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Access to formal childcare among families of newly arrived migrants from non-EU countries in France

Tatiana Eremenko^{1,3*} and Anne Unterreiner²

*Correspondence: teremenko@usal.es

¹ University of Salamanca, Salamanca, Spain ² Caisse Nationale Des Allocations Familiales (Cnaf), Paris, France ³ National University of Distance Education (UNED), Madrid, Spain

Abstract

Labour force participation of female migrants from non-EU countries, particularly recently arrived, is lower than among other groups and more affected by the presence of children. While care responsibilities are the primary reasons for this situation immigrant families have a lower use of formal childcare services and less possibilities to receive informal support—the respective role of structural constraints and norms and preferences in this result still raises questions. In addition, families from non-EU countries may encounter greater difficulties in accessing public services, including formal childcare. We explore the determinants of participation in early childhood education (ECEC) among families of recently arrived migrants from outside of the EU in France. We use the Longitudinal Survey on the Integration of First-Time arrivals (Elipa 2) carried out among third country nationals receiving a first residence permit in France in 2018 and focus on their small age children (0-2 years). ECEC enrolment rates are lower than in the general population, and this appears to be primarily linked to these families' disadvantaged socio-economic position in the destination country. However, families' distinct socio-economic and cultural resources, as well as their origin, also shape their use of public services. These results contribute to a better understanding of the specific needs and obstacles faced by these families, and identify potential areas for policy actions.

Introduction

Labour force participation of female immigrants in most OECD countries is lower than that of native-born women and is more affected by the presence of children, especially when they are of small age (OECD, 2020). Care responsibilities are the primary reasons for this situation as immigrant families have a lower use of formal childcare services and have less possibilities to receive informal support. The gap in formal childcare use between children in immigrant and native¹ families has been documented across many destination countries (Brandon, 2004; Kingsbury et al., 2021; Schober & Spiess, 2013), although its' size depends on the country of origin (Biegel et al., 2021; Miller et al., 2013; Tervola, 2018) and destination (Wolf et al., 2020). Families' socio-economic resources

 $^{^{1}}$ For the sake of clarity we use "native" to refer to the population who are not immigrants (instead of non-immigrants).



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(education, employment, income) tend to account for a large part of these differences, but other factors, such as distinct norms regarding child rearing or preference for caregivers sharing the families' cultural background and/or language, also play a role (Chaudry et al., 2011; Karoly & Gonzalez, 2011). Public policies regulating childcare services (availability of places, cost borne by families), as well as immigration policies, which may directly exclude or discourage immigrants and their families from using such services (Bernhard et al., 2007; Yoshikawa, 2012), also affect these patterns.

In the European Union migrant mothers from non-EU countries, especially recently arrived, have lower employment rates (Guirola Abenza & Sánchez-Domínguez, 2022). They more often cite care obligations as the main reason for not being in the work force and report a willingness to work if they had access to childcare services. Studies on childcare arrangements in this context have mostly focused on immigrants and their descendants (Biegel et al., 2021), as well as established migrant communities, such as those from Turkey and Morocco (Kalmijn, 2023; Wolf et al., 2020). Evidence on recently arrived migrants has focused on flows from new EU accession countries and shows that these families encounter more difficulties reconciling work and family life than natives, despite their status of EU nationals and access to public services (Röder et al., 2018). Qualitative studies suggest that these difficulties may be greater for families from non-EU countries, especially those with a precarious administrative status (Bonizzoni, 2014; Wu & del Rey Poveda, 2022; Xhaho et al., 2022). Indeed, while access to basic education is guaranteed for all children (of school age), the right to pre-primary education is not recognized in all EU member states and may depend, among other factors, on the families' residency status (UNHCR et al., 2019). Understanding the determinants of ECEC enrolment among children of newly arrived migrants from these countries, whether they follow patterns identified among the immigrant population or present specific issues, requires the attention of both academics and policymakers.

In this context, we explore the determinants of use of formal childcare services among families of recently arrived migrants from outside of the EU in France. More specifically, we aim to answer two research questions:

- 1. What is the use of formal childcare services among families of recently arrived migrants from non-EU countries, and how does it vary among families with different migration trajectories and countries of origin?
- 2. To what extent are eventual differences due to compositional effects (socio-economic and migration-specific resources) or distinct norms and preferences regarding these issues?

To answer these questions, we use the Longitudinal Survey on the Integration of First-time Arrivals (Elipa 2) carried out among third country nationals receiving a first residence permit in France in 2018 (Jourdan & Prévot, 2020a). While these families faced common structural constraints due to their recent presence in the country (precarious position in the labour market, low economic resources, limited social networks), they presented a diverse group in other aspects coming from different countries of origin, with distinct norms and preferences, language skills, but also socio-economic and cultural resources. Although in most families parents' migration and childbearing were

interrelated, they nevertheless followed different migration trajectories, which may result in distinct childcare solutions, as suggested by some studies (Wall & José, 2004).

The focus on the French context is enlightening for several reasons. First, France receives an important number of non-EU migrants and, as in other EU countries, female migrants, particularly recently arrived, have lower labour force participation rates, especially mothers (Giorgi & Le Thi, 2023). Second, although the state ensures a relatively high ECEC provision capacity² and provides financial subsidies (ONAPE, 2020), there are important social differentials in ECEC enrolment (OECD, 2022; Pavolini & van Lancker, 2018), signalling the existence of other barriers to participation among disadvantaged families. Third, an increasing number of children in France grow up in immigrant families: in 2019, 25% of children aged 0–4 years had at least one immigrant parent (Lê et al., 2022). While their experiences once they enter school are well documented (Ichou, 2018), fewer evidence exists on their first years of life, including ECEC participation. Existing studies suggest that children of immigrants are less likely to be enrolled in formal childcare services (Berger et al., 2021; Eremenko et al., 2017; Le Bouteillec et al., 2014),³ but there has been limited attention to differences in ECEC use within this group, as well as the role of migration-specific factors.

This study contributes to the literature on access to ECEC services in three ways. First, it addresses a population research gap, as there is currently limited evidence on ECEC use among families of non-EU migrants living in Europe, especially recent flows. Second, using a data source specifically designed at covering population groups excluded or under-represented in general surveys (recently arrived migrants, non-French speakers, individuals in non-ordinary housing), this paper provides original evidence on the opportunities and difficulties faced by disadvantaged families in accessing these services. Finally, by considering a wide set of factors that affect ECEC participation, both general and migration-specific, we bring new evidence to the discussion on the role of structural constraints and preferences in this result.

Background

Immigrant-native gap in childcare use and the role of structural constraints

The initial framing of families' use of ECEC services as a result of parents' preferences and socio-demographic characteristics (*micro-level*) has progressively shifted to a broader ecological perspective, integrating structural constraints, such as the local offer of childcare (*meso-level*), as well as the public policy context (*macro-level*) (Vandenbroeck & Lazzari, 2014). This approach allows to better identify and assess the obstacles disadvantaged families face in accessing these services (Archambault et al., 2020; Carbuccia et al., 2020; European Commission/EACEA/Eurydice, 2019; Leseman, 2002), but also understand the choices of other childcare arrangements (family members, informal care). This framework is particularly useful when considering the experiences of

² Children under the age of 3 are not guaranteed a place in childcare services; children aged 3 or older attend pre-primary schools (*écoles maternelles*) (more details in Sect. "Family and early childhood education and care policies").

