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# Childcare in Italy among migrants and natives: who uses which type and why?

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## Abstract

The Italian welfare state is characterised by a preference for income transfers over transfers in kind and the marginal role of policies aimed directly at supporting the family. Despite the growing participation of women in the labour market, the Italian welfare system still assumes the family, with its unbalanced gender division of housework and its intergenerational solidarity, to be the primary provider of protection and support. As a result, in Italy in 2019 only 26.9% of children under 3 years of age were enrolled in formal childcare, which is below the European average. In this context, births from at least one foreign parent had increased over time, and foreign national children accounted for 14.0% of all children aged 0–3 in 2019. Despite this, migrants are still seen as 'suppliers' rather than citizens who, as parents, are potential consumers of childcare services. Aspects related to the use of childcare by migrants and differences compared to natives in Italy are currently understudied. We use the 2012 Birth Sample Survey by the Italian National Institute of Statistics to fill this gap. Mothers were interviewed about 18–21 months after having given birth: information on sociodemographic characteristics of both parents was collected, including their use of childcare services, their reasons for not using them, their unmet need for childcare services, and the lack of access to the job market due to care work. Our study aims to understand childcare patterns among migrants and the differences between them and those of the native-born population. We found that Italian mothers use informal care more than migrants. Unlike the evidence from other international studies, our results show that migrant mothers use daycare for children aged 0–3 more than native-born mothers. However, we found that the migrants who had arrived as children show patterns more similar to natives. This finding might be associated with a better knowledge of the system and a more extensive network (including grandparents) in Italy. Similarly, we found that migrant mothers who co-parent with an Italian father use more informal care and experience lower logistical barriers to accessing daycare. In addition, we observed that obstacles to children's enrolment resulting in an unmet need for daycare are also related to migrant background.

**Keywords:** Informal childcare, Daycare, Italy, Migrants

## Introduction

In recent years, the importance of equal opportunities in education has been strongly highlighted at the policy level (European Commission, 2020). As a result, attention has been directed to early childhood education and care (ECEC). Within the Strategic

Framework for European Cooperation in Education and Training (ET 2020 Framework), the European Commission acknowledges the crucial role of ECEC in preventing inequality and educational poverty from early infancy. Moreover, focusing on children of migrant background, the European Action Plan on Integration and Inclusion 2021–2027 recognises that the successful integration of migrants depends on both early action and long-term investment, and that schools can be true hubs of integration for children and their families. The document stresses that increasing the participation of migrant children and children of migrant background in ECEC can positively affect their future educational attainment by helping them learn their host country's language early and enhancing the integration of their parents and families. EU member states are, therefore, encouraged to increase the number of children of migrant background participating in ECEC while ensuring that general ECEC programmes are equipped to support culturally and linguistically diverse children and their families (European Commission, 2020). This challenge is particularly relevant for Italy, whose welfare system has been called 'familism by default' (Saraceno & Keck, 2010). The welfare support provided by the Italian state is heavily biased towards pensioners and key workers. Despite the growing participation of women in the labour market, the country's welfare system still assumes the family, with its unbalanced gender division of housework and its intergenerational solidarity, to be the primary provider of protection and support. Consequently, Italy invests minimal resources in providing ECEC and is persistently characterised by an excess demand for these services and a striking territorial divide in their provision (Corazzini et al., 2021; Ferrera et al., 2013). Like other Southern European countries, the weak Italian welfare state is characterised by a limited support to families and a preference for income transfers over transfers in kind (Naldini & Saraceno, 2008; Saraceno, 2011, 2023). As a result, according to the latest EUSILC data from 2019, in Italy only 26.9% of children under 3 years of age were enrolled in formal childcare, which is below the European average (33.3%). Access to free, publicly run childcare services is even more limited, covering only 13.2% of children under three (ISTAT, 2021b). The enrolment rate in the country's southern regions is around 15% (ISTAT, 2021b), and access drops in small and peripheral towns (ISTAT, 2020). While geographical disparities in enrolment, although significant, have been decreasing in recent years, socioeconomic disparities are persistent. In this framework, Italy's fast-growing ethnic diversity is an additional challenge for the Italian system. As of January 1, 2020, 1.3 million children of migrant background<sup>1</sup> aged 0–17 were living in Italy, 78.5% of them having foreign citizenship (Strozza et al., 2021). Children with a foreign citizenship account for 14.1% of all children aged 0–3 (ISTAT, 2021a). Despite this, migrants are mostly still seen as 'suppliers' (e.g., nannies; Bonizoni, 2014) rather than consumers of childcare services because of a relevant proportion of migrant women work in the domestic and care sector (Casanova et al., 2020; Williams & Gavanis, 2008).

ECEC is beneficial for children and is broadly recognised as vital for female participation in the labour market (Haan & Wrohlich, 2011; Mateo Diaz & Rodriguez-Chamussy, 2013). ECEC availability is even more critical for migrant women, especially those from

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<sup>1</sup> This includes first and second-generation children descendants of both foreign-born parents irrespectively of their citizenship.

non-EU member states. Studies have shown that there is a significant difference in job market participation between native-born women and migrant women from third countries in EU countries (Grubnov-Boskovic et al., 2020; Kreyenfeld et al., 2021). This gap is particularly apparent for less educated Muslim women (Blekesaune, 2021; Schieckoff & Diehl, 2021). Ensuring the integration of migrant women in both the job market and society as a whole is a significant goal for achieving equitable opportunities. In addition, it often serves as a necessary step towards narrowing socio-economic disparities between genders and can greatly aid in the successful integration of migrant children (OECD, 2020). The European Commission has made it a goal to increase the participation of migrant women in the labour market through its Action Plan on Integration and Inclusion 2021–2027 (European Commission, 2020). Providing Early Childhood Education and Care (ECEC) for migrant families who do not have access to informal intergenerational childcare is essential to achieving this goal (Raijman & Semyonov, 1997).

Despite recent evidence that migrant children in Italy are particularly vulnerable to poverty and social exclusion (Save the Children, 2021), access to ECEC for families with migrant backgrounds is poorly understood. In contrast to other EU countries, policy attention is still entirely focused on gaps in overall ECEC enrolment. The most recent comprehensive discussion on the topic was published in December 2020 by Alleanza per l'Infanzia (2020), a network of scholars and relevant stakeholders. Still, while the report mentions the gaps in participation in formal childcare among children of migrant background, this document does not provide data on or analysis of this target population. Given the poor academic performance observed in children with a migrant background in school (Santagati & Colussi, 2019), it is crucial to comparatively study the childcare patterns of native-born and migrant families to disentangle economic obstacles from the policy and cultural/individual factors.

Existing studies on childcare patterns in Italy are mainly on a local scale (Giraldo et al., 2015) or qualitative (Bonizzoni, 2014), and typically focus on transnational care (Furfaro et al., 2020).

Using the 2012 ISTAT *Indagine campionaria sulle nascite e le madri* (Birth Sample Survey), our study aims to understand childcare patterns among migrants and their differences compared to natives, and to advance the understanding of barriers to ECEC enrolment among migrant children. In addition, we aim to answer the following research questions (RQs): (RQ1) Do migrant and native-born parents have different uses of/needs for childcare? (RQ2) If childcare is used, what are the patterns of this use, and are there differences between migrant and native-born parents? (RQ3) Do possible barriers to formal childcare arise due to a lack of economic possibilities or available services?

### **Migration in Italy**

Italy has only relatively recently become a country of immigration. If, in the '90s, migration flows to the country were predominantly male-dominated, there has been a shift towards a gender-balanced composition that became visible in the first years of the new millennium. Many women migrated to Italy for family reunification purposes. Other women, mainly from the Philippines, Eastern Europe and Latin America, migrated to Italy for work opportunities, particularly in the care sector, such as domestic work, childcare and elder care. In 10 years that followed, foreign families realised a large part

of their reproductive plans in Italy and contributed to increased births and period fertility (ISTAT, 2022a). The number of children of migrant background in the country grew rapidly and peaked in 2012 at 79,894 births (15% of total births that year; ISTAT, 2023). After this peak, the number of children born to foreign parents decreased slowly, while their incidence among total births remained stable at around 14–15%. According to the most recent data as of January 1st 2021, while the overwhelming majority of registered foreign residents are Romanian citizens (1,138,000 residents, or 23% of all foreigners and 75% of EU nationals), third-country nationals account for about 70% of the total number of registered foreign residents (3,543,000). Most are Albanian or Moroccan (11.6% and 11.5% of all non-EU residents, respectively), followed by Ukrainian, Filipino, Indian, and Bangladeshi citizens (Blangiardo & Ortensi, 2021). Children of migrant background in Italy are exceptionally vulnerable to poverty. As of 2021, 36.2% of families in Italy that have children under the age of 18 and are composed of only foreign members live below the absolute poverty line (ISTAT, 2022b). Despite reforms aimed at deregulating the job market to (ideally) boost the participation of vulnerable workers, such as women and immigrants, the Italian job market remains characterised by low female participation rates (Struffolino & Raitano, 2020). For migrant women, childcare is even more challenging when their relatives are absent, and the gendered norms of work and family life diverge from what they knew in their country of origin (Barglowski & Pustulka, 2018). The lack of formal childcare may drive female migrants' 'double disadvantage' in the job market (Rajman & Semyonov, 1997; Sánchez-Domínguez & Guirola Abenza, 2021). Moreover, migrant single mothers are more likely to be outside the labour force and face difficulties linked to work–family reconciliation (Bonizzoni, 2014; Milewski et al., 2018).

