

Paternity and parental leave in Italy: the parents' perspective

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Abstract

Background. Growing recognition of fathers' role in childcare highlights paternity and parental leave policies. The aim of this study is to investigate the perspectives of parents in Italy on the paternity and parental leave utilisation by fathers.

Materials and methods. A cross-sectional study was carried out, using web-based questionnaires targeting parents of children born between 2018 and 2023. Descriptive statistics and multivariate logistic regression models were used to analyse quantitative data, while qualitative content analysis was applied to open-ended responses.

Results. A total of 3,811 mothers and 720 fathers responded. Paternity leave was used by 72.6% of fathers. Non-use was primarily attributed to ineligibility (58.4%). Fathers' parental leave utilisation was low (20.4%). Most parents agreed that mothers need longer leave for the dyad's needs, like breastfeeding. Living in southern Italy and having lower educational levels reduce the likelihood to take leave.

Conclusions. Paternity and parental leave are underutilised by fathers in Italy. There is a need for better-paid and more accessible leave policies to promote active fatherhood and gender equality.

Key words

- paternity leave
- parental leave
- active fatherhood

INTRODUCTION

In recent years, the role of fathers in childcare has gained increasing relevance in public debates. In this context, parenting-related leave policies, including maternity, paternity, and parental leave, are essential tools for encouraging active paternal involvement in family life. Maternity leave was initially conceived primarily to protect and safeguard the health of female workers during pregnancy and postpartum. Only later, particularly in the 20th century, as women's participation in the labor market became economically strategic, did maternity leave policies evolve to also facilitate their reintegration into the workforce. Over time, these policies have gained additional significance due to their positive impact on the well-being of children and families and have legislated to provide women with the opportunity

for quick reintegration into the workforce [1, 2]. When used by both parents and when time-appropriate for both mother and father, they promote responsive parenthood, co-parenting and active parental involvement in family life, facilitating a more equal distribution of household responsibilities [3-5]. Moreover, parenting-related leaves increase the time spent with children [6], promoting children's well-being with a positive influence on their physical, psycho-social, emotional, behavioural, and cognitive development, especially during the first years of life, a crucial period for early child development [7]. Specifically, they encourage the active involvement of fathers in the care of children [8-10].

While several studies emphasize the benefits of paternity leave for fostering fathers' involvement in parenting and promoting gender equity [11, 12], other research

suggests that these effects are not uniform. Some studies argue that the positive outcomes often attributed to paternity leave may be confounded by socio-economic characteristics, as fathers who are already more engaged or have greater resources are more likely to take advantage of leave policies [9, 13]. This highlights the need for a nuanced understanding of how leave policies interact with individual and contextual factors.

A father's active involvement from birth has several benefits for both the father and the children. It transforms the father's neurobiological set-up, reorienting it to nurturing, increasing oxytocin levels, salience and parent-infant synchrony and ensuring appropriate and timely parental response [14, 15]. Moreover, fathers' involvement fosters the development of a comprehensive "parental caregiving" neural network, which remains largely consistent across parents [15]. Children exposed to highly nurturing fathers exhibit enhanced cognitive competence at 6 months and demonstrate superior levels of development and problem-solving skills in later stages [16]. Later in life, children experience enhanced language development and improved school performance [17]. They also exhibit improved stress management and frustration coping skills, resulting in fewer behavioural issues during adolescence, including reduced tendencies towards violence and antisocial behaviour [18]. It also has an impact on reducing violence against women and children [19]. Furthermore, while evidence has long shown that breastfeeding rates are influenced by various factors, including sociodemographic aspects [20, 21], and inappropriate postnatal hospital practices – such as the use of breast milk substitutes without clinical indication [22] – there has been a growing focus

in recent years on the role of social and family support. Notably, it has emerged that fathers/partners involvement improves breastfeeding initiation, duration, and exclusivity rates [23, 24].

Although parental leave policies allow both parents to take time off, they are not granted to all categories of workers. In addition, in several EU countries substantial differences remain in leave available for both parents, and adequately-paid leave for fathers is too short to support them in bonding with their newborns or to promote gender equality [25].

The context of family policies in Italy has been widely studied in the literature. Naldini and Saraceno [26] and Saraceno and Keck [27] analyzed how policies supporting paid work and caregiving responsibilities have evolved in their role in promoting gender equity. More recently, Cannito [28] explored the factors influencing the uptake of parental leave by parents, while Dottori *et al.* [29] investigated the social and cultural determinants that limit fathers' access to leave. However, the literature still highlights a significant gap between existing policies and their tangible impact on the sharing of parenting responsibilities. Paternity leave in Italy is among the shortest in Europe. It includes 10 mandatory days, which can be taken from 2 months before the expected date of delivery to 5 months after delivery [30].

