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# Main Concerns in Times of COVID-19 in Three Groups of People: Italians, Romanian Immigrants in Italy, and Romanians in Romania

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## Abstract

This chapter is a description of results of a study conducted in Italy involving Italians (N = 491), Romanian immigrants (N = 275), and Romanians in Romania (N = 312) with aim to explore the principal sources of anxiety and uncertainty during COVID-19 pandemic, and the differences between the groups. In addition, the study analysed the role of resilience as a potential moderator between perception of sources of anxiety during COVID-19 and distress. A questionnaire was administered containing several scales. Results showed that Italians and immigrants have similar concerns and that the perception of resilience play significant role in determining emotional distress.

**Keywords:** concerns, fear of COVID-19, distress, resilience, social support

## 1. Introduction

Following the epidemic in Wuhan, Italy was one of the first countries in Europe to have faced an exponential growth in number of people infected by the Coronavirus. The first positive patients were diagnosed on 31<sup>st</sup> January 2020 when two Chinese tourists in Rome tested positive, and then among Italians in northern Italy. The pandemic spread rapidly in the rest of the country with the high rate of morbidity/mortality and the government introduced the first lockdown on 9<sup>th</sup> March 2020 in the whole country, which lasted until 11<sup>th</sup> May, 2020. During the mandatory lockdown, all non-essential businesses, industries, and commercial activities were closed, and only supermarkets and pharmacies remained open. Travelling was only permitted for work (where work from home was not possible), health care, or other necessities (e.g., obtaining groceries). Schools and universities organized didactic on distance and remained close until September 2020. Italy in that period registered over 28,884 deaths due to COVID-19, and the number of positive cases was one of the highest in the world [1]. The increase of pandemic has created dramatic challenges in the public health system [2], and have had an immediate negative impact on people's health, not only physical but also psychological [3, 4].

Since then, the Italian government has introduced several other lockdowns in various Italian regions, and the last one from 15th March to 6 April 2021 was extended again to the whole country. Until April 2021, Italy had more than 3.4 million confirmed cases and more than 100 thousand deaths [5].

A review of the growing literature about the effects of the pandemic all around the world suggests that people experience significant levels of distress, anxiety, and depression [6]. The pandemic meant for everybody several changes in the life in terms of health, social relations, and in school or job aspects. All these changes have been accompanied by fear and a sense of uncertainty about the future. People have the impression of losing the possibility to foresee and to plan their future, and about the possibility to return to the same style of life as before the pandemic.

Although the consequences of the pandemic have affected the entire population, these have particularly increased the fragility of socially isolated and vulnerable categories of people such as those with chronic medical diseases and mental health disorders, the elderly living alone or in institutional accommodation, women and children exposed to domestic violence, and migrants [7–9]. Among other vulnerable categories are those who lost somebody, and the medical staff working in emergencies where they have to cope with patients in critical conditions [10].

Immigrants and refugees are underrepresented in research during COVID-19 times. This chapter describes the principal sources of uncertainty, anxiety, and distress during and immediately after first COVID-19 lockdown among Italians and immigrants. More specifically, the study is focused on Romanian migrants living in Italy, comparing them with the mainstream group (Italians) and with the conational in the country of origin (Romania).

Romanian immigrants made up the largest group of foreign nationals in Italy at the end of 2019, with 1.2 million Romanian citizens in the country [11]. The migration of Romanians towards other European countries has been mainly motivated by economic reasons and aspirations to improve the conditions of life. Almost 2/3 of the Romanian male immigrants work in the construction sector, trade, and industry. In general, they have been represented in the last years in public opinion in negative terms and as principal actors in criminal activities. Many middle-aged women have emigrated because they were made redundant in their previous employment and could not find another job. Most of them emigrated alone, leaving children with father or grandparents. Usually, they work in the housekeeping and private care sectors. Some of them live in their employers' homes what allows them to save big portions of their salaries to send back home. Others have independent accommodation and held part-time jobs with several employers, and are paid for their work by the hour. Female migrants in the domestic sector are among the most exploited groups, and often lack fundamental workers' rights [12–14].

## **1.1 Distress in the times of the pandemic COVID-19**

Studies published all around the world have shown that mental health has been negatively impacted because of worry, stress, and anxiety caused by the COVID-19 [15–23]. However, the research has shown that the effects of the pandemic on mental health have substantial variation across people, contexts, and time [24–28]. Whereas some people have experienced severe mental health consequences, a high percentage of people have experienced relatively few mental health symptoms and a stable pattern of adaptive functioning or resilience [25–32]. Thus, although no one could be immune from potential negative psychological effects, it is also clear that the portion of adverse outcomes has not been equally shared.

