

Highly skilled, yet invisible. The potential of migrant women with a STEMM background in Italy between intersectional barriers and resources

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Abstract

Despite increasing numbers of vacancies for highly skilled jobs in innovative sectors of the economy, highly skilled migrants are often discriminated against despite their qualifications. This discrimination represents a relevant issue, especially for women with a background in male-dominated and highly regulated fields, such as science, technology, engineering, mathematics, and medicine (STEMM). We draw on qualitative data collected in Northern Italy from in-depth interviews and focus groups with women from different countries and STEMM qualifications. Adopting an intersectionality approach, we illuminate the macro-, organizational-, and individual-level barriers that prevent highly skilled migrant women from finding a job that measures up to their qualification level and sector, and we highlight the resources available to them to overcome these barriers. By emphasizing the intersectional ties of being a woman, a migrant, and a STEMM professional, we identify relevant areas for policy intervention to valorize migration in support of innovation and labor outcomes in Italy and in other countries.

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KEYWORDS

female migration, gender, highly skilled migration, Italy, intersectionality, STEM, STEMM

1 | INTRODUCTION

Migration is currently a sensitive political issue across Europe (e.g., *The Economist*, 2018; *The Times*, 2018). On one hand, 10 years of an enduring economic crisis, that is, the recent “Refugee Crisis” and the far-fetched contraposition between “deserving asylum seekers” and “undeserving economic migrants” in public debates, have contributed to an increasing backlash against migration issues. On the other hand, the last decade has demonstrated an increasing demand for highly skilled professionals by territorial systems willing to increase their competitive positioning in the global economy, which has been described as a global “race for talent” (e.g., Frank et al., 2004; Shachar, 2006) or “research for the best and brightest” (e.g., Kapur & McHale, 2005; O’Leary et al., 2002). Many European countries have thus deployed skill-selective labor immigration policies targeting workers in the science, technology, and engineering sectors (European Migration Network, 2007; Isaakyan & Triandafyllidou, 2016; Kofman, 2014).

Although policymakers seem to recognize the importance of highly skilled migrants in host countries’ knowledge economies, widespread evidence suggests the existence of several barriers that impede host countries from completely leveraging the availability of talented foreign human capital (e.g., Beckhusen et al., 2013; Tesfai, 2017). In this regard, national immigration and labor policies, professional regulations, and employers’ attitudes play a relevant role in the construction of the category of “skilled migrant”, influencing the degree of recognition versus devaluation of individual migrants’ skills (Erel, 2010). This notion is particularly salient for migrant women. According to Eurostat (2011), more than 30% of foreign-born tertiary-educated women aged 25–54 years in Europe are over-qualified¹. An interesting yet rather underresearched group of highly skilled migrant women is represented by those having a background in science, technology, engineering, mathematics, and medicine (STEMM). These women present qualifications and experiences that are relevant for old and new job positions required by the knowledge-based economy, providing a natural answer to companies’ quest for pressing job vacancies. However, their profiles are positioned in male-dominated and heavily regulated sectors, where gender and migration status might lead to disadvantages in the job market (Erel, 2010; Raghuram, 2008).

We, therefore, believe that highly skilled migrant women with a background in STEMM offer an important yet overlooked context to address two relevant issues from a theoretical and practical perspective. First, at the individual level of analysis, we study how many forms of social differentiation (e.g., gender, migrant status, age, ethnicity, and educational/occupational sector) operate in conjunction to shape migrant women’s labor market participation and outcomes (Mahler & Pessar, 2006, Raghuram, 2008). We build on recent literature on intersectionality to highlight the interplay of individual advantages and disadvantages (e.g., Rodriguez et al., 2016). Second, we analyze these women’s different individual-level experiences by embedding them into a wider framework, including organizational-level and contextual-level characteristics, tied to the Italian historical and institutional setting in which we perform our research. In fact, we know that individuals’ idiosyncratic experiences based on multiple categories of identity and difference depend on their position with respect to contextually specific power relations (e.g., Bowleg, 2008; Sang et al., 2013; Tariq & Syed, 2017). We, therefore, adopt a relational and context-specific approach that considers history, micro (individual), meso (organizational), and macro (contextual) levels (Al Ariss et al., 2012), offering a view on the interplay between the processes within and across different levels (Holvino, 2010; Rodriguez et al., 2016).

We examine the following specific research questions in this study: *What are the barriers to skilled employability of highly skilled migrant women in STEMM that arise at multiple levels (contextual, organizational, and individual level) from meaningful intercategory inequalities in Italy? Which resources do highly skilled migrant women in STEMM use to overcome such barriers?* Given the explorative nature of our research question and the “invisibility” of our target group (Kofman, 2000), our research design is built upon rich qualitative evidence gained through interviews and focus groups

with highly skilled migrant women with a STEM education and labor market intermediaries' professionals interacting with them (e.g., career advisors and social workers). We undertook our research in Italy in 2018. Italy represents an interesting context to study highly skilled migration due to the country's labor migration management embracing a "bifurcated regime of deservingness" (Bonizzoni, 2018). In fact, while the country has been formally adopting and promoting several policies to attract foreign talent (e.g., scientific researchers, very specialized professionals, innovative start-uppers, investors, and Blue-Card workers), Italian labor migration management has traditionally focused on the recruitment of a low-skilled workforce, which was severely hit by cuts in the quotas dedicated to work-related permits and the polarization of the public debate around the issue of undocumented migrants² (Bonizzoni, 2018; ISMU, 2020).

Our paper is differentiated from previous studies about the labor market outcomes of female migrants, which mostly focused on low-skilled women or on high-skilled women working in female-dominated sectors (e.g., humanities and social sciences) (Kofman & Raghuram, 2006; Raghuram, 2008). This paper responds to calls for adopting a multilevel perspective looking at the macro-, meso-, and micro-level factors that influence career trajectories and labor outcomes for highly skilled migrants (e.g., Syed, 2008; Al Ariss et al., 2012; Crowley-Henry et al., 2018). Finally, this study contributes to the growing literature on intersectionality by providing evidence of the intersections linked to gender, migrant status, ethnicity, and educational/professional background in male-dominated sectors (Boucher, 2007; Raghuram, 2008).

This paper contributes to the current debate on migration policies by offering an in-depth understanding of barriers that generate "brain waste" for highly skilled migrant women and by presenting actionable resources to alleviate this problem. Highly skilled migrant women in STEM sectors are a largely neglected group by the host country's organizations and policymakers, yet they represent an extremely relevant talent pool that can be key for innovation and growth (Iredale, 2005).

The paper is organized as follows. First, we present an overview of feminized highly skilled migration and discuss how intersectionality and relational perspectives are important to study this phenomenon. We then move to the empirical section, where we present the research setting and method and our findings. In the conclusions section, we discuss our results and draw theoretical and policy implications.

2 | LITERATURE REVIEW

2.1 | Research on highly skilled female migrants in STEM

Understanding the labor market outcomes of highly skilled migrants is currently relevant in light of their contribution to innovation and economic development, especially in the Southern European context, which is characterized by skill shortages, an aging population, and decreasing fertility rates (e.g., Gonzales Enriques & Triandafyllidou, 2016).

Highly skilled migration flows have increasingly become feminized over the last decades (Özden et al., 2011), prompting researchers to notice and investigate how the social construction of relationships and power relations matter for female highly skilled migrants. For instance, studies have examined how gender together with other individual-level characteristics, such as age, ethnicity, or nationality, has an impact on the evaluation of migrant women's skills, labor market access and outcomes, or positioning in society (e.g., Jenkins, 2004; Williams & Baláz, 2008; Rodriguez & Scurry, 2019). Minimal attention has been devoted to the investigation of labor market experiences of highly skilled migrant women within male-dominated sectors (e.g., Raghuram, 2008; Grigoleit-Richter, 2017). In this paper, we thus investigate this underresearched area by focusing on female migrants with a STEM background.

We identify four main mechanisms that can explain why gender and migrant status/ethnicity play an important role in driving career trajectories, progressions, and aspirations in STEM male-dominated workplaces (Grigoleit-Richter, 2017; Gropas & Bartolini, 2016).

First, there is a gender imbalance in STEM sectors (e.g., Jungwirth, 2011; Kofman, 2014; Raghuram, 2008), where highly qualified female migrants represent a small, although increasing, share of shortage occupations (Cerna

& Czaika, 2016). In addition, among STEM sectors, significant gender differences (e.g., IT vs. biomedical professions) are noted. In fact, some sectors (such as IT) display profound and unchanging gender imbalances, which are ascribed, for instance, to workplace culture, limited work-family balance policies (e.g., Raghuram, 2008), and gender stereotyping (e.g., Valenduc, 2011). This imbalance might not necessarily be due to gender differences in the countries of origin but rather in destination countries. In Western countries, female employment has tended to remain highly concentrated in a few labor market sectors (humanities or health-related degrees) (Flabbi, 2011; OECD, 2012) because of feminized subjects that women tend to pursue through their education.

Second, the number of women in STEM sectors is further differentiated by nationality³, reflecting differences in educational and employment patterns in the countries of origins as well as the occupations through which each nationality has entered (Kofman, 2014).

Third, the cultural and human capital (e.g., education, professional experiences, and language skills) of highly skilled migrants is often less than perfectly internationally transferable or portable (Chiswick & Miller, 2009; Friedberg, 2000). Therefore, having a higher education degree in STEM might increase the risk of mismatch between education and job in the host country (Dumont & Monso, 2007) due to imperfect information in the labor market or domestic institutions and norms, technological, and educational gaps between country of origin and of destination, lack of technical language proficiency, professional labor regulations, work culture and practices, and stereotypes and prejudices (Al Ariss, 2010; Chiswick & Miller, 2009; Friedberg, 2000).

Finally, despite the need for qualified professionals in STEM sectors in Western countries, immigration policy processes to attract highly skilled individuals are deeply gendered, presenting a “neoclassical focus on market mechanisms and skills” (Grigoleit-Richter, 2017), for instance, emphasizing selection criteria based on salaries and educational qualifications while not keeping account of the actual differential evaluation of skills that occur in labor markets (Kofman, 2014). These policies, therefore, disregard migrant women’s common unconventional migration biographies (Gonzales Enriques & Triandafyllidou, 2016). For instance, highly skilled migrant women enter the host country with residence permits not related to work reasons (e.g., family reunification and asylum) or with student visas or high-skill professional visas but then convert to family visas (e.g., upon marriage) or reconvert to low-skill “quota” worker migrants if their marriage breaks down and they experience deskilling (Isaakyan & Triandafyllidou, 2014).