Table 1 summarizes the main leave categories in Italy [30-32].

In this framework, the European project 4E (Early, Equal, Engaged, Empathetic) PARENT (CERV-2022-DAPHNE n. 101095956) (<https://4e-parentproject.eu/>), the follow-up of the PARENT project [33],

Table 1
Main leave categories in Italy

Type of leave	Duration	Compensation	Conditions	Covered employee categories
Maternity leave	5 months (2 before +3 after; 1+4; 0+5) (7 if the workplace presents risks for breastfeeding)	Generally paid from 80% to 100% of salary	Mandatory. Extension in case of premature birth, multiples or complications	All categories of female workers
Mandatory paternity leave	10 working days, from 2 months before the expected date of delivery to 5 months after birth	100% of salary	Mandatory. Can be split into non-consecutive days. Minimum notice of 5 days	Private and public sector employees. Not available to self-employed fathers and fathers who work freelance
Optional paternity leave	1 working day, from 2 months before the expected date of delivery to 5 months after birth	100% of salary	As an alternative to the mother, who must give up her mandatory maternity leave day.	Private and public sector employees. Not available to self-employed fathers and fathers who work freelance
Parental leave	6 months per parent. Can be extended to 7 months for the father, with a maximum of 11 months in total if the father uses at least 3 months. Up to child's 12 years of age	80% of salary for the first month according to the 2023 budget law 30% of salary for the following 9 months (up to child's 6 years of age)	Can be taken in days or hours. 5 days' notice (2 days' notice if parental leave is taken on an hourly basis)	Public and private sector employees. Self-employed and freelancers are only entitled to a maximum of 3 months. Not available to: a) parents whose employment has ceased or been suspended; b) domestic workers; c) parents working from home
Daily rest periods (formerly "breastfeeding breaks")	2 hours per day if the working day is at least 6 hours, 1 hour per day if the working day is less than 6 hours	100% of salary	Can be taken individually or cumulatively	Employees and remote workers

aims to promote engaged fatherhood and caring masculinity from the beginning of pregnancy, in order to achieve gender equity and to prevent gender-based violence (<https://4e-parentproject.eu/>). The project's specific objectives are to develop a proposal for policy change, to strengthen advocacy and communication, to respond to parents' need to be listened to and to facilitate communication on gender stereotypes in order to contribute to cultural change and knowledge sharing. Within this framework, this pilot study aims to describe the perspectives of fathers and mothers regarding the utilisation of both paternity and parental leaves by fathers, identifying factors that influence fathers' involvement in childcare and the barriers to greater leave uptake.

MATERIALS AND METHODS

As part of the project 4E-PARENT, a cross-sectional study was carried out using web-based questionnaires addressed to mothers and fathers of children born between 2018 and 2023. Participation in the questionnaires was voluntary. The data were analysed through descriptive statistics and multivariate logistic regression models to investigate determinants of paternity and parental leave utilisation. In addition, qualitative content analysis was performed on responses to open-ended questions.

Questionnaire description

The web-based questionnaires were developed by the research team based on current paternity and paternal leave policies in Italy and evidence-based factors that promote or hinder fathers' involvement through the lens of paternity/parental leave. The development process was participatory: an interdisciplinary working group including researchers, professionals from public health institutions and NGOs, and representatives from parent associations (including fathers' groups) contributed to the design and review of the items. The questionnaire was also discussed within the 4E-PARENT project stakeholder network. A pre-testing phase was conducted with a small sample of parents ($n=10$) to assess clarity, comprehension, and interpretability of the questions. Feedback from this step was used to refine the wording and structure of the items. The final version includes 17 semi-structured questions organized in 5 sections (*the Questionnaire is available online as Supplementary Material*):

- Section 1: demographic characteristics and personal details (3 questions);
- Section 2: utilisation of both paternity and parental leave by fathers (4 questions);
- Section 3: reasons for non-utilisation (2 questions);
- Section 4: agreement/disagreement with current leave policies, using a 5-point Likert scale, ranging from "1-Completely agree" to "5-Completely disagree" (4 questions);
- Section 5: agreement/disagreement with several gender stereotypes using a 5-point Likert scale, ranging from "1-Completely agree" to "5-Completely disagree" (1 question).

There was also a section for comments (3 open-ended questions).