³ To the best of our knowledge, only one study based on the French Elfe Cohort has examined the impact of attending center-based childcare services on child development in France and the authors find a positive impact among language skills, especially among children in disadvantaged families (Berger et al., 2021). The absence of adequate data allowing to examine this issue, as well as the earlier age at school entry (3 years) and a longer duration of a common curriculum than in neighbouring countries, such as Germany (until 14 years), may explain the scarcity of academic studies, and more generally public debates around this issue.

immigrant families, as it shows the diversity of factors that may affect families' decision-making in this area.

Differences in childcare arrangements, and more specifically the gap in formal childcare use, between children in immigrant and native families, have been observed across multiple destination countries (Biegel et al., 2021; Brandon, 2004; Kingsbury et al., 2021; Miller et al., 2013; Schober & Spiess, 2013). Immigrant families' on average lower socioeconomic resources (education, employment, income) contribute to this gap, and once these compositional differences are accounted for, it is reduced, although never disappears entirely. Qualitative studies further show how immigrants' precarious working conditions (undeclared work, temporary contracts and frequent change of jobs, long or irregular working hours), more common among recent and undocumented migrants, make them ineligible for or complicate their use of formal childcare services (Bonoli & Champion, 2015; Garnier et al., 2023; Wu & del Rey Poveda, 2022; Xhaho et al., 2022).

Residence in segregated neighbourhoods with fewer public services may also present a barrier in accessing ECEC services for immigrant families (OECD & EU, 2018). Indeed, insufficient spaces in daycare centres or the distance to access them are often cited by families residing in these neighbourhoods as a reason for not enrolling their children (Garnier et al., 2023; Palomera, 2022; Wall & José, 2004). However, evidence on this aspect from quantitative studies is mixed. While the local availability of centre-based care was not associated with a higher use of non-parental care among immigrant families in the US (Miller et al., 2013), in Europe, the gap in formal childcare use increased when the local childcare offer was controlled for (Biegel et al., 2021; Schober & Spiess, 2013). In other words, immigrant families' use of these services was less than would be expected given the local availability. This result points to the existence of other barriers to participation, including in contexts when offer is relatively high. For example, opaqueness and complexity of application procedures are often cited as reasons for not or unsuccessfully applying for these services by immigrant families, and more generally disadvantaged families (Bonoli & Champion, 2015; Garnier et al., 2023; Karoly & Gonzalez, 2011).

Civic stratification, the process through which states assign different degrees of membership and rights to its' members and that particularly affects non-EU migrants (Kofman, 2002), is another dimension to be considered when analysing access to and use of social services. Immigrant families, particularly families with members with a precarious or undocumented status, may be directly excluded from certain public programs limited to nationals and legal residents, or reluctant to use the services they are entitled to due to fear of being reported to immigration authorities or risk of deportation) (Bernhard et al., 2007; Bonoli & Champion, 2015; Yoshikawa, 2012).

Stability and changes of norms and preferences in the context of migration

Distinct norms and preferences regarding child upbringing, especially children of preschool age, may also contribute to explaining the existing gap in immigrant-native ECEC use. While upper and middle class families adhere to the idea that formal childcare, particularly public centres (*crèches*), are beneficial to young children's development, working class families attribute a greater importance to mothering and affective childcare (Chaudry et al., 2011). Parents with low education and/or of migration background

particularly value childcare providers who share their cultural background and/or language, thus opting for informal childcare arrangements (Karoly & Gonzalez, 2011; Park & Flores Peña, 2021).

However, studying preferences, especially in the context of migration, raises important methodological issues. In quantitative studies, this aspect has mainly been addressed using the immigrants' country of origin as a proxy. Thus, lower levels of non-parental care use, particularly daycare centres, among families of Mexican origin in the US (Ackert et al., 2019; Miller et al., 2013), or the longer period of time children from non-European regions (Africa, Asia) are cared for by their families (Biegel et al., 2021; Tervola, 2018), tend to be interpreted (at least partly) as preferences for informal childcare arrangements. A study specifically measuring attitudes towards different types of childcare among immigrants in Europe, found that migrants from Asia favoured informal over formal childcare, while those from Europe and North America viewed formal care more favourably, similarly to the native population (in the Netherlands, Denmark, Germany) (Seibel & Hedegaard, 2017).

However, norms and values held in the countries of origin may not always translate into expected opinions and behaviour after migration. First, migrants arriving in Europe are a selected group, and may have norms and values (gender equality, family, etc.) closer to those in the destination country (Baizán et al., 2014; Buber-Ennser et al., 2016). Second, migrants must reconsider and adapt these given new opportunities and constraints they face upon arrival: for example, precarious socio-economic positions may mean that both parents need to work outside of the household to ensure the financial stability of the family. Studies have documented working-class migrant mothers from countries with a more pronounced gendered division of labour (Moroccans in Italy, Latin Americans in the US) entering the work force and thus in need of alternative childcare solutions (Straut-Eppsteiner, 2021; Wall & José, 2004). Inversely, mothers' education and previous work experience may not always translate into higher labour participation rates after migration, if she has to put on hold her career due to no or expensive childcare at destination (Barglowski & Pustulka, 2018; Cooke, 2007), a situation not unlike that of tied family migrants in the context of internal mobility (Cooke, 2008).

Similarly, preferred options of childcare arrangements may not always be available, especially for migrant families, meaning parents have to look for second best solutions. When unable to stay at home to take care of children and without family members present, African migrants in the US chose to place their children in daycare centres, despite the high cost of this option and their precarious financial situation, in part due to their ideal of collective child upbringing (Obeng, 2007). Although Chinese families prefer grandparental care, the option of relocating grandparents to Europe to take care of the children was only available for families with a stable socio-economic and administrative situation and others had to find alternative solutions (Wu & del Rey Poveda, 2022). In other words, childcare arrangements are determined to an equal or greater extent by current living and working conditions, as norms and values held in the countries of origin (Röder et al., 2018).

Specific migration patterns may sometimes be linked to distinct types of work/care strategies (Wall & José, 2004). These authors found that women who arrived as "marriage migrants" held more family-orientated views and were the primary career of the

children, while couples in which spouses came together or separately for other reasons (work, studies, international protection) adopted less mother-centred strategies, with both parents caring for children and/or relying on other care solutions, including formal childcare services. However, this situation was not only the result of distinct family values among the two groups, but also the immigrant mother's marginal position within the couple and the host society (no social ties at destination, except for their husband; low or no labour force participation). More generally, while some family dynamics are associated with specific norms and preferences (Aybek & Milewski, 2019), more attention should be dedicated into whether these later translate into distinct work/care strategies and childcare arrangements in the destination country (Kalmijn, 2023).

Language has also been found to be an important predictor of ECEC use (Liang et al., 2000; Miller et al., 2013; Sprong & Skopek, 2022; Wolf et al., 2020), although the actual mechanisms behind this result are still not clearly identified. When focusing on immigrants and their descendants, the use of a different language at home (other than that of the destination country) is sometimes interpreted as a greater orientation towards values and norms of the country of origin, which may prevent parents from entrusting their children to a daycare centre. However, among recently arrived migrants, who do not yet command the language of the destination country, this association may be the result of the difficulties they face in obtaining information and navigating the ECEC system. Furthermore, its' impact is not universal (Wolf et al., 2020), thus suggesting that there may be different mechanisms at play depending on the context.