Migrants, especially refugees and asylum seekers are facing great vulnerabilities or challenges, in particular those living in camps and other overcrowded contexts without adequate access to water and hygiene products, where respecting social

distancing and other basic prevention practices, such as self-isolating in case of illness, is difficult [9, 33]. The pandemic may cause emotive suffering and exacerbate traumatic experiences encountered before, during, and after their journey to the host country [34–41]. Many migrants experience uncertainty about their future because of concerns about loved ones, about their job and economic situations, and about several other aspects [17, 21, 33, 42–46]. Different concerns during COVID-19 time can provoke heightened stress levels, worry, distress, anxiety, and other negative psychological consequences [47]. Our study has investigated some of the main concerns during the post lockdown period in 2020 and about possible mitigating factors, such as individual resilience and perceived social support.

## **1.2 Social relations during the pandemic**

Physical distancing requirements during the pandemic and various lockdowns have placed severe limitations on our social interactions. People have missed all kinds of networking opportunities in the real contexts and these have been confined to household members and digital interactions with the outside world [17, 21, 48].

A sense of belonging and of social connection is fundamental to human well-being. Consequently, social isolations may create a myriad of consequences for health and well-being globally. Several studies revealed a strong link between social distancing, depression, and anxiety [49–53], and it was confirmed in the context of COVID-19, especially for those living alone or in problematic and violent families [54]. However, the assumed relationship between self-isolation and the onset of depression, anxiety, and stress disorders in the context of COVID-19 is not as straightforward as suggested. Although the negative psychological impact of the COVID-19 pandemic and social distancing has been confirmed in several studies, some people are doing surprisingly well [55–57]. In several studies in the United Kingdom [55–57], it has been found that self-isolation per se does not necessarily lead to the onset of depression but that being exposed to news reporting about the pandemic and perceive any COVID-19 like symptoms (e.g., dry cough, fever) do.

Some of the factors are protective, such as having supporting relationships [58–60].

During an epidemic in Hong Kong in 2003, people reported increased feelings of embeddedness in the community and caring for friends and family members [61]. Although this pandemic is unlike any prior disaster, these findings suggest that critical situations may have favourable effects on social support. Distressful situations stimulate cooperative, and trusting behaviour [62, 63], potentially improving social environments on a broad scale [64]. Lots of people have adapted to the limitations imposed, taking advantage of existing technologies that enable virtual communication.

## **1.3 Resilience**

Resilience is defined as the ability to cope with adversity and with stressful life events [65]. While some researchers suggest resilience is “trait-like” – that is, hard-wired into one’s personality – others say it can be learned and acquired during the life. In an addition, some scholars view resilience as personal quality to adapt and to resist stressful events [66]. When we talk about resilience it’s about being able to handle multiple adverse events, which is what is happening to people now balancing problems of the family, work, economy, and health. As a reaction to the current pandemic, people may feel anxious and worried, but they also have to be able to overcome these negative emotions, and to search for resilience in order to be able to cope with difficulties. Several risk and protective factors have been identified. Usually, resilience depends on the interaction between individual, family,



social, cultural, political, and contextual factors [67–69]. In order to be resilient, people may draw on available resources such as personal courage, commitment, determination, capacity to regulate emotion so we don't allow ourselves to get carried away with fear, and having social support.

## **2. Methods**

This study aims to explore what are the main sources of concern and anxiety during the COVID-19 pandemic, and if there are differences between the groups involved in this research and along with some socio-demographic characteristics (e.g., gender, age). In addition, the study analysed the role of resilience and perceived social support as moderators in the relationship between the sources of concerns and distress.

### **2.1 Participants**

This study involves three groups of participants from the two European countries: Italians and Romanian immigrants in Italy, and people in Romania (N = 1078).

The study conducted in Italy included 491 participants of Italian nationality (of which 355 female, 72.7%). From the power analysis we have done (Gpower 3; 21), considering 0.05 as a threshold probability to reject the null hypothesis, and the expected correlations ( $r = 0.15$ ), this sample size overcame 95% of power which would require a sample size of 166. The age range was 18–68 ( $M = 29.44$ ,  $SD = 14.07$ ). The majority of the participants 70.9% completed high school, 9.8% have undergraduate degrees, 9.2% graduate degrees, 3.9% post-graduate degree, and 6.3% primary school. The majority (71.1%) of the sample were single, the 24.8% were either married or having a relationship, while the remaining were widowed or divorced. A high portion of the participants (56.4%) are students.

