced infertility within their romantic couple. Most respondents did not identify as religious, declared they were interested in politics, and reported their prevalent political orientation as left wing.

Measures

Participants first completed a survey including sociodemographic information and questions about their beliefs on donor conception and parenthood after donation. Subsequently, each participant was randomly presented with one of five possible clinical vignettes depicting the scenario of a different-sex couple transitioning to parenthood using different conception pathways (i.e., egg donation, sperm donation, double gamete donation, nondonor ART, spontaneous conception). Then, we asked participants to assess the parental characteristics of the hypothetical couple described in the vignette using the Couples Rating Scale (Crawford et al., 1999).

Knowledge and beliefs about donor conception

Building on previous studies (e.g., Indekeu & Lampic, 2021b), we developed specific questions to assess participants' knowledge and beliefs about donor conception and DC families. In addition, building on previous literature on parenting (e.g., Bornstein, 2005), we identified three areas of parenting abilities we were interested in, namely the ability to provide care and education, and emotionally supporting and understanding their children. Each area was then explored through a specific question in our survey.

The survey was organized into three sections to explore participants' previous exposure to and knowledge of donor ART, their beliefs about DC families, and how they evaluated parenting abilities in DC families compared to spontaneously conceiving families (see supplemental materials for the description of the survey questions).

Previous exposure to and knowledge of donor conception

In the first section of the survey, participants were asked to report whether they had ever heard about ART treatments, whether they knew the difference between donor and nondonor ART, and how they rated their knowledge of donor ART. Additionally, we asked what their primary source of information about donor ART was and the quality of the representation of DC families emerging from the primary source of information. Finally, we explored whether they had firsthand knowledge of DC families or donors.

Beliefs about DC families

In the second section of the survey, we asked participants to report their preference toward anonymous, known, or identifiable gamete donation. Moreover, we explored beliefs on the role of genetic and nongenetic parents in DC families and on the effects of the disclosure of donor conception on DC children and parents. Finally, we asked participants whether they believed that DC families were accepted and understood in Italian society.

Beliefs about parenting abilities in DC families

In the final section, we asked participants to report the extent to which they believed parents using gamete donation possess specific parenting abilities, such as emotional understanding of their DC children, educational abilities, and caregiving abilities. Respondents were invited to rate the parental characteristics of gamete-recipient parents compared to parents following spontaneous conception on a Likert scale from 1 (*significantly lower*) to 5 (*significantly higher*).

Clinical vignettes and Couples Rating Scale

Vignettes are narratives that focus on individuals and situations, shedding light on crucial aspects of the study of perceptions, beliefs, and attitudes (Hughes, 1998). Clinical vignettes can prompt participants to reflect on real-life scenarios they might encounter and formulate responses based on these practical situations (Hughes, 1998).

In the present study, participants were randomly presented with one of five vignettes. The vignettes used in this study were crafted referring to previous literature (Santona & Tognasso, 2018) and through a collaborative effort among two authors specializing in psychology and family studies. To achieve random assignment, a computerized randomization process on Qualtrics was used, ensuring that each participant was equally likely to be presented with any of the vignettes. This random assignment process aimed at minimizing bias and allowing for a balanced assessment of attitudes and beliefs across the different scenarios. The vignettes depicted a happy, stable, and fulfilled couple. Both partners in the couple were presented as having high levels of education, success in their professional and personal spheres, absence of psychiatric or psychological issues, a rich social network, active engagement in volunteer work during leisure time, and a shared desire for parenthood. These attributes were maintained

across all vignettes, but the specifics of the transition to parenthood varied among them. The abovementioned characteristics outlined in each vignette were carefully chosen to ensure a nuanced and detailed representation, offering a comprehensive portrayal of the parenthood under investigation. Overall, the vignettes reported five ways to become parents that the described couple could follow (see supplemental materials for two examples of vignettes that participants were shown in the current study):

- parenthood following ART treatments using oocyte donation (Vignette 1)
- parenthood following ART treatments using sperm donation (Vignette 2)
- parenthood following ART treatments using double gamete donation (both oocyte and sperm; Vignette 3)
- parenthood following nondonor ART treatments (Vignette 4)
- parenthood following spontaneous conception (Vignette 5)

Upon reading their assigned vignette, participants were tasked with assessing their attitudes and beliefs concerning the depicted couple's description by fulfilling the Couples Rating Scale (CRS; Crawford et al., 1999).