### **The importance of early childhood education and care for children and families**

For a child, the period from birth to 6 years of age represents a phase of particular sensitivity during which the possibility to support the acquisition of fundamental skills is maximised (Alleanza per l'Infanzia, 2020). While evidence consistently shows that preschool provision from age three is beneficial to the educational and social development of the entire population, concerns about early non-parental care have been raised in the literature, particularly regarding group settings for the youngest children (Saraceno, 2011). The evidence on formal childcare during the first 3 years of life is mixed and depends heavily on the quality of care and the child's socioeconomic and migrant background (Corazzini et al., 2021). Several studies have found evidence that high-quality centre-based care benefits children's cognitive, linguistic, and social development in both the short and the long term (e.g., Saraceno, 2011). Still, low-quality childcare can be a risk factor and may lead to a dual risk for children from low-income families, potentially leading to deficits in linguistic or cognitive development (Melhuish et al., 2015; Saraceno, 2011). Migrant children are more likely than native-born children to face a variety of circumstances that place them at risk of developmental delay and poor academic performance once they enter school, such as low family income, low parental education, and language barriers (Károly & Gonzales, 2011). As for Italy, Corazzini and colleagues (2021) showed that the effect of early childcare attendance differs between native and migrant children. Their study offers substantial evidence of a positive and significant impact of early childcare attendance on language test scores among migrant

children, especially those with less educated mothers and those who speak a language at home that differs significantly from Italian. These results add to previous evidence that high-quality ECEC can also mitigate the potential isolation of ethnic groups and increase reading, maths, and language skills among children of migrants (Caille, 2001; Crosnoe, 2007; Magnuson et al., 2006; Saraceno, 2011). Therefore, especially as concerns migrant children, access to high-quality formal childcare is an early response to the needs of children at risk of educational poverty and social exclusion; obstacles to enrolment must be removed by establishing proper policies.

On the parents' side, ECEC is essential for sustaining female participation in the labour market and reducing the gender imbalance in the household. For mothers, the decision to return to work or enter the labour market for the first time will depend on both available employment opportunities and childcare options, which are primarily shaped by the family's socioeconomic position and the support network they can rely on (Röder et al., 2018). Robust evidence shows that providing public childcare helps mothers remain in the labour market (Zangger et al., 2021). A comprehensive review of over 40 studies on the topic concluded that increasing the supply of places offering childcare services and reducing the costs for families positively impact mothers' labour force participation and work hours, although the effect varies widely across countries (Morrissey, 2017). Moreover, the availability of childcare, among other provisions, has a more substantial impact on the labour market decisions of less educated women who, given a lower potential wage and status in the labour market, face higher costs of job market participation.

### **Childcare choices and patterns among migrants and natives**

Most research on differential childcare use among migrants or ethnic groups has traditionally focused on the US (Furfaro et al., 2020), suggesting that ethnicity is related to the use of childcare. Black and Hispanic children in the US are more likely than White children to be in relative or parental care, regardless of poverty status (Crosnoe, 2007; Early & Burchinal, 2001; Huston et al., 2002; Miller et al., 2013; Santhiveeran, 2010). Children of migrant background have lower participation rates than their native-born peers in non-parental care of any type, including centre-based care (Brandon, 2004).

Findings among migrants in Europe also show that immigrant children are less likely than their native-born counterparts to be enrolled in formal childcare (e.g. Sæther, 2010; Turney & Kao, 2009). Zachrisson et al. (2013) showed that in Norway, a country that provides generous paid parental leave and universal access to subsidised and publicly regulated centre care, non-Western immigrant status and lower socioeconomic status predicted lower centre-care utilisation before the age of 18 months.

However, much of the participation gap in destination countries can be explained by the same economic and sociodemographic factors that affect native-born children (Ambrosini, 2015; Crosnoe, 2007; Kahn & Greenberg, 2010; Karoly & Gonzalez, 2011). However, the gap was smaller among more settled families (e.g. Ackert et al., 2019; Frazer et al., 2020). Living in a poor neighbourhood, rural area or marginalised settlement, having low parental education or family income, and parental unemployment are factors that are more frequently associated with low participation in ECEC provision in general (Frazer et al., 2020; Furfaro et al., 2020). In this sense, migrant parent's use of childcare facilities is (at least partially) tied to class-based family resources (Barglowski & Pustulka,

2018; Jensen, 2010; Lareau, 2000). A lack of government support and accessible public services cannot always be compensated for using private services, as the economic conditions of most immigrant families do not allow for this option. Affordability, availability, and access to ECEC programmes are structural barriers for many immigrant families, as is true for disadvantaged families more generally (Karoly & Gonzales, 2011). Previous studies have suggested that the geographical context—for example, the region (NUTS-2) where a child resides—may also influence daycare use, especially in the Italian context, where the availability of daycare centres, work opportunities, and many other socio-economic indicators are quite different across these areas of the country (Alleanza per l'Infanzia, 2020; Corazzini et al., 2021). A mother's education is likely to affect the use of formal childcare; particularly, mothers with lower levels of education tend to enroll their children less frequently in ECEC (e.g. Brandon, 2004; Hofferth & Wissoker, 1992; Kisker & Maynard, 1991). Children with mothers who are active in the labour market are more likely to be enrolled in daycare than those with mothers who are not (Brandon, 2004). In general, mothers with more economically disadvantaged backgrounds enrol their children in formal childcare less often than other mothers (e.g. Brayfield, 1995; Capizzano et al., 2000; Connelly & Kimmel, 1999).

Other factors might play a role for migrants in particular, for instance, language barriers and bureaucratic complexity, combined with a limited length of time parents spend in the host country, resulting in lower enrolment rates (Frazer et al., 2020; Karoly & Gonzales, 2011).

Previous studies also stress the role of social networks in organising social protection, including childcare (Bilecen & Barglowski, 2015; Bilecen & Sienkiewicz, 2015; Bonizzoni, 2014). Indeed, if constraints are vital in the decision to use childcare, the lack of trust in government programmes is an additional challenge that may prevent some immigrant families from taking advantage of ECEC programmes, even when their children qualify for subsidies (Frazer et al., 2020; Tienda & Haskins, 2011). In addition, traditional gender norms shared within the couple, as well as cultural preferences for parental care at home, can also be barriers (Barglowski & Pustulka, 2018; Karoly & Gonzalez, 2011). Several studies show that migrants prefer informal to formal childcare, mainly if they originate from outside the EU (Barglowski et al., 2015; Ellingsæter et al., 2016; Ryan, 2007; Seibel & Hedegaard, 2017). The cultural preference for maternal care for younger children leads some families to underestimate the value of high-quality ECEC provision for their children (Frazer et al., 2020).