Due to these four mechanisms, it can, therefore, be expected that migrant women with a STEM background will incur brain waste, that is, the underutilization of their human capital in the host country (Beckhusen et al., 2013; Mollard & Umar, 2012)⁴.

2.2 | The intersectionality perspective

Intersectionality relates to the way different socially created categories based on individuals’ bundles of sociodemographic attributes or identity (e.g., gender, ethnicity, religion, disability, sexuality, age, and nationality) are interconnected with one another and cannot be differentiated (Colombo & Rebughini, 2016; Tariq & Syed, 2017). These inseparable categories of social difference interact across individual, organizational, institutional, cultural, and societal spheres of influence and are shaped by and contribute to shaping systemic power dynamics (Collins, 2015; McCall, 2005), thus resulting in multiple and intertwined layers of oppression/resistance or disadvantages/advantages (e.g., Atewologun & Sealy, 2014; Tariq & Syed, 2017).

Gender has been traditionally considered the key category of analysis that is explored in relation to its intersection with other categories such as ethnicity, class, or age (Rodriguez & Scurry, 2019). The intersectional approach allowed us to highlight the existence of divisions among different groups of women and the related meaningful inequalities in social and work processes or outcomes, such as worker marginalization, inequalities experienced within one’s job, factors influencing the experience of intersectionality, or proactive management of intersectionality (Liu et al., 2019).

Despite the theoretical and practical relevance of intersectionality in the study of inequality, identity, and power relations (Cho et al., 2013), intersectionality scholarship has been criticized for inconsistent approaches and variations in the objectives and contents of research (Rodriguez et al., 2016) and the problematic application of adequate methodologies to consider the complexity of the studied subject (McCall, 2005). Intersectionality has somehow become a “buzzword” lacking a valid method for empirical research.

Despite the abovementioned weaknesses, intersectionality remains the most adequate lens for studying the multiple systems of social categorization in relation to one another (Collins, 2015). Moreover, it maintains its heuristic potential as an analytical perspective in that it allows not only the study of overlapping forms of oppression and exclusion but also the capture of the agency-structure dynamic (Colombo & Rebughini, 2016).

In our work, we believe that adopting an intersectional approach is appropriate to criticize and challenge taken-for-granted assumptions about the advantages and disadvantages of being migrants, women, or STEMM professionals and embrace a more nuanced holistic framework that allows reviewing dynamics unfolding across the macro (contextual), meso (organizational), and micro (individual) levels (Al Ariss et al., 2012; Rodriguez et al., 2016; Syed, 2008). In particular, the women investigated in our paper allow us to (1) consider the interplay of gender with migrant status, race, age, education level, and field of expertise to build “a more complex ontology of intersecting categories of difference” (Rodriguez et al., 2016, p. 205) and (2) understand how these individual positions are linked to wider structures and institutional arrangements, such as migration regimes, professional regulations, national welfare and labor policies (e.g., Erel, 2010) as well as organizational culture, structures and incentives (e.g., Holvino, 2010).

3 | METHODOLOGY

3.1 | Research context

In this paper, “migrant women” are defined as foreign-born women who may or may not have the citizenship of the receiving country, and “highly skilled migrants” are defined as tertiary-educated migrants (e.g., Solimano, 2008).

The research questions of this study are explored in the context of northern Italy⁵ through fieldwork performed in 2018. Italy presents some features influencing the processes and outcomes for labor migration that make this country a relevant context to approach our research questions. We propose three aspects that are meaningful for our research. First, the management of immigration in the country is relatively recent with respect to other countries (sustained inflows started in the 1990s; Allasino et al., 2014) and characterized by a lack of long-term political programming (Bonizzoni, 2018). Over the last 20 years, immigrants residing in Italy increased from approximately 991,700 (in 1998) to 5,525,500 (in 2018; ISMU, 2020). Italy has historically attracted irregular migrants given its geographical proximity with countries of emigration and transit, and opportunities generating an informal economy (Allasino et al., 2014). For a long time, irregular migration has been the most widespread migration pattern to Italy. Specifically, the legal labor market was made possible thanks to frequent regularizations linked to the annual quotas for migrant workers (Allasino et al., 2014; Bonizzoni, 2018). However, since 2010, the number of authorized yearly quotas has decreased substantially, reaching almost negligible levels since 2015; these reductions have increased the number of irregular migrants in the country (Bonizzoni, 2018; ISMU, 2020). In this same period (since 2013), the pressure from countries interested in conflicts, wars, or violent regimes (e.g., Syria, Iraq, Eritrea, and Nigeria) increased strongly (ISMU, 2020). The short-term and emergency orientation of immigration policies, favoring sustained unauthorized migratory flows, might have been conducive to widespread public opposition to migrants in Italy (Allasino et al., 2014). In this regard, it is important to highlight that the period in which we performed our fieldwork was characterized by growing social tension intolerance and racist and xenophobic episodes (ISMU, 2020).

Second, Italian labor migration management has traditionally focused on the attraction of workers to fill vacancies at the bottom of the occupational ladder, mostly for manual jobs in small-scale construction and manufacturing firms, business services (e.g., logistics), or care and domestic services for households (Allasino et al., 2014). In addition,

the country has also adopted immigration schemes aimed at attracting and retaining a more limited and selected flow of highly skilled workers required for the knowledge-based economy, such as innovative entrepreneurs, investors, well-recognized artists, top managers, or professionals in regulated sectors that require a specialized education, largely inspired by European policymaking (European Migration Network, 2007; OECD and EU, 2016). However, the recruitment of the “best and brightest” does not seem to be the most relevant issue in national labor migration management, neither for policymakers nor for employers’ organizations, given the fragmentation of the labor market into small- to medium-sized enterprises and private households (Bonizzoni, 2018).

Connected to the previous point, the general characteristics of the Italian labor market must consider a third relevant aspect. Italy is characterized by high unemployment rates. As a result of the enduring effects of the 2008 economic crisis, in 2018, the unemployment rate was 10.6% for people aged 15–64 years (for women: 11.8%; for men: 9.8%) and 32.4% for youth (ISTAT, 2020). In this context, women have found less paid, more precarious, deskilling jobs (Isaakyan & Triandafyllidou, 2016). In addition, Italy is among the top 10 countries that have an alarming imbalance between a shortage of skilled professionals in STEMM sectors and the overproduction of human capital in the social sciences, resulting in high unemployment rates, mismatch between available skills and jobs, brain waste, and dissatisfaction within the skilled labor market (Pagano, 2018). The number of outmigrants, especially among young people, has considerably increased since 2014 (ISMU, 2020).

Our study was conducted in the region Emilia-Romagna, featuring a dynamic industrial fabric and demand for domestic work, making it a territory with one of the largest immigrant populations in Italy (approximately 462,000 residents) (Regione Emilia-Romagna, 2017). We specifically recruited participants in two main cities (Parma and Bologna) that are representative of the migration context within the region, including a growing immigrant population and diversified migratory chains (Regione Emilia-Romagna, 2017).

3.2 | Sampling, data collection, and profile of the participants

The qualitative research was articulated in two main phases. In the first step, face-to-face and telephone interviews were organized with 40 representatives of 26 private and public organizations in the Emilia-Romagna Region operating in the labor system, adult training/education system, welfare sector, and migrant-based organizations. In this phase, we gained preliminary insights into the research topic and access to the field for the following in-depth phase of research. Institutional representatives, in fact, acted as a sort of “gatekeeper” that mediated the relationship between the research team⁶ and the target groups (Bruni, 2003).

In the second step, we gathered data from focus groups and in-depth, semistructured interviews with 12 highly skilled migrant women with a STEMM background and 12 labor market intermediaries’ professionals (e.g., educators, trainers, social workers, recruiters, job counselors, and career advisors) working with this target group in the selected region. The sample was constructed through snowball and purposeful sampling, aiming at maximizing differences in participants’ characteristics (e.g., women’s nationality/ethnicity, age, and educational background). A circular approach to data collection characterized this qualitative research phase. Five pilot in-depth interviews were carried out, enabling the construction and refinement of the interview protocols and outlines for the focus groups. Subsequently, running the focus groups allowed us to further identify issues to be explored in more detail through additional in-depth, semistructured interviews. Figure 1 summarizes the data collection process.

While the focus groups facilitated an exchanging dynamic among participants, in-depth, individual interviews allowed participants to express themselves more freely and gave researchers the possibility to devote more attention to single life histories and experiences (Denzin & Lincoln, 2005). Both focus group and in-depth interview outlines were designed to let interviewees present their life histories and professional experiences with minimal intervention from the researcher (Grigoleit-Richter, 2017) (for protocols, see Appendices B and C; for an overview of the participants reached through the different research tools, see Appendix A, Table A1). The interviews and focus groups were performed in Italian⁷, tape-recorded and transcribed following the participants’ authorization. In addition to *verbatim*

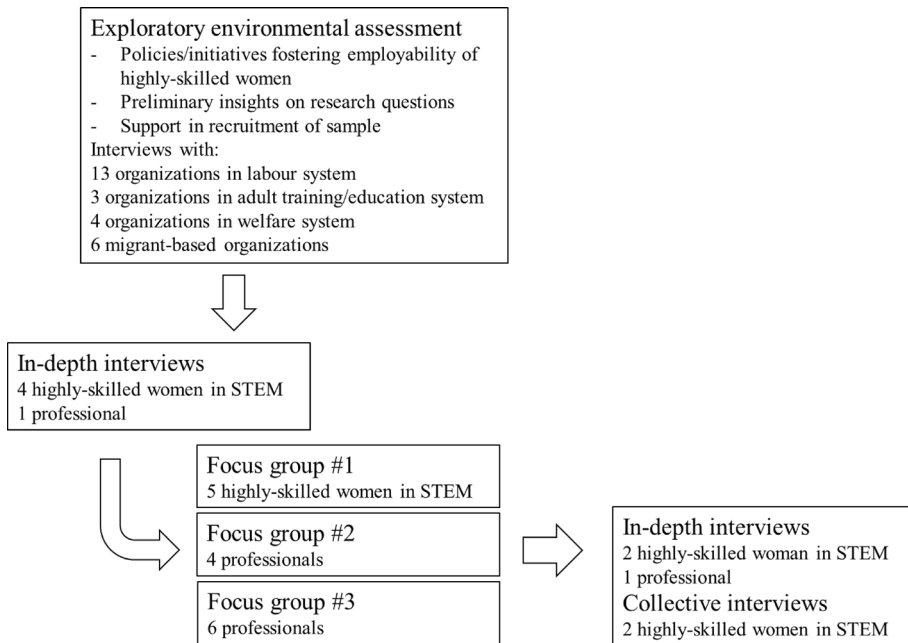


FIGURE 1 Overview of the data collection design

transcripts, the research team produced notes and summaries of respondents' accounts and shared them to build a unique dataset.