The scale comprises 10 items devoted to assessing different parental characteristics. As the original version of the scale was designed to assess attitudes toward couples seeking adoption, we adapted Items 1 and 10 to fit our scenarios. Specifically, we asked participants how much they agreed with the conception choice made by the couple described in the vignette (Item 1) and their level of concern regarding the possibility of the child growing up in the family started by that couple (Item 10). Respondents were instructed to use a 6-point Likert scale (ranging from 1 = *not concerned at all*, to 6 = *very concerned*) to rate the couples in the following domains: (a) overall agreement toward the conception method to seek parenthood, (b) the financial stability of the couple, (c) the available social support for the couple, (d) the couple's capacity to teach the child ethical and moral values, (e) the potential for emotional neglect of the child, (f) the possibility of physical abuse of the child, (g) the potential for sexual abuse of the child, (h) the emotional stability of the couple, (i) overall assessment of the couple's parenting abilities, and (j) overall assessment of the family context.

Analytic plan

All the statistical analyses were performed using R statistical software (Version 4.3.2; R Core Team, 2024). A p value of $<.05$ was considered statistically significant.

First, we performed descriptive analyses to explore the knowledge and awareness of donor conception and beliefs on parenthood following gamete donation. Before running further analyses, we tested the differences across the five conditions (types of conception: egg, sperm, double gamete donation, nondonor ART, spontaneous conception) on sociodemographic variables to verify that each participant was randomly assigned to the study's conditions. There were no significant differences across the five conditions for participants' age, gender, educational level, income, previous infertility experience, having children, being religious, or political orientation.

In addition, we checked for the normality of our data through visual inspection as well as the Shapiro–Wilk test, finding a significant departure from normality. Specifically, the non-normal distribution observed across the variables considered for the present study (for further details and the histograms showing data distribution, see supplemental materials, Figure A) indicates that across all CRS subscales there was a predominant response, with a skewed distribution—though not consistently skewed in the same direction. In turn, the items designed to assess specific parenting skills demonstrated a more central tendency. This suggests that our sample, for these variables, tends to favor certain responses over others. Participants appear to

cluster their answers around specific values, particularly at the lower end or midpoint of the scales. One possible explanation for this distribution is the influence of social desirability, where respondents may have answered questions about donor-conceiving parents in ways they thought would be viewed more favorably, given the nature of the study. Another plausible contributing factor to this could be the current societal perception of nontraditional family structures. The general population's limited knowledge and awareness of DC families may result in a lack of diversity in participants' representations, leading to polarized attitudes and beliefs when evaluating the characteristics of such families. Consequently, we conducted nonparametric analyses. Specifically, we performed Spearman's rho correlations and Kruskal–Wallis tests to investigate whether specific sociodemographic characteristics of participants were associated with their beliefs about the parenting abilities of DC families. Then, we conducted Kruskal–Wallis tests between the different types of vignettes presented to participants and the scores assigned to the CRS subscales. Finally, we performed pairwise post hoc comparisons using the Dwass-Steel-Critchlow-Fligner (Hollander et al., 2014) all-pairs test to assess statistically significant differences in the attitudes toward parenthood following egg, sperm, double gamete donation, nondonor ART treatments, and spontaneous pregnancy.

RESULTS

Descriptive analysis

Knowledge of ART pathways and understanding of donor ART

Table 1 reports information concerning participants' prior understanding of donor ART and DC families. Most participants reported having already heard of ART treatments before participating in the study, showing previous exposure to the topic: Only 13.9% of the sample stated that they had never heard of ART treatments for infertile different-sex couples before. However, results concerning participants' previous knowledge of the difference between donor and nondonor ART treatments (i.e., the use of donated gametes for conception) showed that almost half of respondents (48.4%) in our sample declared they were unaware of the differences between these two procedures. When asked to evaluate their knowledge concerning donor ART pathways, the vast majority of participants declared none (37.2%) to minimal (48.9%) prior knowledge of the topic. Respondents reported they have heard of donor ART from various sources, of which the most cited were friends and acquaintances, social media, films, TV series, and books. Participants mostly rated the overall representation of DC families emerging from these sources of information as positive and neutral. Finally, most participants (96.3%) reported not having had any firsthand knowledge and direct contact with DC families or gamete donors.

Beliefs about DC families

Table 2 reports participants' beliefs about DC families and parenting following donor conception. Most respondents (58.3%) reported preferring anonymous donation compared to known or identifiable donation. Additionally, most respondents (85.6%) reported they thought gamete-recipient parents had an equal parental role regardless of the genetic connection to the DC child. Moreover, 68.1% of participants believed that disclosing their genetic origins to DC people would not have negatively affected the relationship between the nongenetic parent and the child or the child's psychological development and growth within their family (48.6%). In relation to participants' beliefs about DC families' social acceptance in Italy, the sample was fairly evenly split between participants who believed that DC families were integrated and understood in Italian society (51.1%) and those who thought they were not (48.9%).

TABLE 1 Exposure to donor-ART and DC families ($N = 624$).