### **Childcare patterns for children aged 0–3 in Italy**

In Italy, parents of children aged 0–3 years have four main options: the children can be cared for by their parents (mainly mothers), other family members (primarily grandparents) or nannies, or attend centre-based daycare. Each choice has potential advantages, disadvantages, costs and degrees of flexibility. The first two options are strictly related either to assuming the role of stay-at-home parent (mostly mother) or to family members' availability. Childcare strategies are tied to women's participation in the job market, which in Italy heavily depends on migratory patterns, national background and cultural norms (Ortensi & Tosi, 2021; Scoppa & Stranges, 2019; Wall & José, 2004). Recent

evidence suggests the critical role of social and cultural norms relating to the traditional 'male breadwinner/female care provider' model in shaping female participation in the job market (Gazzelloni, 2007; Grubanov-Boskov et al., 2020; Openpolis, 2021; Ortensi & Tosi, 2021; Scoppa & Stranges, 2019). In Italy, mothers from non-EU member states are more likely than other women with a migrant background to be stay-at-home mothers and have higher fertility rates, especially when originating from Northern Africa and the Indian subcontinent. Others, especially those from the Philippines, China, Eastern Europe and Latin America, are instead highly involved in the labour market and are often the first in their family to migrate (Mussino & Strozza, 2012; Ortensi, 2015). These different levels of labour market participation drive access to early childcare. While stay-at-home mothers will not pay for ECEC, working women often cannot afford to leave work to care for their children, because they might need to prove they have a regular income to renew their residence permit or economically sustain their family. Moreover, working mothers need childcare as they often face unfavourable conditions, including informal work, limited maternity rights, and unfriendly work schedules. Research on care-work reconciliation in Italy stresses the role of barriers to accessing daycare and strategies for dealing with a lack of relatives in Italy, involving resorting to an extensive delegation of care to friends and neighbours (Bonizzoni, 2014). Strategies for reconciling care and work often include mothers cutting back on working hours and taking their children to work (Wall & José, 2004). Extended household compositions expand the opportunities to receive informal support, and grandparents are preferred (Furfaro et al., 2020), as is the case in native Italian families. In fact, natives who can rely on supportive networks tend to resort to primarily informal care: the presence of grandparents in good health who live nearby is an essential driver in choosing informal care, especially for very young children (Del Boca et al., 2005; Zamberletti et al., 2018; Zanasi et al., 2022). Similarly, migrant parents who migrated as children or married a native are more likely than other migrants to have access to either their own or their partner's parents to care for their children. Resorting to using a nanny is a way to retain flexibility and dedicated one-to-one care, but may still be costly for low-income families. The lack of an extended family living nearby is a driver of the higher need for formal childcare; at the same time, foreign families may be particularly penalised if their demand for childcare is not met due to a lack of affordable alternatives. In Italy, early centre-based childcare (hereafter called daycare or formal childcare) is offered to children aged between 3 months and 3 years. While the quality of public childcare is relatively high and reasonably homogeneous across regions, its availability is both limited and heterogeneous (Corazzini et al., 2021; Del Boca & Vuri, 2007). Access to daycare is very expensive to families. Research has shown that access drops among children who live in families in the lowest wealth quintile or are at risk of poverty and social exclusion (ISTAT, 2020), suggesting that children who would benefit the most from ECEC are at an increased risk of being excluded from it (Alleanza per l'Infanzia, 2020). While existing research in Italy does not focus on families of migrant background, it is clear that more evidence is needed in regard to this subpopulation, whose background often intersects with other conditions known to increase the risk of vulnerability and social exclusion. Evidence from a local study

conducted in a north-eastern Italian city showed that the determinants of childcare choices are not the same for native-born and migrant populations. Among Italian families the characteristics of women had a higher impact, whereas among foreign families the husband's age and education proved more important. Moreover, most of the differences in childcare were due to compositional differences between migrant and native-born parents (Giraldo et al., 2015). Although formal childcare use is not conditional on employment status in Italy, working mothers access formal services more often than stay-at-home mothers, because it tends to be expensive. Preferences are also relevant: non-working mothers may prefer to take care of their children at home and, therefore, might not need a formal daycare. We can expect that self-selection in the job market affects formal daycare enrolment. Quantitative findings from the study by Giraldo and colleagues are crucial to understanding childcare choices. However, data on a national scale, such as those used in the present research, are needed to clarify whether they can be generalised in a country characterised by high heterogeneity in daycare availability.

### Data and methods

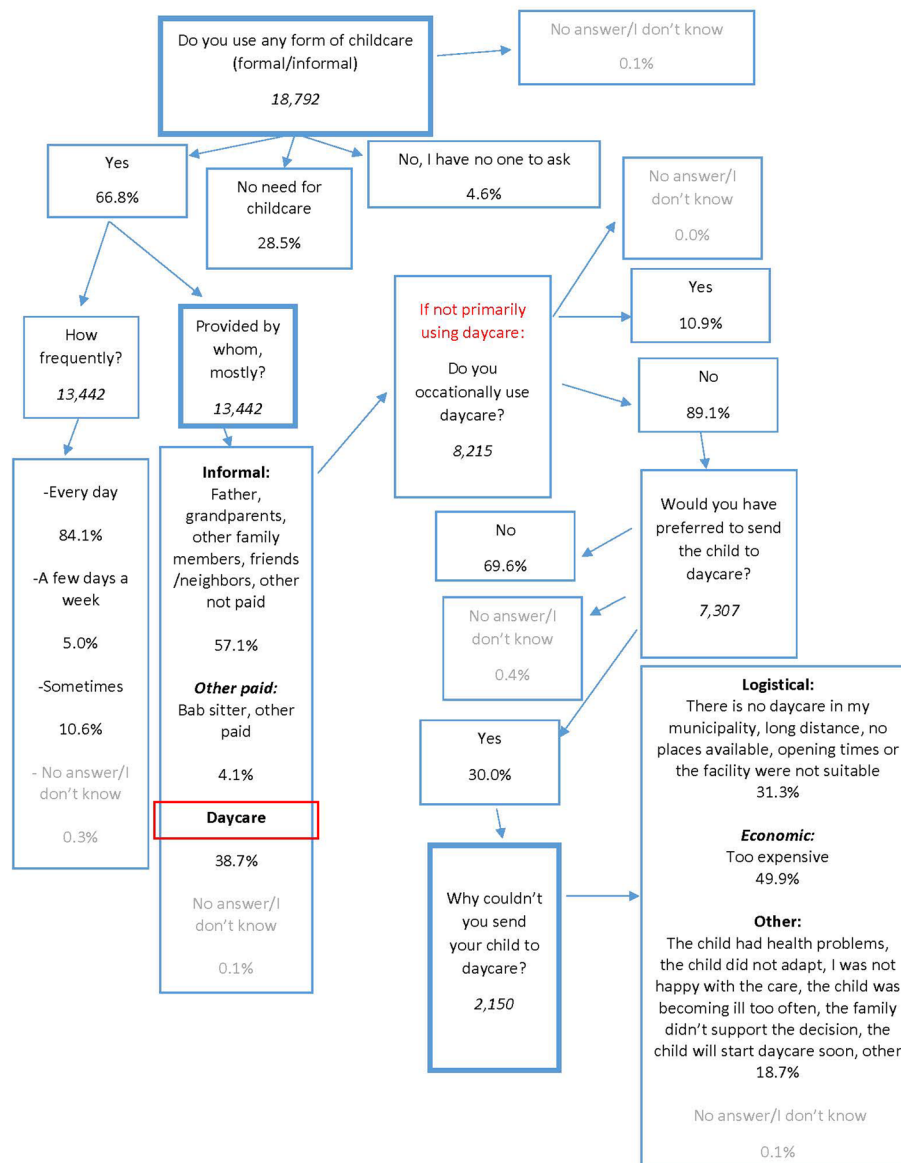
The Italian National Institute of Statistics (ISTAT) conducted the Birth Sample Survey (Indagine campionaria sulle nascite e le madri) in 2002, 2005, and 2012.<sup>2</sup> The sample, extracted from municipal population registers, represents about 10% of all registered births in Italy in 2000/2001, 2003/2004, and 2010/2011. Mothers were interviewed about 18–21 months after giving birth.<sup>3</sup> Two different questionnaires were used: the entire sample was interviewed using a 'short form', allowing for the recovery of basic sociodemographic information; in addition, one-third of the sample was asked to answer the 'long form', which included questions about mothers' participation in the labour market, formal and informal childcare networks and fertility intentions, as well as the sharing of roles concerning domestic tasks (ISTAT, 2017). In this study, we use the short form from 2012, the most updated year, which includes information on childcare use. To also take into account the migrant component of the Italian population, the sampling strategy consists of two subpopulations defined based on the parents' migrant background. Both samples are representative of their population. The survey was conducted using computer-assisted telephone interviewing (CATI) with the 'Italian-born' subpopulation (i.e., those born to at least one Italian-citizen parent). To reach the 'foreign-born' subpopulation (i.e., those born to parents who are both foreign-citizenship), the survey was instead conducted through face-to-face interviews using a paper questionnaire (PAPI) administered by specially trained municipal interviewers. The entire sample includes 18,792 mothers who gave birth to a child in 2010/2011, with almost 20% of the mothers born outside Italy (migrant-born<sup>4</sup>). The analysis focuses on mothers and is designed and weighted to represent the Italian mother population; mothers to twins are counted only once.