The migrant women participating in the qualitative research came from so-called "high migratory pressure" countries⁸. Although two interviewees arrived in Italy between the mid-70s and the mid-80s, most of them arrived more recently (2–10 years ago). Their age varied significantly with the youngest interviewee being 26 and the eldest being 67 years old. Women achieved different levels of education (Bachelor's degree, Master's degree, or Ph.D.) in different STEMM fields. One woman achieved her qualification in Italy, whereas most of the interviewees graduated in their home countries. Some of the women decided to complete their tertiary education in Italy. Four interviewees officially recognized their qualification by the Italian university system. For an overview of these participants' profiles, see Table 1.

The migratory process of some interviewees fell under the category of "forced migration," which was only partially mirrored by their juridical status in Italy; in some cases, the need to leave one's own country for survival overlapped with the desire to pursue better-off career and life opportunities. Interviewees had different juridical statuses⁹, including asylum seekers, refugees, double citizenship holders, long-term residence permit, and they were positioned at different stages of their migratory project. The heterogeneity of the participants shows how the label "highly skilled migrant women" can include multiple conditions of labor market access and inclusion. An added value of the present contribution is also represented by the fact that the interviewees' group includes asylum seekers and refugees, a category that is rather overlooked by the previous research on migrant women qualified in STEMM.

Regarding labor market intermediaries' professionals, all but one interviewee were women aged on average 34 years at the time of the study. Their educational background was quite heterogeneous (e.g., bachelor's or master's degree in law, education, management, or political science). While seven professionals worked for the same association, providing migrant women with essential welfare services, others worked in different institutions, including migrant-based associations, trade unions, training and labor inclusion organizations. Summary information about their profiles is provided in Table 2.

TABLE 1 Summary of participant migrant women's characteristics

	Age range	Country of origin	Scientific area of qualification
W1	24–30	Tunisia	Biotechnologies
W2	24–30	Nigeria	Mathematics
W3	31–35	Cameroon	Graduating student in Medicine
W4	25–30	Syria	Mathematics and Astrophysics
W5	55+	Syria	Engineering
W6	41–45	Ukraine	Medicine-Pharmacy
W7	55+	Moldova	Food Safety and Control
W8	24–30	India	Engineering
W9	55+	Russia	Physics
W10	55+	Argentina	Geology
W11	24–30	Moldova	Pharmacy
W12	24–30	Romania	Food Sciences

Note: In order to guarantee research participants' anonymity, the table reports an age range instead of exact age; the scientific area of study in general terms instead of the qualification degree achieved. Further identification details, such as type of residence permit, are not disclosed for the same reason. Further details are anyway available upon request to the authors.

TABLE 2 Summary of participant professionals' characteristics

	Age range	Sex	Typology of affiliation organization
P1	24–30	Female	Association working in welfare
P2	24–30	Female	Association working in welfare
P3	24–30	Female	Association working in welfare
P4	34–40	Female	Association working in welfare
P5	24–30	Male	Foundation working in training and labor market inclusion
P6	44–50	Female	Migrant-based association
P7	30–34	Female	Association working in welfare
P8	24–30	Female	Association working in welfare
P9	30–34	Female	Association working in welfare
P10	55+	Female	Trade union
P11	35–40	Female	Migrant based association
P12	50–54	Female	Association working in welfare

3.3 | Data analysis

The data analysis was performed in several iterations. In the first phase of the analysis, we went through the data numerous times following a process of open coding to identify first-order categories relating to barriers and resources referred to migrant women's integration in the STEMM labor market and socio-economic inclusion in the receiving country. We particularly gave attention to comparing the views of migrant women and labor market intermediaries' professionals in this regard as a way to complement or juxtapose responses. In the second phase of the analysis, we employed axial coding to search and identify relationships between and among first-order concepts (Strauss & Corbin, 1990) to collapse the first-order categories into a smaller number of second-order

themes. The aggregation of codes proceeded iteratively and in an emergent fashion with frequent comparisons with the literature until we reached a final agreement about the representativeness, effectiveness, and parsimony of the structure of findings. In particular, our data analysis was structured by adopting a multilevel perspective to highlight the relational nature of identified thematic cores: contextual, organizational, and individual barriers preventing women from becoming active in the STEMM labor market and contextual, organizational, and individual resources fostering processes of social and economic integration in the receiving country (Figure 2). Subsequently, our first-order categories were analyzed further by adopting the intersectionality perspective (Crenshaw, 1989; Spivak, 1999).

4 | RESULTS

4.1 | Multilevel barriers affecting migrant women's integration into STEMM sectors

We start by presenting the context-, organizational-, and individual-level barriers, following the categories summarized in Figure 2, that we found to inhibit migrant women's positive integration in the STEMM labor market and their positive socioeconomic inclusion in Italy more broadly. For each of these barriers, we provide evidence of accounts from the participants of our study in Table 3.

4.1.1 | Context-level barriers

There is a first level of contextual barriers that is linked with *gender norms* and the understanding of what is an appropriate job position or qualification for a woman. This refers, for instance, to what is appropriate "for males" and "for females" in terms of work schedules, which might not be in line with family organization or with perceived safety for a woman (e.g., night turns), level and subject of education, or amount of earned salary. A second level of barriers is linked to the *lack of job opportunities* in the Italian market given saturation in both highly skilled and low-skilled positions, particularly after the economic crisis. A third set of barriers are those referring to the *nonrecognition of qualification*, which is due to differences in study programs between countries, which are not always solved by international agreements between countries (in particular with developing countries), and by the existence of professional bodies that necessitate restrictive criteria to practice specific professions. Associated with this barrier, in the case of migrants who would like to invest in requalification through additional study (e.g., another bachelor's or a vocational training course), these migrants would face *financial costs for requalification*, which might not be affordable, together with difficulties in meeting the bureaucratic or formal requirements (e.g., good mastery of the Italian language, waiting lists, etc.). Another barrier is represented by country-level *racial/ethnic discrimination*, which is informed and determined by attitudes and stereotypes toward migrants; it can affect migrants both in work and nonwork settings. Finally, *legal status and residence permit procedures* are important structural barriers that impact the ability of migrants to profit from opportunities in the labor market.

4.1.2 | Organizational-level barriers

There are several barriers that are determined by attitudes and behaviors of (potential) employers, which therefore have an organizational nature. The accounts of our respondents seem to highlight that *employers prefer men* mainly due to the perception of greater (compared to women) flexibility (e.g., traveling) and better stability (e.g., not interrupting work because of maternity leave or child rearing). A second barrier is that *employers apply strict selection criteria*, which are occasionally perceived as meaningless for certain occupations, to increase the standards for hiring workers or to

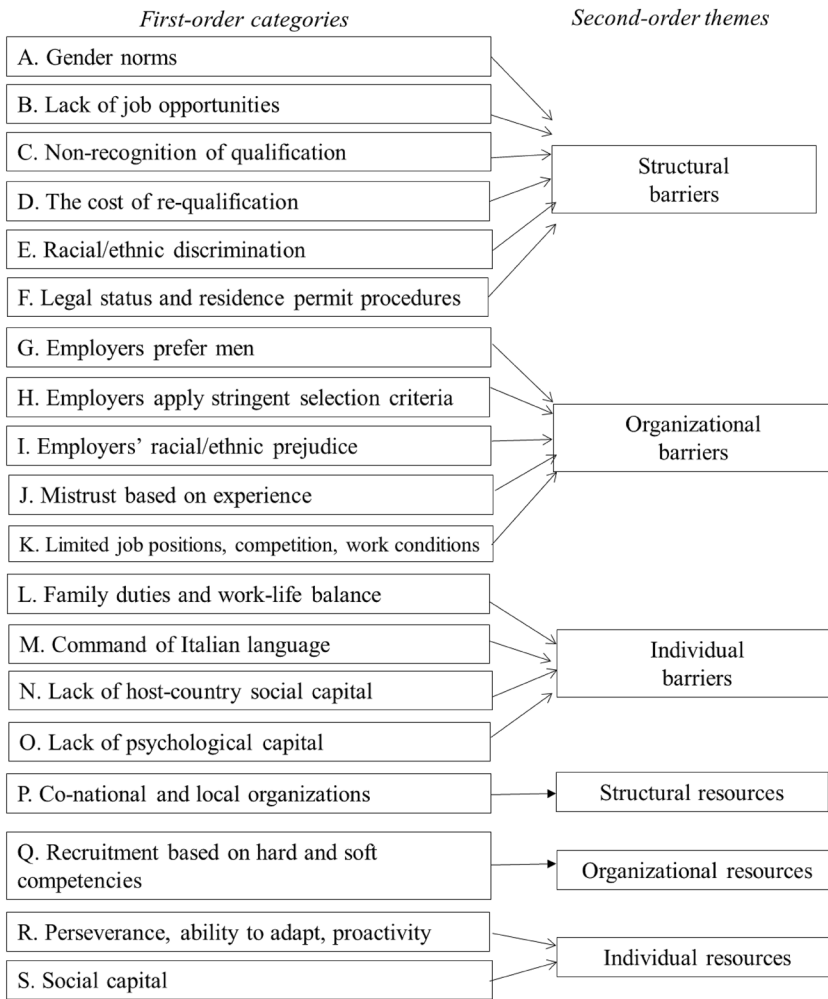


FIGURE 2 Overview of first-order categories and second-order thematic cores

diminish the transparency of the recruitment process. Third, *employers display racial or ethnic prejudice*, which might inhibit workers from finding qualified employment because of the skin color, visible religious signs (e.g., wearing a scarf), or simply the mastery of Italian (e.g., making mistakes in speaking or having a foreign accent). On some occasions, this prejudice becomes *mistrust* following negative previous experiences by employers with migrant employees who were not behaving “appropriately.” Finally, given the *limited number of job positions*, not all of the companies might be able to place and retain highly skilled workers, including highly skilled migrants (e.g., domestic, small-medium sized companies might be underinvesting in highly skilled foreign talent, whereas large international companies might be more willing to do so). The lack of available positions and narrow career ladders might generate fierce competition among workers, especially among women eventually having to face “glass ceilings,” and thereby generate a downward spiral of accepted salary thresholds.