French context and working hypotheses

Family and early childhood education and care policies

France has an intermediate position among developed countries in terms of public provisions offered to new parents (European Commission/EACEA/Eurydice, 2019). Conditions of paid maternity leave depend on the mother's work status (employee, independent, or unemployed), but in all cases the maternity pay covers less than 100% of the previous income (unless the mother's employer compensates the loss of income) and the leave is limited in time. For example, for first singleton pregnancies, paid maternity leave lasts 16 weeks maximum (6 weeks before, 10 weeks after birth). Paternity leave is significantly shorter: fathers could benefit from a 3-day birth leave [congé naissance] until 2019, when an additional father leave [congé paternité] of 11 days was added (law of July 1st, 2019). It was extended to 25 days in 2021 (law of December 14th, 2020), of which 7 days are compulsory. Finally, both parents can benefit from a paid parental leave of maximum 6 months for each parent for a first child and a total of 3 years combined for both parents for second and higher order children, with a fixed income (below 400 euros/month at the time of survey).

Children start attending pre-primary school [école maternelle] at 3 years.⁵ Before this age they are cared for through informal care (parents, family members or undeclared nannies) or formal childcare services, primarily professional childminders offering

⁴ Among Turkish families living in England and the Netherlands ECEC use was not impacted by perceived language skills in the national language, whereas it was a strong predictor in Germany (Wolf et al., 2020).

⁵ The age of compulsory schooling was reduced from 6 to 3 years in 2019 (law of 28th July, 2019), but most children of this age already attended pre-school before this change (97% of 3 year-olds were enrolled in school in the 2018–19 school year) (INSEE, 2021).

home-based care [assistantes maternelles] and daycare centres [crèches]. According to the most recent "Childcare arrangements" survey in 2021 [Enquête "Modes de garde", MDG],⁶ childminders (20%) and daycare centres (18%) were the main types of non-parental care arrangements among children aged less than 3 years (Caenen & Virot, 2023).

The majority of daycare centres in France are run by local authorities (municipalities, departments), but some are offered by private organizations (companies, parental associations). The commissions attributing places in public centres often take place in spring (in May) for an entry at the start of the school year (in September), which requires families prepare ahead of time. Application procedures and attribution criteria vary, but in general working parents are prioritized. However, since the 2000s a greater awareness of the low participation of disadvantaged families in ECEC, has led to policies aimed at increasing their enrolment (for example, by reserving places for children from these families) (AMF, 2018; CC IDF, 2017). Since 2019 daycare centres also receive financial incentives from the national government when they accept children of socially mixed background [bonus "mixité sociale"] or children with disabilities [bonus "inclusion handicap"]. Single mothers have also been identified as a priority group due to their potential socio-economic vulnerability. They are eligible for more support from social workers (information, help with applications, liaison with local administrative agents or childcare professionals), and in some cases are prioritized during attribution of places in daycare centres.

Professional childminders are directly employed by the parents and primarily provide services in their homes. They have received specialized training and been approved by departmental authorities. There is no standardized procedure for finding a childminder and families usually search for professionals through lists provided by local authorities or the local office of the National Family Benefit Fund (CAF), as well as their own networks.

Two additional factors shape ECEC use in France. First, there are important geographical variations in the volume and type of the formal childcare offer. At the national level the ECEC provision capacity for children under the age of 3 is around 59%, with childminders being the majority option in most of France and more places in daycare centres in the Paris region (ONAPE, 2020). However, as the implantation of the latter depends on local priorities, there may be differences within departments and municipalities, including in the Paris region. Second, while both childcare options are subsidized and the price depends on the families' income, remaining costs are higher in the case of

The "Childcare arrangements" survey [Enquête "Modes de garde", MDG] is the reference survey used to produce statistics on ECEC participation in France. It is carried out by the Ministry of Solidarity and Health every 6–7 years. The survey covers families with children under the age of 6 and collects detailed information on childcare arrangements, as well as family and household characteristics. Previous waves did not include variables allowing to identify immigrant families; the 2021 included a question on parents' country of birth, but no publications with this information were available at the time of the preparation of this paper. For more information: https://drees.solidarites-sante.gouv.fr/sources-outils-et-enquetes/lenquete-modes-de-garde-et-daccueil-des-jeunes-enfants.

⁷ The overwhelming majority of public *crèches* work in this way, but private *crèches* may operate differently.

⁸ Given the timing of the Elipa 2 survey (data collection of the first wave took place in spring 2019), this policy probably did not influence the families studies in this paper.

⁹ In addition to France, the widespread provision of regulated home-based ECEC provision exists in few European countries, mainly in Western Europe (European Commission/EACEA/Eurydice, 2019).

childminders and families have to advance larger sums before being reimbursed (Villaume & Legendre, 2014).

There are social differentials in the use of formal childcare services in France. It is higher among children of active working parents, mothers working as managers and professionals, as well as higher income families (Villaume & Legendre, 2014). Women in low-wage occupations prefer to stop working and care for their children, while managers seek solutions allowing them to adjust their working hours (Galtier, 2011). Children of single mothers, more often inactive, are more likely to be cared for at home (Caenen & Virot, 2023). However, when the parents' activity status is controlled for, this difference by family composition disappears (Le Bouteillec et al., 2014). Immigrant parents are more often the primary caregivers of their small-age children; when they do attend formal childcare services, they are more likely to be in a daycare centre than with a childminder (Le Bouteillec et al., 2014). However, single immigrant mothers, most of which come from Sub-Saharan Africa, present a distinct profile, in that many of them declare preferences for *crèches* and have similar enrolment rates as native families (Eremenko et al., 2017).

Families' socio-economic position affects their use of these services in other ways as well. In addition to the local availability of places, the offer provided by *crèches* and child-minders may not always be adapted to the needs of disadvantaged and immigrant families, a larger proportion of which have part-time and/or atypical working times (Garnier et al., 2023; Martin et al., 2005). The opaqueness of the attribution criteria (for example, some parents believe they must be working to apply for a place) or the timeframe of the application procedure (requiring significant anticipation on the part of families), constitute additional barriers for their children's participation in ECEC.

Children of immigrants and their environment

An increasing number of children in France grow up in immigrant families: 25.5% of children aged 0-4 years had at least one immigrant parent (i.e., were descendants of immigrants) (Lê et al., 2022). Their origins reflect migration flows to France in the past decades, predominantly from the African continent: 43.8% of children in immigrant families are of Northern African origin (Algeria, Morocco, Tunisia) and 22.3% are from other African countries. 12.1% of children were born to parents from EU27 countries, while children in families from Asia, non-EU Europe and other world regions, representing more recent flows, accounted for 11.7%, 5.1% and 5.1% of the group. While the majority of children have two immigrant parents, among Northern African and Asian families mixed couples (one immigrant and one native parent) represent one half of families (Lê et al., 2022). Single mothers are more numerous among families of Sub-Saharan origin (Thierry et al., 2018). Given the interrelation of migration and family formation projects, many children are born shortly after the arrival of their parents to France: according to the 2016 National Perinatal Survey, 39.6% of foreign-born mothers giving birth to a child had arrived in France within the last 5 years, and 11.5% within the previous year only (Cinelli et al., 2022).10

¹⁰ In the most recent edition of the survey (2021), the proportion of mothers having arrived within the previous year had decreased (6.1%), but this was mainly due to mobility restrictions because of Covid-19.

260 thousand non-EU nationals received a residence permit in France in 2018; men were slightly more numerous (51%) and more than half of beneficiaries were between 18 and 29 years (58%) (Bianchini, 2020). Around one in three beneficiaries were international students, whose stay in France is often for a limited duration and who were not included in the Elipa 2 survey. The largest category of remaining admissions were family grounds (35%), with spouses of French being the most numerous group, followed by family reunification and migrants admitted for "private and family life" reasons. Admissions on economic grounds and for international protection were similar in size (13% each), with the remaining migrants admitted for a variety of motives (health, etc.). Three out of ten beneficiaries of a first residence permit had been in France for less than 2 years, mainly migrants admitted as spouses of French and through the family reunification procedure (Jourdan & Prévot, 2020b). The majority had been living in France for several years and presented distinct profiles: while some were changing their "temporary" residence permit to a "permanent" one (for example, from student to worker), others had gone through a longer and more complex administrative trajectory (asylum application and potential appeal, regularization, etc.).

