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Exhaustion: Migrant mental health, gendered migration and workplace regime

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Abstract

This article focuses on the mental health of female migrant workers in Italy. The multi-method study involved a survey of 157 Moldovan migrant women employed in different jobs and 30 semi-structured interviews with Moldovan female migrant domestic workers. Quantitative analysis demonstrated that Moldovan domestic workers are affected by poor mental health to a greater extent than Moldovan women employed in other jobs, and that the factors most associated with it were non-standard working times and having migrated primarily for work reasons. Qualitative data showed how the strain resulting from demanding schedules was intertwined with being a single female labour migrant, whose experience was strongly marked by the gendered dimension of transnational motherhood and a loss of social status. The article concludes that the gendered migration regime and the gendered workplace regime constitute two intertwined and mutually reinforcing determinants of health.

INTRODUCTION

The issues of migrants' health and right to health have been addressed by both governmental and non-governmental international organizations, and by academic research (Schenker, 2010; Wickramage et al., 2018). Many of these publications, which adopt the perspective of social determinants of health (Castañeda et al., 2015; Wilkinson, 1996), underline that most migrants are healthy people when they leave their country of origin (with the exception of specific groups of migrants, such as asylum seekers, people originating from areas of poverty or those affected by conflict or natural disasters). Indeed, there is wide scientific consensus regarding the healthy

immigrant effect – whereby immigrants are on average healthier than the native-born. However, this research shows it is a provisional effect given that the migrants' physical and mental health gets worse during their migratory experience.

Although the literature identifies work as a major risk factor, there is still little research regarding occupational health and migration (Flynn, 2018; Hargreaves et al., 2019). The aim of this article is, therefore, to address this knowledge gap related to the occupational health of migrant workers with a focus on mental health and, in particular, female workers. These two issues have received less attention in both scientific and policy-oriented literature, despite the well-established feminization of migration and higher rates of psychiatric disorders among migrant women as compared to migrant men (Chandra, 2010). We trust that our findings will not only produce scientific advancement but also help develop policies capable of countering the structural causes of migrant women workers' mental ill-health.

Studies on migrant women's health focus, on the one hand, on their sexual and reproductive health (Sanò et al., 2022) and, on the other hand, on health vulnerabilities linked to social status, gender, living conditions, impoverishment and discrimination (Hanley et al., 2019), while there is limited knowledge about the health risks of traditionally female occupations, especially with regard to mental health (Gideon, 2016). Indeed, this gender bias is also present in studies on migrants' mental health because more data are available regarding men and, for example, their increased risk of psychosis (Van der Ven et al., 2016).

We are interested in understanding the complex relationship between mental health, the gendered experience of migration and the regime of jobs undertaken by migrant women in the destination countries.

As we will explain in the next section, the literature on women's work-related health problems consists mainly of studies on domestic work. However, the great limitation of these studies is that they do not compare female migrant domestic workers' health with that of migrant women employed in other areas of work (industrial cleaning, hospitality, healthcare services). Furthermore, another limitation is that they do not comprehensively reflect on the relationship between gendered migration-related and work-related health problems.

This paper addresses these gaps by conducting comprehensive multi-method research on female Moldovan migrant workers. We chose this national group because it is highly feminized, and its female component is mostly employed in care and domestic sectors but also in other jobs, allowing us to compare between different occupations. Furthermore, studying a geo-culturally homogeneous population enabled us to reduce bias and examine within-category differences in greater depth.

WOMEN MIGRANT WORKERS' HEALTH

Worldwide, there are 170 million migrant workers, of whom women constitute 41.5%. Female migrant workers are mainly employed in the service sector (80%), followed by manufacturing (14%) and agriculture (6%) (ILO, 2021).

Given that a great number of migrant women who are employed as domestic workers in the destination countries, the literature has focused mainly on domestic workers, but there are also some important studies on migrant women workers in agriculture and cleaning sectors (Habib & Fathallah, 2012; Hsieh et al., 2016).

Two systematic literature reviews identify the following broad health issues in migrant domestic workers: (1) adverse work conditions and physical ill health; (2) risk factors for mental disorders, such as isolation, abuse and exploitation, worries about the family-left-behind and financial problems; (3) caregiver burden and number of care hours they provide to care recipient; (4) infectious diseases; (5) health literacy, health practices and accessibility to health services (Ho et al., 2023; Malhotra et al., 2013).

Other available studies are both qualitative and quantitative and cover a variety of countries. Qualitative studies highlight, above all, the implications of intensification of domestic work, long working hours, work responsibilities in the workplace, injuries and poor physical health (Ahonen et al., 2010; de Diego-Cordero et al., 2020; Teeple Hopkins, 2017). Emotional and mental health problems are associated by workers with indirect effects of

domestic work, such as separation from their families, losing one's social networks due to isolation and living-in, downward mobility, insecurity due to the risk of unemployment and substandard living environments (Carlos & Wilson, 2018; Vahabi & Wong, 2017). Furthermore, Hill et al. (2019) argue that the physical and psychological hazards characterizing domestic work – fatigue, psychological stress due to isolation, physical and psychological violence, and physical health hazards – are exacerbated by the Canadian migration regime. Domestic work is more than just a job because individuals are tied to the job in order to have a permanent residence permit, and for the same reason employers are more than just employers – because they act as gatekeepers to the residency requirement needed for permanent residency. Finally, Van Bortel et al. (2019) report that migrant women identify three main causes of stress: work and limited agency they face in the workplace; pervasiveness of financial need that pushes them to accept bad working conditions; and family needs. Authors interpret this last stressor as a gendered experience, whereby migrant women experienced obligations both as the carer and as the breadwinner.