TABLE 3 Exemplary data: Multi-level barriers affecting immigrant women's integration into STEMM sectors

Contextual barriers

A. Gender norms

"This is a work where there are a lot of transfers between hospitals... this is more appropriate for men (...) you have to be able to answer a call at 3:00 A.M. to go to work at 8:00 A.M." [W1]

"There is also the prejudice that if you study too much, maybe you will not find a husband [laughs of other participants to the focus group]... at least in my experience, a men would prefer to have a woman with a lower education level... to satisfy his ego, just for this! Then, if you gain more money than him, you give him all the salary to manage, and he will be ok!" [W3]

B. Lack of job opportunities

"I have also thought about going back to study, but after you hear about all of the problems that have young Italian graduates, you avoid to do this, you ask yourself 'what will I do with another bachelor?It will be the same as now'" [W1]

"Now there is really no employment. I have been here since 10 years and there was a period when I worked a lot (...). Once there was employment. It is not a matter of being a foreign woman. Before there was employment, now there isn't" [W3]

"A 60-years old secretary asked me why I wanted to work. I answered her that I wanted to work to make a living, and she told me 'weare plenty of "Italian" unemployed people, and you come to look for a work here?'" [W3]

C. Non-recognition of qualification

"In Italy some bachelor degrees are not fully recognized, but you can ask that some exams are recognized, as it has happened to some of my friends who studied economics (...) but in the sanitary sector they do not recognize anything, you really have to start again the entire study course from scratch" [W3]

"I achieved my degree in five years, the problem is that it is not the same as you do here in Italy [...] This is the first problem, it is not the same.... They asked me all the teaching program, the whole program and all the subjects, all translated, it was a great expense, it costs a lot. If I bring all these sheets, all these documents to the professor, then he can decide to recognize some subjects, the whole program, it is up to him/her." [W1]

"Now I have to translate my certificate. I already made a request; the Ministry of Health need a translation from the Italian consulate. For this, I have to pay 2500 euro, because they need all the pages and the program that I have studied in 6 years. It will be a document of around 120/140 pages. All the pages have to be translated and stamped. 2500 euro it is not convenient for me" [W6]

"They have asked me all the documents, I brought nearly 2000 pages... you have to bring everything, even your work experience, because work for them counts more than the bachelor degree. For this reason they have recognized everything, in one month it was all right" [W5]

"Since 2 years, Russia has an agreement with Italy for the recognition of the diploma, but with Ukraine there is no agreement" [W6]

"Very often when they try to get their degree recognized, they have to take additional exams and therefore if they work... it is a really hard story... thus even if they have the will, there are objective difficulties that they need to overcome, and sometimes they cannot manage because if you work as a caregiver 54 h per week, this becomes a little bit..." [P3]

D. The cost for re-qualification

"If you are resident in Italy, when you go to have the admission test to get another bachelor, there is no reserved place for foreigners. You apply as the other Italians, go through a test, and it will be difficult because they are too many" [W1]

"I would like to re-qualify as a sanitary assistant, but it is really expensive" [W3]

E. Ethnic/racial discrimination

"I had a problem in finding an accommodation to rent, also if I present my work contract; a foreign woman with a daughter... nobody, nobody, really" [W5]

(Continues)

TABLE 3 (Continued)

Contextual barriers

"Italians are very welcoming, they are always smiling. Even if they think bad of you, at least they smile at you [laughs in other focus group's members] [W1]

F. Legal status and residence permit procedures

"If the Italian government would turn crazy allowing migrants achieving citizenship, Italy would soon be empty. No foreigner would remain here. Because with citizenship you can go back and forth. Until you do not have that [mobility entailed by Blue Card or citizenship] you cannot have a stable life" [W2]

"I told them that I do not want to stay here, I want to go back to [previous transit country]. They told me 'You are a political refugee, you can't, you can't leave Italy' - 'what? For how long?' - 'For 5 years' - 'And so I am in prison?' - 'No, but you cannot leave'" [W4]

"Now with the new laws on family reunification things will change, because now you cannot call your wife, your son, your mother so easily, because before coming they need to have undertaken an Italian language course in the country of origin. This poses great barriers, because this is very complicated. But these are the new laws on family reunification, they are quite hard..." [P3]

Organizational-level barriers**G. Employers prefer men**

"If I would be a male and not pregnant, it might be that I would have been hired" [W1]

H. Employers apply stringent selection criteria

"Now they ask you many requirements, they ask you to have the driving license or other things that are not useful. If you do not have them, they exclude you from the onset [W3]

I. Employers' racial/ethnic prejudice

"How it goes on the first meeting, at the first interview... it all depends on the degree of prejudice of the employer" [W1]

"Yes, we speak about prejudice, because if someone knows you well, he/she knows that you work well and the color of your skin does not matter" [W3]

"Let's say that they judge you based on how you speak Italian; you might be very intelligent, but they will not go beyond the way you speak to know you, that's the truth" [W3]

"When someone searches for a job, the first disadvantage is: being a foreigner. Second: your color, which is black. Third: The language, it is not enough. Fourth, you do not have a car to go to work" [W2]

J. Mistrust based on experience

"There is someone who does a bad advertising for us... there are some people that do not behave well and we are all going to pay for that" [W3]

K. Limited job positions, competition, work conditions

"The company where I worked was working in Tunisia, they are three men, I was the only one as maintenance technician. I know that this is an opportunity that happens once in 10 years, it is not easy that one can be hired or that employees would exit, they are already three or four people that do this job, it would be one probability over 1000" [W1]

"I had no problems with male engineers, but with the female engineer yes, maybe she feared that I could steal her job and she started to be nasty to me" [W5]

Individual-level barriers**L. Family duties and work-life balance**

"Women have a different pattern... being a mother, being a wife (...) I can find a work in my sector, but if I have a family..." [W1]

"I have left my husband after one year we arrived in Italy. Before that, I had a residence permit as a family member. After separation, he did not want to renew my residence permit. What can I do with a one-year old daughter, with nothing in my hands? He took the money and run away. I had nothing, I went to ask the residence permit to continue my life, but they did not give it to me because I was unemployed and you need a job" [W5]

TABLE 3 (Continued)

Contextual barriers

M. Command of Italian language

"When they hear that I do not speak well Italian, that I am foreigner, they think that maybe I do not know Italian mathematics, they say 'Sorry, no...'" [W4]

"The main barrier is the language. It is clear that this obstacle diminishes in time, depending on the amount of time that people spend on the territory. At the beginning, it takes around one year before you can establish a clear communication between the parties" [P4]

"Now I have taken the preparatory book for the test, it is difficult. Physics and mathematics I understand something, but I have to learn the words. I have difficulties in science and general culture" [W6]

"If you request in a workplace to be recognized as a graduate, and thus to do a job that has certain quality characteristics, they will require that you speak Italian in a more than fluent manner. This is already a big difficulty that I have verified with graduate women with a notable level of qualification" [P3]

N. Lack of host-country social capital

"To work in Italy, I would need many ties with people. I do not speak about competences. If you know people, you can work all over the world [laughs, other participants to the focus group say yes and approve this declaration]. Even if I come from the third world and this works, unfortunately it works like this also here. (...) If I limit myself to meet only Moroccan or Tunisian communities or those that speak Arabic, my work opportunities will be less" [W1]

"When you know someone, you have more chance to have a job here in Italy; it is very difficult for us migrants, most especially blacks" [W5]

"If you are here alone, without a family, you have to think, in two hours, in one month, in a year, what should I do? Because if you remain without work and without money, few people will help you" [W6]

O. Lack of psychological capital

"After all, I am a person who has had little courage in life, I have not imposed myself. As soon as I perceived distrust, a closure or a difficulty, I withdrew, I gave up" [W10]

"At the beginning they gave me some responsibilities and I was afraid of this, because I was not used. This is a difference with my country of origin. In my home country they tell you 'Do this, do that, do like I tell you because it's the way you have to do it'. I have been growing with this mentality that you have to do what others tell you to do, you should not take initiative and what the others tell you to do is right, you don't have to think too much" [W12]

"There is a limit in these [highly qualified] migrant women... in their image of self. I often meet people with different competencies that could achieve good results, but they take it for granted that they are in Italy to work as a caregiver or as a cleaner, the collective imaginary is that one. It takes a lot of time and several interviews to pull out their skills..." [P5]

4.1.3 | Individual-level barriers

There are a number of individual-level barriers that emerged from our field data. First, highly qualified women face the need to deal with *family duties and work-life balance* because they migrate as spouses, are accompanied by children, or plan to have a family at a certain point in their life. This impacts the types of work choices that women prefer to take, for instance, accepting deskilling in favor of easier and faster work opportunities to make a living for their family or privileging part-time positions. In addition, family issues can have a strict connection to migrants' legal status in the country (e.g., family reunification residence permits cease in the event of divorce or separation and are not automatically converted into other types of permits). A second barrier is related to the *command of the language of the residence country*. This notion implies that migrants who arrive in Italy have necessarily interrupted their careers to learn Italian unless they work for an international organization where English is accepted and used as a workplace language. Proficiency in the Italian language is pervasive because it matters not only for work but also for any aspect of migrants' lives, such as accommodation and social integration. In addition, for highly skilled migrants willing to pursue a qualified job, especially in STEM, the ability to speak Italian should be acquired almost like a mother-tongue speaker or at very

fluent levels, including both daily and technical use of the language. A third important barrier is the *lack of social capital in the host country*, particularly with natives. As highlighted by respondents, social ties are important in the domain of work because they are drivers of information about potential job opportunities or recommendations to potential employers. Finally, a relevant barrier is represented by the lack of what we define *psychological capital* (i.e., hope, resilience, optimism, and self-efficacy; Luthans et al., 2007).

4.2 | Intersectionality in experiencing barriers and use of resources to overcome them

Our findings show that the above-described barriers impact the career trajectories of highly skilled migrant women in STEM in a nuanced manner. Migrant women in our study varied consistently in their achievements in terms of work experience in the receiving country. All but one had work experiences either as formally employed workers or as workers who had no formalized job contracts. When the research was performed, only 4 women out of 12 had jobs that were consistent with their educational background¹⁰. Two women had been working in elderly care since their arrival in Italy, three had an informal or precarious job and three were looking for employment. Within the group of women who had the possibility to work in STEM sectors, all of them (except one)¹¹ achieved the recognition of their qualifications by the Italian education system. In two cases, the women completed their tertiary education in the receiving country, achieving an MSc or a Ph.D.