In addition, this research included Romanian immigrants (275 subjects, residing in various parts of Italy): 215 female and 60 male. Mean age was 41.29 ( $SD = 23.67$ ). The majority (58.2%) have a high school, 28% have a Bachelor's degree, 10.2% have specialization, and 0.4% have a primary school. Concerning the civil status, the majority are married (54.2%), followed by those who are single, 5.6% (26.2%), separated/divorced (10.2%), and widowers (3.3%).

The study conducted in Romania involved N = 312 participants (N = 255 female, age range from 18 to 69 ( $M = 31.74$ ;  $SD = 10.71$ )). About 20.2% of the participants Completed a high school, 44.2% have a graduate degree, and 35.6% a post-graduate degree. The majority (58%) of the sample were single, 32.7% were either married or having a relationship, while the remaining were widowed or divorced. Most of the participants (62.8%) are employed, and about 25% are students.

### **2.2 Procedure**

Data were collected between May 20 and June 20, 2020. This was immediately after the end of the first lockdown in Italy (May 18, 2020). Recruitment was done through some social media (Facebook) and through students who invited their friends and relatives to participate in the study. The survey was presented as research designed to investigate the psychological impacts of the COVID-19 pandemic. The survey took approximately 15–20 min to complete and it was uploaded on Google Forms (<https://forms.gle/oZJzQtMPCaf6gd837> in Italy; <https://forms.gle/K9S5Ak9xS66995hKA> among Romanian immigrants in Italy; and <https://forms.gle/K9S5Ak9xS66995hKA> in Romania). The response rate was 98%. The study was

approved by the Ethics Committee in the Departments of the corresponding author (Prot. 468–04/05/2020).

## 2.3 Measures

In the questionnaire the following groups of measures have been used:

**Demographics:** the participants indicated their age, gender, level of education, marital status, employment status, and city/region of living.

**Estimation of level of widespread of COVID-19 in the district:** the participants were asked to estimate how many people got the Coronavirus in their district on a 5-point scale (1 = neither one; 5 = a large number of people). The psychological impact of COVID-19 is nourished by information about numbers of infected cases, overcrowded hospitals, deaths, and other information about the pandemic [70, 71].

We also asked the participants to indicate the approximate numbers of people in their country of the living who have the Coronavirus until that moment, and the number of people who were positive at that moment in the country and the place of living. Most of the participants have not had a precise knowledge about the statistics, and have made very distorted estimations which were not considered in the analyses.

Participants also indicated *whether they had the Coronavirus infection* (no – not sure/yes), *whether any family member had the Coronavirus* (no – not sure/yes), and *whether any friends/acquaintances got the Coronavirus* (no – not sure/yes). At the time of data collection, a relatively small number of the participants responded affirmatively to these items and therefore we did not include these variables in the statistical analyses.

**Sources of concern and anxiety.** The participants were asked to indicate on a 5-point scale (1 = *not at all* to 5 = *extremely*) the level of their concern about the following situations: the likelihood to get the Coronavirus; their economic situation, commitments at work/school; distance and isolation from loved ones; and how to take care about children when busy).

**COVID-19 fear scale.** We designed a scale composed of 6 items: I am afraid that I might get the Coronavirus; I am afraid that I may end up in intensive care because of COVID-19; I am afraid that I might die if I get the Coronavirus infection; I am afraid that a loved one might get the Coronavirus infection; I am afraid that someone in my family might end up in hospital because of COVID-19; I am afraid that the Coronavirus may continue to spread in our country). The participants are asked to rate their level of concern about the Coronavirus on a 5-point scale (1 = not at all; 5 = very much). We run Principal Component Analysis to evaluate the factorial structure of the scale. Kaiser's criterion of 1 and a scree plot was used to select the number of factors. The analysis revealed a mono-factorial structure that explained 71.46% of the variance. An index was created, with higher scores reflecting higher levels of COVID-19 fear. Cronbach's  $\alpha$  is .90 in Italy, .89 in Romania, and .94 for Romanian immigrants. More recently, several scales measuring fear of the Coronavirus have been proposed in the literature [63, 72, 73], but were not yet available at the time of this study.