Furthermore, several surveys conducted in South-East Asia have similar results concerning the financial concerns of migrant domestic workers. These investigations highlight that money and home/family problems are the major sources of stress during migration because even if wages are low and not paid regularly, migrants feel the obligation to send remittances to their families and this situation is negatively associated with mental health (Chung & Mak, 2020; Van der Ham et al., 2015).

Two surveys conducted in Texas and Argentina underlined a high prevalence of poor mental health among migrant domestic workers. Suffering from violence in the workplace and feeling unsafe in the workplace were both risk factors for mental disorders (Bauleo et al., 2018).

The extant literature on domestic workers' health shows the many risks associated with this type of work, in particular mental health risks. One limitation of these studies concerns the narrow focus on domestic work, meaning that it is not possible to assess whether this occupational group is at greater risk than others in terms of mental health for migrants. Second, viewed within the context of the migration experience as a whole, work-related health problems are rarely analysed together with migration-related health problems. Some of the studies we have just cited go some way in addressing this shortcoming. For example, Hill et al. (2019) stress the impact of the migration regime on work-related risks, and Van Bortel et al. (2019) point out how gender is relevant in making the migration experience particularly stressful for women because they are in constant conflict between the duties of care associated with femininity and the economic maintenance of the family.

We argue that the analysis of the health of female migrant workers should be read through a lens that captures the intersection between the gendered experience of migration and the work experience (Gideon, 2016). For this reason, in the next section we discuss Moldovan women's migration from a gender perspective, and we describe the peculiarities of the participation of migrant women in the Italian labour market.

GENDERED MIGRATION AND WORKPLACE REGIMES IN ITALY

We argue that in order to analyse migrant women's mental health, it is crucial to take into consideration both their migration experience and work conditions. Thus, we consider it helpful to employ the analytical categories of "gendered migration regime" and "workplace regime" with the aim of situating migrant women's experiences and comprehending the sources of their malaise. By "gendered migration regime", we mean the gendered set of immigration policies, forms of regulation, and paths and histories of emigration and immigration that are also shaped by 'race'/ethnicity and class, and which intersect with the care and labour regimes of origin and destination countries (Kilkey et al., 2010). By "workplace regime", we refer to everyday labour processes of a particular workplace with its distinctive combinations of workplace institutions (regulative, normative and cultural) disciplining workers both by coercion and consent (Wood, 2021). We are interested in working conditions, such as schedules, tasks, wages, etc. At the same time, we do not consider patterns of managerial control and workers' resistance, even if we are aware that these aspects are at the core of the concept, in accordance with labour process theory.

In this section, we will show how the workplace regime and the gendered migration regime in Italy are not just intertwined, but mutually reinforcing.

In Italy, migrant women are mainly employed in the following sectors: the hospitality industry, nursing and care work in hospitals and residential care facilities, industrial cleaning, and retail, but especially in private homes in the roles of live-in carers and cleaners.

In 2020, workers officially employed as domestic workers numbered 806,713, 544,035 of whom were foreigners. Of the latter, 295,631 were home care workers and the other 248,404 were maids (Osservatorio Sui Lavoratori Domestici, 2020). Some scholars have used expressions like "Italian-style" welfare to describe the family's role and the ways in which it has managed to secure a long-term care model (Bettio et al., 2006). These terms reflect both the family-focused connotation of care/welfare policies and the informal and non-standard characteristics of domestic care work. However, despite the lack of sufficient places for old people in care homes, the presence of female migrant workers in the healthcare sector is growing. Italy has around 38,000 foreign nurses, 6% of the total (Dotsey, 2021). Furthermore, according to the Labor Force Survey (Istat 2015–2019), of 85,611 nursing assistants, 13,048 were foreigners, of whom 2220 were men and 10,828 were women.

Another category of migrant workers exposed to harsh working conditions in Italy today have jobs in the commercial cleaning industry, which employs around 400,000 people – mainly women in their forties, and 30% of the total are from a migrant background (Isfol, 2016).

Then there is the hospitality sector, where low wages, a widespread piece-work payment system and non-standard schedules, including night shifts and Saturday work, are common. The workforce is mainly young and female, with a growing number of migrants. On a national scale, around one in four employees are migrants – but in Venice, for instance, migrant workers account for 43% of the total (Alberti & Iannuzzi, 2020).

Moldavan women have entered the Italian labour market by finding employment in all these sectors. Indeed, 65% of Moldovan women aged 15 years and older work in personal services (Ministero del Lavoro e delle Politiche Sociali, 2021).

Currently, around 120,000 Moldovan citizens live in Italy, 80,000 of whom are female (Istat, 2021). The migration of Moldovan women started in the late 1990s after the dissolution of the Soviet Union. It represented the women's attempts to react to poverty and to address social and economic challenges in their country through seeking out better-paid jobs (Cvajner, 2019).