<sup>2</sup> The data underlying the results presented in this study are available upon request from ISTAT (<https://www.istat.it/en/analysis-and-products/microdata-files>).

<sup>3</sup> A detailed descriptive picture of foreign and native mothers is available at ISTAT (2014).

<sup>4</sup> In this study, migrants are defined by place of birth despite their citizenship.





**Fig. 1** Survey question flow and sample size. Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Percentages are weighted. Source: Own elaboration

**Dependent variables**

Figure 1 shows the sample size and the information collected on childcare use. Table 1, in the appendix, shows the distribution and values for each dependent variables. The first question—from which we derived our first dependent variable, *childcare use*—was *Do you use any form of childcare (formal/informal)?* and had three possible responses: *Yes*; *No, I have no one to ask*; and *No, I have no need for childcare*.<sup>5</sup> For those who answered *Yes*, the survey went on to ask what type of childcare they used. Then, with an interest in the *type of childcare* (our second dependent variable) we asked *To whom is the child*

<sup>5</sup> We exclude from the analysis women who do not answer or do not know the answer to this question, about 0.1%.

*primarily entrusted?* Only one choice was allowed, but the questionnaire listed many types of childcare, which we aggregated into *informal vs. daycare vs. other type of paid childcare*<sup>3</sup>. In addition, if a mother used a different childcare than daycare, she was also asked if she would have preferred to send the child to daycare (*Yes or No*). In the case of a positive answer, the mother could provide different possible reasons for not sending her child to daycare. Based on this information, we defined our third dependent variable—*barriers to formal childcare*. We aggregated the reasons provided into *logistical* (e.g., no daycare available in my municipality, long distance, no places available, opening times, or the facility was not suitable), *economic* (too expensive) and *other reasons* (the child had health problems, the child did not adapt to childcare, I was not happy with the care, the child became ill too often, the family did not support the decision, the child will start soon, other)<sup>3</sup>.

### **Independent variables<sup>6</sup>**

In our study, we proxy the possible convergence to native-born parents' patterns and norms of childcare by combining the information on place of birth and age at migration. Our primary independent variable (exposure) is the *migrant background*. A woman who arrived at age 18 or younger is labelled *Generation 1.5*; if she migrated after age 18 she is labelled *Generation 1*. All other women are defined as *Italian-born*.<sup>7</sup> We dropped 0.04% of the sample due to missing information on age at arrival. It is essential to distinguish between the migrant generations when looking at childcare use/need, because arriving as a child migrant might also increase the possibility for the mothers to have their parents in Italy.

However, the robustness checks also include two other definitions of migrant background: one based on the proxy of the mother's country of birth (categorised as Italy, EU-27, North America and other developed countries, Central/East Europe [outside EU], Africa, Asia, Central/South America, outside Italy unknown) and the other based on the duration of stay (mother's years since migration, coded Italian-born (reference) or 0–4, 5–9, 10 or more years). Information on these complementary variables is presented in Table 3 in the appendix.<sup>8</sup>

In the literature, childcare uptake and the migrant/native gap in formal childcare enrolment have been explained primarily by socioeconomic factors. In this study, as independent variables, we included characteristics deemed relevant in the literature and available in the survey. In this study, we control for the *Italian geographical context*, categorised into the *Northwest* (reference), *Northeast*, *Centre*, *South*, and *Island* for the Italian context. The *father's migrant background* is defined by the father's country of birth and categorised as *migrant vs. Italian-born* (reference), with *no information* as a residual category. The *mother's education* is recoded into *lower secondary or lower*; *upper*

<sup>6</sup> Table 2 in the appendix shows the distribution and values for each independent variable for each of the (full) models of our three dependent variables.

<sup>7</sup> This group also includes Italian nationals born abroad. As a robustness check, we also ran the models with these women as a separate category (1.62% of the sample). The results are consistent, by means no statistically different from the Italian born but very different from gen 1 and 1.5.

<sup>8</sup> Results by duration of stay are not presented in the paper but are available upon request. Overall, the results regarding duration of stay matched the conclusion we reached with our migrant background based on age at arrival. Results regarding country of birth are discussed briefly in the discussion and appendix A8 and are available upon request.

*secondary*; and *post-secondary education* (reference). The *mother's labour market participation* has five categories: *employed* (reference); *unemployed* (or looking for employment); *housewife*; *student*; and *other* (everything else specified before). Unfortunately, the survey does not collect income information, so the *poverty risk* is defined as *Yes* (reference) if a respondent declares that her family cannot face an unforeseen expense of 800 euros; *No* if the respondent's family could afford such an expense; and *Otherwise* if the respondent does not know or does not answer. In line with previous research, to study if that extended household compositions expand the opportunities for informal childcare, we use the information on *cohabitant grandparents*, where *Yes* means that the child lives with at least one cohabitant grandparent and *No* (reference) otherwise. However, family composition might also affect childcare preference, in our study, we include the *family type*, categorised by comparing women in *marriage* (reference) with those in a cohabiting *partnership* and *single mothers*. In addition, every model also controls for the *number of previous children* (0 (reference), 1, 2, 3 or more), the mother's age (<25 (reference), 25–29, 30–34, 35–39, 40 or over), and the *type of delivery* (*singleton* (reference) or *twins*).

### Method and presentation of results

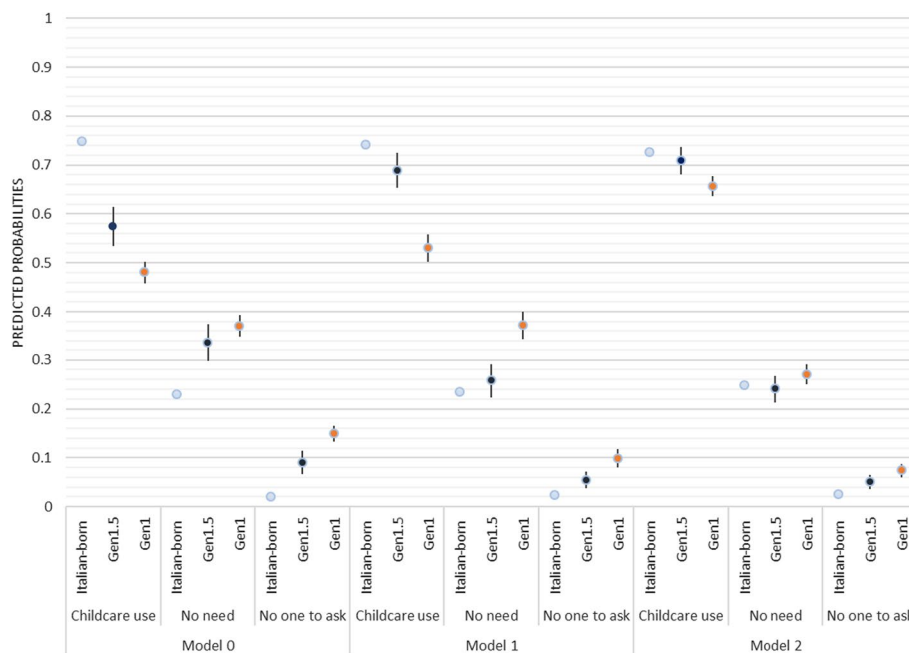
We ran a set of regression analyses based on the three previously described outcomes to answer our research questions. We use three multinomial logistic regressions: the first outcome, *childcare use*, explains differences between migrants and natives who use/need childcare (RQ1). The second dependent variable, *type of childcare*, is used to explore different childcare patterns (RQ2). To evaluate barriers to formal childcare (RQ3), we use the variable *barrier to childcare* as an outcome. Given the high number of models used in the study, we graphically summarise the main results in the following sections. Readers interested in more detail will find relative risk ratios in the appendix Tables 4, 5, 6.

As a first step we run Model M0 for all three outcomes, only including the migrant background as a covariate for each dependent variable. As a second step we run Model M1 to understand the role of structural/control variables in shaping the differences observed in the first step. In Model M2 we introduce the mother's labour market participation. In addition, we ran Model M3, in which the mother's migrant background and the father's background are interacted.

To make the results more understandable, we present our findings by research question and in the form of predicted probabilities by migrant background (Williams, 2012). Control variables are kept at mean values.