	N	%
Previous knowledge of ART pathways		
Yes	537	86.1
No	87	13.9
Knowledge of the difference between donor and nondonor ART		
Yes	322	51.6
No	302	48.4
Knowledge of donor ART pathways		
No knowledge	232	37.2
Minimal knowledge	305	48.9
Adequate knowledge	73	11.7
Comprehensive knowledge	14	2.2
Main source of information about donor ART		
Friends or acquaintances	151	24.2
Social media	137	22.0
Films, TV series, books	131	21.0
Articles and essays	70	11.2
Other sources	77	12.3
Never heard about donor ART	58	9.3
Quality of DC families' representations		
Extremely positive	76	12.2
Positive	255	40.9
Neutral	274	43.9
Negative	17	2.7
Extremely negative	2	0.3
Firsthand knowledge of DC families		
Donor-conceived person	18	2.9
Gamete-recipient couple	83	13.3
Donor-conceived family	26	4.2
No direct contact	497	79.6
Firsthand knowledge of donor(s)		
Yes	23	3.7
No	601	96.3

Note. ART = assisted reproduction technologies; DC = donor conceived.

The role of sociodemographic characteristics in rating parenting abilities within DC families

Table 3 reports participants' sociodemographic information in relation to their assessment of gamete-recipient couples' parental abilities compared to spontaneously conceiving parents (i.e., emotional understanding of the child, educational abilities, and caregiving abilities).

TABLE 2 Beliefs about donor-conceived families ($N = 624$).

	N	%
Preference for anonymous donation		
Yes	364	58.3
No	91	14.6
Uncertain	169	27.1
Equality between the genetic and nongenetic parent's role		
Yes	534	85.6
No	90	14.4
Negative effects of disclosure on the relationship between the nongenetic parent and the child		
Yes	199	31.9
No	425	68.1
Negative effects of disclosure on donor-conceived children's development		
Yes	90	14.4
No	303	48.6
Uncertain	231	37.0
Social acceptance of donor-conceived families		
Yes	319	51.1
No	305	48.9

Overall, we found a positive evaluation of parenting abilities in DC families, with parents following gamete donation considered, on average, equal to or better than spontaneously conceiving couples. We computed Spearman's rho to explore whether participants' age correlated with their evaluation of gamete-recipient parents' emotional understanding of the child, $\rho(622) = .063$, $p = .114$, educational abilities, $\rho(622) = .032$, $p = .419$, and caregiving abilities, $\rho(622) = .051$, $p = .200$, resulting in no statistically significant associations.

As can be seen in Table 3, participants identifying as women rated gamete-recipient parents' ability to understand their children's emotions as higher than men in the sample did. Additionally, participants with lower educational levels evaluated gamete-recipient parents' emotional understanding of their children and their educational and caregiving abilities as higher than more educated respondents. Similarly, participants with lower incomes rated donor-conceiving parents' emotional understanding of their children and their educational and caregiving abilities as superior to spontaneously conceiving parents than respondents with higher incomes. In addition, those who identified as religious evaluated more positively the three parenting abilities in DC families than nonreligious participants. As for respondents' political orientations, we observed that participants reporting a right-wing political orientation showed more positive evaluations of parents in DC families' educational and caregiving abilities compared to respondents reporting a left-wing, centrism, and no political orientation. In turn, participants stating that they did not have a specific political orientation evaluated more positively gamete-recipient parents' ability to understand children's emotions compared to those reporting other political orientations. Additionally, gamete-recipient parents' caregiving abilities were rated as higher by participants who had previously experienced infertility in their lives compared to those who had not. Similarly, participants with children rated donor-conceiving parents' caregiving abilities as higher than respondents without children. Finally, married participants evaluated parents' caregiving abilities in DC families as higher compared to respondents reporting other marital statuses.

TABLE 3 Sociodemographic variables in relation to parental abilities' evaluation in donor-conceived families.