In the beginning, women emigrated with short-term tourist visas, which rapidly expired thus leaving them without proper documents to live and work in Italy. However, they found jobs easily as live-in home care workers or in the agricultural sector. With their wages they supported their families back home, sending remittances regularly.

According to Italian migration law, the only option to regularize their positions was to wait for an amnesty. Therefore, migrants remained suspended until their employers were willing to apply for an amnesty, given that the regularization process was employer driven. Migration was prolonged for years without the possibility of returning home to visit their relatives even for short periods.

During these visits, migrant women often faced great emotional difficulties due to the long period of absence: their children had grown up without them and the younger ones did not recognize them; often their husbands had undertaken new sentimental relationships and Moldovan public debate blamed them for being "bad" mothers and wives (Keough, 2006). Indeed, in Moldova, emigration represents a rupture in the conventional gender and family care roles. Female migrants are considered responsible for a set of supposedly deviant behaviours that are associated with their absence, such as the breakdown of the family, men's alcoholism, child school dropouts, early pregnancies, drug use and suicides (Vianello, 2011).

Migrants, therefore, appropriate the conventional notion of motherhood to prove that working abroad is the best way to be a "good" mother by putting their children's interests before their own to ensure their well-being and education. Many returned to Italy with the idea of reuniting the rest of the family. Others continued to live alone in Italy but helped other women – friends and relatives – to immigrate (Bloch, 2017).

In summary, the post-Soviet emigration of Moldovan women to Italy aligns with the substantial demand for low-paid labour in personal services, unfolding within a migration regime where employment is pivotal to the political economy of migrant legality (Vianello et al., 2021). For these reasons, it is crucial to place this migratory phenomenon in its historical context.

METHODS

Our study was conducted between 2018 and 2020 in Padua (Veneto region), a city that has a dynamic industrial ecosystem and high demand for domestic work, making it an area with one of the largest immigrant populations in Italy (approximately 93,372 residents, 10% of the total) (Istat, 2020). In the province of Padua, the largest foreign community is from Romania (34.3% of all foreigners present in the area), followed by Moldova (9.7%) and then Morocco (9.2%).

The study is based on a multi-method research. According to Morgan (1998), there are different ways of combining qualitative and quantitative methods. In our case, the qualitative method complements the quantitative study and serves as a follow-up, providing us with interpretative resources for understanding the results of the quantitative research. First, we carried out a survey, based on the face-to-face administration of structured questionnaires to Moldovan women working in various sectors. Secondly, we collected semi-structured interviews with different Moldovan migrants employed as domestic workers. The survey provides us with a picture of women's health in 2018, but – as we will see in the next section – respondents have different ages, migration paths and jobs. The interviews, on the contrary, were only with domestic workers. They offer us the opportunity to explore women's migration stories in depth and to identify the complex impact of the gendered migration regime and workplace regime on their health. Both data sets cover identical themes, such as migration history, work conditions, and health, yet they complement each other due to their qualitative differences.

The survey

For the survey, 205 questionnaires in Italian were administered. A female researcher conducted computer-assisted personal interviews (CAPIs) with female Moldovan workers living within the area of influence of the Moldovan Consulate in Padua (in the city or neighbouring provinces).

A large body of literature consistently indicates that immigrants are a typical example of hard-to-reach or hidden populations (Johnston & Malekinejad, 2014; Tyldum, 2021), and that adopting standard probability sampling methods for such populations may lead to severe bias in the selection of respondents (Heckathorn, 1997; Watters & Biernacki, 1989). Depending on the data collection methods employed, it may also generate systematic errors which negatively affect the reliability of the results. We consequently used a (non-random) venue-based sampling method grounded on a systematic data collection strategy to make our sample as representative as possible. We organized our visits to the places where female Moldovan workers gather in Padua: the Moldovan Consulate; two Orthodox churches; a park where Moldovan women gather during their hours off; and the bus terminal from where Moldovans send parcels to their home country. The number of times we visited each place and the time spent on each visit were calibrated to reduce the risk of respondent selection bias and to make our sample more representative (more information can be found in Appendix).

The complete questionnaires administered contained from 126 to 148 questions, depending on the respondents' type of job. The dimensions explored can be summarized as follows: migratory background and biographical information; working conditions and workload; psychological and physical conditions.[1] Most of the questions

[1]The questionnaires administered can be found at: https://www.slang-unipd.it/progetti-di-ricerca/migration-and-occupational-health-understanding-the-risks-for-eastern-european-migrant-women/.

were drawn from previously validated questionnaires and batteries, while a small number of items were created ad hoc for this survey by researchers.

In the editing and imputation phase, questionnaires in which more than 20% of the questions were unanswered were omitted to improve the accuracy and reliability of our data (de Waal et al., 2011; Istat, 2012; Luzi et al., 2008). Consequently, the data analysis was based on 157 interviews/records.

In this article we explore only the output of some batteries and questions of the complete questionnaire. Indeed, we explore the findings of two validated batteries: the Hopkins Symptoms Checklist (HSCL-10), which measures depression and anxiety; and a Self-Rated Health Scale (SRHS), which measures symptoms associated with chronic stress and burnout.