### Results

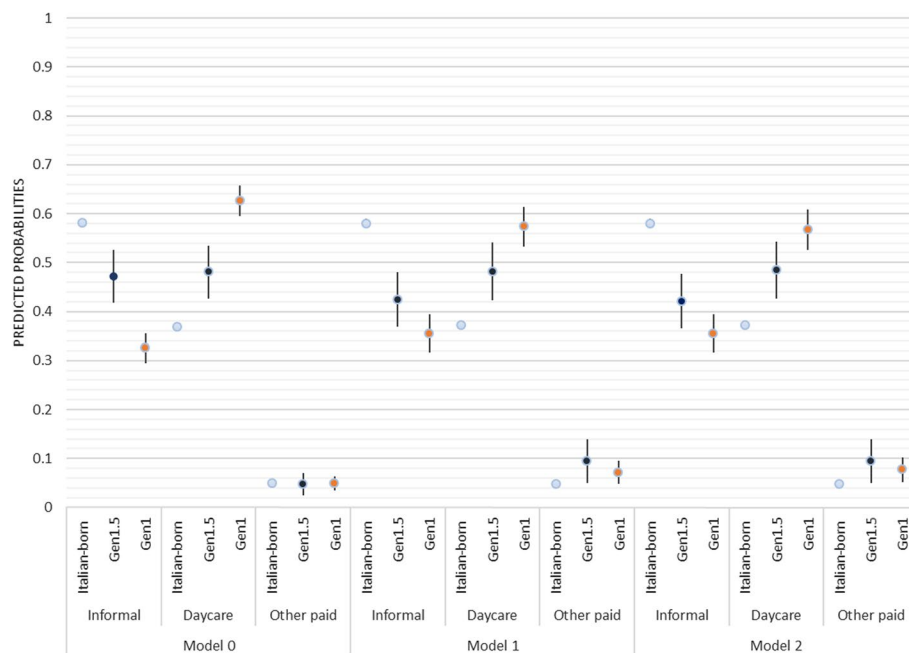
First, we present the results on our first research question, which asks whether migrant and native-born parents have different needs. Looking at Model M0 in Fig. 2, we observe a higher predicted probability of using childcare (in any form) among Italian-born mothers (about 75%) compared to the 1.5- and first-generation migrants (57% vs. 48%). On the contrary, having *no need for childcare* is more predominant among mothers with a migrant background, particularly first generation, than among



**Fig. 2** Predicted probabilities of childcare use by mother’s migrant background. Data: Birth Sample Survey/ Indagine campionaria sulle nascite e le madri 2012. Note: Own elaboration. M0 controls for the mother’s background. M1 controls for M0 + Italian geographical context, father’s country of birth, mother’s education, economic problems in the household, family typology, presence of grandparents in the household, and type of delivery. M2 controls for M1 + mother’s labour market participation (RRR are presented in the appendix Table 3)

Italian-born mothers (37% and 34% vs. 23%). We also find that among women with a migrant background, the predicted probability of not having anyone to ask for childcare is very high (19% and 9% vs. 2%). This is not the case for Italian-born mothers. This answer is a proxy for several unfavourable conditions—such as difficulty understanding how to access daycare, lack of trust in formal childcare, and lack of local family networks—that affect a relevant proportion of mothers and possibly have a negative impact on their possibility to access the job market. In Model M1, where we control for individual and particularly family characteristics of the mother, the predicted probability is 10% for the first generation and 5% for the 1.5 generation. In Model 2, when we also control for labour market attachment, the predicted probability for the first generation is of a magnitude of 7%. The predicted probabilities of *not needing care* in Model M2 are quite similar among the groups (25% for Italian-born, 24% for 1.5 generation and 27% for first generation).

Discrepancies between first-generation and native-born parents in childcare use are still persistent and significant, albeit much smaller. The difference in predicted probability does not seem significant between native-born and 1.5 generation, suggesting an ‘adaptation’ effect by means of the childcare patterns and kin availability among migrant mothers who arrived as children being more similar to those among Italian-born mothers.



**Fig. 3** Predicted probabilities of childcare use among users by mother's migrant background. Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Note: Own elaboration. M0 controls for the mother's background. M1 controls for M0 + Italian geographical context, father's country of birth, mother's education, economic problems in the household, family typology, presence of grandparents in the household, and type of delivery. M2 controls for M1 + mother's labour market participation (RRR are presented in the appendix Table 4)

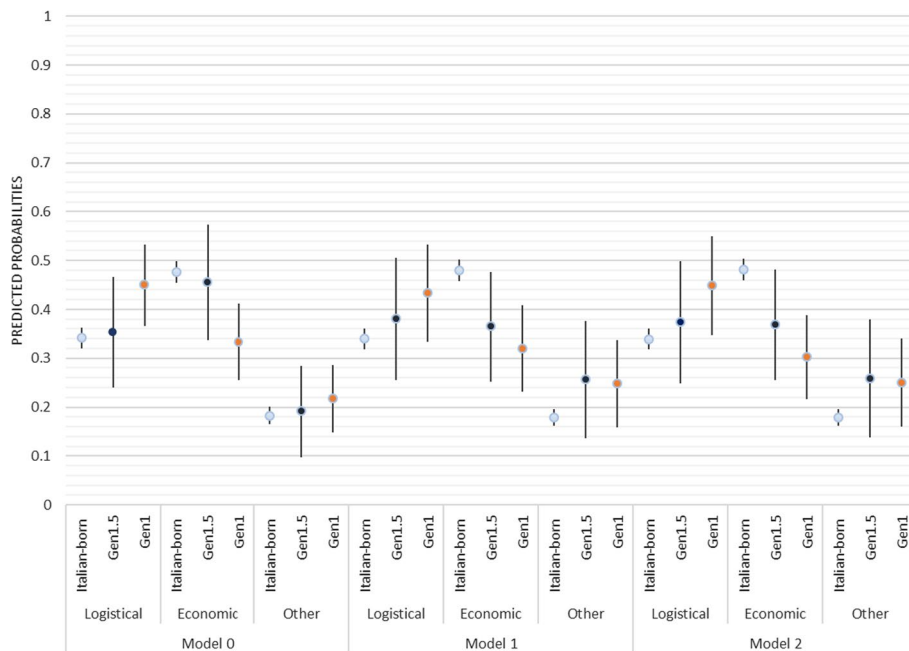
If women were using any type of childcare, to answer our second RQ, we investigated what type was used, and if there were differences between migrant and native-born parents. Figure 3 shows that, overall, migrants who use childcare tend to access more *formal* (*daycare*) than *informal care*. At the other end of the spectrum, Italian-born mothers rely more on *informal care*. However, the predicted difference between the first and the 1.5 generations decreases once we control for socioeconomic characteristics (M1 and M2).

Results by the mother's age at arrival in Italy seem to align with an adaptation process, as the 1.5 generation behaviour is positioned between that of first generation and Italian-born mothers; even if this is due to the sample size, the confidence interval among 1.5- and first-generation overlaps.

Overall, only a few mothers use other types of paid childcare. However, the differences between migrant and Italian-born mothers increased once we controlled for their composition.

So far, we can summarise that what distinguishes migrant from Italian-born mothers is that when migrants use formal childcare, they rely on daycare more than native-born parents do, as Italian-born mothers rely primarily on informal childcare.

Figure 4 presents the results on our third research question, which asks whether there are possible barriers to formal childcare. Our data suggest that most mothers who wanted to send their children to daycare succeeded in this (Fig. 1). However, the reasons preventing children's enrolment in formal childcare are slightly different according to



**Fig. 4** Predicted probabilities of experiencing a barrier to childcare by mother’s migrant background. Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Note: Own elaboration. M0 controls for the mother’s background. M1 controls for M0 + Italian geographical context, father’s country of birth, mother’s education, economic problems in the household, family typology, presence of grandparents in the household, and type of delivery. M2 controls for M1 + mother’s labour market participation (RRR are presented in the appendix Table 5)

the mother migrant’s background. Figure 4 shows that economic reasons for not sending the child to daycare prevail among Italian-born and 1.5 generation parents.

This result is likely due to progressive fee criteria penalising middle-income families (more common among Italians), despite control checks for poverty status and mothers’ labour market activities. On the other hand, logistical issues affect the first migrant generation, suggesting a higher dependence on local public transportation and residence in more remote or poor neighbourhoods. It is also interesting to note that differences among first-generation and Italian-born mothers are rather stable across models M0–M2. Meanwhile, once we control for socioeconomic characteristics the 1.5 generation seems equally affected by logistical and economic reasons.

Overall, we again found that outcomes for generation 1.5 lie between those of the first migrant generation and Italian mothers for logistic and economic barriers.