For migrant women who achieved their qualification in the home country, the recognition of the education certificate is often a necessary but not a sufficient step to join the Italian STEM labor market. However, this process can be long, time-consuming, and expensive, and, in many cases, correct information on how to carry out the procedure is not easily accessible¹². One migrant who left her country because she had no other option to sustain her family admitted that she did not even consider the idea to start the procedure for the recognition of her qualification¹³.

They [referring to fellow countrymen/countrywomen] told me that it [certificate] is of no use here, we are not in the European Union. Maybe now young people... but when I came here, I never thought I could... [...] I never looked for information, I just didn't do anything. [W7]

Candidates trying to obtain a formal recognition of their educational certifications must provide the original copy of the certificate and its official translation certified by the Embassy of their country of origin. If this very first step remains out of reach, for most asylum seekers and refugees retrieving the original documentation from home universities can also be complicated for other migrants and specifically for those who cannot depend on the financial resources requested to perform the entire procedure. For migrant women who were forced to migrate to guarantee their families back home the possibility to make a living, it is quite common to look for immediate access to the labor market. For highly skilled migrants, this means accepting low-skilled jobs, at least in the early phases of the migratory process. For instance, the interviewee who has been living in Italy for 15 years decided to accept what the Italian labor had to offer her. Age (she was in her fifties when she left her country) and pressing economic responsibilities toward her family made the idea of resuming her past career just unrealizable. As she put it, "It's ok what it is available".

Furthermore, assuming that the candidates succeeded in collecting all of the documents required, there is still the possibility that the qualification is not recognized by the Italian education system. In fact, teaching programs need to be compared with Italian programs to establish whether to grant the qualification, totally or in part¹⁴. In our sample, almost all of the interviewees tried to go through the process hoping that this would have helped them enhance their job opportunities but were progressively discouraged either by the difficulties encountered or by the uncertain outcomes of the procedure. This issue is particularly salient for highly skilled migrant women willing to work in specific job profiles protected by professional bodies (e.g., pharmacy, medicine, geology, and civil engineering). In this regard, some interviewees reported that they would rather go for a different qualification, also considering the host country's labor market openings:

[my certificate] cannot be recognized as Pharmacist. They gave me only this, a declaration of value. They told me at the University, foreign office. [...] doing all the steps to get the certificate translated, I do not know... it is not worth it because it costs a lot of money, I think I can study three years of nursing, as a nurse you can find more opportunities... [W6]

Importantly, a professional working in an association supporting migrants confirmed that highly qualified women are frequently discouraged in pursuing the recognition of their certificate because they think that this would not actually help them overcome the deskilling they experience in the labor market:

"[...] the fact that they need to spend money is not an advantage; they need someone to support them in the country of origin, because they need all the documents from the university there and maybe they have no one, or maybe they have their mother, but she lives in another village... they need to leave what they have here to go back there, spending a month with all the paperwork, the 500 euro minimum between translations and various things... all this is not encouraging. The situation around them does not encourage them.... [...] Therefore, they ask themselves, 'Why should I do all this when I'll end up cleaning anyway?'" [P11]

The existence of these contextual barriers that make qualification recognition a complicated, long, costly, and uncertain process can affect highly skilled migrant women's participation in the STEMM labor market. It is important to additionally qualify these findings within the socio-economic background of Italy at the time of the study: most of the interviewees reproduced the dominant assumption that the economic crisis left even qualified Italians with few job opportunities.

As mentioned before, however, qualification recognition is not sufficient to pursue a career in STEMM. To further explore this point, we present the cases of two women. The first case is a woman who successfully obtained the recognition of her university degree in geology but never managed to work as a geologist. In her case, negative experiences faced in the attempt to apply for specific positions and personal attitudes, such as "lack of courage" and low levels of personal initiative, contributed to giving up the idea of a career in STEMM:

After all, I am a person who has had little courage in life, I have not imposed myself. As soon as I perceived distrust, a closure or a difficulty, I withdrew, I gave up. [...] It was me, as I told you before, I didn't have enough courage to try, I had to do the examination to register to the National Professional Association. Then a lot to study, studying all my life... [W10]

The second case is more complicated and can be considered an example of the multiple, intertwining factors that may affect highly skilled migrants' participation in the labor market. Once she achieved the recognition of her qualification in engineering, she was hired by a company that was specifically interested in starting business partnerships with her home country. After a short period, she lost the job because the company closed after the owner's sudden death. At that time, contingent life events, including a separation from her partner and the need to build up financial stability for her and her child, forced her to accept informal as well as precarious, low-skilled jobs. Financial support from her family in the home country was necessary to protect her from the risk of social and economic vulnerability. When she finally managed to build the premises to attempt regaining a job consistent with her qualification, she could only find a short-term job in her field that were below her skill level. After this experience, she never worked in her field again, and she eventually renounced her career in engineering. She reported that age eventually became a major problem in finding a job in STEMM and in other sectors, including low-skilled professions.

In addition to obtaining a formal recognition of education gained in the home country, our fieldwork revealed other routes through which highly qualified migrant women could overcome deskilling in the host country labor market. Previous qualified work experience, either in the home country or abroad, can be an important factor. For instance,

an interviewee reported that her work experience in the country of origin counted more than the “piece of paper” in a job interview:

Skills do count. During the job interview, the recruiter did not ask for my certificate. He understood that I knew what we were talking about. [W1]

Another woman (W4) who failed in her attempt to have her qualifications recognized managed to find a job in fields other than those normally accessible to unqualified women workers, such as care-related jobs or cleaning. Private lessons allowed her to exploit her skills and gain some money while looking for a less precarious job. At the beginning, her poor mastery of the Italian language was a major problem, so she started to propose discounts to make her private lessons more “attractive.” Initial failures as well as perceived distrust did not discourage her, and eventually she found a student interested in her “offer.” Thanks to conational networks¹⁵, she also found the possibility to start a stage consistent with her educational background with the possibility of getting hired at the end of the training experience.

When we consider migrant women who came to Italy as students to complete their tertiary education (achieving a Master’s degree or a Ph.D.), all of them successfully accomplished the procedure of their Bachelor recognition before leaving their home country. To some extent, migrant women who graduated in Italy have more chances to enter the STEMM labor market. First, they have certificates released by an Italian university. Second, in all but one case¹⁶, they have a good mastery of the Italian language as well as a deeper knowledge of the Italian context (organizational and institutional system, as well as broader cultural norms). Moreover, they have wider vertical and horizontal social networks¹⁷. In our study, the women who migrated as students did not necessarily share a common middle-class background; nevertheless, career and “cosmopolitan” ambitions definitely shaped their migratory project. The possibility of improving their educational background was described, in fact, as a key determinant in their decision to leave their country.

I've always been curious of other worlds. I've always been looking for different experiences [...] I wanted to go abroad because I knew that I could study more [...] I wanted to invest properly my time. [W12]

Overall, migrant women who had more chances to actively participate in the Italian STEMM labor market were young (25-35 years old), had a good mastery of the Italian idiom and a deeper understanding of the receiving society, had wider social capital and less pressing, but existing, care and economic responsibilities toward their families. Moreover, they shared a common approach toward job search, namely, a proactive attitude combining greater levels of flexibility (e.g., willingness to move within and outside the country), psychological capital (i.e., hope, self-efficacy, resilience, and optimism) (Luthans et al., 2007) and the ability to plan career steps in advance. Although not exclusively, these features were more common among women who migrated for study-related reasons. Compared to other interviewees, in fact, their labor market inclusion was characterized by lower levels of deskilling, and access to STEMM professions was easier. For these women, however, selection procedures were not free from episodes of gender discrimination. Many of our interviewees agreed that work-life balance can be a problem for women workers and recruiters may reproduce gender stereotypes equating women to care responsibilities that can result in gender discrimination in job selections. An interviewee reported that it was puzzling for her when she was asked by the recruiter during a job interview whether she was married and whether she was planning to have children¹⁸:

I come from a developing country. I would have never imagined finding this unbalance here. In India, companies... especially those working in the field of electronic engineering... usually prefer recruiting women because they are more... perfect. [...] Companies are also not concerned about a woman getting pregnant, or married women [...] Most of the high level, good companies have childcare services for the children of their employees. [W8]

Other interviewees agreed that being women qualified in STEM can generate stronger disadvantages in recruitment because ideas on women as aliens to “hard sciences” intersect with widespread stereotypes on reproductive roles.

[If I could go back in time], I would study something else; the field I chose is male dominated because it requires transfers from one hospital to another and from one firm to another. They [recruiters] choose more males. If I could go back, I would change my choice. [W1]

Interestingly, however, perception of sexism in selection procedures in the receiving country varied among the group of women who participated in the research. Interviewees who experienced more explicit forms of gender discrimination in the country of origin thought that they could have, at least ideally, more opportunities in Italy as workers in STEM fields. Perceived gender discrimination in the labor market in the home country is brought forward by gender norms in education. In this regard, interviewees depicted their education choice as either maverick or “normal” in relation to those gender stereotypes that inform gender roles in their home country society. Even some of the women who defined their educational choice as “normal”, however, clarified that they chose more “female” or gender stereotype conforming subfields, reproducing dominant assumptions on roles and polarized representations of female and male attitudes.

[Working in geology] implies frequent trips to the countryside, almost constantly. Oil extraction is essentially men’s work because it is very demanding and tiring. For women, university education and research sectors remain privileged sectors. Among geologists, men and women do slightly different things. [...] There’s a superstition, women are be frowned upon in mines because they are thought to provoke mine falls. So a woman shouldn’t do this job because she is perceived as an intruder who wants to be where she shouldn’t be. [W10]

[Being a pharmacist] requires patience. Here comes the old man who wants to tell his story and you have to listen to him, even if what he tells has nothing to do with his cure requests. I think that women are more patient and more suitable in listening to people, even because of their ways. Most of the customers prefer a woman at the desk, and they open themselves up more with a woman. [...] Working in laboratories is more suitable to men [W11]

Interviewees reported that access to the labor market as well as broader integration in the host society can be hampered by ethnic prejudices that can result in either subtle or overt forms of discrimination. For instance, skin color or wearing scarfs were different but evident markers of diversity that could turn into disadvantages. The foreign name and the nationality indicated in the curriculum vitae were also identified by interviewees as factors affecting recruiters’ attitudes during job interviews or even their very decision to proceed to job interview *tout court*. Foreign accents can inform colleagues’ behaviors in the workplace as well as people’s attitudes in employment centers and in the host society more broadly.