Alongside the previously mentioned aspects, we investigate specific determinants commonly linked to atypical employment (like working at night, extended work hours, working on Saturdays) and migration factors (such as labour migration, educational migration, solitary migration, family reunification, etc.). Our aim is to determine potential associations between these determinants and the deterioration of mental health, as evaluated by the aforementioned diagnostic tools.

Survey sample description

The survey involved a heterogeneous sample (Table 1). The largest group was that of domestic workers, which was composed of: live-in home care assistants (LI-carers), live-out home care assistants (LO-carers); live-in maids (LI-maids); live-out home maids (LO-maids). Other groups were: labourers in factories or agriculture, commercial cleaning workers; nurses and personal care assistants in health care institutions; hospitality industry workers and 15 in various "other jobs" (a doctor, some office workers, a hairdresser, beautician, etc.).

Concerning the respondents' socio-demographic characteristics, Table 1 suggests some possible patterns in the relationships between job, age, and the time they have been living in Italy. The descriptive statistics show that the older women are mainly employed as home care assistants while the younger ones are employed in other jobs because, as we have explained elsewhere (Redini et al., 2020), the younger ones have a richer social capital that allows them to enter other jobs. Additionally, it highlights that newcomers are more likely to be employed as home care assistants and maids, because domestic work is the most accessible occupation for migrants, besides the fact that it allows them to solve their housing problem. Such statistics also indicate the same average education levels in each job category, which means that the better-educated individuals do not have a better chance of accessing more highly skilled jobs.

Moreover, most of our respondents had migrated primarily to find work, but they differ significantly by occupational category: home care assistants and maids constitute the largest group, meanwhile the category of non-domestic workers has the most respondents who emigrated for family reasons (especially reunification with their parents or with their husbands). Accordingly, the data shows that a large majority of our respondents in each of the occupational categories have family members in Italy, except those employed as LI-carers.

As for working conditions, Table 1 shows that almost all their occupations involve working at night, on Saturdays, and sometimes more than 10 h a day. However, there are significant differences between the different jobs, highlighting a greater workload for some categories, such as home care assistants and maids.

Data analysis

The HSCL is a screening tool extensively used in epidemiological and clinical studies to identify depression and anxiety (Dalgard et al., 2006; Kleijn et al., 2001). We used the HSCL-10, a condensed form of the original tool, which contains questions on suddenly feeling scared for no reason; feeling fear; experiencing weakness, fainting,

TABLE 1 Description of the sample.

Occupation	*N* (%)	Age Average (SD)	Years in Italy	Years of education	Days worked at night Every 4 weeks	Days worked	Saturdays worked	Working more than 10 h a day	Workers with relatives nearby (%)	Migrated to find work (%)
LI-carers	37 (23.57)	57.67 (10.60)	11.8 (6.31)	12.91 (3.15)	8.25 (10.48)	23.35 (3.68)	3.33 (1.41)	14.41 (11.41)	47.2	100
LO-carers	16 (10.19)	53.81 (7.85)	13.31 (5.05)	13.68 (3.47)	4.42 (10.05)	22.81 (4.83)	2.57 (1.98)	12.43 (12.4)	81.25	87.5
LI-maids	2 (1.27)	52.5 (3.53)	15.5 (3.53)	13.5 (4.9)	0.5 (0.70)	22 (2.82)	2 (2.82)	0	100	100
LO-maids	29 (18.47)	48.58 (10.98)	12.89 (4.49)	13.58 (3.30)	0	18.69 (6.27)	1.89 (1.89)	0.62 (2.33)	96.55	89.29
Factories and agriculture	13 (8.28)	39.92 (6.80)	13.84 (5.65)	12.61 (2.81)	2.15 (5.17)	21.23 (3.41)	2.08 (1.62)	3.38 (7.45)	100	53.85
Commercial cleaning	17 (10.83)	40.35 (9.46)	13 (4.83)	12.82 (2.57)	0	21.17 (2.79)	2.12 (1.75)	1.82 (3.4)	89.47	70.59
Healthcare institutions	10 (6.37)	44.7 (9.84)	15.7 (3.97)	14 (3.23)	4.22 (4.87)	19.5 (6.27)	1.89 (1.69)	5.7 (8.98)	90	50
Hospitality industry	18 (11.46)	38.5 (10.28)	12.05 (4.29)	12.88 (2.86)	4.94 (9.33)	16.94 (9.23)	2.76 (1.67)	6.87 (9.17)	88.8	44.44
Others	15 (9.55)	38.4 (12.13)	10.28 (2.94)	13.23 (3.51)	3.69 (4.58)	17.5 (8.01)	2.16 (1.74)	3.58 (5.14)	93.33	53.33

Note: Column (1) presents the count and the percentage of respondents categorized by occupation. Columns (2)–(4) provide the average and standard deviation for migratory conditions considered by age, years living in Italy, years in education at the time of questionnaire administration. Columns (5)–(8) provide the monthly average and standard deviation for non-standard working conditions examined in our research. Columns (9) and (10) report the percentage of the total respondents who have nearby relatives and those who migrated primarily for work purposes rather than family reunification.

dizziness; feeling tension or agitation; blaming oneself for things; having difficulty falling asleep or staying asleep; feeling depressed; feeling useless; feeling that everything takes an effort; and feeling hopeless about the future. The answers to the 10 items are scored on a 4-point scale with options ranging from 'not at all' to 'extremely'. The average HSCL-10 score is calculated by dividing the total score by the number of items (Kleppang & Hagquist, 2016; Schmalbach et al., 2021).