Data collection and analysis

The study used a convenience sample, with voluntary participation. Participants were eligible if they were mothers or fathers of at least one child born between 2018 and 2023. The web-based questionnaires were disseminated between August and December 2023 through the 4E-PARENT official website (<https://4e-parentproject.eu/>), social media channels (such as Facebook and Instagram), and through newsletter, managed by project partners. While it is not possible to determine the exact number of individuals reached, the overall pool was estimated to include several hundred potential participants. The data collection was designed to ensure anonymity. The questionnaire was hosted by the Centro per la Salute delle Bambine e dei Bambini's (CSB) own web platform that did not collect any personally identifying information such as Internet Protocols (IPs), names or email addresses. Therefore, anonymity was respected in compliance with the GDPR. Survey responses were recorded in an electronic data sheet.

Descriptive analyses were performed using frequencies and percentages for categorical data.

An analysis of determinants of paternity and parental leaves utilisation was conducted through the development of multivariate logistic regression models, for both mothers' and fathers' responses. The 5-point Likert scale variables of agreement/disagreement (1=Completely disagree to 5=Completely agree) were collapsed into three levels as follows: Agree: responses 5 (Completely agree) and 4 (Agree); Neutral: response 3 (Neither agree nor disagree); Disagree: responses 2 (Disagree) and 1 (Completely disagree). Multivariate logistic regression models were built using the strategy suggested by Hosmer and Lemeshow. Each variable was examined by univariable analysis and included in the multivariate logistic model when the p -value was <0.15 . Prior to model estimation, we assessed multicollinearity among the independent variables using the Variance Inflation Factor (VIF). The influence of the independent variables on each binary outcome investigated (paternity leave utilization and parental leave utilization) was expressed as adjusted odds ratios (OR_{adj}) and 95% confidence interval (CI). Statistical significance was set at a p -value <0.05 . Model fit was assessed using the Hosmer-Lemeshow goodness-of-fit test. A p -value >0.05 was considered to indicate a good fit between the model and the data. The statistical analysis was performed using STATA 17.0 software (Stata Corporation, College Station, TX, USA).

The dependent variables in the regression models were: the use of paternity leave (yes/no) and the use of parental leave (yes/no). The independent variables included: educational level, categorized as high (Bachelor's degree or higher), medium (high school diploma), low (less than high school); geographic area of residence (North, Centre, South); child's year of birth, categorized as "2021 or later" vs "before 2021"; all variables derived from items using 5-point Likert scales (ranging from 1=Completely disagree to 5=Completely agree), recoded into three categories for the analysis (Disagree 1-2, Neutral 3, Agree 4-5).

The open-ended questions were coded inductively

and deductively, according to a categorical analysis [34]. The NVivo software was used to conduct coding, categorical analysis and mapping. Two expert researchers in qualitative methods and experience in public health and gender studies independently analysed the responses. Initial coding was done separately, followed by consensus meetings to compare and reconcile differences, ensuring consistency and reliability in the identification of themes and categories. In cases of disagreement, a third researcher was consulted to mediate and reach shared decisions.

Ethical considerations

Participants provided informed consent electronically before completing the questionnaire. The survey platform did not collect personal identifiers (e.g., IP addresses, names or emails). Given the nature of dissemination the data were collected without direct identifiers. Participants were assured of the anonymity. This approach ensured compliance with data protection regulations while maintaining participant confidentiality.

RESULTS

Main characteristics of the respondents

The responders completing all sections of the questionnaire were 3,811 mothers and 720 fathers. The socio-demographic characteristics of these respondents are reported in Table 2.

We collected responses from all Italian regions and the majority of respondents were from Northern Italy (60.3% mothers; 56.7% fathers). The educational level was high (bachelor's degree or higher) in most cases

for both mothers (73.7%) and fathers (57.8%). Most of the children the questionnaire referred to were born in 2023 (27.9% mothers; 30.8% fathers).

Paternity leave utilisation

Most fathers (72.6%) and mothers (61.5%) reported that fathers used paternity leave, with the majority of this leave being publicly funded (58.7% fathers; 61.7% mothers), followed by company-paid leave (23.1% according to fathers; 23.9% according to mothers) (Table 3).

Among fathers who did not use paternity leave, most reported that they were not eligible. Other reasons included being unemployed, having unused vacation or leave time, or having paternity leave yet to be used. As for mothers, most of them declared that the fathers were not eligible. Other reasons included personal choice not to use the leave or the company not supporting use of leave, difficulties in utilisation or lack of information on how the fathers could use the paternity leave.