	N	%	Emotional understanding	Educational abilities	Caregiving abilities
Gender					
Men	230	36.9	3.13(0.57)	3.22(0.66)	3.29(0.66)
Women	389	62.3	3.24(0.6)	3.25(0.6)	3.38(0.71)
Nonbinary	5	0.8	3.6(0.89)	3.6(0.89)	3.6(0.89)
			$\chi^2(1) = 6.69$, $p = .010$	$\chi^2(1) = 1.77$, $p = .183$	$\chi^2(1) = 2.73$, $p = .099$
Sexual orientation					
Heterosexual	566	90.7	3.22(0.6)	3.26(0.64)	3.36(0.7)
Lesbian/gay	27	4.3	3(0.55)	3.07(0.62)	3.19(0.68)
Bisexual	27	4.3	3.19(0.4)	3.11(0.32)	3.26(0.53)
Other	4	0.6	3.25(0.5)	3.25(0.5)	3.25(0.5)
			$\chi^2(2) = 2.39$, $p = .303$	$\chi^2(2) = 2.86$, $p = .239$	$\chi^2(2) = 1.12$, $p = .571$
Education					
Middle school	28	4.5	3.71(0.98)	3.57(0.96)	3.79(1.03)
High school	214	34.3	3.26(0.59)	3.32(0.67)	3.43(0.7)
Bachelor's degree	127	20.4	3.2(0.61)	3.22(0.6)	3.29(0.71)
Master's degree	188	30.1	3.1(0.5)	3.15(0.53)	3.28(0.62)
Postgraduate degree	67	10.7	3.15(0.5)	3.15(0.53)	3.19(0.56)
			$\chi^2(4) = 32.64$, $p < .001$	$\chi^2(4) = 19.53$, $p = .001$	$\chi^2(4) = 21.46$, $p < .001$
Religion					
Religious	250	40.1	3.29(0.73)	3.32(0.75)	3.44(0.81)
Nonreligious	374	59.9	3.15(0.48)	3.19(0.52)	3.28(0.59)
			$\chi^2(1) = 8.85$, $p = .003$	$\chi^2(1) = 7.48$, $p = .006$	$\chi^2(1) = 7.66$, $p = .006$
Political orientation					
Right wing	116	18.6	3.28(0.72)	3.36(0.74)	3.46(0.77)
Centrism	50	8.0	3.16(0.58)	3.14(0.64)	3.28(0.73)
Left wing	317	50.8	3.14(0.48)	3.18(0.49)	3.28(0.59)
None	141	22.6	3.32(0.69)	3.32(0.75)	3.44(0.8)
			$\chi^2(3) = 13.13$, $p = .004$	$\chi^2(3) = 10.89$, $p = .012$	$\chi^2(3) = 8.55$, $p = .036$
Income (euros per year)					
< 25,000	168	26.9	3.3(0.68)	3.32(0.68)	3.43(0.71)
< 50,000	273	43.8	3.24(0.59)	3.28(0.64)	3.4(0.71)
< 100,000	111	17.8	3.07(0.4)	3.11(0.47)	3.2(0.6)
> 100,000	34	5.4	2.97(0.46)	3.09(0.45)	3.18(0.63)
Prefer not to say	38	6.1	3.16(0.68)	3.18(0.69)	3.18(0.73)
			$\chi^2(4) = 15.8$, $p = .003$	$\chi^2(4) = 11.81$, $p = .019$	$\chi^2(4) = 15.05$, $p = .005$

TABLE 3 (Continued)

	N	%	Emotional understanding	Educational abilities	Caregiving abilities
Marital status					
Single	134	21.5	3.12(0.51)	3.18(0.59)	3.28(0.69)
In a committed relationship	258	41.3	3.19(0.56)	3.21(0.57)	3.29(0.64)
Married	201	32.2	3.3(0.66)	3.34(0.69)	3.48(0.73)
Divorced	30	4.8	3.13(0.68)	3.13(0.73)	3.27(0.83)
Widow/widower	1	0.2	3(NA)	3(NA)	3(NA)
			$\chi^2(3) = 6.7$, $p = .082$	$\chi^2(3) = 7.14$, $p = .067$	$\chi^2(3) = 11.31$, $p = .010$
Previous personal experience with infertility					
Yes	52	8.3	3.31(0.54)	3.31(0.58)	3.54(0.73)
No	569	91.2	3.2(0.6)	3.24(0.63)	3.33(0.69)
Prefer not to say	3	0.5	3.67(1.15)	3.67(1.15)	4(1)
			$\chi^2(1) = 2.84$, $p = .092$	$\chi^2(1) = 1.06$, $p = .304$	$\chi^2(1) = 5.28$, $p = .022$
Children					
Yes	209	33.5	3.24(0.66)	3.28(0.68)	3.39(0.72)
No	415	66.5	3.19(0.56)	3.23(0.6)	3.33(0.68)
			$\chi^2(1) = 2.84$, $p = .092$	$\chi^2(1) = 1.06$, $p = .304$	$\chi^2(1) = 5.28$, $p = .022$
Firsthand knowledge of donor-conceived families					
Donor-conceived person	18	2.9	3.22(0.55)	3.22(0.55)	3.28(0.75)
Gamete-recipient couple	83	13.3	3.19(0.48)	3.19(0.53)	3.29(0.62)
Donor-conceived family	26	4.2	3.35(0.63)	3.27(0.53)	3.27(0.53)
No direct contact	497	79.6	3.2(0.61)	3.25(0.65)	3.36(0.71)
			$\chi^2(3) = 1.55$, $p = .671$	$\chi^2(3) = 0.67$, $p = .880$	$\chi^2(3) = 1.57$, $p = .666$

Note. The Kruskal–Wallis test was performed considering only two levels of the variable gender (i.e., men, women); three levels of the variable sexual orientation (i.e., heterosexual, homosexual, bisexual); four levels of the variable marital status (i.e., single, in a committed relationship, married, divorced); and two levels of the variable related to previous experiences of infertility (i.e., yes, no).