The SRHS is used for measuring symptoms associated with chronic stress and burnout, respondents indicate on a 6-point scale, from 'never' (0) to 'daily' (6), how often they have experienced each of the following symptoms in the previous six months: headache, trouble sleeping, extreme fatigue, lack of appetite, difficulty concentrating, gastrointestinal disturbances, dizziness, shortness of breath and difficulty relaxing. In the literature, SRHS was initially used in studies on care workers, while latterly it has been applied to other kinds of work (Consiglio, 2014; Goh et al., 2021). The score obtained from the SRHS is the simple sum of the item ratings. We use the median of the whole score as the cut-off. To build our SRHS and HSCL-10 scores, each respondent's missing values were replaced with the simple average of the other items in the scale. None of these records had more than two missing items. Five records were excluded from the HSCL-10 analysis because the scale had not been answered at all.

The internal consistency and scale reliability of the HSCL-10 and SRHS were assessed using Cronbach's alpha. For the HSCL-10, the coefficient was 0.838 for the sample as a whole; when calculated for each subsample (type of job), the coefficients ranged between 0.772 and 0.991 (mean 0.8411). For the SRHS, the coefficient was 0.7865 for the whole sample and ranged between 0.6039 and 0.9778 (mean 0.8006) for the subsamples. The Cronbach's alpha showed a strong internal consistency for both scales.

Qualitative interviews

From March 2019 to January 2020, we conducted 30 qualitative interviews with Moldovan women who were or had been employed as domestic workers. The interviews lasted from 35 to 90 min and were recorded. All recordings were transcribed and analysed. The interviewees' names have been changed to protect their privacy.

Some of the female informants were contacted through two labour associations in Padua to avoid relying on the same social milieus as for the administration of the questionnaires. The female workers recruited through these associations gave us access to a further network of contacts, including family members and friends. Some interviewees were reluctant to provide contacts, however, for fear of exposing irregular work situations. The research team's networks of informal relations in Padua, and those of various privileged informants (doctors, employers, etc.), helped to overcome this problem.

The topics covered in the semi-structured interviews concerned women's migration history, work and health. The interview guidelines were formulated to focus on short biography, migration, what respondents' jobs specifically entailed (cleaning and/or personal care) and whether or not they had a proper work contract; the connection between the type of job they do and their specific migratory experience (regular or irregular); episodes of illness in connection with their particular workplace and how they reacted to them.

RESULTS

The survey: Migrant workers' mental malaise

In the context of quantitative research, the data analysis derived from our survey encompasses three primary stages: an initial examination of descriptive findings to investigate the mental health conditions of workers (SRHS and HSCL-10 results) categorized by occupations; an exploration of the association between diminished mental health conditions and work-related and migratory attributes through non-parametric Mann–Whitney tests

(MWTs); and, a comprehensive investigation of the phenomenon to discern potential associations between distinct working conditions and mental health issues, achieved by employing two multivariate regression models.

The initial analysis of both the Self-Reported Health Status (SRHS) and the Hopkins Symptom Checklist-10 (HSCL-10) data, as detailed in Table A1 of the Appendix, reveals noteworthy patterns in our sample, particularly among different occupational groups. For the SRHS, when focusing on respondents with scores at or above the overall median, it becomes apparent that maids and home care assistants are affected more than other occupational categories by symptoms indicative of chronic stress and burnout.

Similarly, the HSCL-10 analysis, utilizing a cut-off average score of 1.85 to identify cases of mental health distress (a benchmark commonly agreed upon in the literature, see Lien et al., 2022), suggests that while various occupations are impacted by depression and anxiety, maids and home care assistants, along with nursing assistants, exhibit a higher vulnerability. This parallel observation across both the SRHS and HSCL-10 underscores a critical concern regarding the mental well-being of individuals in these caregiving roles, indicating a pressing need for targeted mental health interventions and support mechanisms within these occupational groups.

Consequently, several MWTs were conducted to assess the associations between a higher level of SRHS or HSCL-10 and various determinants related to non-standard work regimes and migratory backgrounds. Specifically, we have tested the association between the outcomes (SRHS or HSCL-10 scores) and the live-in work regime, tasks of domestic work (caring and cleaning), night at work, long working hours, working on Saturdays and reasons for migration (migrated to find work). Each determinant is treated as a group (1) versus all other categories combined as another group (0). In the MWT, the null hypothesis is that the two groups do not differ. Assuming that certain conditions would worsen a worker's stress, we conducted a one-tailed MWT.