Figure 1 shows the opinions on the utilisation of longer paternity leave among fathers who used it (n=523) and mothers who reported that fathers took paternity leave (n=2,343) for their most recent child. Most fathers (91.6%) and mothers (90.6%) agreed that fathers would have used a longer paternity leave if it had been fully paid (at 100% of salary). Only a small proportion of fathers (4.1%) and mothers (4.1%) believed that a longer paternity leave was unnecessary because the mother was at home; most disagreed (fathers 88.8%; mothers 92.7%). Additionally, 47.1% of fathers and 56.5% of mothers stated that fathers would use a longer paternity leave, but they would face challenges at work.

Parental leave utilisation

As for the utilisation of parental leave at the time of the last childbirth, the majority of both mothers (84.9%) and fathers (79.6%) reported that fathers did not use parental

Table 2
Socio-demographic characteristics of respondents

	Mothers N=3,811	Fathers N=720
Geographic area of residence		
Northern	2,296 (60.3%)	408 (56.7%)
Centre	820 (21.5%)	198 (27.5%)
Southern	695 (18.2%)	114 (15.8%)
Missing	-	-
Educational level*		
High	2,809 (73.7%)	416 (57.8%)
Middle	908 (23.8%)	258 (35.8%)
Low	94 (2.5%)	46 (6.4%)
Year of birth of last child		
2023	1,063 (27.9%)	222 (30.8%)
2022	891 (23.4%)	179 (24.9%)
2021	742 (19.5%)	137 (19.0%)
2020	481 (12.6%)	95 (13.2%)
2019	362 (9.5%)	57 (7.9%)
2018	272 (7.1%)	30 (4.2%)

*High: II level University Master Course, I level University Master Course, PhD, Master's Degree, bachelor's Degree. Middle: High school leaving qualification. Low: Lower secondary school qualification, Elementary school qualification.

Table 3
Paternity and parental leave utilisation

	Mothers N=3,811	Fathers N=720
Paternity leave for most recent child		
Yes	2,343 (61.5%)	523 (72.6%)
No	1,468 (38.5%)	197 (27.4%)
Type of paternity leave (n=2,343) (n=523)		
Publicly-funded leave	1,446 (61.7%)	307 (58.7%)
Company-paid leave	561 (23.9%)	121 (23.1%)
Both	250 (10.7%)	84 (16.1%)
Missing	86 (3.7%)	11 (2.1%)
Parental leave for most recent child		
Yes	577 (15.1%)	147 (20.4%)
No	3,234 (84.9%)	573 (79.6%)
Days of parental leave utilization		
	Median 10 (IQR 5-20)	Median 10 (IQR 5-20)

leave (Table 3). The median duration of parental leave was 10 days (IQR 5-20) for both mothers and fathers.

Figure S1 (available online as Supplementary Material) shows opinions on the utilisation of a longer and better-paid parental leave among fathers who used it (n=147) and mothers who reported that fathers took parental leave (n=577) for their most recent child. Most fathers (76.9%) and mothers (81.6%) agreed the fathers would have used a longer paternal leave if they were better paid. However, some fathers (35.4%) and mothers (46.1%) indicated, although fathers might have used a longer and better-paid parental leave, they would have faced challenges at work.

Current and future leave policies and gender stereotypes

Figure S2 (available online as Supplementary Material) presents opinions on a proposal to extend work leave: increasing paternity leave days, extending leave to categories not currently covered (e.g., freelancers), and raising parental leave pay from 30% to no less than 80%. Most fathers (80.0%) and mothers (80.6%) disagreed with the statement that “the current leave policies are more or less adequate, because in the early years (especially the first year) it is the mother’s presence that is crucial”. Additionally, a small proportion of mothers (6.0%) and fathers (6.9%) endorsed the stereotype that the mothers should stay home for child-rearing and housekeeping while fathers provide the main income. Furthermore, for most mothers (59.5%) and fathers (57.4%), while the proposal to extend work leave is deemed necessary, the actual utilisation could be a challenge (Figure S2

available online as Supplementary Material).

As for the importance of leave for fathers, both mothers (98.1%) and fathers (98.1%) agreed that fatherhood is an enriching experience and therefore it is a father’s right to be present from the beginning. In addition, mothers (98.5%) and fathers (97.4%) agreed that work leave is important because it enables the father to share the burden of care with the mother, especially after birth, a particularly stressful period. They also believed that father-child bonding is established after birth through shared time together (mother 92.6%; fathers 90.6%) (Figure S3 available online as Supplementary Material).

As for equal leave (in duration and pay), 28.3% of mothers and 32.2% of fathers agreed that the equal leave should be used at different times (mothers in the first few months, fathers later). Some mothers (33.0%) and fathers (32.9%) believed that equal leave is a fair goal but expressed concerns about fathers and employer’s readiness for such change. Furthermore, most fathers (72.4%) and mothers (69.0%) agreed that the father should have more leave, but, in general, that the mothers require longer leave than fathers due to the dyad specific needs, including breastfeeding (Figure 2).