**Factors associated with childcare use**

Even if our main interest is in analysing the differences in use/need and patterns, and understanding barriers in childcare by migrant background, we would like to highlight the importance of individual socioeconomic characteristics. We find that mothers living in southern Italy have the highest occurrence of informal childcare compared to the rest of Italy and a higher risk, along with those living in the northeast, of not needing

childcare (Tables 4, 5, 6 in the appendix). At the same time, women living in the north-west are those who have a higher risk of experiencing economic barriers to formal childcare. The mother's education, labour market participation, and the presence of grandparents play an essential role in the use and type of childcare, but matter less in explaining why mothers were unable to use it. Poverty affects patterns of use barriers. Mothers to twins are more likely to use informal care or to have an economic reason for not using daycare. The father's migrant background has an effect similar to that of the mother: the presence of a migrant father increases the propensity to enrol children in daycare while at the same time not having anyone to ask for childcare. Women whose children have migrant fathers also show a lower propensity to use informal childcare (even when we control for the presence of grandparents in the household). Because mothers partnered with Italian-born fathers are better able to navigate the service systems than are those in families in which both parents are first-generation immigrants and might have a more extensive network that potentially includes grandparents. As well as, mothers partnered with Italian-born fathers are very likely to speak Italian at home, so the implications for children not attending formal childcare in this case are different than for children with two foreign parents. We also run an interaction between the mother's and the father's migrant backgrounds.

When looking at the first outcome, childcare use, the differences are overall minor, but that having a migrant father increases the probability of having no one to ask and decreases the likelihood of using childcare (Fig. 5a in the appendix). At the same time, the impact is different for 'no need' of childcare. Among parents in which the mother is Italian and the father is not, or the mother is a first-generation migrant and the father is Italian, have higher predicted probabilities of this outcome.

On the other hand, mothers who are co-parenting with an Italian father are much more similar to Italian mothers than those in an endogenous couple in the choice of childcare by means of higher probabilities of informal childcare and lower use of daycare (Figure 5b). Parents who share a migrant background use daycare the most.

Overall, the presence of a migrant father lowers the predicted probability of experiencing economic barriers and increases that of experiencing logistical barriers, especially among the 1.5 generation (Figure 5c).

## Conclusion

Migrant and native-born parents in Italy, primarily if they are engaged in the labour market, navigate a challenging environment in caring for their children. While being cared for by a parent, relative, or nannies can give the child more personalised attention and is available even if the child becomes ill, and may also entail lower costs, the literature underlines that high-quality formal childcare can have a positive long-term impact on child development, especially among children with a foreign background. Therefore, as the international literature has found an underutilisation of ECEC among preschool-age children of migrant background (e.g., Furfaro et al., 2020), it is essential to understand childcare patterns and barriers to formal childcare. Implications of ECEC underutilisation are problematic, as this deprives children of beneficial effects on their cognitive

development and academic achievement (Esping-Andersen et al., 2012; Votruba-Drzal et al., 2010) and language development, including children of migrant background (Magnuson & Waldfogel, 2005). Moreover, lower access to (particularly formal) childcare hinders mothers' participation in the job market (e.g., Röder et al., 2018).

We are looking at the Italian case starting from these results and implications. As migrants' childcare choices are currently under-researched in Italy due to a lack of data, it is challenging to discuss the patterns and impacts of migrants' use of childcare there. This is the first study to use nationally representative data on children born in Italy that compare childcare enrolment of children born to mothers with native and migrant backgrounds. Our results show that migrants use and need childcare for children 0–3 less than native-born parents do, although socioeconomic characteristics explain part of this difference. Once we control for labour market attachment, the difference between native-born and the 1.5 generation is small, while uptake is significantly lower among the first generation. Moreover, this group is at risk of not having anyone to ask for childcare, underlining the role of factors such as language barriers and bureaucratic complexity (Frazer et al., 2020; Karoly & Gonzales, 2011) in childcare access, as well as that of a smaller network. Some limitations may arise in interpreting this item, because no detail is provided in the questionnaire to more clearly understand what it refers to or how parents understood it. In our understanding, a woman declaring that she has no one to ask for childcare is expressing both a lack of knowledge as to how to access formal childcare and a lack of an informal network available to care for her child. The lack of these essential resources could lead to a relevant and insufficiently discussed form of early social exclusion and isolation. While its expression here is the exclusion from childcare and daycare among children of migrant background, its consequences could result in medium- and long-term disadvantages in school enrolment and a lack of equal opportunities. Moreover, mothers at risk of poverty are less likely to use childcare, because they do not need it or they have no one to ask (see appendix).

As a second fundamental result we show that in Italy, unlike the evidence from other international studies, migrants (both the first and 1.5 generations) who use childcare tend to access more formal than informal care than native-born parents do. Predicted probabilities show that the first and 1.5 generations of migrant mothers using childcare use daycare about 20 and 11 percentage points, respectively, more than native-born parents do, and that native-born mothers use informal care about 23 and 16 percentage points, respectively, more than first and 1.5 generations do. The emphasis on grandparents as the primary informal carers in Italy explains this result. While in other contexts other extended family members, or friends and neighbours, play a crucial role and are commonly available (Park & Flores Peña, 2021), in the Italian context, where migration is a more recent phenomenon, an extended informal network of carers besides grandparents is hardly available. For this reason, migrants tend to recur to daycare as they are more likely not to have their own parents to rely on. Like Furfaro et al. (2020), we found a positive association with informal childcare and a negative association with daycare when a household includes a co-resident grandparent. Consistently, we found that having an Italian partner influences migrant mothers in choosing formal vs. informal childcare. We found that foreign women with an Italian partner behave more like natives, preferring informal childcare to their partner's kin and network. In contrast, foreign



mothers with a foreign partner (both 1.5 and first generations) are more likely to use daycare.

We also examined barriers to formal childcare faced by mothers who failed to access daycare. The data allowed us to disentangle the unmet need for formal childcare from family choices and preferences in migrant and native families. We observed that obstacles to children's enrolment, resulting in an unmet need for daycare, differ according to migrant background. Logistical barriers are more relevant among the first generation of migrants, while economic barriers affect native children more. The 1.5 generation seems equally affected.

Overall, we studied the determinants of childcare use and their associations with demographic and socioeconomic factors. The results regarding the determinants of childcare use are mostly in line with the literature. We found that the geographical context, measured as the region where a child resides, may also influence the use of formal childcare (Capizzano et al., 2000; Stolzenberg & Waite, 1984) as it is easily understandable in the Italian context. Being a single mother increases the need for formal support for childcare (Furfaro et al., 2020). Unlike Brandon (2004), we do not find a significant association between poverty risk and the type of childcare used among users, likely due to progressive fees for public daycare based on wages. We found that mothers' education and labour market participation play a role in this context. Highly educated and employed women are more likely to use services (e.g., Brandon, 2004) and less likely not to need help (i.e., being stay-at-home mothers), or not to have someone to ask. We also found that, for migrants, the effect of these conditions on not having childcare is significantly stronger.

While contributing to underexplored aspects of migration and family policy research, some limitations must be considered when evaluating our results. First, we do not have specific information on the migrants' countries of birth. A proxy has been constructed for most mothers as a robustness check combining the data on residence before moving to Italy, migrant background, and citizenship. However, we can still not infer the information for 252 women, and the categories remain geographically broad (results are available upon request and are discussed in appendix "Summary of results on country of birth"). A second limitation is the lack of more updated data: families in Italy have experienced only minor improvements in formal childcare provision by the state in the last decade. However, as our data were collected in 2012, more recent data would be needed to understand current childcare development patterns. As a third limitation, as we do not have information on the place of birth of the mother's parents, we cannot distinguish between Italian ancestry and second-generation migrants.

Despite these limitations, by showing that migrant children's lower ECEC attendance is not entirely due to a lack of family interest in enrolling their children, our results underline that there is significant space to increase their participation by addressing the relevant proportion of mothers who express a need for childcare but lack support and information. Providing support in granting access to daycare and building trust would be vital in addressing this subpopulation. Our results also lead to more general considerations: among first-generation migrants, difficulty understanding how to access daycare and the lack of a family network are critical issues.

Moreover, we suggest that living in Italy, where informal care is prevalent among natives, shapes the choices of more settled migrants towards informal rather than formal childcare.

A lack of access to formal childcare is an issue among both native and migrant populations. Italy is still far from having an equal division of domestic and care burdens among partners, and the ‘male breadwinner/female care provider’ model is still prevalent. Thus, efforts should be made to provide and promote formal childcare, as extensive use of daycare could, in principle, support gender equality by strengthening the economic independence of both native and migrant women.