Attitudes toward donor ART, nondonor ART, and spontaneously conceiving parental couples

Figure 1 shows the scores of the CRS subscales after the presentation of each vignette and the significant differences after pairwise comparisons using the Dwass-Steele-Critchlow-Fligner all-pairs test controlling for multiple comparisons.

The analysis of participants' responses revealed no statistically significant differences across the five groups in the attitudes toward the agreement with the couple's conception method, $\chi^2(4) = 3.92$, $p = .417$, their concerns toward the couple's financial stability, $\chi^2(4) = 6.38$, $p = .172$, and ability to teach the child adequate ethical and moral values, $\chi^2(4) = 8.97$, $p = .062$.

However, significant differences emerged in participants' attitudes toward certain parental characteristics of couples depicted in the vignettes. Regarding participants' concerns about the

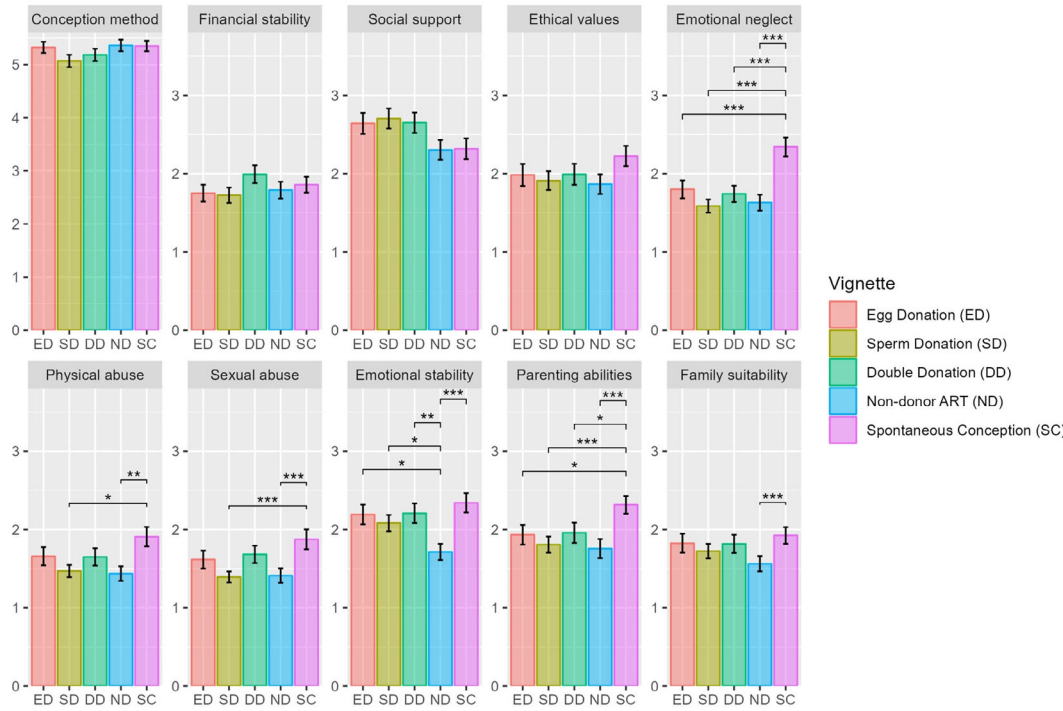

FIGURE 1 Differences in Couples Rating Scale subscales depending on the type of conception presented in the vignette. [Color figure can be viewed at wileyonlinelibrary.com]

couple's possible emotional neglect toward the child, we found significant differences among the vignettes, $\chi^2(4) = 39.15$, $p < .001$. Specifically, participants reported higher concerns toward the possibility that a spontaneously conceiving couple would emotionally neglect their child compared to couples conceiving using egg donation, sperm donation, double donation, and nondonor ART. As for the concerns regarding potential physical abuse toward the child, significant differences were observed, $\chi^2(4) = 14.36$, $p = .006$. Post hoc tests showed that participants expressed more worries about the possibility that a spontaneously conceiving couple would physically abuse their child compared to couples conceiving through nondonor ART and sperm donation. A similar pattern was observed in participants' concerns related to potential sexual abuse toward the child, with significant differences among the conditions, $\chi^2(4) = 15.63$, $p = .004$, because participants expressed more concerns regarding the spontaneously conceiving couple compared to couples conceiving through nondonor ART and sperm donation. Additionally, significant differences were observed in participants' levels of concern toward the couple's emotional stability, $\chi^2(4) = 18.79$, $p < .001$. Respondents showed higher worries about couples conceiving using egg, sperm, and double donation compared to couples using nondonor ART. Also, participants expressed greater concerns for couples' emotional stability in spontaneously conceiving families compared to families formed through nondonor ART. As for participants' concerns about the couple's parental abilities, we observed significant differences across groups, $\chi^2(4) = 25.26$, $p < .001$, driven by higher levels of concern related to the parental abilities of couples spontaneously conceiving than to couples using egg, sperm, and double gamete donation, and nondonor ART. Regarding participants' concerns about the couples' suitability to raise the child, $\chi^2(4) = 10.01$, $p = .040$, we observed higher worries concerning spontaneously conceiving couples compared to nondonor ART couples. Finally, despite significant overall effects identified in analyzing participants' concerns about the social support they would receive

from their social networks, $\chi^2(4) = 9.64$, $p = .047$, post hoc tests revealed no statistically significant comparisons.