**Resilience measure:** we used two items from the Connor Davidson Resilience Scale (CD-RISC; 2003) (I think of myself as a strong person when dealing with life's challenges and difficulties; I am not easily discouraged by failure), and one item from the Adult Hope Scale [74], (e.g., I am optimistic about my future). The participants estimated on a 5-points Likert scale the level in which the affirmations described them (1. = completely false; 5. = completely true). A score is created by summing the averaged items. The observed Cronbach's Alpha is 0.80 in Italy, 0.79 in Romania, and 0.84 for Romanian immigrants.

*The social support scale* (4 items): we asked the participants to rate how confident they were that they would have received the social support from family members (parents, partner, and children) and from friends and relatives on a Likert type scale of 5 points (1 – not at all sure; 5 – completely sure). We created two indices of social support: (1) social support from family members, and (2) social support from relatives and friends.

*The scale of distress*: contains 6 negative emotional states (sad, frightened, concerned, anxious, distressed, tense). The participants were asked to rate on a 5-point scale how they were feeling during the first lockdown and immediately after (1 = never; 5 = always/usually). The exploratory factor analysis produced a single dimension that explains 61.29% of the variance. An index of distress was calculated and higher scores indicate higher levels of distress. Cronbach's  $\alpha$  is 0.87 for Italians, 0.88 for Romanians in Romania, and 0.86 for Romanian immigrants in Italy.

*The expectations for the future*: We asked the participants to respond to these two questions: 1) When do you expect we will get rid of the Coronavirus in Italy? (Never; In more than one year; Before the end of the year; During the summer), and 2) When do you think a Coronavirus vaccine will be available? (In more than a year; Within 1 year; Within the next 3 months).

### 3. Results

The assumption of normality of the variables was evaluated and was found to be satisfactory as distributions in all groups were associated with skew and kurtosis less than 2 and 9, respectively.

According to ANOVA, most of the variables are significantly different among the three groups (Duncan's posthoc tests). From the means in **Table 1**, we can see that the level of fear of COVID-19 is significantly but not drastically different in the three groups, being the lowest among Romanian migrants and the highest in Romania. Also, the concern about the probability to get the Coronavirus was lower among immigrants, and highest in Romania. The participants in Romania perceived the highest level of widespread of the COVID-19 in their district in comparison to the other two groups. Among all concerns, immigrants have the highest levels of concern about their economic situation and concern about distance/isolation from the loved ones. The participants in Romania are especially concerned about the economic situation and about the risk to get the Coronavirus. At the same time, Romanian participants perceive a higher level of support from family in comparison to the other two groups, whereas Italians perceive a higher level of support from friends. Immigrants appear to be more resilient than the other two groups and less distressed than Italians. In addition, immigrants were more optimistic about time to get rid of the Coronavirus, whereas Romanian participants were more optimistic about time to have a vaccine.

We have explored the differences along some socio-demographic characteristics (e.g., gender, age). First, an ANOVA was run to check the differences between gender categories. We can see that female participants are more concerned and have a higher level of fear of COVID-19 than male participants. They also have a higher level of distress. It is supported also by another study which found significant effect of gender in Italy and Romania, what suggests that women, in comparison to men, are more prone to worry, to feel fear of COVID-19 and distress (**Table 2**) [75].

We calculated correlations between the variables considered and the age of the participants. There emerged significant correlations between age and fear of COVID-19 ( $r = -.10$ ; more mature participants are less afraid than younger

Italy	Immigrants Romania				
	<i>F</i>	<i>p</i>	<i>M</i>	<i>M</i>	<i>M</i>
Fear of COVID-19	38.59	.001	2.90a (1.00)	2.53b (1.17)	3.30c (1.06)
Concern about the likelihood to get the Coronavirus	29.13	.001	2.86a (1.20)	2.32b (1.24)	3.08c (1.38)
Concern about own economic situation	8.29	.001	2.82a (1.19)	3.12b (1.25)	3.14b (1.32)
Concern about job/school tasks	39.49	.001	2.89a (1.52)	1.89b (1.36)	2.68a (1.62)
Concern about distance/isolation from loved ones	2.99	.001	3.19a (1.28)	3.33b (1.37)	3.41ab (1.31)
Concern how to take care about children	15.30	.001	1.56a (1.08)	2.04b (1.47)	1.95c (1.42)
Widespread of COVID-19	29.06	.001	2.22a (0.81)	2.43b (1.05)	2.76c (1.14)
Social support from family	21.81	.001	3.60a (1.16)	3.65a (1.21)	4.10 (0.85)
Social support from friends	25.15	.001	3.53a (1.11)	2.96b (1.17)	3.24b (0.98)
Resilience	35.23	.001	3.30a (0.91)	3.79b (1.02)	3.77b (0.87)
Distress	30.23	.001	2.73a (0.84)	2.30b (0.87)	2.35b (0.83)
Expectations about time to get free from the Coronavirus	100.33	.001	2.50a (0.70)	2.77b (0.82)	1.87c (0.94)
Expectations about time to produce a vaccine	123.48	.001	1.71a (0.52)	1.54b (0.67)	2.19c (0.39)
Age	48.52	.001	29.44a (14.07)	41.29b (23.67)	31.47a (10.71)

Legend: *M* = means on a scale from 1 to 5 (except for age); *SD* in parenthesis.