Immigrants, especially when they come from outside of the EU, have a more unfavourable position in the labour market (higher unemployment rates, concentration in occupations and sectors with lower pay) and this results in poorer living conditions (lower income levels, inadequate housing, concentration in disadvantaged neighbourhoods) (INSEE, 2023). The long and complex legal admission process many migrants from non-EU countries go through before being granted a stable legal status, hampers their settlement and is an important obstacle in accessing rights (Le Défenseur des droits, 2016). This situation is particularly frequent among migrants from Sub-Saharan Africa (Gosselin et al., 2018), but also concerns families with children (Guyavarch et al., 2014).

Working hypotheses

Based on the literature review and characteristics of the French context, we formulate the following working hypotheses regarding ECEC participation among children of newly arrived migrants:

Hypothesis 1: Family type: H1.a) Children of mixed couples will have higher ECEC enrolment rates than other families due to greater resources (socio-economic, language proficiency, knowledge of institutions and procedures, etc.), as well as shared preferences with the host country population. H1.b) Children of single mothers will have higher ECEC enrolment rates than children of two immigrant parents due to their greater need to work, being prioritized in attribution of places in *crèches* and benefiting from social workers' assistance, as well as preferences towards *crèches*. H1.c) Among two-parent immigrant families, those with more traditional family migration patterns (family reunification) will have lower use of ECEC than families with more egalitarian (joint-couple) or independent women migrations, as a result of distinct norms and values held by these couples, but also relative labour force opportunities of both parents.

Hypothesis 2: Parents' region of origin may affect enrolment in formal childcare due to differences in norms and preferences regarding child upbringing (maternal, collective, etc.). More specifically, we expect lower rates of formal childcare use among Northern African and Asian families, and higher ones among families of Sub-Saharan origin.

Hypothesis 3: Language proficiency: a better command of French will result in higher ECEC participation due to facilities in communication with service providers, and more generally a greater knowledge of the destination country administration and services.

Hypothesis 4: Higher socio-economic resources (measured as education, employment, income), as well as more stable living conditions will result in a higher ECEC enrolment.

Data and methods

Data and sample

The Longitudinal Survey on the Integration of First-time Arrivals (Elipa 2) was conducted by the Directorate-General for Foreign Nationals in France (DGEF). The study population consisted of third country nationals receiving a first residence permit in France in 2018 for a duration of at least one year in a "permanent" category¹¹ (Jourdan & Prévot, 2020a). In addition, only individuals residing in the ten departments with the largest number of first-time residence permit beneficiaries were included in the survey. This covers migrants residing in the three largest metropolitan areas in France—Paris, Marseille, Lyon—as well as Lille.¹² The residence permit register (AGDREF) was the sampling frame and out of the initial sample of 20,000 individuals, a total of 6547 respondents were interviewed in the first wave of the survey between March and June 2019 (32.7% response rate).¹³ The survey is representative of non-EU foreigners aged 18 or older receiving a first residence permit of at least one year in 2018 and residing in one of the ten departments included in the survey, which represents 49.5% of first-time residence permit beneficiaires in that year (excluding international students).

Respondents provided detailed information on themselves, as well as their family members. For each child aged less than 3 years residing in the household, the survey collected information on the primary caregiver. ¹⁴ In this paper, the unit of analysis is the child. From the initial sample of 1506 cohabiting children aged 0–2 years, we excluded those aged less than 3 months as enrolment in daycare centres is only possible from this age (154 cases). Children with missing information on the primary caregiver (55 cases) and socio-demographics (50 cases), as well as children living without their mother (with the father only, 7 cases) were also excluded. The final sample size consisted of 1240 children declared by 1123 respondents.

Children with two migrant parents receiving a first residence permit at the same time could eventually be counted twice in the survey (if declared by each parent). To account

¹¹ Although there is no legal distinction between "permanent" and "temporary" admission categories in France, the Elipa 2 survey targeted migrants with a settlement intention. For this reason international students, around half of which leave the territory within 2 years of their arrival (Jourdan & Prévot, 2020a), were excluded from the scope of the survey.

¹² The exact list of departments chosen for the survey is the following: Bouches-du-Rhône (13), Nord (59), Rhône (69), Paris (75), Yvelines (78), Essonne (91), Hauts-de-Seine (92), Seine-Saint-Denis (93), Val-de-Marne (94), Val-d'Oise (95).

¹³ Wave 2 of the Elipa 2 survey was planned to take place between March and June 2020, but due to the Covid-19 lockdown that started in March 2020, the data collection lasted until October 2020. The third and final wave took place between March and June 2022.

¹⁴ Information on childcare arrangements of non-cohabiting children aged less than 3 years was not collected (around 200 children). Most non-cohabiting children in this age group were declared by male respondents (i.e., their fathers) and lived with their mothers, either in France or abroad (respectively 60% and 40%). While some of the children living in France may be covered by the Elipa 2 survey (for example, a family in which both parents receive their first residence permit in 2018, the father lives separately from the mother and children due to housing issues and the mother participates in the Elipa 2 survey), other cases are out of the scope of this study (children living with their mother who is a French national, children residing abroad).

for this possibility we identified this group of children¹⁵ and estimated child-specific weights¹⁶ used to calculate descriptive statistics (Table 2).

Childcare arrangements

The survey provided information on the primary caregiver using a standardized question: "In general, during the day, who takes care of [name of child]?" Seven possible response items were provided: You/Your partner/You and your partner/Another family member/Daycare/Childminder/Other, specify. ¹⁷Additional file 1: Annex S1 provides the initial distribution of childcare arrangements.

Our main dependent variable is attendance of formal childcare services, which includes both daycare centres (*crèches*) and childminders offering home-based care (*assistantes maternelles*). In this we follow the OECD definition of formal ECEC services: "formal childcare refers to centre-based services (e.g. nurseries or day care centres and pre-schools, both public and private), organised family day care, and care services provided by (paid) professional childminders, regardless of whether or not the service is registered or ISCED-recognised." The reference category includes all other arrangements and primarily consists of children cared for by their parents and a small number of children with other family members or in another situation. Limiting the category to parents only (details in robustness checks) did not affect the overall results.

Explanatory variables

We use two typologies of migrant families. The first is based on the respondent's couple status and partner's immigrant status and allows to distinguish three family types: both immigrant parents (63%), mixed couples (25%) and single mothers (12%) (Table 1). In a second step, we further distinguish four family migration patterns among immigrant couples and, for mixed couples, the sex of the immigrant spouse. Among mixed couples, one third of children had an immigrant mother and two thirds a native mother. Among immigrant couples, unions formed at destination after the arrival of both partners constituted a separate category (16% of children). Among the remaining couples we distinguished whether the partners had migrated together (*joint couple migration*, 16%) or carried out the migration in a stepwise manner, and whether the first parent migrant was the father (*father sponsor*, 26%) or mother (*mother sponsor*, 6%). Additional file 1: Annex S2 provides a description of the sample by family type.

The family's region of origin is based on the mother's country of birth (or the father's in families where he is the only immigrant). Given characteristics of migration flows to France, as well as sample sizes we distinguish seven regions: Algeria, Morocco/Tunisia, Sahel Africa, Central Africa, other Africa, Asia, and other countries. Mother's

¹⁵ Although the survey did not include the detailed administrative status of the non-respondent parent, it could be deduced from the admission category of the respondent parent.