Logistic regression model

The logistic model shows that, for fathers, a low educational level (ORadj 0.34; 95% CI 0.13-0.86; $p < 0.05$), living in Central (ORadj 0.49, 95% CI 0.28-0.87; $p < 0.05$) and Southern Italy (ORadj 0.32, 95% CI 0.15-0.64; $p < 0.05$), and accepting traditional family role divisions (ORadj 0.30, 95% CI 0.14-0.65; $p < 0.05$) are

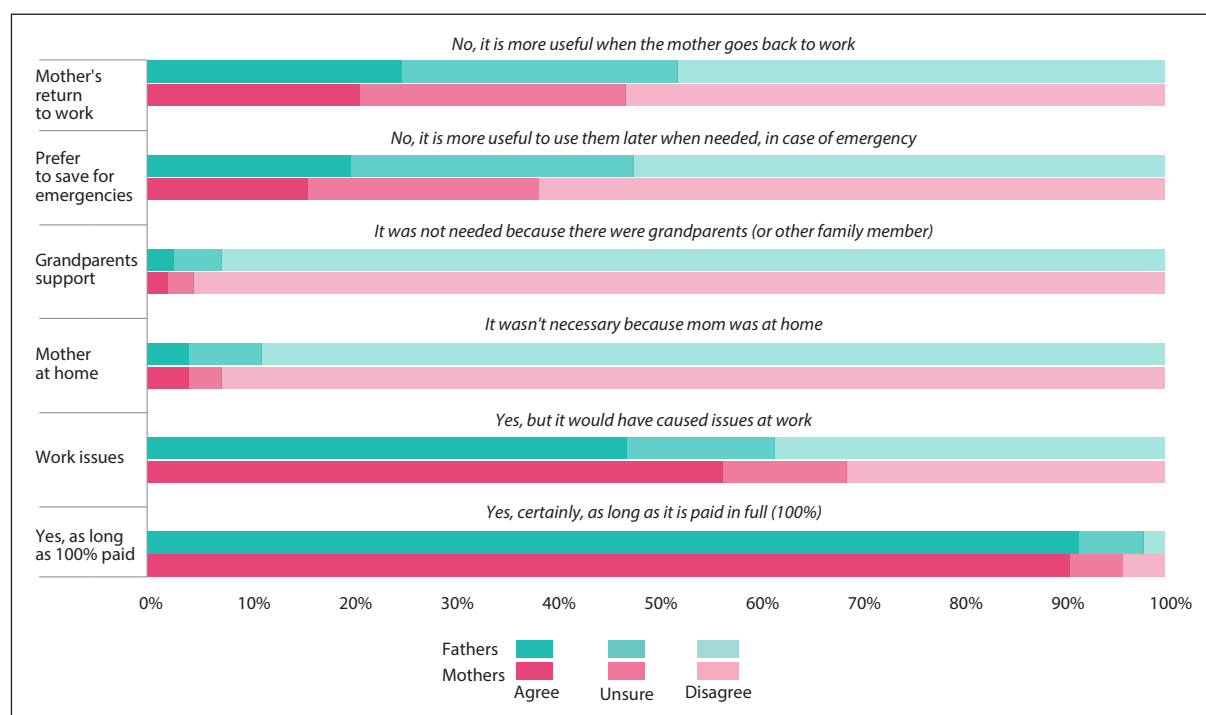
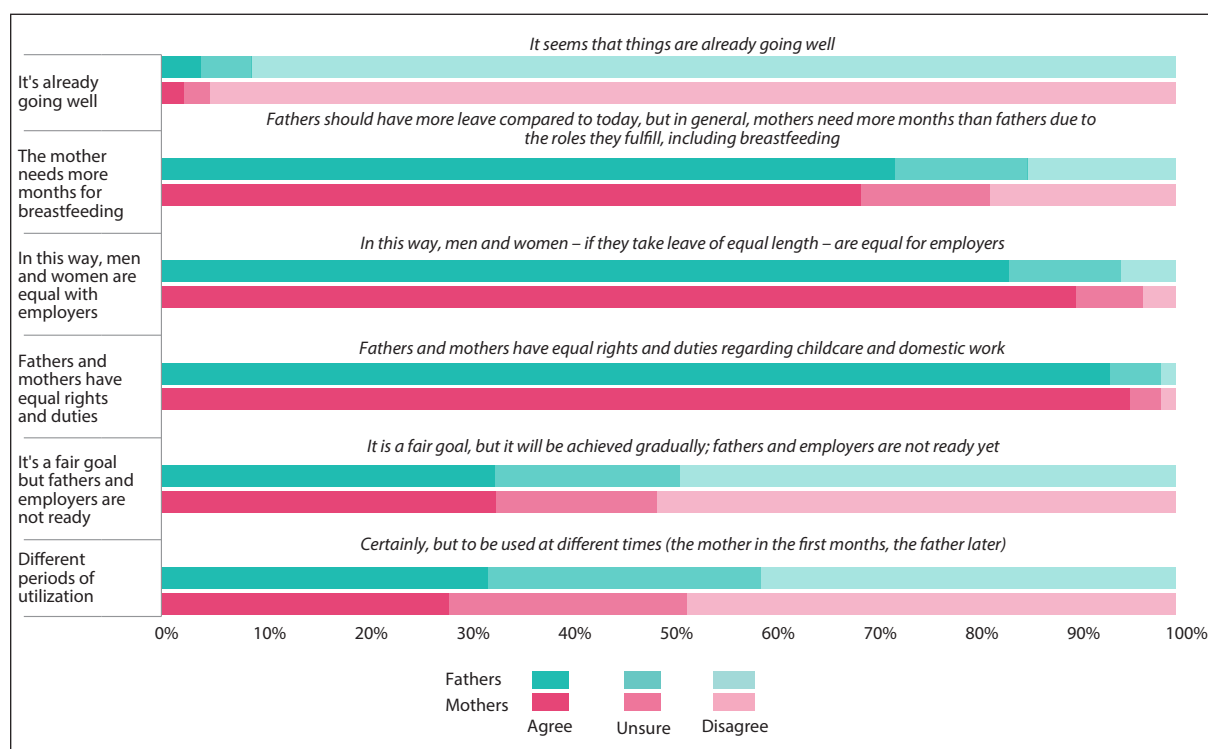