Contrary to expectations, as shown in Table 2, our findings revealed no statistically significant differences concerning the hypothesis of an association between living-in and higher levels of anxiety and depression (HSCL-10) or symptoms associated with chronic stress and burnout (SRHS). For LI- and LO-carers, the tests suggest an association with higher scores on the SRHS, but not on the HSCL-10, and vice versa for LI- and LO-maids. Nevertheless, the MWT did show statistically significant differences between certain working conditions and higher scores on the HSCL-10 and SRHS. Indeed, working at night, working on Saturdays, and working more than 10 h a day are associated with higher levels of depression and anxiety, and a higher incidence of stress associated with symptoms of burnout and chronic stress. In addition, the MWT results also indicate a

TABLE 2 Statistical significance of differences in determinants related to non-standard work regimes and migration reasons emerging from the MWTs.

	HSCL-10		SRHS	
	Z	One-tailed *p*-value	*Z*	One-tailed *p*-value
LI-carers	−0.179	0.429	−1535	0.06235
LI-carers and LO-carers	−1058	0.14505	−1998	0.02285*
LI-maids and LO-maids	−1776	0.0379**	−0.088	0.46485
Working at night	−2511	0.006**	−3335	0.00045**
Working on Saturdays	−2892	0.0019**	−1895	0.02905*
Working more than 10 h a day	−2780	0.0027**	−4422	0.00000**
Migrated to find work	−0.461	0.32245	−1799	0.03605*

Note: Columns (1) and (2) report the findings of a series of Multiple Wilcoxon Tests (MWTs) conducted to evaluate the associations between elevated HSCL-10 scores and the determinants related to non-standard work regimes and reason to migrate. Columns (3) and (4) report the findings of a series of MWTs conducted to evaluate the associations between elevated SRHS scores and the determinants related to non-standard work regimes and reason to migrate. Each rows displays the results of an individual MWT conducted.

*$p \leq 0.05$; **$p \leq 0.01$.

TABLE 3 Results of the regressions.

Dependent variable (*Y*)	Prob > *F*	Working at night *p* > |*t*|	Number of Saturdays worked	Migrated for work	Adj *R*-squared
HSCL-10	0.0006**	0.033*	0.011*	0.103	0.1026
SRHS	0.0001**	0.004**	0.041*	0.017*	0.1425

Note: Rows (1) reports the findings of multivariate regression model assessing the relationship between the level of HSCL-10 and the following covariates: working at night, number of Saturdays worked per month, and migration reason. Rows (2) reports the findings of multivariate regression model assessing the relationship between the level of SRHS and the covariates: working at night, number of Saturdays worked per month and migration reason.

higher incidence of chronic stress among people who migrated to find (better paid) work, as assessed on the SRHS.

This suggests that the cause of poor mental health is not the home care work itself, nor the live-in condition, nor the fact that the work is undergone inside the domestic walls, but rather the specific working conditions and migratory regimes.

To further explore these associations, we used two multivariate regression models[2] to examine the relative importance of the covariates – working at night, number of Saturdays worked per month, reason for migrating – on the two mental health scales. The variable "working more than 10 hours a day" was excluded to avoid collinearity. As regards the regression models, as Table 3 shows, both are significant at 99% (SRHS – $p = 0.0001^{**}$ – and the HSCL-10 – $p = 0.0006^{**}$) and reveal a set of associations. The first set of associations is between anxiety and depression (HSCL-10) and the habit of working at night ($p = 0.033^{*}$) and the number of Saturdays worked per month ($p = 0.011^{*}$). The second set of associations is between chronic stress and burnout symptoms (SRHS) and the habit of working at night ($p = 0.004^{**}$), the number of Saturdays worked per month ($p = 0.041^{*}$), and having emigrated to find a job ($p = 0.017^{*}$).

Therefore, in line with the MWT results, the regression models also support the hypothesis that poor mental health is determined by specific non-standard working conditions and by the fact that they had migrated (often alone) to find work (instead of gathering with their family).

Qualitative interviews: Mental malaise and migrant female domestic work regime

The biographies of our interviewees are coherent with the profile of Moldovan migration and with our quantitative sample. They were middle-aged woman, with a good educational level, and had work experience in Moldova as teachers, office workers, doctors and nurses. They had lost their jobs as a result of the severe post-socialist economic crisis or were unable to ensure a decent level of living for themselves and their families due to the insufficient purchasing power of their salaries. They had accepted jobs abroad for mainly economic reasons: the higher wages offered in Italy by comparison with those in Moldova enabled them to pay for their children's education, health care for various family members, housing costs.

In Italy, they were mainly limited to working in the domestic sector because their chances of finding other types of employment were hindered by a combination of factors. Firstly, the management of labour migration in Italy has traditionally focused on the recruitment of low-skilled labour. Secondly, there has been difficulty in matching education and work experience in Moldova with opportunities in Italy due to a lack of language proficiency, the mismatch of labour regulations and practices, but also because of stereotypes and prejudices.

[2]The Pearson's correlation test was conducted as a prerequisite for Linear Regressions analyses, its details are available in Appendix.

Finally, there is the need to balance between work in Italy and family care duties in their country of origin. All these factors affect not only the socio-economic inclusion of female migrant workers but also their psycho-emotional health.

Violeta, for example, was a singer and the director of a cultural centre in Moldova, but in Italy she has been working as an LI-carer for several years now. In speaking about the consequences of migration, the problem of her professional devaluation seems just as important as her homesickness.