Sometimes it seems to me that being a foreigner does not make me accepted as if I were Italian, maybe that’s just my idea. [...] In a job interview, they even asked me if I could speak Italian, and they were surprised when I started talking [...] I have gone through so many job interviews that it seems impossible to not have found a job yet [W11]

You know, there’s this when you come from Romania [...] when I was looking for accommodation, as I said I was Romanian, ‘Oh... ok, Romanian...’ This thing, this ‘Oh’, I hear it everywhere, even in the workplace [W12]

These accounts provide evidence that migrant women's participation in the Italian STEM labor market can be jeopardized not only by contextual barriers reducing their degree of latitude in the receiving country but also by gender and ethnic prejudices at the organizational level that do not operate as separated but also by mutually reinforcing factors hampering positive labor market inclusion. In addition, our fieldwork revealed that women could use different resources to overcome these barriers, as we discuss in the next section.

4.3 | Multilevel resources fostering migrant women's integration into STEM sectors

Through our work, we identified several resources characterizing "successful" integration histories¹⁹, allowing migrant women's positive integration in the STEM labor market and their broader socio-economic inclusion in Italy. We provide evidence of accounts about these different resources from the participants of our study in Table 4.

4.3.1 | Contextual resources

Participants in our study mentioned *conational and local organizations* (e.g., migrant communities, Church, etc.) as brokers in the receiving country, for instance, to enter the job market, to find an accommodation, and to have updated and real information about life in Italy. Conational ties have been indicated by some informants as substitutes for other trusted relationships with native organizations and social support.

4.3.2 | Organizational resources

Respondents highlighted that institutions in charge of *recruitment based on hard and soft competencies*, and therefore on professional experience, can represent organizational contexts favorable to highly skilled migrant women. Both migrants and professionals pointed out that employers, while selecting and looking for clear competencies, either technical or transversal in nature (e.g., mastery of several languages, cultural understanding), allow migrant women to explore or exploit opportunities in the work domain, especially in highly qualified STEM sectors.

4.3.3 | Individual resources

The accounts from our respondents indicated psychological personal characteristics, such as *perseverance* and the determination in pursuing one's own goals "against all odds," the *ability to adapt* to a new context and to different cultural norms, engaging in requalification through additional study (e.g., another bachelor's or a vocational training course), and a proactive and creative approach in *finding solutions* to overcome temporary or lasting difficulties. In addition, *social capital* maintained with family members in the host and home country, native and nonnative friends in the host country, and other society stakeholders represent sources of resources both in the work and nonwork domains.

5 | CONCLUSIONS

The results of our research show that the factors affecting migrant women's active participation in the Italian STEM labor market are located at different levels and reciprocally interact with each other. Through our research, we could detect specific barriers hampering their possibilities to find jobs consistent with their educational background. These barriers can be grouped into three main categories: (1) Macrolevel contextual barriers: encompassing bureaucratic

TABLE 4 Exemplary data: Multi-level resources favoring immigrant women's integration into STEM sectors

Contextual resources

P. Co-national and local organizations

"I had no information when I arrived, but with time yes, because the Cameroon community has been forming gradually in Bologna. Now when you are there (in Cameroon) you already have all the telephone numbers and the e-mails, we give all the advices that you can need, for instance on study fellowships or university residences. Many things that I didn't know before I came to Italy" [W3]

"Some of these migrant communities are very strong. It happened to me going discussing or inform some people belonging to these communities, and they always prefer to be assisted by someone belonging to their community" [P10]

"Maybe the Church can be useful, I mean that religious people can go to Church, so that the parson know them and they can start being part of the community [...] I'm thinking about a family, they use to go frequently to the Church [a Parish in Bologna] and they are integrating very well here" [P2]

Organizational resources

Q. Recruitment based on hard and soft competencies

"When you hold a scientific degree, skills do count. [...] If you manage to demonstrate your skills in this sector, you can have plenty of opportunities. I was called back by a company that wanted me to have a job interview because they read my CV and saw that I had experience in the field, there are not so many people experienced in this very sector. During the job interview, the recruiter did not ask for my certificate. He understood that I knew what we were talking about"[W1]

"Italy is quite a weird country because the color of your skin can be both an advantage and a disadvantage, I mean, you can go to a job interview with other Italian candidates and if you are black but you master the Italian language and you know Italian culture, they select you" [W3]

"Then we have some situations related to the university, people who come to Italy through the Art. 27, most of them are men, and in any case high-level researchers... I have met a Syrian guy who is doing a massive research on alternative energy at the highest level; the University of Bologna pays for him to do this research, for his brilliant ideas. It comes from a country like Syria where, of course, there are no possibilities left for him, the University of Bologna has grabbed him and that was very good" [P10]

"Speaking English is important. The first job I had here in Italy, I only used English in my daily work because I didn't speak Italian yet. I just wanted to work since my arrival. Speaking other languages helped me too. I have worked for 2 months only speaking in English" [W5]

Individual resources

R. Perseverance, ability to adapt, proactivity

"To find a job here in Italy I've searched a lot, I sent almost 60 applications through employment centers, private employment agencies, whatever could be done I did it. Eventually I decided to publish an announcement in a local newspaper [...]. It took me a while to decide because it was expensive and I was afraid" [W5]

"The most advantaged ones, those who manage to come to the end [becoming entrepreneurs] are those who are self-confident, proactive and stubborn. But these are entrepreneurship features, it has nothing to do with country of origin, it's not about being or not being a migrant, this is the way business works" [P 5]

"I'd like to complete my skills because if I decide to move to a different country, I would like to achieve a qualification which is recognized in the European Union" [W1]

"Eventually, I managed to prove my skills and abilities and they accepted me. If I would go back [to Syria], they would accept, but only because it's me, not all women could do that. [...] I know what they want. They want you to say 'yes' all the time. If they told me that something wasn't good the way I did it, I said 'ok', but then I did anyway what I wanted, they way I thought it was proper. I used to work this way, in Italy too" [W5]

"I'm always looking for alternative options, I am currently seeing and if there is anything else that I could really like doing.... I would not say 'no'" [W12]

"[To find a job] I'm willing to move, I'd prefer staying in Northern Italy, but in any case I'm willing to leave" [W11]

(Continues)

TABLE 4 (Continued)

Contextual resources

S. Social capital

"My family had to support me because I had no salary, they use to send me something from Syria" [W5]

"When I was attending school [to achieve the middle school certificate in Italy] the person who was teaching me Italian, science and history helped me studying. The Math teacher as well used to help me" [W6]

"Children can be a resource, second generations are their resources because they can really help them out from specific situations" [P10]

"Eventually, my Italian teacher, who's English, told that there was a Russian lady, a mechanical engineer, that went to Rome to the Justice Ministry and she found an office for the qualification recognition. [The teacher] told me to go there to see whether they could do something for me. I went to Rome and asked" [W5]

"At the beginning it was only me and my husband and my husband's family. Enough! When my child was born, new friendships were born and my social life has started. [...] Now that I'm facing economic hardship, my pension is minimal, I've found a support in my network of friends and acquaintances, they tell me 'Can you did this little job for me?', so they help me" [W10]

constraints, such as the more restrictive immigration laws regulating people's juridical status and their position within the receiving country, the laws regulating migrants' possibility to be formally acknowledged as "highly qualified" instead of low skilled labor force; the economic contingency determined by the persisting effects of the global crisis that makes the Italian labor market poor in terms of qualified job opportunities; and mutually reinforcing gender, generational, and ethnic discriminations in the labor market; (2) Meso-level organizational barriers: relating to employers' selection criteria toward potential candidates with a foreign origin and to the extent they are influenced by previous experiences with migrants, prejudice, organizational needs, structures and strategies; (3) Microlevel individual barriers: accounting for personal difficulties specifically emerging in the migratory experience, or individuals' attitudes and psychological capital.

In addition, we could detect some resources enhancing women's chances to (re)gain a qualified position as STEMM workers. These include (1) context resources, such as conational and local networks; (2) organizational resources, such as the implementation of recruitment, selection, and retention policies based on the evaluation of hard and soft competencies; and (3) individual resources, such as ability to adapt, determination, psychological capital (Luthans et al., 2007), a proactive and creative approach in finding solutions, and social capital both in the home and in the host country.

In this paper, drawing on the intersectional perspective (Crenshaw, 1989; Spivak, 1999), we highlight some peculiarities of migrant women in male-dominated STEMM sectors. First, migratory status appears to be a key characteristic in determining labor market outcomes for highly skilled migrant women in the Italian context. Our study shows that highly skilled migrant women are a heterogeneous group not only belonging to transnational *élites* (Smith & Favell, 2009), but also emerging from a variety of migratory projects often conceived in the blurred line between basic needs (e.g., fleeing war and widespread violence, assuring family survival) and the desire for a better life. The decision to migrate is often conditioning migrants' inclusion in the host labor market and overall integration in the receiving country. As shown in previous studies, migrants' "mode of entry plays a central role in shaping both immigrants' labor market incorporation and networking capabilities and patterns" (Liversage, 2009, p. 205). In this regard, gender and gendered relations can condition migrant women's skilled employment prospects, for instance, influencing who is a lead migrant between husband and wife (Thondhlana et al., 2016). Our study highlights that both horizontal and vertical networks are relevant in influencing labor market outcomes for highly skilled migrant women in STEMM both with conational organizations and with local organizations and communities (see also Poros, 2001).

Second, we highlight the relevance of sociodemographic characteristics other than gender, which might impair women's employability in STEMM sectors. In particular, we uncover the role of age, health issues, and ethnicity as

potentially limiting available options for skilled employment or the willingness to put additional efforts to reach professional outcomes.

Finally, migrant women's specific educational field of study determines the extent of the opportunities to engage in bargaining activities with local institutions (e.g., universities and professional bodies) either to have their education certification recognized (Erel, 2010) or to transform their international profile into "portable and universally recognized institutional cultural capital" (Thondhlana et al., 2016, p. 583). The extent of migrant women's success is determined by the existence of recruitment/career organizational policies that recognize the value of soft skills or previous experience and the absence of employers' racist and sexist stereotyping (for similar findings, see Erel, 2010; Liversage, 2009).

From a theoretical point of view, our paper contributes to the literature on intersectionality by taking into account how multiple individual-level forms of social differentiation (i.e., gender, migrant status, age, ethnicity, and educational/occupational sector) operate in conjunction to shape highly skilled migrant women's disadvantages and advantages to participate in STEMM labor markets (Boucher, 2007; Mahler & Pessar, 2006, Raghuram, 2008). In addition, our paper studies these different individual-level intersections within a wider framework including organizational-level and contextual-level factors, specifically tied to the Italian historical and institutional setting in which we perform our research. By adopting a multilevel perspective assessing the macro, meso, and microlevel factors that influence career trajectories and labor outcomes for highly skilled migrants (e.g., Syed, 2008; Al Ariss et al., 2012; Crowley-Henry et al., 2018), it answers calls for "analyses that interrogate intersectional paradoxes while capturing the simultaneous interrelations between the subjective and the structural" (Rodriguez et al., 2016, p. 205).