The initial individual weights in the Elipa 2 survey were estimated to take into account non-response and selectivity in participation based on the following variables: age, sex, admission category, nationality, region of residence and place of residence (DSED, 2020).

¹⁷ Question (in French): "En général, dans la journée, qui s'occupe de < PRENOM ENFANT >? Vous-même / Votre conjoint / Vous-même et votre conjoint / Un autre membre de la famille / Une crèche / Une assistante maternelle / Autre, préciser.".

¹⁸ According to the OECD, "informal" childcare refers to unpaid care (grandparents, other relatives, friends or neighbours) and excludes any care that is paid for regardless of who is providing the paid-for care.

proficiency in French is based on a self-reported assessment (if female respondent) or the spouse's assessment (if male respondent).¹⁹ The initial variable contained four levels (1—very well, 2—fairly well, 3—not very well, 4—very little or not at all). Given the small number of migrants with the lowest levels of French, the last two were grouped together.²⁰

The family's socio-economic resources were measured using three variables. The mother's highest degree (self-reported or provided by respondent spouse) was grouped in three categories: less than secondary, secondary, tertiary. The variable "working parents" distinguished families in which both parents (two-parent families) or the mother (single mothers) were working *versus* other situations (at least one unemployed or inactive parent). The family's income level was estimated using the total household income (including benefits), adjusted for household size and composition using the standard method adopted by the national statistical institute (INSEE).²¹ We then created an ordinal variable by applying limits of income quintile groups estimated among families with small-age children in France (Villaume & Legendre, 2014). Given the low income levels in our sample (73% of children in the 1st quintile and 18% in the 2nd quintile), we grouped families in the 3rd, 4th and 5th quintiles together (9%).

Families' residential environment was characterized using two variables. First, respondents declaring living in a neighbourhood "too far from public transport, shops or community services" were identified as living in a remote neighbourhood.²² Second, a measure of the stability of housing arrangements, crucial for accessing formal child-care services, was used. For this, we estimated the length of presence in the dwelling at the time when applications for the 2018–2019 school year were being made (May 2018) and distinguished three groups of families: later move, recent move (within the last 12 months); ancient move (12 or more months ago).²³

In the robustness checks (details below), we also include the length of stay of the first migrant parent, as well as a proxy of the family's administrative status. We identify couples in which one of the spouses is a French national, beneficiaries of international protection, regularized couples (of which some are rejected asylum seekers), as well as couples admitted in other categories (work or family categories).

The following socio-demographic variables were used as controls in the analyses: child's age (months), presence of other small-age children or other persons in the household.

¹⁹ Alternative measures of language proficiency were used in the exploratory analyses (language spoken at home, highest level of proficiency in French in the couple). We discuss how these may affect the findings in the robustness checks.

²⁰ The overall high proficiency in French among the sample can be explained by two main factors: (1) the majority of migrants come from countries with colonial ties to France and where French is an official or widely used language (OIF, 2022); (2) many of the respondents in the sample have been living in France for several years before their admission to stay (Jourdan & Prévot, 2020b). In addition, immigration and integration policies condition the obtention of a residence permit and French citizenship to a certain level of French fluency, which means that migrants have continuous incentives to improve their language skills.

²¹ Details on the calculation method can be found here: https://www.insee.fr/en/metadonnees/definition/c1802.

²² The dataset does not include information on the respondent's precise place of residence; thus, it was not possible to include contextual information, such as local childcare availability. The only available information was whether the respondent lived in the greater Paris region *versus* other regions. As 75% of respondents lived in the greater Paris region and the survey was not nationally representative, this variable was not kept in the final analyses.

²³ Other variables on the housing conditions of families, such as the type of housing (individual, with family or friends, institutional accommodation, other), were used in the explanatory analyses. As they did not improve the models, we did not include them in the final analyses.

Table 1 Description of sample, 0–2-year-old children of recently arrived migrants

	n obs	% col	
Family typology			
Immigrant couples	785	63.3	
Mixed couples	309	24.9	
Single mothers	146	11.8	
Family typology, detail			
Father first	326	26.3	
Mother first	69	5.6	
Joint couple	197	15.9	
Met at destination	193	15.6	
Mixed, immigrant mother	101	8.1	
Mixed, native mother	208	16.8	
Single mothers	146	11.8	
Region of origin			
Algeria	274	22.1	
Morocco/Tunisia	197	15.9	
Sahel Africa	157	12.7	
Central Africa	235	19.0	
Other Africa	116	9.4	
Asia	136	11.0	
Other	125	10.1	
Mother's proficiency in French			
High	608	49.0	
Mid	328	26.5	
Low	304	24.5	
Mother's highest degree			
Less than secondary	641	51.7	
Secondary	205	16.5	
Tertiary	394	31.8	
Working parents			
Yes	277	22.3	
No	963	77.7	
Household income			
Q1	904	72.9	
Q2	222	17.9	
Q3/Q5	114	9.2	
Remote neighbourhood			
Yes	163	13.1	
No	1077	86.9	
Timing of the move (ref. May 2018)		00.5	
Later move	425	34.3	
Recent move	397	32.0	
Ancient move	418	33.7	
Length of stay first migrant parent, years (mean)	1240	8.2	
Family's administrative status	.2.10	0.2	
French spouse	429	34.6	
International protection	180	14.5	
Regularization	382	30.8	
Other categories	249	20.1	
Socio-demographic	212	20.1	

Table 1 (continued)

	n obs	% col
Child's age, months (mean)	1240	16.9
Other children < 3 years in household	231	18.6
Other persons in household	139	11.2
n obs	1240	100

Source: Elipa 2 survey, wave 1 (authors' estimation)

Statistical analyses

We proceed in two steps. First, we describe ECEC enrolment rates among children of recently arrived migrants (Table 2). Second, we estimate the probability of the child being in formal care using a logistic regression to identify the role of each variable. The main analysis includes all families in the sample (Table 3). Alongside the odds ratio, we present the average marginal effect (AME) which has the advantage of providing a measure of the effect on the probability of the event. As the sample includes families with more than one child under the age of 3 years (clusters at the level of the respondent parent), we estimate cluster-robust standard errors using the cluster option in Stata 15.

We conduct several robustness checks (Additional file 1: Annex S3). (A) We limit the reference category to parents and exclude children cared for by other family members or in other situations. (B) As preferences, availability, application procedures and costs for centre-based and home-based care differ, we estimate the probability of enrolment in each type of care using a multinomial regression. (C) We focus on immigrant families (exclude mixed couples) and explore the role of two additional variables: (maximum) length of stay and administrative status. (D) As the enrolment of children born abroad may pose specific issues, we conduct the main analysis on a sub-sample of children born in France. We use a measure of the (E) couple's education and (F) couple's proficiency in France instead of the mother's to see whether this may affect the results. (G) Finally, given the importance of the parents' work status for accessing formal childcare services, we conduct separate analyses for families with working parents and those in other situations.