> I suffered a lot leaving my husband and children. Psychologically I was not well, I cried a lot. I was dying of homesickness, of loneliness. Also because I went from being on stage to always being at home. I was a singer at home. And to go from the stage to diapers for the elderly, that's not easy. I can't think about it, otherwise I'll start crying.

The emotional costs of migration, the mortification of being professionally undervalued and the physically tiring nature of the work are among the causes of profound stress that our respondents describe as "exhaustion".

Many of our informants started working in the care sector in a live-in regime because this allowed them to find a quick job placement, accommodation and a basic living arrangement for remittance purposes. Over time, many of them have attempted to emancipate themselves from these tiring, disqualifying and low-paying occupations, but this attempt has often been thwarted by the difficult recognition of their professional and educational qualifications. Magdalina holds a degree in economics from Moldova, but in Italy she worked exclusively in the home care sector. She has tried to have her degree recognized but encountered insurmountable obstacles. The absence of a social support network and the incompatibility between working time and school commitments hinder Magdalina's possibility of freeing herself from the hardest jobs.

> I tried to have my degree recognized but was told that I had to take more exams. I thought I knew Italian, but I still had some difficulties. So I thought I would start from high school again. They accredited me for two years and I did three. [...] I worked so hard because I hoped I could find [another] job. I work as a care and domestic live-out assistant in the mornings and afternoons. With this rhythm I also lost my husband because I was always running. I would come home at midnight [and] we separated. So I had to rethink everything. I couldn't lean on anyone, I had to find a home. With my accountancy diploma [...] I left my CV, but they never called me back. [...] Then when I looked around a bit, I saw that they pay 500-600 euro for a person who still has to gain experience, the full week from Monday to Friday. How would I manage, given that I pay 480 euro for rent?

The migratory, health and labour trajectories of the women we met thus appear to be closely intertwined. Aliona, for example, is a LI-carer who at the time of the interview was being treated by the psychiatric services for depression. The effects of migration are economically but also emotionally heavily demanding, especially because migrant women such as Aliona are often entangled in transnational mothering and emotional care at the same time as performing demanding care work for their employers. It is therefore no coincidence that in her interview her symptoms of suffering are inextricably linked to her job and her situation as a long-distance mother:

> When I was working as a home help I became depressed. At that time, I was caring for an elderly person from 7 p.m. until 1 p.m. the next day. From 1 p.m. to 7 p.m. I was free and I went to work cleaning. Depression may have been caused by physical tiredness, of course, but in my case at least it was also because I had a small child that I missed. I was always running left and right because every month you have to send food, gifts, and money home. I was anxious, I had panic attacks, and

> I had lost so much weight. Then I went to the psychiatrist, I explained the situation, and he gave me a treatment.

The maintenance of contact with family members remains strongly influenced by income level and material assets. Aliona, like many other interviewees, left her son behind under the care of her parents, whom she supports through remittances. In her case, the child's father is absent. However, in general, in the cases we analysed it is rare for a male partner to take sole responsibility for childcare. Even when he is not a migrant himself, he carries out the care tasks assisted by female relatives. The responsibility of providing economically for the care of children and family alone is one of the reasons behind women's choice both to emigrate and their acceptance of particularly stressful working schedules, such as those of the workplace live-in regime that has previously been described.

Finally, a further aspect to consider in analysing the relationship between our female Moldovan sample's work and their health concerns their non-standard work schedules, especially when they have to work long hours, at night, and/or other anti-social schedules. The informality of the working relationship in domestic service often leads to a disregard for the workers' hours and days off. This can give rise to a generalized sense of isolation, due partly to the women's difficulty in having any social relations outside the home. Lidia, for example, is now a LO carer and says she stopped living in precisely because of the physical and psychological repercussions of such a working regime:

> I know a lot of people who've had problems. They're the ones who work in the live-in regime, say, 24 hours. I only worked like that for a month when I first arrived, but it was impossible … The only times I could go out, I went to church. I prayed and cried. I couldn't bear it.

Such problems are aggravated by lack of sleep mentioned by almost all the interviewees. This issue concerns live-in home helps, but also – for different reasons – those who live out. Ksenyia is a LI carer who suffers from breathlessness and high blood pressure. She complains of being unable to rest due to the illness of the elderly person in her care, and explains that it is impossible to establish a clear demarcation between working and sleeping times under the live-in regime:

> It's not easy to work with a person with Parkinson's disease. At night he calls me up to 10 or 15 times because he can't sleep. He has nightmares. He calls me and I get up. Last night, after 2 o'clock, he didn't sleep any more.

Aliona, on the other hand, describes her intense working rhythms and long working days because she has two jobs, one as an LO carer and one as an LO maid. Significantly for the purposes of our research, she directly associates her jobs and resulting tiredness with her depression:

> I was a carer for a year and a half, then I became depressed. I know there are many carers who've had this problem. There I didn't work 24 hours, I had a schedule from 7 pm until 1 pm the next day. From 1 pm to 7 pm I was free, and in that free time I went to work as a cleaner because as a carer I was only earning 750-800 euro.