DISCUSSION

The present study aimed to explore knowledge of donor conception and the beliefs on parenthood following gamete donation among people from the general population in Italy. Additionally, we investigated the attitudes toward parenthood within different-sex families differing in the method used to conceive. Specifically, we employed a between-subjects study design to analyze whether participants—randomly assigned to the reading of one of five vignettes portraying a different-sex couple conceiving through egg, sperm, double gamete donation, nondonor ART treatments, or spontaneous conception—show different attitudes toward specific couples' characteristics and parenting abilities.

We found that participants in our sample have had overall scarce exposure to ART information, with half of the respondents not knowing the difference between nondonor and donor ART treatments. Even when they reported having heard of donor ART, participants declared none to minimal knowledge of the topic. Although reporting limited understanding of donor conception pathways and no firsthand knowledge of DC families or gamete donors, participants stated that they had positive or neutral representations of DC families, mainly derived from social media, books, films or TV series, and accounts of friends and acquaintances. These results align with previous studies conducted in other European countries (Fauser et al., 2019; Indekeu & Lampic, 2021a, 2021b), which also highlighted limited knowledge of donor conception pathways and implications for families. Moreover, these findings are consistent with the recent and still restricted legalization of donor ART techniques in Italy for different-sex couples. It is likely that public awareness and understanding of assisted reproduction treatments with donated gametes are still in the early stages among the general population in Italy, with the restrictive legislative framework, the complex access to treatments, and the stigma surrounding infertility experiences (Facchin et al., 2021) contributing to leaving donor conception and DC families out of the public discourse.

Delving into beliefs on DC families, our results showed participants' positive beliefs on parenthood following gamete donation, reporting that gamete-recipient parents had an equal parental role regardless of the genetic connection to the child. Additionally, participants believed that disclosing donor conception to the child would not negatively affect the relationship between the nongenetic parent and the child or the child's psychological development. However, they expressed a preference toward anonymous gamete donation compared to known or identifiable donation. On the one hand, these results seem to be in line with the Italian situation: Indeed, Italy has a donor anonymity policy, there are no disclosure recommendations in law or guidelines, and respect for parents' privacy and authority as well as donors' privacy are well established both by the law and at a cultural level. On the other hand, the study's results are in contrast with the growing trend toward donor identifiability and identity release in gamete donation (Ethics Committee of the American Society for Reproductive Medicine, 2018; Macmillan, 2024) pursued in other European countries that have banned anonymity (e.g., United Kingdom, Sweden, Germany), and by advocacy promoted by DC people and families' networks (Donor Conception Network, n.d.; Nahata et al., 2017). Although some scholars emphasized that disclosure of donor conception to DC offspring is mainly a parental decision (Dempsey et al., 2022), offspring awareness of their genetic origins can no longer be controlled only by parents beyond early childhood (Macmillan, 2024; Harper et al., 2016). Indeed, in contemporary society, late, accidental, and nonparent disclosure is increasingly occurring in DC families, including discovery due to DNA and ethnicity testing (Harper et al., 2016). Additionally, exposure to a social context that favors anonymity in donor conception—as it happens in

our sample– may discourage disclosure practices in nontraditional families, reinforcing feelings of shame, stigma, and fear of societal rejection and further limiting the sharing of information about the conception method (Hargreaves & Daniels, 2007; Nachtigall et al., 1997; Thorn & Daniels, 2007).