Findings

Descriptive analysis

18% of children aged 0–2 years of recently arrived non-EU migrants were enrolled in formal childcare services, either in a daycare centre or with a childminder (Table 2). This proportion is lower than in the general population if we use the estimates of the most recent MDG2021 survey as a benchmark (38%) (Caenen & Virot, 2023). This result can be explained by the disadvantaged socio-economic position of families in our sample, and more specifically the low proportion of working parents and their limited financial resources. Indeed, although the two data sources (Elipa 2 and MDG2021) are not directly comparable, in the general population only 12% of children of families in which one or both parents were inactive or unemployed used these services (Caenen & Virot, 2023), similar to the rate for this group in our sample (10%). In addition, 72% of children in our sample live in households with incomes in the 1st quintile (Table 1) and

enrolment in ECEC services increases with income levels, particularly for home-based care (Villaume & Legendre, 2014). 24

Attendance was highest among children of single mothers (28%) and lowest among those of immigrant parents (14%), with children of mixed couples in an intermediate situation (22%). However, there were also important differences when we looked at more detailed family types. ECEC enrolment was below average (9–15%) among families with father sponsors, mixed couples with immigrant mothers, as well as joint couple migrations. Inversely, families with mother sponsors or couples having formed a union after arrival, as well as children of mixed couples with native mothers had higher ECEC enrolment rates (between 23 and 28%).

Children of Northern African and Asian origin were the least likely to attend formal childcare services (less than 11%) (Table 2). Inversely, nearly, one out of three children of migrants from Central Africa, as well as other world regions were enrolled. Families from Sahel Africa and other African countries were in an intermediate situation (18–20%). ECEC attendance increased with mother's proficiency in French: only a minority of children, whose mother declared little or no knowledge of French were in formal care (5%), but one-fourth of those who were highly proficient.

Regarding the role of socio-economic characteristics, ECEC enrolment rates followed patterns similar to those observed in the general population. Mothers with secondary or higher education were more likely to have children attending formal childcare (23%–25%). There was a strong positive association with parents' employment status (43% of children of working parents were enrolled in ECEC), as well as an income gradient. Families residing in remote neighbourhoods, as well as those having arrived after the cut-off date for applications had lower enrolment rates, but the differences were smaller than for other variables.

Before analysing the results from the regression models, it is necessary to underline that families with relatively lower and higher ECEC attendance differed in key characteristics. In the first group (father sponsors, mixed couples with immigrant mothers, joint couple migrants), parents had the shortest presence in France and the lowest proportions of working parents (10–17%), even though many mothers had a tertiary education (Additional file 1: Annex S2). In addition, parents having arrived together, many of which came from the Asian continent or the rest of the world, had the additional handicap of low proficiency in French. In the second group (mother sponsors, couples in which the partners had migrated independently, mixed couples with native mothers), proportion of working parents was higher (between 28–38%), despite lower education levels than in the first group. Finally, single mothers, the majority of which were from Sub-Saharan Africa, had been in France for on average 3.6 years. Although one third of them were working, they had the lowest level of economic resources of all groups.

Multivariable analysis

In the regression analyses, patterns by region of origin and proficiency in French remained statistically significant, while differences in ECEC enrolment between family

²⁴ An additional aspect of the data collection process should be mentioned: the reference period in the Elipa 2 survey data is March-June compared to October-January in the MDG2021 survey. This may slightly (negatively) affect the number of children in formal childcare facilities in the first source, as some children cared for by their parents in spring may be enrolled in ECEC by the next school year.

types disappeared almost completely (Table 3). Compared to families of Northern African and Asian origin, families from Sub-Saharan Africa and other world regions had a higher proportion of children using formal childcare services (around 10% points higher according to AME) (*support for H2*) and this result may reflect a greater preference for centre-based care among these migrant communities (Eremenko et al., 2017; Obeng, 2007). More generally, these patterns are similar to those in other destination contexts and provide further evidence that migrant parents of different origins may have distinct norms and values regarding the role of mothering and child upbringing, but this would need to be further explored with more suitable data.

Mothers' language skills remained an important and consistent predictor of formal childcare use (support for H3): children whose mothers spoke very little or no French had a much lower probability of attending these services (-13% points). This result echoes findings in other settings and can be interpreted in several ways. Mothers (families) not speaking French may indeed have greater difficulties in getting information and navigating the procedures required to be able to register their children in formal childcare services. However, it could also translate a more general level of trust and knowledge of the destination country administration and services. Many of the countries where French is still an official or widely used language today were part of the French colonial empire and built their administration, including school system, upon the French model of the time. Traces of this past still exist today, for example through (scientific, military, business, etc.) collaborations between the countries, which all imply a greater familiarization with French society. Finally, it is also possible that in families speaking another language there is a greater desire to transmit their language and culture, preventing the parents from sending their children to daycare or with childminders. It is important to recall that this finding is observed in a country where a large proportion of immigrants, including recently arrived, speak French. In this context, not speaking the language of the destination country may be a greater handicap in migrants' everyday lives as information, interactions are more likely to take place in French. It is worth noting that other measures of language proficiency, such as the couple's proficiency in French tested in robustness checks (Additional file 1: Annex S3; panel F), had a lower explanatory value and the coefficients were no longer statistically significant. This confirms that mothers' background and characteristics are particularly important when studying childcare arrangements: they are the primary caregivers of children, especially younger ones, but are also in charge of establishing and managing communication with other childcare providers (Garnier et al., 2023).

Inversely, after controlling for other factors, different family types were no longer associated with distinct use of formal childcare services (*no support for hypothesis 1*). Children of mother sponsors constituted an exception; however, this group was numerically small (6%) and these results should be considered with caution. This finding suggests that the observed patterns in formal childcare use were primarily driven by the families' characteristics and resources and not distinct work/care strategies and preferences per se, an idea already implied in previous qualitative studies (Wall & José, 2004), and which we have been able to explore with original survey data in this study.

Table 2 Children enrolled in formal childcare (%), 0–2 year-old children of recently arrived migrants

	%	P value	Cramér's V	
Family typology				
Immigrant couples	14.4	< 0.001	0.127	
Mixed couples	21.8			
Single mothers	28.1			
Family typology, detail				
Father first	8.9	< 0.001	0.189	
Mother first	24.6			
Joint couple	12.0			
Met at destination	23.2			
Mixed, immigrant mother	14.9			
Mixed, native mother	25.8			
Single mothers	28.1			
Region of origin				
Algeria	10.7	< 0.001	0.244	
Morocco/Tunisia	8.3			
Sahel Africa	18.5			
Central Africa	31.7			
Other Africa	20.0			
Asia	9.0			
Other	31.9			
Mother's proficiency in French				
High	26.1	< 0.001	0.229	
Mid	14.5			
Low	5.3			
Mother's highest degree				
Less than secondary	13	< 0.001	0.132	
Secondary	24.8			
Tertiary	22.8			
Working parents				
Yes	46.1	< 0.001	0.394	
No	9.5			
Household income				
Q1	13.6	< 0.001	0.196	
Q2	26.7			
Q3/Q5	38.4			
Remote neighbourhood				
Yes	12.6	0.076	0.052	
No	18.9			
Timing of the move (ref. May 2018)				
Later move	16.1	0.180	0.071	
Recent move	16.8			
Ancient move	21.1			
Total	18.1			

Source: Elipa 2 survey, wave 1 (authors' estimation). *P* values refer to the Chi-square test. Cramer's *V* coefficient as an indicator of the strength of association between two categorical variables

Table 3 Probability of enrolment in formal childcare, 0–2 year-old children of recently arrived migrants, logistic regression