Judging from our qualitative interviews, as well as quantitative research, working regimes (e.g. lack of sleep and long working hours) and women's migration condition (as migrating alone) affect female migrants' mental health. Moreover, qualitative interviews show that the downward professional mobility and their caring responsibilities in the country of origin directly influence these female migrants' health by generating a profound sense of physical and mental exhaustion.

CONCLUSIONS

Our findings contribute to broadening knowledge regarding the health of female migrant workers by highlighting the close intertwining of several social determinants of health, such as migration – seen as a highly gendered, historically and geographically situated experience – and working conditions. As we have seen, both of these two determinants have a strong impact on the mental health of Moldovan female migrant workers: anxiety, depression, burnout, and chronic stress, the latter of which is itself associated in the literature with several other diseases (Wilkinson, 1996). In particular, we have seen that migrating for work purposes places migrants in a peculiar state of stress due to the fact that in order to fulfil their moral obligations towards their family back home, which these women feel particularly strongly, they have to accept professional devaluation and difficult working conditions for extended periods of time.

It is precisely domestic work that provides first-generation migrants with a secure source of income and, often, accommodation. And it is also this work that exposes female workers to higher risks of poor mental health, confirming the results of the literature.

Furthermore, our research shows that regardless of the job, it is the non-standard schedules, i.e., working nights and working on Saturdays, that expose female migrant workers to the risk of developing mental health problems. Home care work is undoubtedly the job most affected by these conditions, but there are many other occupations in which female migrant workers are typically employed that are characterized by non-standard schedules, such as care home staff, the restaurant industry or the cleaning industry.

These findings show how the workplace regime is a key social determinant of female migrant workers' mental health, but this cannot be analysed in isolation. For a comprehensive analysis of the mental health of female migrant workers, it is essential to consider the broader gendered migration regime, because this is the only way we can assess how particular working conditions are situated in migrants' own biographies. These two regimes are mutually reinforcing since the peculiarities of the social composition of Moldovan female migration have played an important part in the Italian care system and, more generally, in personal services based on the employment of migrant labour with long hours and unsustainable and antisocial shifts.

These results can help guide policymakers in developing policies to tackle the structural causes of migrant women's poor mental health and help health and social workers develop interventions to support migrant women workers.

The multi-method approach allowed us to go more in-depth in the interpretation of our two datasets. If we had limited ourselves to quantitative analysis, we would not have been able to understand the historical insights of this migration, and thus, the effects of the accumulation of several risk factors. Limitations of our research include the issue of its representativeness: further multi-method research is needed on larger, more differentiated samples to compare migrants from different countries, employed in different sectors, with different reasons for migrating, and different migration experiences. This would help us to understand, for example, whether being reunited with family members and becoming established in the country of arrival reduce female workers' stress levels. It could also shed light on the sense of social isolation associated with some occupations that emerged from our qualitative interviews but that could not be investigated here.

CONFLICT OF INTEREST STATEMENT

The authors declare that they have no competing interests.

PEER REVIEW

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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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APPENDIX

SAMPLING METHODOLOGY

To improve our sample's representativeness, we established predefined sampling locations and interviewer protocols, excluding times and places with sporadic public presence. The female interviewer adhered to the following schedule:

(i) Regular visits were made to the Moldovan Consulate from Tuesday to Friday (consulate opening days) during the same morning hours, totalling 20 days, with a uniform overall frequency of each day of the week.
(ii) Visits were conducted to each of the two Orthodox Churches in the city of Padua on six Sundays, interviewing workers primarily before and after religious ceremonies.
(iii) Visits were made on Saturday mornings (contingent upon favourable weather conditions) to a park where Moldovan women congregate during their leisure hours and to the bus terminal, where Moldovans dispatch parcels to their home country. There were four such visits in total.

On average, the administration of the questionnaire lasted 30 min.

TABLE A1 SRHS and HSCL-10 scores for each job.

Occupation	SRHS scores ≥ than the overall median	HSCL-10 scores ≥ cut-off of case of mental health and distress (1.85)
	% Within the same occupational category	
LI-carers	54.05	21.62
LO-carers	62.5	31.25
LI-maids	50	50
LO-maids	65.52	39.29
Factories and agriculture	38.46	8.33
Commercial cleaning	41.18	11.76
Healthcare institutions	30	30
Hospitality industry	38.89	6.25
Others	73.33	21.43

PEARSON'S CORRELATION TEST

We employed Pearson's correlation test as a prerequisite for Linear Regressions.

Pearson's correlation test was used to check for any correlation between the two dependent variables (the SRHS and HSCL-10 scores) and the covariates used in the regressions. Pearson's test revealed a significant positive relationship between the SRHS and "working at night" ($r=0.29$, $p=0.0003$), "number of Saturdays worked per month" ($r=0.21$, $p=0.0097$), while the positive relationship between the SRHS and "reason for migrating" did not reach statistical significance ($r=0.12$, $p=0.1118$). For the HSCL-10, Pearson's test showed a significant positive relationship with "working at night" ($r=0.24$, $p=0.0028$), "number of Saturdays worked per month" ($r=0.26$, $p=0.0016$) and "reason for migrating" ($r=0.06$, $p=0.417$).