Figure 1
Fathers' and mothers' opinions on a longer paternity leave utilization (n mothers=2,343; n fathers=523).
Question: "Would you/the father have/has taken longer paternity leave in the first month of baby's life?"

**Figure 2**

Fathers' and mothers' opinions on equal leave (equal in duration and pay) (n mothers=3,811; n fathers=720).

Question: "Leave available for mothers (maternity leave and parental leave not reserved for fathers) and leave available for fathers (paternity leave and parental leave reserved for fathers) should be equal in duration and pay over the first 2-3 years of the child's life".

associated with a reduced likelihood of using paternity leave. Conversely, having a child born in 2021 or later increases the likelihood of using paternity leave (ORadj 1.82, 95% CI 1.21-2.73; $p < 0.05$). The same results are observed for mothers, except for the low education level, which was not statistically significant.

Moreover, for fathers, living in Southern Italy was statistically significant (ORadj 0.24, 95% CI 0.09-0.69; $p < 0.05$) in reducing the likelihood of using paternal leave. For mothers, both a middle educational level (ORadj 0.72, 95% CI 0.54-0.97; $p < 0.05$) and living in Southern Italy (ORadj 0.67, 95% CI 0.49-0.92; $p < 0.05$) were significant factors (Table S1 available online as Supplementary Material).

All VIF values were below 2.5, indicating no significant multicollinearity. Therefore, all selected variables were retained in the final models. Moreover, the Hosmer-Lemeshow goodness-of-fit test indicated an adequate fit for all logistic regression models, with p -values > 0.05 .

Insights from open-ended responses on leave uptake and cultural barriers

Among open-ended answers, what emerged was the need for a cultural change to promote equal opportunities for mothers through the support of fathers, recognizing parenting as a shared responsibility. Moreover, some fathers reported that "many fathers do not feel fully responsible for the care of their children in the early years and therefore do not use paternity/parental leave". Another

theme was about the remuneration and economic impact of taking leave because "without adequate pay, it becomes a privilege for a very few" considering that the "30% of salary is not even enough to buy diapers". As for paternity leave, the mothers reported that having equal leave would lead to a reduction in the gender gap at the job-interview stage because women would no longer suffer discrimination. As for parental leave, both mothers and fathers expressed a preference for greater flexibility in how it can be used, including the option to share it between them and to take it by the hour based on their family's needs (Figure S4 available online as Supplementary Material).

DISCUSSION

Our study involved 3,811 mothers and 720 fathers, showing significant differences in the utilisation of paternity and parental leave between different Italian regions and between different educational levels. The majority of participants were from Northern Italy, and the majority of fathers used paternity leave, with a prevalence of public leave.