	OR	P value	AME	P value	OR	P value	AME	P value
Family typology								
Immigrant couples	Ref.							
Mixed couples	1.1	0.707	0.01	0.709				
Single mothers	1.1	0.734	0.01	0.738				
Family typology, detail								
Father first					Ref.			
Mother first					2.4**	0.048	0.10*	0.072
Joint couple					1.1	0.792	0.01	0.793
Met at destination					1.4	0.376	0.03	0.382
Mixed, immigrant mother					1	0.974	0.00	0.974
Mixed, native mother					1.7	0.119	0.06	0.124
Single mothers					1.4	0.356	0.04	0.367
Region of origin								
Algeria	Ref.				Ref.			
Morocco/Tunisia	0.7	0.334	-0.03	0.332	0.8	0.455	-0.02	0.454
Sahel Africa	2.2**	0.028	0.09**	0.036	2.2**	0.029	0.09*	0.035
Central Africa	2.7***	0.002	0.11***	0.002	2.9***	0.001	0.12***	0.001
Other Africa	2.0*	0.084	0.08	0.104	2.1*	0.074	0.08*	0.095
Asia	1.1	0.826	0.01	0.827	1.1	0.752	0.01	0.755
Other	2.4**	0.011	0.10**	0.015	2.6***	0.009	0.10**	0.012
Mother's proficiency in French								
High	Ref.				Ref.			
Mid	0.6**	0.013	− 0.07**	0.012	0.6*	0.073	− 0.05*	0.069
Low	0.2***	< 0.001	- 0.14***	< 0.001	0.3***	< 0.001	- 0.13***	< 0.001
Mother's highest degree								
Less than secondary	Ref.				Ref.			
Secondary	1.8**	0.022	0.06**	0.029	1.8**	0.018	0.06**	0.024
Tertiary	2.0***	0.003	0.07***	0.003	2.1***	0.001	0.08***	0.002
Working parents	5.0***	< 0.001	0.23***	< 0.001	4.7***	< 0.001	0.21***	< 0.001
Household income								
Q1	Ref.				Ref.			
Q2	1.1	0.763	0.01	0.766	1.1	0.816	0.01	0.818
Q3/Q5	1.8*	0.062	0.07*	0.086	1.8*	0.062	0.07*	0.086
Remote neighbourhood	0.5*	0.052	- 0.06**	0.028	0.5**	0.036	- 0.07**	0.017
Timing of the move (ref. May 2018)								
Later move	Ref.				Ref.			
Recent move	1.5*	0.096	0.04*	0.095	1.5	0.108	0.04	0.106
Ancient move	1.3	0.209	0.03	0.208	1.3	0.260	0.03	0.257
Socio-demographic								
Child's age, months (cont.)	1.1***	< 0.001	0.01***	< 0.001	1.1***	< 0.001	0.01***	< 0.001
Other children < 3 years in household	0.6	0.151	- 0.05	0.144	0.6	0.161	- 0.05	0.154
Other persons in household	0.5*	0.073	− 0.07*	0.07	0.5**	0.049	− 0.07**	0.048
pseudo R-sq	0.249				0.255			
N	1240				1240			

Source: Elipa 2 survey, wave 1 (authors' estimation). Exponentiated coefficients: *P < 0.10, **P < 0.05, ***P < 0.01

Single mothers' situation as the sole family provider increases their reliance on formal childcare services and recent public policies have identified them as a priority group for social support because of their potential socio-economic vulnerability. Although descriptive results suggest a higher ECEC enrollment of children of single mothers in our sample, this difference disappears when other variables are controlled for. Single migrant mothers with small children present a specific profile—the majority are from Sub-Saharan Africa, a community that has a higher preference for centrebased care, and from countries which were part of the French colonial empire and have French as an official or widely used language—which appears to explain most of the above mentioned result. Thus, while it is possible that they benefit from greater support from social workers and are sometimes prioritized during attribution of places in daycare centres, the effect of these policies warrants further investigation.

Among children of mixed couples, only families with a native mother were more likely to attend formal childcare services than the reference group. However, once we controlled for other variables, this association was no longer statistically significant, although the coefficient remained in the expected direction. Thus, a more favourable socio-economic position and higher language proficiency of native mothers compared to their migrant counterparts in mixed couples appear to contribute to most of this difference, although other factors which make it easier to navigate the system (in-depth knowledge of administrative procedures, access to information and support networks) and distinct preferences (closer to those of the majority population of which they are members), may also contribute to this result. Finally, while we observe differences in ECEC use among immigrant couples with different migration patterns, these again appear to be primarily linked to the distinct socio-economic positions (employment, income) and cultural resources (language proficiency, education) they possess upon arrival.

The parents' work status remained by far the largest predictor of formal childcare use, with a more than 20% points difference in ECEC use compared to other families in the sample (Table 3). This finding is the result of both childcare providers' decisions and family dynamics: childcare providers prioritize these families when attributing places to children in childcare facilities; families need to externalize childcare when parent(s) are working, while for others it is a pre-requisite so they can start working. We could not control for the endogeneity of these decisions in this study, and this result would require further investigation.

Other socio-economic variables equally played a role, albeit smaller. Children of mothers with secondary and tertiary educational degrees were more likely to attend formal childcare than those with the lowest levels of education, suggesting distinct preferences and professional projects. While in our sample the majority of recently arrived mothers were inactive, including those with a tertiary education, the latter group has in general higher employment levels (Giorgi & Le Thi, 2023). Thus, while university educated mothers may choose or have to delay their entry into the labour market for different reasons (language barrier for high-skilled occupations, lengthy diploma recognition procedures, necessary studies and exams, higher job selectivity, etc.), they may still entrust their children to formal childcare services, in preparation of later labour force entry.

Children of families with the highest incomes (3rd to 5th quantiles) also had a higher use of formal childcare services (7% points). Additional analyses (Additional file 1: Annex S3; panel B) showed that this effect was mainly limited to use of childminders, a finding convergent with studies among the general population (Villaume & Legendre, 2014). Indeed, while both daycare centres and childminders are subsidized, the second option has a higher final cost for families. This difference may deter low-income families from looking for childminders, but childminders may also select higher income families to guarantee a stable income.

Living in a remote neighbourhood reduced families' use of formal childcare (-7%points). While this variable may cover different residential environments (urban, suburban, rural regions) with distinct issues, it suggests that immigrants' patterns of settlement in neighbourhoods with lower level of services do affect their access to public services such as childcare. In addition, many recently arrived migrants and their families experience precarious housing situations and (involuntary) mobility in the first years, which may further affect their chances of gaining a place in a daycare centre or with a childminder, which require planning ahead of time. In our sample families having recently moved had a slightly higher use of these services (4% points), suggesting that a strategic move prior to the commissions attributing places did facilitate access, but this finding would require further investigation. Similarly, studies suggest that families' precarious housing situations (being in an institutional accommodation or housed by family/friends) may affect their access to public services. While our analyses did not show an effect of the type of housing (results not shown), this could be because families in our sample were in a documented situation and it is families that combine precarious housing with an undocumented status that experience resistance from public service providers.

Robustness checks

The patterns described above remained in most of the robustness checks conducted (Additional file 1: Annex S3). (A) Limiting the reference category to children cared for by their parents (exclusion of children cared for by other family members or in other situations) did not change the results; the latter represented a small number of cases in our sample (38 obs., 3.5% of the total sample) (Additional file 1: Annex S1). (B) Factors associated with the use of each type of care—centre or home-based—followed patterns observed in the general population. Mother's education predicted to a greater extent the use of daycare centres, whereas income was more determinant for childminders. Children of families in which the mother was the sponsor were more likely to be enrolled in centre-based care, while region of origin and language proficiency mattered for both types of services. In addition, the timing of the move seemed to matter solely for enrolment with a childminder. (C) When we focused on immigrant families (exclusion of mixed couples; 931 cases, 75% of initial sample) and added additional variables (length of stay of the primary migrant and couple's administrative status), neither was associated with a distinct ECEC use and the coefficients for region of origin were reduced and no longer statistically significant. (D) Limiting the analysis to children born in France (1122 cases, 90% of initial sample) did not modify the results. (E) Taking the couple's highest educational level instead of the mother's lead to comparable results. (F) Inversely, when

measuring proficiency in French at the couple level, the variable was no longer statistically significant, while the effect of other variables became greater and/or statistically significant (family type; mother's education). (G) Among working parents, migration-specific variables, such as region of origin and language proficiency, were no longer statistically significant, while families' residential environment (neighbourhood and timing of move), as well as mother's education and income remained determinant. Inversely, the above-mentioned patterns, especially differences in terms of countries of origin and proficiency in French, and to a smaller extent family type, were more important among families in which parents were inactive.