## Appendix

See Tables 1, 2, 3, 4, 5, 6 and Fig. 5.

**Table 1** Distribution of dependent variables across migrant generations

<b>Childcare use</b>	<b>Italian-born</b>	<b>1.5 gen</b>	<b>1st gen</b>	<b>Total</b>
Yes	70.9	56.4	46.3	66.9
No, I do not need childcare	26.6	33.3	38.2	28.5
No, I have no one to ask	2.5	10.3	15.5	4.6
Total per cent	100	100	100	100
Total mothers	15,392	745	2,641	18,778
<b>Type of childcare</b>	<b>Italian-born</b>	<b>1.5 gen</b>	<b>1st gen</b>	<b>Total</b>
Informal	60.2	46.7	33.8	57.2
Daycare	35.7	49.9	61.9	38.7
Other paid	4.1	3.4	4.4	4.1
Total per cent	100	100	100	100
Total mothers	11,689	444	1,301	13,434
<b>Barriers to formal childcare</b>	<b>Italian-born</b>	<b>1.5 gen</b>	<b>1st gen</b>	<b>Total</b>
Logistical	29.4	39.2	46.3	31.4
Economic	51.8	43.2	35.7	50.0
Other	18.8	17.6	17.9	18.7
Total per cent	100	100	100	100
Total mothers	1,854	92	200	2,146

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Percentage are weighted

Own elaboration. We excluded mothers who answered *No answer/I don't know* and migrants who did not report information on age at arrival; see *Data and methods* section

**Table 2** Distribution of the independent variables across the 3 dependent variables (DV): percentages and sample sizes

	DV 1	DV 2	DV 3
Age at arrival			
Italian-born	82.0	87.0	86.4
1.5 gen	4.0	3.3	4.3
1st Gen	14.1	9.7	9.3
Italian geographical context			
Northwest	26.6	28.6	28.4
Northeast	20.7	22.0	20.8
Centre	18.0	19.6	20.4
South	24.0	20.4	21.8
Island	10.7	9.4	8.6
Mother's age			
Up to 24	7.0	5.1	7.2
25–29	15.7	13.1	15.1
30–34	30.2	31.7	31.8
35–39	32.7	35.0	32.6
40 or over	14.5	15.2	13.3
Mother's education			
Post-secondary	20.1	25.4	19.0
Upper secondary	49.6	51.9	51.5
Lower secondary	30.2	22.7	29.6
Other	0.1	0.1	0.0
Mother's labour market participation			
Other	1.4	1.2	1.1
Employed	54.4	75.4	72.7
Unemployed	10.8	8.1	9.9
Housewife	32.2	14.1	14.9
Student	1.3	1.2	1.4
Poverty risk			
Other	2.7	2.6	3.4
Yes	38.9	31.2	37.7
No	58.5	66.2	59.0
Family type			
Married	80.7	78.56	79.18
Partnership	14.2	16	15
Single	5.1	5.69	5.82
Cohabitant grandparents			
No	91.2	92	90
Yes	8.8	7.86	9.86
Number of <i>previous children</i>			
0	44.2	47.2	47.7
1	41.9	41.6	40.5
2	11.0	9.2	9.3
3 or more	3.0	2.0	2.5
Father's migrant background			
No info	1.8	1.89	1.43
Italian-born	82.78	87.07	87.26
Migrant-born	15.42	11.04	11.31
Mother's citizenship			

**Table 2** (continued)

	DV 1	DV 2	DV 3
Born Italian	81.91	86.93	86.23
Naturalised Italian	1.87	1.62	2.42
Foreigner	16.22	11.45	11.34
Type of delivery			
Singleton	98.41	98.36	97.76
Twins	1.59	1.64	2.24
Total per cent	100	100	100
Total mothers	18,778	13,434	2,146

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Percentage are weighted

Own elaboration. We excluded mothers who answered *No answer/I don't know* and migrants who did not report information on age at arrival; see *Data and methods* section

### Summary of results on country of birth

In previous studies, country of birth has been used as a proxy for migrants' norms and preferences. We combine the data on residence before moving to Italy, migrant background, and citizenship. This proxy helps us to control for different cultural

**Table 3** Different possible definition of the migrant background—robustness check

	Model 1	Model 2	Model 3
Duration of stay			
Italian-born	82.0	87.0	86.4
0–4 years	4.0	2.0	2.2
5–9 years	7.5	5.3	4.5
10 years or longer	6.5	5.7	6.9
Place of origin			
Italian-born	82.0	87.0	86.4
Europe, North America, other developed countries	4.1	3.6	2.6
Central/East Europe (outside EU)	3.3	2.3	2.4
Africa	5.0	2.9	4.1
Asia	3.1	1.9	1.8
Central/South America	1.2	1.2	0.8
Outside Italy unknown	1.3	1.2	2.0
Total per cent	100	100	100
Total mothers	18,778	13,434	2,146

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012

Own elaboration. We excluded mothers who answered *No answer/I don't know* and migrants who did not report information on age at arrival; see *Data and methods* section

**Table 4** Multinomial regression on childcare use: relative risk ratios (reference childcare)

	No, I do not need childcare		No, I have no one to ask	
	RRR	P>z	RRR	P>z
Mother's migrant background (ref Italian)				
1.5 Gen	1.042	0.743	2.159	0.000
1st Gen	1.493	0.000	3.991	0.000
Italian geographical context (ref Northwest)				
Northeast	1.155	0.032	0.920	0.486
Centre	0.934	0.357	0.975	0.849
South	1.334	0.000	0.863	0.258
Island	1.117	0.164	0.582	0.003
Mother's age (ref up to 24)				
25–29	0.882	0.139	0.871	0.399
30–34	0.800	0.009	0.943	0.724
35–39	0.742	0.001	0.746	0.091
40 or over	0.725	0.001	0.923	0.673
Mother's education (ref post-secondary)				
Upper secondary	1.658	0.000	1.702	0.000
Lower secondary	2.302	0.000	2.271	0.000
Mother's labour market participation (ref employed)				
Other	8.678	0.000	14.517	0.000
Unemployed	10.049	0.000	10.249	0.000
Housewife	22.749	0.000	18.963	0.000
Student	5.848	0.000	5.151	0.000
Poverty risk (ref no)				
Other	1.057	0.671	1.176	0.571
Yes	1.159	0.002	1.632	0.000
Family type (ref married)				
Partnership	1.049	0.493	0.985	0.916
Single	0.827	0.145	0.630	0.180
Cohabitant grandparents (ref no)				
Yes	1.332	0.000	0.943	0.718
Number of <i>previous children</i> (ref 0)				
1	1.191	0.001	1.141	0.192
2	1.330	0.000	1.568	0.001
3 or more	1.787	0.000	1.159	0.544
Father's migrant background (ref Italian-born)				
No info	1.107	0.608	1.359	0.491
Migrant-born	1.127	0.172	1.635	0.001
Delivery type (ref singleton)				
Twin	0.832	0.184	0.623	0.146
Constant	0.038	0.000	0.004	0.000

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012

Own elaboration. Number of observations 18,778

**Table 5** Multinomial regression on type of childcare: relative risk ratios (reference daycare)

	Informal		Other paid	
	RRR	<i>P</i> > <i>z</i>	RRR	<i>P</i> > <i>z</i>
Mother's migrant background (ref Italian-born)				
1.5 Gen	0.538	0.000	0.419	0.692
1st Gen	0.384	0.000	0.317	0.464
Italian geographical context (ref Northwest)				
Northeast	0.864	0.006	0.779	0.958
Centre	0.858	0.008	0.768	0.960
South	1.369	0.000	1.226	1.528
Island	0.787	0.001	0.685	0.905
Mother's age (ref up to 24)				
25–29	0.839	0.078	0.691	1.020
30–34	0.755	0.004	0.624	0.912
35–39	0.648	0.000	0.535	0.785
40 or over	0.460	0.000	0.376	0.562
Mother's education (ref post-secondary)				
Upper secondary	1.436	0.000	1.324	1.558
Lower secondary	1.908	0.000	1.678	2.170
Mother's labour market participation (ref employed)				
Other	0.455	0.000	0.331	0.626
Unemployed	0.729	0.000	0.633	0.840
Housewife	1.104	0.110	0.978	1.246
Student	0.488	0.000	0.359	0.664
Poverty risk (ref no)				
Other	1.126	0.369	0.869	1.458
Yes	0.946	0.227	0.866	1.035
Family type (ref married)				
Partnership	0.885	0.033	0.791	0.990
Single	0.754	0.010	0.609	0.935
Cohabitant grandparents (ref no)				
Yes	1.498	0.000	1.274	1.761
Number of <i>previous children</i> (ref 0)				
1	0.980	0.626	0.901	1.065
2	0.886	0.082	0.773	1.016
3 or more	1.023	0.866	0.788	1.328
Father's migrant background (ref Italian-born)				
No info	0.535	0.001	0.376	0.761
Migrant-born	0.737	0.000	0.625	0.870
Delivery type (ref singleton)				
Twin	0.731	0.007	0.582	0.918
Constant	2.015	0.000	1.640	2.475