A systematic review of European countries suggested that men's use of paternity leave is determined by both political/regulatory and organisational forces, affecting various organisational, psychological, and family-related areas including career development, health, and relationships with children [35]. Another study found that the introduction and expansion of paid parental leave policies are associated with improved well-being

during adolescence and young adulthood [18]. Although extending the duration of leave may not produce significant long-term results, the introduction of paid leave policies, shows evidence of statistically significant benefits [18]. The main channel of impact is the increased investment of parental time during the early years. Among several actions, institutional factors such as the availability and quality of early (0-2 years) education services can be crucial [18], in addition to better-paid leave, tailored services and cultural change. This confirms the importance of sensitive and caregiving parenting for the child's maturity and cognitive development [36].

In our study, most fathers and mothers reported that fathers used paternity leave, primarily public leave, followed by company-paid leave. The reported take-up rates in our study are notably higher than those reported in official data; for example, the OECD family database indicates that only 32% of fathers took paternity leave following births in 2019 [37]. This discrepancy suggests that our findings may overestimate the extent of leave-taking, and it is crucial to interpret them with caution in light of these limitations.

Among fathers who did not use paternity leave, most stated they were not eligible, with other reasons including unemployment, companies not being supportive of fathers taking leave or being self-employed. In Italy, many categories of workers are not covered by paternity and parental leave. While legislation allows self-employed workers to take parental leave, the benefits and duration are less favourable compared to those for employees [38]. Taking parental leave can lead to a total loss of income for some, which may be financially unsustainable, particularly if their business is the family's primary source of income. Furthermore, many self-employed individuals work independently or without any collaborators. As a result, they may have no one to delegate their responsibilities to during their leave, making it challenging for them to take time off from work.

Most fathers and mothers agreed that fathers would have taken longer paternity leave if it had been always paid at 100%, though many felt that work-place related pressures would make it difficult to use more leave. According to the National Social Security Institute (Istituto Nazionale Previdenza Sociale, INPS) paternity leave uptake shows an increasing trend, with fathers residing in Central and Northern Italy, those with full-time employment, and those in large companies (with more than 100 employees) being more likely to take paternity leave [39]. These data confirm our findings that being from the North or the Centre increases the likelihood of using paternity and parental leave for both mothers and fathers.

As for parental leave, our findings show that the majority of both mothers and fathers reported that fathers did not use parental leave. However, most fathers and mothers agreed that fathers would have used longer parental leave if it had been possible and better-paid, although many believe they would have faced work-related challenges in doing so. The INPS reported an increase in the number of parents benefiting from pa-

rental leave, along with a significantly unequal distribution of leave within couples, with a difference in leave requests between fathers and mothers [39]. Uptake by fathers is 20% [39] and a key reason being that parental leave is poorly paid (only 30% despite the recommendation of the EU Directive that payment of parental leave should be "adequate") [40, 41]. Providing a well-paid parental leave could encourage fathers to take more of it [42]. Due to the gender wage gap, where men typically earn more than women, poorly paid or unpaid parental leave can reinforce social and economic pressures that hinder gender equality. If leave doesn't compensate a significant portion of fathers' income, families often face a greater financial burden when fathers take time off compared to mothers [43]. This is in line with our results, which indicate that most fathers and mothers agreed that mothers need more leave than fathers due to the mother-baby dyad's needs, including breastfeeding. A small proportion endorsed the stereotype that mothers should stay home for child-rearing and housekeeping while fathers provide the main income. Although the role of the mother is crucial, these findings show that reconciling work and family life in our country could be still perceived as being primarily a women's responsibility. This situation was not affected by the pandemic. In fact, in 2020, the number of requests for leave from both mothers and fathers increased, but with a much more pronounced rise among mothers [40].

As for parental leave, some mothers and fathers agreed that mothers should use the leave, especially during the first few months of the child's life. The INPS data indicate that mothers use parental leave most frequently during the first 3 years of a child's life, with the gender gap being particularly wide up to this age and decreasing over time [40].

Both fathers and mothers agreed that extending paternity and parental leave could be a solution, but they (and in particular, fathers) would face challenges and resistance at work. Consistent with these beliefs, the INPS data show that working in fixed-term jobs negatively and significantly affects the likelihood of requesting parental leave, whereas fathers working full time with stable contracts are more likely to take leave [40]. This is likely due to fathers' fear of their employment contracts not being renewed because of absence from the workplace.

Lastly, some results of our regression model are confirmed by the INPS model, which shows that fathers living in central and northern regions are more likely to take leave [40]. Given the documented benefits of a father's presence, once again, as already highlighted by health surveillance on Italian children [44, 45], the parents' educational level and the region of birth contribute to disadvantages and create social and health inequalities, with consequences for future generations.