From an empirical point of view, our study contributes to the growing literature on the labor market outcomes of highly skilled migrant women in Western societies (Kofman, 2000). The added value of our paper lies in the provision of insights on migrant women coming from a variety of countries (e.g., Latin America, Africa, and Eastern Europe) in male-dominated sectors in a country (Italy) that is dealing with important socio-economic challenges (e.g., increasing migration flows, slow recovery from the recent economic crisis, declining fertility rates, and high unemployment rates for young and skilled people) (Pagano, 2018). We thus provide in-depth insights not only about the experiences lived by migrant women with a STEMM background in Italy, but also about how their experiences are structured within local macro contextual and organizational arrangements (Rodriguez et al., 2016).

Several insights for policy-making can be derived from our research. In relation to the barriers encountered by migrant women, in economic terms, we believe that these women's brain waste negatively affects the public good because it involves a "triple loss" to highly skilled migrants, to the host country's labor market and to the home country's development opportunities (Portes, 2009). We suggest that these losses are not negligible since women represent 10% to 30% of highly skilled migrants in difficult professions in several European countries (e.g., European Migration Network, 2007; Jungwirth, 2011; Kofman, 2014; Raghuram, 2008).

For Italy, it is hard to find complete statistical data or reports detailing labor market outcomes for highly skilled migrants (e.g., ISTAT, 2015), especially distinguishing between men and women and accounting for STEMM versus non-STEMM educational backgrounds (cf. Breschi et al., 2016). Our study builds on and reports evidence collected through interviews and focus groups, which allowed us to describe life histories that cannot be considered paradigmatic but that can still be envisaged as examples of a twofold process. On one hand, the Italian labor system generally cannot identify many migrant women as potential candidates for professions other than stereotypical care-related jobs. Local public Employment Centers, for instance, use forms elaborated by the National Labor Department of the Ministry of Labor and Social Policies that do not even collect information related to the educational attainments achieved in the home country by foreigner citizens. On the other hand, the paradoxical reluctance by public and private companies in acknowledging migrant women, including though to a lesser extent, former international students and second generations, is worthwhile. Our results suggest that while some contextual barriers are difficult to remove or alter, especially in the short run (e.g., racial/ethnic discrimination at the societal level; lack of qualified job opportunities; or gender norms referred to work), others could be approached by government authorities to foster the employability of highly skilled migrants, such as improving the ease of recognition of qualifications (possibly with attention to both hard and

soft skills). At the organizational level, it is impressive that in an increasingly globalized economy, private companies in Italy are still reluctant to explore the potential of highly skilled migrants to contribute to innovation and internationalization strategies, specifically in the face of an increasing shortage of these high-skilled profiles in the country. In this regard, policies could be targeted at sustaining processes of selection, recruitment, and retention of talent, for instance, supporting dedicated intermediation services or training career advisors and entrepreneurs. With specific regard to individual barriers, our study highlights that the careers of migrant women are severely affected, among others, by aspects of work-life balance, psychological barriers, and lack of local networks. While work-life balance issues can be seen as an area of intervention at large for men and women as well as Italian and non-Italian citizens, who policy makers have recently included in their agenda, we believe that there is room for better work on both psychological dimensions and local networks. Regarding the psychological dimension, better support can be put in place to increase migrant women's self-efficacy and to have them less discouraged and more resilient in the face of the obstacles and adversities that they come across during the process. Regarding local networks, both public and private local organizations should work closely to establish connections across the domains of labor, welfare, and training to make highly skilled migrant women more "visible" to the marketplace and actively involved in networks bridging across different fields.

To conclude, despite the in-depth evidence provided by our paper, we believe that more evidence on this topic could be beneficial to the public debate by raising awareness on the potential of STEM women migration and on the opportunities that it can open up for migrants as well as host countries. We, therefore, invite further studies to explore this specific area of research and adopt an intersectional lens to help scholars, policymakers, and managers critically acknowledge inequality and support actions to eliminate it.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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ENDNOTES

- ¹ The overqualification rate is defined as the share of persons with tertiary education working in a low- or medium-skilled job among employed persons having achieved tertiary education (Eurostat, 2011).
- ² At the time of our study, for example, the Italian Ministry of Interior daily released declarations against the "invasion" of migrants through the thread #stopinvasione (stop invasion) posted by on Facebook since April 28th, 2018, each time generating approximately 8000 to 87,000 comments or reactions.
- ³ For instance, available data from The Netherlands and UK show that Indian nationals tend to be one of the largest groups of highly skilled migrants but with low shares of women compared to higher rates for Chinese migrants (European Migration Network, 2007; Kofman, 2014).
- ⁴ A similar concept is that of deskilling, which is defined as a situation in which migrant workers occupy jobs not commensurate with their qualifications and experience (Mollard & Umar, 2012). In this paper, we use the term "brain drain" and "deskilling" interchangeably.
- ⁵ The research was undertaken within the project "EuMentorSTEM", an Erasmus+ project in the domain of employability of highly skilled migrant women based on mentoring methodologies.

- ⁶ The research team was composed of scholars from the fields of management and innovation (Daniela Bolzani, Rosa Grimaldi), cultural anthropology (Francesca Crivellaro, Giovanna Guerzoni), and education (Elena Luppi, Aurora Ricci).
- ⁷ Only one informant (an asylum seeker who had a poor mastery of the Italian spoken language) switched to English for a brief moment during the focus group to provide a more articulated answer. The facilitator translated the response into Italian for the other participants. The excerpts here presented were translated by the authors.
- ⁸ The Italian National Institute for Statistics defines “high migratory pressure countries” as those nations belonging to the following geographical areas: Central and Eastern Europe (including countries that are part of the European Union) and Malta, Africa, Asia (excluding Korea South, Israel and Japan), and Central and South America.
- ⁹ A detailed reconstruction of the complex framework of the residence permits issued by the Italian government goes beyond the scopes of the present contribution, but it can be mentioned that residence permits can be issued for family reunification, work, study or humanitarian reasons. These permits can be temporary or long-term, and their duration as well as the rights they entitle can vary significantly.
- ¹⁰ Another woman, who at the time of the study was working in a sector other than STEM, had worked as an Engineer in her past two work experiences.
- ¹¹ When the research was performed, this woman was starting an internship as a software programmer with the possibility to get hired by the firm at the end of the internship.
- ¹² Interviewees reported that it was not uncommon to obtain contradictory information from different operators.
- ¹³ Employment Centers record information on the education level only if the qualification achieved is formally recognized by the Italian State. In regard to foreign citizens, therefore, information on the qualification achieved in the country of origin is not recorded.
- ¹⁴ Once the University Degree Program Director has compared the teaching programs, he will determine whether candidates need to complete their programs with other exams (the number can vary) and/or the final dissertation thesis.
- ¹⁵ Social capital and networks, especially with natives, were often described in terms of “recommendations” by interviewees who depicted them as essential in finding a job in the receiving country.
- ¹⁶ The interviewee [W9] achieved a MSc in Italy, but classes were delivered in English. After this educational experience, she found a job that specifically required English for working activities.
- ¹⁷ Social networks can be categorized as vertical when they refer to hierarchical relationships and as horizontal when they refer to egalitarian relationships (Putnam, 1993). In this work, we build on previous research studying social capital for migrants’ labor market integration, where vertical networks refer to contacts belonging to different social levels, having access to more valuable resources and extensive knowledge and horizontal networks regard contacts who are similar in terms of relative social location and having similar access to resources and knowledge (Ryan, 2011).
- ¹⁸ Although it is formally prohibited to ask such questions during job interviews, asking women their marital status and their family projects is still a widespread practice among recruiters. In the abovementioned case, recruiters eventually selected a male candidate that, age being equal, was less qualified than the interviewee.
- ¹⁹ We define as “successful history” the broader integration in the national context. Following Ambrosini and Marchetti, integration is here understood as a migrant’s possibility to actively and completely participate in the host community under equal conditions and reciprocal acknowledgment (Ambrosini & Marchetti, 2008).

REFERENCES

- Al Ariss, A. (2010). Modes of engagement: Migration, self-initiated expatriation, and career development. *Career Development International*, 15(4), 338–358.
- Al Ariss, A., Koall, I., Özbilgin, M., & Suutari, V. (2012). Careers of skilled migrants: Toward a theoretical and methodological expansion. *The Journal of Management Development*, 31(2), 92–101.
- Allasino, E., Venturini, A., & Zincone, G. (2014). *Labor market discrimination against migrant workers in Italy*. International Labour Organization.
- Ambrosini, M., & Marchetti, C. (2008). *Cittadini possibili: Un nuovo approccio all'accoglienza e all'integrazione dei rifugiati*. Franco Angeli.
- Atewologun, D., & Sealy, R. (2014). Experiencing privilege at ethnic, gender and senior intersections. *Journal of Managerial Psychology*, 29, 423–439.
- Beckhusen, J., Florax, R. J., Poot, J., & Waldorf, B. S. (2013). Attracting global talent and then what? Overeducated immigrants in the United States. *Journal of Regional Science*, 53(5), 834–854.