With regard to perceptions of the social acceptance of DC families in Italy, our findings revealed that half of the participants held the view that DC families were integrated and understood within Italian society, whereas the other half expressed a lack of complete acceptance. On the one hand, this split perception may underscore a societal tension where traditional views on family and parenthood may still hold significant influence and, on the other, increased openness toward different reproductive choices and family-building methods. To deepen our understanding of participants' beliefs on gamete-recipient parents, we explored whether specific sociodemographic characteristics were associated with their evaluation of three parenting abilities in DC families—namely, the emotional understanding of the child, their educational abilities, and caregiving abilities. Again, our findings reflected a positive assessment of these parenting abilities within DC families. On average, parents using gamete donation were perceived as being equal or even superior to couples conceiving spontaneously in terms of their parenting abilities. In addition, a better evaluation of at least one of three analyzed parenting abilities in DC families was associated with each of the following characteristics: being a woman, being married, having personally experienced infertility, and having children. These findings confirm previous studies that showed how people with these characteristics tend to highly value having children and parenthood in general, independently of the conception method used to conceive (Demissei et al., 2024; Fauser et al., 2019). In addition, we found that being religious, having a right-wing or no political orientation, and having lower educational levels and incomes were associated with a more positive assessment of parenting abilities in DC families compared to families with spontaneously conceived children. These results do not align with previous literature regarding beliefs on donor ART and gamete donation (Szalma & Bitó, 2021; Szalma & Djundeva, 2019). It is possible that these findings may be related, on the one hand, to participants' being less informed about the ethical debates or the possible implications of donor conception (such as disclosure decisions, the potential presence of half-siblings, or the fallouts of donor anonymity); on the other hand, they could be related to the importance given to the possibility of building a family and having children in a highly pronatalist and Catholic country, such as Italy (Agrillo & Nelini, 2008; Czarnecki, 2015). However, these findings should be considered in relation to the composition of our sample: Participants in the present study were mainly in a committed romantic relationship or married and did not have children. As pointed out by previous literature, these characteristics may contribute to the positive evaluation of parenthood following donor conception, as it is possible that participants with these sociodemographic features may be more interested in having children using fertility treatments (Fauser et al., 2019; Szalma & Bitó, 2021; Szalma & Djundeva, 2019).

Finally, we examined participants' attitudes toward parenthood in different-sex families using different conception methods—namely, egg, sperm, and double gamete donation, nondonor ART treatments, and spontaneous conception. Overall, our results highlighted the presence of greater concerns toward spontaneously conceiving couples' parenting abilities compared to families formed through assisted reproduction with or without donated gametes. Specifically, participants expressed higher worries about a spontaneously conceiving couple potentially emotionally neglecting the child compared to donor and nondonor ART couples, and they were also thought to be more likely to sexually or physically abuse the child compared to nondonor ART and sperm donation couples. Additionally, spontaneously conceiving couples were viewed with greater concern regarding their overall parenting ability compared to nondonor ART and sperm donation couples, and there were more worries about their suitability to raise a child compared to nondonor ART couples. These results suggest that couples using both donor and nondonor ART to conceive may be perceived as demonstrating

heightened motivation to become parents, consequently indicating a stronger commitment to parenthood, as suggested by previous literature on ART families (e.g., Gameiro et al., 2011; Golombok et al., 2023).

Participants showed greater concerns toward couples' relational stability in gamete-recipient couples compared to nondonor ART couples, even though greater concerns about couples' relational stability were observed in spontaneously conceiving couples compared to nondonor ART couples. These findings suggest that the genetic asymmetry and the lack of a genetic connection between one or both parents and the child within DC families could potentially exert a negative influence on the perception of the couple's relational stability. Although previous literature highlighted donor-conceiving parents showing adequate couple psychological adjustment (e.g., Blake et al., 2012; Golombok et al., 2023), the acknowledgment of genetic asymmetry may introduce complexities and challenges in how gamete-recipient parents are perceived. Additionally, societal norms and expectations surrounding genetic parenthood may further exacerbate these perceptions, potentially contributing to feelings of inadequacy or stigma when donor-conceiving parents have to deal with them in their social contexts (Bell, 2019; Indekeu & Lampic, 2021a).

Furthermore, the traditional conceptualization of kinship and family structures, which emphasizes genetic connections between parents and children, has long positioned the traditional nuclear family as the cultural "norm" across various sociocultural contexts (Schneider, 1980; Strathern, 1992). This prevailing representation can pose significant challenges for individuals and couples who do not conform to this standard, such as DC families. Indeed, different-sex DC families may be conceptualized as in a liminal state between what is conventionally considered the normative family in Western sociocultural contexts and what might be perceived as a deviation from this norm, making their situation particularly complex (Indekeu & Lampic, 2021a). On the one hand, they align with the traditional concept of a family comprised of two different-gender parents, with the mother experiencing pregnancy and childbirth. However, DC families also face the challenge of not fully adhering to the idea of natural procreation, which involves two individuals conceiving a biological child spontaneously, that is, without seeking medical support and a third party to conceive (Cahn, 2013; Finkler, 2001; Schneider, 1980; Strathern, 1992). For those seeking ART, the pressure to adhere to these traditional norms can exacerbate the already considerable physical, financial, and psychological burdens associated with ART (Fusco et al., 2024). This dynamic not only impacts their social and personal adjustment but also highlights the critical need for societal acceptance of diverse family structures to alleviate these pressures (Valiquette-Tessier et al., 2019; Yee et al., 2024).

Overall, this study has practical implications at several levels. Our findings are relevant for professionals working in the assisted reproduction field, as couples seeking to become parents through gamete donation—when they first access treatments—may possess limited or no understanding of the implications associated with using donation as a method of family formation.