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012

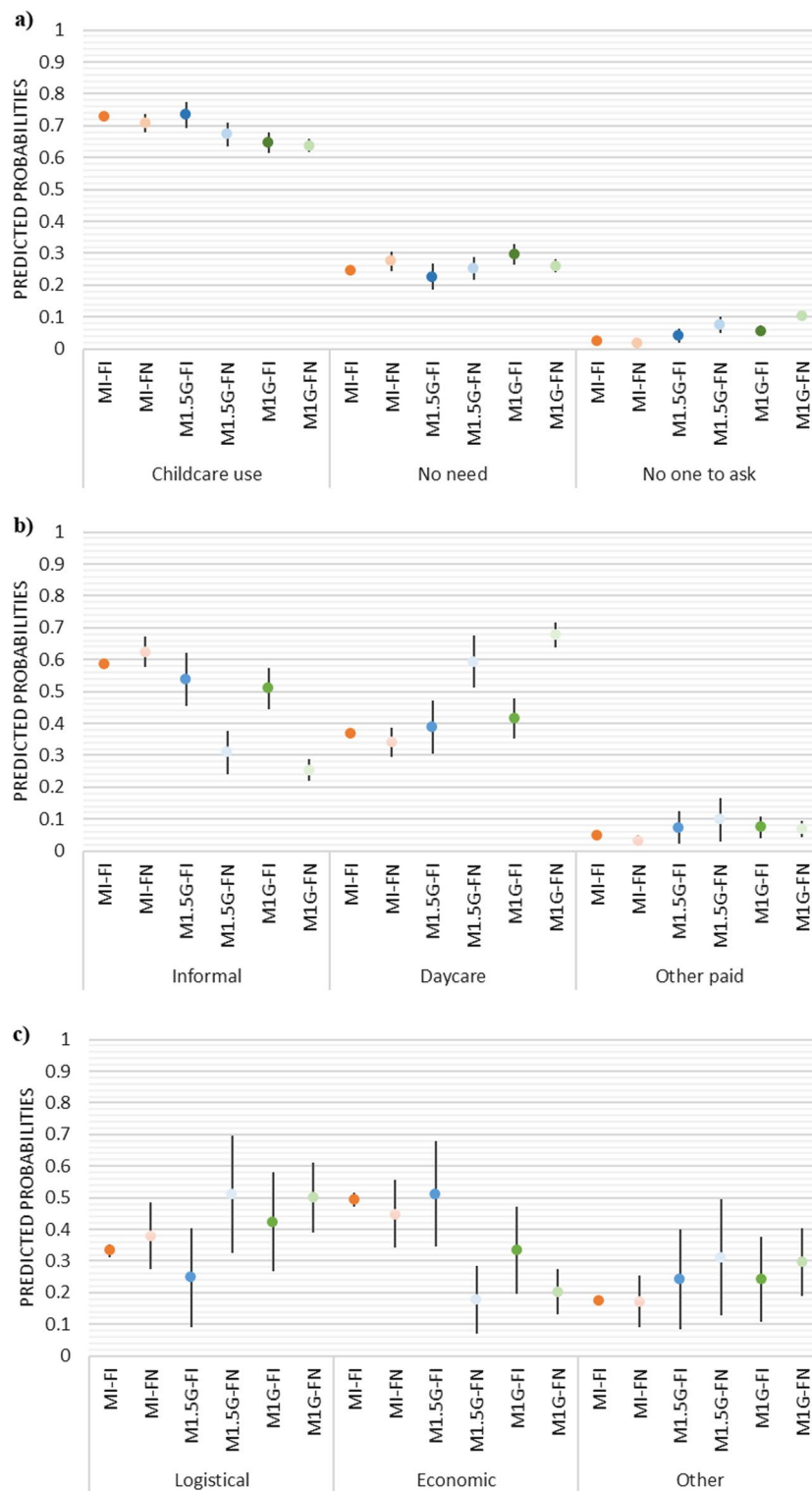
Own elaboration. Number of observations 13,434

**Table 6** Multinomial regression on barriers to formal childcare: relative risk ratios (reference logistical reasons)

	Economic		Other	
	RRR	<i>P</i> > <i>z</i>	RRR	<i>P</i> > <i>z</i>
Mother's migrant background (ref Italian)				
1.5 Gen	0.663	0.189	1.326	0.460
1st Gen	0.441	0.002	1.069	0.819
Italian geographical context (ref Northwest)				
Northeast	0.637	0.003	0.713	0.094
Centre	0.600	0.002	0.915	0.670
South	0.293	0.000	0.852	0.395
Island	0.333	0.000	0.868	0.570
Mother's age (ref up to 24)				
25–29	0.951	0.830	1.817	0.080
30–34	0.801	0.338	1.486	0.244
35–39	0.608	0.036	1.734	0.109
40 or over	0.461	0.003	1.958	0.061
Mother's education (ref post-secondary)				
Upper secondary	1.208	0.117	0.962	0.785
Lower secondary	1.287	0.125	0.706	0.110
Mother's labour market participation (ref employed)				
Other	3.340	0.039	2.866	0.122
Unemployed	1.867	0.001	1.324	0.241
Housewife	1.475	0.013	1.049	0.814
Student	0.751	0.511	1.311	0.589
Poverty risk (ref no)				
Other	1.490	0.191	1.056	0.889
Yes	1.398	0.004	0.720	0.034
Family type (ref married)				
Partnership	1.000	0.999	1.071	0.740
Single	1.065	0.823	0.683	0.357
Cohabitant grandparents (ref no)				
Yes	1.217	0.321	1.142	0.597
Number of <i>previous children</i> (ref 0)				
1	1.092	0.459	0.796	0.114
2	1.092	0.637	0.596	0.033
3 or more	1.827	0.078	0.506	0.200
Father's migrant background (ref Italian-born)				
No info	0.578	0.317	2.569	0.124
Migrant-born	0.570	0.010	0.963	0.879
Delivery type (ref singleton)				
Twin	1.755	0.047	1.228	0.585
Constant	2.412	0.001	0.473	0.046

Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012

Own elaboration. Number of observations 2146



**Fig. 5** (See legend on next page.)



(See figure on previous page.)

**Fig. 5** Predicted probabilities by mother's and father's migrant backgrounds of **a** childcare use, **b** type of childcare, **c** of experiencing a barrier to childcare. Data: Birth Sample Survey/Indagine campionaria sulle nascite e le madri 2012. Own elaboration. Model controls for the mother's background, Italian geographical context, mother's education, economic problems in the household, family typology, presence of grandparents in the household, type of delivery, and mother's labour market participation. We do not present results for individuals for whom information on the father's migrant background is missing. *MI* mother Italian-born, *FI* father Italian-born, *M1.5G* mother 1.5 generation, *M1G* mother first generation, *FN* father migrant-born

backgrounds. Our country of birth proxy confirms heterogeneity among women from different countries, whereby norms and preferences might differ across areas and from the Italians. Among the non-users (RQ1), Asian mothers are the leading group. However, this category is expected to depend on country composition (not known): in fact, Asian women from China and the Philippines in Italy show very high activity rates, while those from other countries (India, Pakistan, Sri Lanka) mostly do not work. At the same time, the highest percentage of not having someone to ask is found among mothers from Central East European countries outside the EU. However, all groups use more daycare than Italian-born mothers do. Outcomes by country of origin again show heterogeneity in why they do not use daycare (RQ3), as each category collects nationalities characterised by different female activity rates. Overall, although the sample size decreases with each step of the analysis, affecting the confidence interval, the trends are maintained.

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#### Author contributions

EM conceived the study. The authors' contributions to the paper are to be considered equally divided among the authors.

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#### Availability of data and materials

The data set analysed during the current study is publicly available to researchers upon request to the National Institute of Statistics (ISTAT).

#### Declarations

##### Competing interests

The authors declare that they have no competing interests.

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