Our findings suggest an association between paternity leave and fathers' involvement in parenting. However, as noted in the literature, this relationship is likely mediated by socio-economic characteristics and pre-existing attitudes towards caregiving. Studies have shown that fathers who take leave often belong to higher socio-

economic groups or have partners who support shared parenting [1, 13]. Consequently, it is challenging to disentangle the causal impact of paternity leave from the characteristics of the fathers who take it. Future research should aim to isolate these effects, for example, by using experimental or longitudinal designs that limit selection bias.

Insights from qualitative analysis, highlighted that the low uptake of paternity and parental leave by fathers is not solely a policy issue but is deeply rooted in a cultural perception where some fathers still do not feel fully responsible for early childcare. This societal barrier, coupled with inadequate financial compensation (e.g., the reported 30% of salary, which was deemed insufficient to even “buy diapers”), employers’ pressures, not only disincentivizes leave-taking, but also perpetuates gender inequality by reinforcing the traditional mothers/fathers’ roles. As a result, the expectation that mothers should carry the main responsibility for childcare persists, hindering their return to the workforce and contributing to the gender pay gap.

Our results are consistent with previous studies that highlight structural and cultural barriers to leave uptake in Italy. Naldini and Saraceno [26] and Saraceno and Keck [27] emphasized how family policies have historically reinforced gender roles, while Cannito [28] and Dottori *et al.* [29] showed that insufficient financial support and cultural factors significantly limit fathers’ engagement in caregiving. By addressing these barriers, more inclusive policies could foster greater gender equity and shared parenting responsibilities. Moreover, the involvement and presence of father are important, as stated in the Nurturing Care Framework [7] and the 2030 Agenda for Sustainable Development [46].

LIMITATIONS

Our study has some limitations. We do not have a probabilistic sample because the online questionnaire was disseminated through project networks, which may have attracted more motivated respondents. This approach, while effective in reaching a wide audience, may have introduced selection bias, as individuals with higher education levels and those residing in Northern Italy might have been more likely to encounter and complete the survey. A key limitation of this study is the voluntary nature of participation, which may have introduced selection bias. Fathers who have taken paternity leave are more likely to respond to the survey, leading to an overrepresentation of those who are already engaged in caregiving. Additionally, there is a disproportion between the number of questionnaires completed by mothers compared to fathers and consequently a women overrepresentation. One reason is that, in general, women tend to respond more frequently to questionnaire surveys [47]. Lastly, some socio-demographic variables are missing, such as age and profession. These aspects should be considered when interpreting the findings. Future studies should aim to employ probabilistic sampling methods or targeted outreach to underrepresented groups to ensure a more balanced and generalizable dataset. Additionally,

the qualitative component of the study was exploratory in nature. While it provided useful contextual insights, the heterogeneity and brevity of many open-ended responses limited the possibility of performing a more structured thematic analysis or drawing generalizable conclusions.

CONCLUSIONS

To conclude, we consider our study a pilot investigation into a relatively unexplored topic that highlights strong awareness among mothers and fathers regarding the importance of paternity and parental leave for fathers, resistance from company management, and scepticism from parents about the political capacity to address their needs. Moreover, our findings complement and expand existing models by highlighting dimensions that administrative data cannot capture. For example, while the INPS model identifies regional disparities in leave uptake, our survey data reveal the underlying reasons, such as workplace culture and financial barriers, that contribute to these disparities. This approach underscores the need of integrating qualitative insights with quantitative data in further studies, in order to inform more effective and inclusive policy interventions. It is important to ensure equitable access to these tools through inclusive policies that promote active father involvement in childcare, considering the health benefits of this involvement in the early years of life. The survey confirms the need for a change in work-related and society culture, and organisational models according to which the care is a secondary role for fathers. This change can support engaged and responsive parenting by both male and female workers.

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Conflict of interest statement

The Authors declare no conflict of interest.

Authors’ contributions

FZ wrote the original draft and contributed to conceptualization, methodology, quantitative formal analysis, and data curation; VDS contributed to methodology, qualitative formal analysis, data curation, and manuscript review and editing; AG supported conceptualization, methodology, and manuscript review and editing; AL and GT participated in data curation, conceptualization, methodology, and manuscript review and editing; MC and MP contributed to conceptualization, data curation, and manuscript review and editing; BV and AV supported conceptualization and manuscript review and editing; ADN, MM, EMC, FS, GT and PS collaborated in the review and editing of the manuscript. All Authors have read, agreed to, and approved the final version of the manuscript.

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