Hence, this study holds implications for DC families as well. Although the Italian guidelines on good practices in assisted reproduction, which are annexed to Law 40/2003 in Italy, assume as the predominant focus of services the preconception support, ours and previous research findings (Indekeu & Lampic, 2021b) suggest the importance of extending support into later stages of family development to assist DC families in navigating the consequences of the lack of societal knowledge within their networks and environments. Indeed, our findings point to the importance of psychological support and counseling interventions for couples using gamete donation to develop appropriate and conscious narratives related to parenting following gamete donation and make parents aware of the specific dynamics of DC families, such as donor anonymity, disclosure, and genetic asymmetry (Macmillan, 2024). Moreover, our study sheds light on how different methods of conception may influence the public perception of potential risks within families. Hence, they may be relevant to DC families by empowering

gamete-recipient parents to equip themselves to deal with possible societal reactions and cultural beliefs and provide guidance, protection, and support to their DC offspring. On the other hand, due to the public perception that parents using ART may have better parenting abilities and a stronger commitment to parenthood, they may be perceived as not needing parental education and support. However, existing research does not support this assumption, highlighting that parenthood following gamete donation involves an adjustment period that includes coming to terms with the absence of a genetic connection to the child (e.g., Imrie et al., 2020). Therefore, it is essential to underscore the need for parental education and support specifically tailored for donor-conceiving parents, acknowledging the unique challenges they face. Providing these resources can enhance their parenting skills and promote child welfare, ensuring that all families receive the guidance and assistance necessary for successful parenting outcomes.

Finally, because increasing efforts are being made to encourage disclosure of donor conception within and outside DC families worldwide (Ethics Committee of the American Society for Reproductive Medicine, 2018; Macmillan, 2024), Italian policymakers should consider research findings informing about the societal barriers and factors influencing the management of information regarding donor conception by DC families. As advocated as early as 2013 by the Nuffield Council on Bioethics in the United Kingdom, any state endorsing donor conception as a legitimate avenue for family formation is responsible for fostering the well-being of DC families through regulatory measures and awareness-raising interventions directed at the population. It has to be considered that most participants in our sample showed a limited understanding of donor conception pathways and no firsthand knowledge of DC families. As previously argued (Indekeu & Lampic, 2021b), a lack of societal knowledge and comprehension concerning donor conception and gamete donation should be taken into account by policymakers because it risks exacerbating feelings of stigma and taboo about—and within—DC families. To mitigate this, it is crucial to facilitate the dissemination of accurate information and foster understanding through efforts involving DC families, health care professionals, policymakers, and communities. Promoting an increased understanding of the lived experiences of DC families can be achieved by making accessible both DC families' personal experiences and research findings on their well-being and the challenges they face.

The present study has several limitations to consider when interpreting the results. First, although online surveys serve as a valuable research tool due to the possibility of engaging large pools of participants while maintaining anonymity, they come along with self-selection bias and do not provide information regarding the sample's representativeness. Participants may already be inclined toward or interested in the topic, potentially skewing the results and thus preventing the possibility of generalizing these findings to the Italian population. Moreover, respondents' answers may be susceptible to social desirability bias, given the societal expectations surrounding reproduction choices. Further research that can provide information that is generalizable to the Italian population and representative of the Italian social context is needed to make cross-cultural comparisons. Moreover, our study design did not include the study of attitudes toward other family forms using third-party reproduction—such as same-sex families, single-parent families, and surrogacy families—because, in Italy, access to ART treatment is allowed only for different-sex couples. This did not allow us to disentangle the role of the heteronormative social context in shaping attitudes toward nontraditional parenting (Di Battista, 2021). Finally, another limitation of this study concerns the narrow focus of the survey questions, which may not fully reflect the broader complexities of parenthood and could introduce bias into the findings. Future research would benefit from incorporating more comprehensive questions that explore more relational aspects of parenthood, such as attitudes toward parent–child relationships, partner attachment, and parenting styles.

Future studies should deepen the focus on the attitudes of individuals who regularly interact with DC families, such as health care professionals and teachers, to provide insights into the support systems available to DC families (Indekeu & Lampic, 2021b). Additionally, further

research should disentangle the role of sociodemographic characteristics in shaping beliefs regarding parenthood following gamete donation in different-sex DC families. Understanding how factors such as education, religion, political orientation, and socioeconomic status influence attitudes toward parenthood in these families can inform educational interventions targeting the general population and specific social groups. Moreover, expanding research to encompass attitudes toward children born through donor conception would contribute to a comprehensive understanding of the societal perception surrounding DC families and assisted reproduction.

In conclusion, the present study implemented an explorative, descriptive, and between-subjects research design to understand knowledge, beliefs, and attitudes toward donor-conceiving different-sex parents in an Italian sample. The results suggest that couples using ART might be seen as more dedicated to parenthood, despite concerns about genetic asymmetry within gamete-recipient couples and limited public understanding of donor conception. Thus, parents in DC families in Italy may face the fallouts of anonymous donations policy and the societal unawareness of donor conception, potentially having to explain and legitimize their family-building choices in their social networks.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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