Conclusion and discussion

Labour force participation among migrants from non-EU countries in Europe, especially recently arrived migrants and mothers with children of small age, is lower than among other groups. In this paper we analysed the determinants of formal childcare use, a crucial service to achieve a work-life balance, especially for families with low informal support. We focused on the French context and using an original data set that included population groups excluded or under-represented in other data sources, we examined the role of a wide array of socio-economic and migration-specific factors that may influence ECEC access.

We find that 18% of children of families of recently arrived migrants from non-EU countries in France were enrolled in a daycare centre or staying with a childminder at the time of the survey. In addition, we show important variations in terms of ECEC enrollment by families' countries of origin and language, but also family migration trajectories (Research question 1). Patterns by region of origin and the role of language confirm those in other contexts, with families from Northern Africa and Asia, as well as those not fluent in the country of the destination country having a lower use of formal childcare services. We also explore an idea, suggested in qualitative studies, whether certain family types, such as mixed couples or couples following a specific family migration pattern, may be associated with specific work/life strategies. While descriptive findings provide supporting evidence, with children in families where the migration of mothers is associated with more family-oriented migration projects least likely to use these services, these associations do not hold once other factors were controlled for in the regression analyses. In other words, the observed differences are driven by families' characteristics in other areas, such as country of origin, language skills, labour force participation, and not specific preferences or strategies per se (Research question 2).

The use of the Elipa 2 survey in this paper, instead of standard data sources such as the census or general population surveys, calls for a discussion of the possible effects of its distinct methodology on the findings.²⁵ First, the study population consisted of respondents having arrived as adult migrants,²⁶ with smaller family and social networks, translating in fewer possibilities to receive informal help (only 3% of children stayed

²⁵ To recall, the survey is statistically representative of all non-EU nationals aged 18 or over receiving a first residence permit of at least one year in 2018 and residing in one of the ten departments with the largest number of first-time residence permit beneficiaries.

²⁶ Third country nationals born in France or having arrived in France as minors may acquire French citizenship or receive a residence permit before they reach 18 years, which is why they are under-represented in this survey.

with another family member or other person; Additional file 1: Annex S1). Grand-parents are an important source of support for parents in France (Kitzmann, 2018) and it is possible that childcare arrangements of immigrants having arrived as children or descendants born in France may differ in this aspect given the presence of grandparents at destination. Second, although the survey includes parents with different lengths of stay in France, migrants having had a child shortly after their arrival, and therefore for which the migration and family projects were closely interrelated, are over-represented in the sample. Considering specific family types in our analyses aimed to control for this aspect. Similarly, mixed couples in the sample necessarily included a marriage migrant and are thus not representative of all such families in France,²⁷ in which the immigrant partner may have migrated for other reasons before meeting their French spouse at destination. Third, immigrants and their families tend to be concentrated in the Paris region (Brutel, 2016), and this is more pronounced in our sample due to their recent arrival and design of the survey. This region counts a higher number of places in daycare centres and, inversely, a smaller number of places with childminders (ONAPE, 2020), which may also contribute to the low recourse to childminders in our sample. Inversely, migrants settling in regions with a weaker presence of immigrants and/or rural areas are not represented in the survey; they may have distinct profiles and faced with a lower childcare offer, opt for other childcare arrangements.

Despite these aspects, we believe that the findings represent the experiences of a sizeable proportion of families of newly arrived migrants from non-EU countries in France. Although it is not possible to specify their exact number, many migrants, especially women, become parents shortly after arrival (Toulemon & Mazuy, 2004; Giorgi & Le Thi 2023) and a large proportion of newborns in France have recently arrived migrant mothers (Cinelli et al., 2022). The characteristics of families with small children in our sample are in line with those obtained through other data sources for key dimensions (region of origin, family composition). In addition, it is important to recall that the Elipa 2 survey was specifically designed to include groups excluded or under-represented in other surveys, such as recently arrived migrants, non-French speakers, and individuals in nonordinary housing. In other words, it provides valuable information on the experiences of children and families which may not be reflected in other data sources. For example, the MDG2021 survey only covered families residing in ordinary households and did not include efforts to engage immigrant and non-French speakers (translation of questionnaire, participation of interpreters). This may imply that immigrant families, especially those with a shorter presence in France, are under-represented in this data source.

Several limitations of this study need to be acknowledged. First, our study provides indirect evidence on the potential role of the local ECEC offer (proxy variable on perceived remoteness of neighbourhood), but this issue would need to be further investigated with better data. Second, the survey gives an incomplete picture of childcare arrangements as it only included information on the main caregiver. As a result, occasional help from family members or other persons is not identifiable in this survey, while it is quite frequent among immigrant families and more generally working-class

²⁷ In 2011, the number of families with minor children in France including both immigrant parents or a mixed couple were similar (0.6 Million each), followed by single mother families (0.2 Million) (INSEE, 2015).

families who have to juggle several childcare solutions (Wall & José, 2004). Finally, while we have aimed to identify the role of specific factors in our analyses, these was a great level of correlation between the different factors, due in part to the specificity of our sample, and additional analyses (in other destination countries, using alternative data sources) would be needed to further understand these processes.

Findings presented in this paper provide evidence on the obstacles faced by families of recently arrived migrants in a specific institutional framework. France occupies an intermediary position between liberal (US, UK, Ireland) and Northern European welfare regimes, and is closer to countries such as Germany. While public childcare services exist and are publicly subsidized, demand often exceeds offer, leading to tensions and difficulties in accessing these services for some population groups, particularly those with lower socio-economic and cultural resources. Immigration and integration policies regulating the entry and admission of foreign nationals, their rights (in the labour market, in accessing public services), further penalize migrant families from non-EU countries and compromise their long-term possibilities for integration. Recent initiatives, most often at the local level, aim to facilitate the participation of migrant women with children, for example by providing temporary childcare solutions (Grujić et al., 2022; Hugret & Manço, 2022). In France, there have also been some initiatives (information sessions on this subject, provision of short-term solutions while women participate in language or other training), in many cases targeting specific groups such as refugees or single mothers (EMN, 2021). However, a greater understanding of the specific needs of these families and more systematic changes in the provision of these services are needed to enable full participation of these children in ECEC and their parents in the labour market.

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s41118-023-00205-w.

Additional file 1: Annex S1. Definition of ECEC attendance. **Annex S2.** Characteristics of families by family migration pattern. **Annex S3.** Robustness checks.

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Author contributions

TE: conception, literature review, data management and analysis, interpretation, drafting of initial text, revision. AU: conception, literature review, interpretation, revision. All authors approved the final version.

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Availability of data and materials

The data sets used in the current study are available in the French National Archive of Data from Official Statistics (Adisp). Enguête Longitudinale sur l'Intégration des Primo-Arrivants (Elipa 2), vaque 1—2019 (https://doi.org/10.13144/lil-1406).

Declarations

Competing interests

None declared.

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