- Bonizzoni, P. (2018). Looking for the best and brightest? Deservingness regimes in Italian labor migration management. *International Migration*, 56(4), 47–62.
- Boucher, A. (2007). Skill, migration and gender in Australia and Canada: The case of gender-based analysis. *Australian Journal of Political Science*, 42(3), 383–401.
- Bowleg, L. (2008). When Black + lesbian + woman ≠ Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex Roles*, 59, 312–325.
- Breschi, S., Lissoni, F., & Noumedem Temgoua, C. (2016). Migration and innovation: A survey of recent studies. In R. Shearmur, C. Carrincazeaux, & D. Doloreux (Eds.), *Handbook on the geographies of innovation* (pp. 382–399). Edward Elgar.
- Bruni, A. (2003). *Lo studio etnografico delle organizzazioni*. Carocci.
- Cerna, L., & Czaika, M. (2016). European policies to attract talent: The crisis and highly skilled migration policy changes. In A. Triandafyllidou & I. Isaakyan (Eds.), *High-skill migration and recession* (pp. 22–43). Palgrave Macmillan.
- Chiswick, B. R., & Miller, P. W. (2009). The international transferability of immigrants' human capital. *Economics of Education Review*, 28(2), 162–169.
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of women in culture and society*, 38(4), 785–810.
- Collins, P. H. (2015). Intersectionality's definitional dilemmas. *Annual Review of Sociology*, 41, 1–20.
- Colombo, E., & Rebughini, P. (2016). Intersectionality and beyond. *Rassegna Italiana di Sociologia*, 3, 439–459.
- Crenshaw, K. (1989). *Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics* (pp. 139–167). University of Chicago Legal Forum.
- Crowley-Henry, M., O'Connor, E., & Al Ariss, A. (2018). Portrayal of skilled migrants' careers in business and management studies: A review of the literature and future research agenda. *European Management Review*, 15(3), 375–394.
- Denzin, N. K., & Lincoln, Y. S. (2005). *The SAGE handbook of qualitative research*. Sage.
- Dumont, J., & Monso, O. (2007). Matching educational background and employment: A challenge for immigrants in host countries. In *International migration outlook*. OECD.
- Erel, U. (2010). Migrating cultural capital: Bourdieu in migration studies. *Sociology*, 44(4), 642–660.
- European Migration Network. (2007). Conditions of entry and residence of third country highly-skilled workers in the EU: EMN synthesis report. http://emn.ie/files/p_20100716103748Conditions%20of%20entry%20synthesis%20report.pdf
- Eurostat. (2011). *Migrants in Europe. A statistical portrait of the first and second generation*. <https://ec.europa.eu/eurostat/documents/3217494/5727749/KS-31-10-539-EN.PDF/bcf27a60-7016-4fec-98c5-e8488491ebbd>
- Flabbi, L. (2011). *Gender differences in education, career choices and labor market outcomes on a sample of OECD countries*. OECD Publishing.
- Frank, F. D., Finnegan, R. P., & Taylor, C. R. (2004). The race for talent: Retaining and engaging workers in the 21st century. *Human Resource Planning*, 27(3), 12–25.
- Friedberg, R. M. (2000). You can't take it with you? Immigrant assimilation and the portability of human capital. *Journal of Labor Economics*, 18(2), 221–251.
- Gonzales Enriques, C., & Triandafyllidou, A. (2016). Female high-skilled emigration from southern Europe and Ireland after the crisis. In A. Triandafyllidou & I. Isaakyan (Eds.), *High-skill migration and recession* (pp. 44–68). Palgrave Macmillan.
- Grigoleit-Richter, G. (2017). Highly skilled and highly mobile? Examining gendered and ethnicised labor market conditions for migrant women in STEM-professions in Germany. *Journal of Ethnic and Migration Studies*, 43(16), 2738–2755.
- Gropas, R., & Bartolini, L. (2016). Southern European highly skilled female migrants in male-dominated sectors in times of crisis: A look into the it and engineering sectors. In A. Triandafyllidou & I. Isaakyan (Eds.), *High-skill migration and recession* (pp. 160–192). Palgrave Macmillan.
- Holvino, E. (2010). Intersections: The simultaneity of race, gender and class in organization studies. *Gender, Work and Organization*, 17(3), 248–277.
- Iredale, R. (2005). Gender, immigration policies and accreditation: Valuing the skills of professional women migrants. *Geoforum*, 36(2), 155–166.
- Isaakyan, I., & Triandafyllidou, A. (2014). Anglophone marriage-migrants in southern Europe: A study of expat nationalism and integration dynamics. *International Review of Sociology*, 24(3), 374–390.
- Isaakyan, I., & Triandafyllidou, A. (2016). Female high-skill migration in the 21st century: The challenge of the recession. In A. Triandafyllidou & I. Isaakyan (Eds.), *High-skill migration and recession* (pp. 3–21). Palgrave Macmillan.
- ISMU. (2020). *Venticinquesimo rapporto sulle migrazioni 2019*. FrancoAngeli.
- ISTAT. (2015). *L'integrazione degli stranieri e dei naturalizzati nel mercato del lavoro*. http://www.istat.it/it/files/2015/12/Lavoro_stranieri.pdf
- ISTAT. (2020). *Occupati e disoccupati. Historical series*.
- Jenkins, S. (2004). *Gender, place and the labor market*. Ashgate.
- Jungwirth, I. (2011). The change of normative gender orders in the course of migration: Highly qualified migrant women in Germany. In M. Nowak & M. Nowosieski (Eds.), *(Post)transformational migration: Inequalities, welfare state and horizontal mobility*. Peter Lang Verlag.

- Kapur, D., & McHale, J. (2005). *Give us your best and brightest: The global hunt for talent and its impact on the developing world*. Center for Global Development.
- Kofman, E. (2000). The invisibility of skilled female migrants and gender relations in studies of skilled migration in Europe. *International Journal of Population Geography*, 6(1), 45–59.
- Kofman, E. (2014). Toward a gendered evaluation of (highly) skilled immigration policies in Europe. *International Migration*, 52(3), 116–128.
- Kofman, E., & Raghuram, P. (2006). Gender and global labor migrations: Incorporating skilled workers. *Antipode*, 38(2), 282–303.
- Liu, X., Park, J., Hymer, C., & Thatcher, S. M. (2019). Multidimensionality: A cross-disciplinary review and integration. *Journal of Management*, 45(1), 197–230.
- Liversage, A. (2009). Vital conjunctures, shifting horizons: High-skilled female immigrants looking for work. *Work, Employment & Society*, 23(1), 120–141.
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford University Press.
- Mahler, S. J., & Pessar, P. R. (2006). Gender matters: Ethnographers bring gender from the periphery toward the core of migration studies. *International Migration Review*, 40(1), 27–63.
- McCall, L. (2005). The complexity of intersectionality. *Signs*, 30(3), 1771–1800.
- Mollard, B., & Umar, S. (2012). *Crushed hopes: Underemployment and deskilling among skilled migrant women* (pp. 11–36). International Organization for Migration. Gender, migration, and deskilling
- OECD. (2012). *Gender equality in education, employment and entrepreneurship* (p. 5). 2012C/MIN.
- OECD and EU. (2016). *Recruiting immigrant workers: Europe 2016*. OECD Publishing. <https://doi.org/10.1787/9789264257290-en>
- O'Leary, B. S., Lindholm, M. L., Whitford, R. A., & Freeman, S. E. (2002). Selecting the best and brightest: Leveraging human capital. *Human Resource Management. Published in cooperation with the School of Business Administration, The University of Michigan and in alliance with the Society of Human Resources Management* 41(3), pp. 325–340.
- Özden, Ç., Parsons, C. R., Schiff, M., & Walmsley, T. L. (2011). Where on earth is everybody? The evolution of global bilateral migration 1960–2000. *The World Bank Economic Review*, 25(1), 12–56.
- Pagano, A. (2018). The gender dimension of the female highly skilled migrants. In P. Paoloni & R. Lombardi (Eds.), *Gender issues in business and economics* (pp. 147–157). Springer.
- Poros, M. V. (2001). The role of migrant networks in linking local labor markets: The case of Asian Indian migration to New York and London. *Global Networks*, 1(3), 243–260.
- Portes, A. (2009). Migration and development: Reconciling opposite views. *Ethnic and Racial Studies*, 32(1), 5–22.
- Putnam, R. D. (1993). *Making democracy work: Civic traditions in modern Italy*. Princeton University Press.
- Raghuram, P. (2008). Migrant women in male-dominated sectors of the labor market: A research agenda. *Population, Space and Place*, 14(1), 43–57.
- Regione Emilia-Romagna. (2017). *L'immigrazione straniera in Emilia-Romagna*. Edizione. <https://sociale.regione.emilia-romagna.it/immigrati-e-stranieri/temi/archivio-dati/archivio-pubblicazioni/volume>
- Rodriguez, J. K., Holvino, E., Fletcher, J. K., & Nkomo, S. M. (2016). The theory and praxis of intersectionality in work and organizations: Where do we go from here? *Gender, Work and Organization*, 23(3), 201–222.
- Rodriguez, J. K., & Scurry, T. (2019). Female and foreign: An intersectional exploration of the experiences of skilled migrant women in Qatar. *Gender, Work and Organization*, 26(4), 480–500.
- Ryan, L. (2011). Migrants' social networks and weak ties: Accessing resources and constructing relationships post-migration. *The Sociological Review*, 59(4), 707–724.
- Sang, K., Al-Dajani, H., & Özbilgin, M. (2013). Frayed careers of migrant female professors in British academia: An intersectional perspective. *Gender, Work and Organization*, 20(2), 158–171.
- Shachar, A. (2006). *The race for talent: Highly skilled migrants and competitive immigration regimes*. New York University School of Law.
- Smith, M. P., & Favell, A. (2009). *The human face of global mobility. International highly skilled migration in Europe, North America and the Asia-Pacific*. Transactions, London.
- Solimano, A. (Ed.). (2008). *The international mobility of talent: Types, causes and development impact*. Oxford University Press.
- Spivak, G. C. (1999). *A critique of postcolonial reason*. Harvard University Press.
- Strauss, A., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Sage.
- Syed, J. (2008). Employment prospects for skilled migrants: A relational perspective. *Human Resource Management Review*, 18(1), 28–45.
- Tariq, M., & Syed, J. (2017). Intersectionality at work: South Asian Muslim women's experiences of employment and leadership in the United Kingdom. *Sex Roles*, 77(7–8), 510–522.
- Tesfai, R. (2017). Racialized labor market incorporation? African immigrants and the role of education-occupation mismatch in earnings. *International Migration*, 55(4), 203–220.

- The Economist. (2018). *Europe remains welcoming to immigrants*. <https://www.economist.com/graphic-detail/2018/04/19/europeans-remain-welcoming-to-immigrants>
- The Times. (2018). *Migration crisis could break Europe, warns Merkel*. <https://www.thetimes.co.uk/article/migration-crisis-could-break-europe-warns-merkel-n5cx8zq36>
- Thondhlana, J., Madziva, R., & McGrath, S. (2016). Negotiating employability: Migrant capitals and networking strategies for Zimbabwean highly skilled migrants in the UK. *The Sociological Review*, 64(3), 575–592.
- Valenduc, G. (2011). Not a job for life? Women's progression, conversion and dropout in ICT professions. *International Journal of Gender, Science and Technology*, 3(2), 483–500.
- Williams, A., & Baláz, V. (2008). *International migration and knowledge*. Routledge.

SUPPORTING INFORMATION

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

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