**Table 1.**  
ANOVA among the three groups (Italy *N* = 491; Rumania *N* = 312; Romanian immigrants *N* = 275).

participants), between age and concerns to get virus ( $r = -.09$ ; more mature participants are less concerned than younger participants), between age and concerns about job/school tasks ( $r = -.36$ ; more mature participants are less concerned than younger participants), between age and concerns about children ( $r = .13$ ; more mature participants are more concerned), between age and resilience ( $r = .08$ ; more mature participants are more resilient than younger), age and perceived support from family and friends ( $r = -.07$  and  $-.19$ ; more mature participants perceive less support than younger participants), and between age and distress ( $-.14$ ; more mature participants are less distressed than younger participants). It is important to emphasize that our participants are prevalently young people (**Table 3**).

In order to examine the relationship between various concerns in times of COVID-19 and distress, as well as to test if resilience and perceived social support may moderate these relationships, we conducted a multiple linear regression analysis. The percentage of variance of distress accounted by each of the predictors is visible in **Table 4**. We conducted a multiple regression analysis by using spss with the aim to examine the percentage of variance in distress accounted for by each of



			Female	Male
	<i>F</i>	<i>p</i>	<i>M</i>	<i>M</i>
Fear of COVID-19	34.27	.001	3.03 (1.10)	2.57 (1.04)
Concern about the likelihood to get the Coronavirus	26.11	.001	2.89 (1.29)	2.42 (1.25)
Concern about own economic situation	4.74	.03	3.04 (1.23)	2.84 (1.29)
Concern about job/school tasks	13.18	.001	2.67 (1.59)	2.26 (1.45)
Concern about distance/isolation from loved ones	39.60	.001	3.43 (1.29)	2.84 (1.30)
Widespread of COVID-19	4.86	.03	2.47 (0.99)	2.31 (1.03)
Distress	33.98	.001	2.60 0.86	2.24 (0.84)

**Table 2.**  
ANOVA to test gender differences (only significant).

	<i>Age</i>
Fear of COVID-19	-.10**
Concern about the likelihood to get the Coronavirus	-.09**
Concern about own economic situation	-.04
Concern about job/school tasks	-.36**
Concern about distance/isolation from loved ones	-.05
Concern how to take care about children	.13**
Widespread of COVID-19	.01
Social support from family	-.07*
Social support from friends	-.19**
Resilience	.08**
Distress	-.14**
Expectations about time to get free from the Coronavirus	.09**
Expectations about time to produce a vaccine	-.09**

\**p* < .05.  
\*\**p* < .01.

**Table 3.**  
Correlations between the variables.

our predictor variables. We considered as predictors some socio demographic variables (gender, age), the perception of the widespread of COVID-19 in the place of living, the fear of COVID-19, all different concerns, resilience, the perception of social support from the family, and the perception of social support from friends (see **Table 4**). All the variables were standardized before entering the analysis. Furthermore, we considered double interactions between fear of COVID-19 and resilience, and between every single concerns and resilience. In addition, we

	Italy			Immigrants			Romania		
	$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
Gender	-.10	-2.69	.007	-.04	-0.67	n.s.	-.09	-2.08	.04
Age	-.07	-1.59	n.s.	.03	0.52	n.s.	-.12	-2.33	.02
Fear of COVID-19	.22	3.71	.001	.10	1.09	n.s.	.33	4.15	.001
Widespread of COVID-19	-.05	-1.37	n.s.	-.03	-0.55	n.s.	-.01	-0.07	n.s.
Concern about risk to get virus	.21	3.18	.002	.04	0.36	n.s.	.04	0.49	n.s.
Concern about own economic situation	.06	1.39	n.s.	.24	3.59	.001	.10	1.59	n.s.
Concern about job/school tasks	.14	2.72	.007	.02	0.26	n.s.	.15	2.52	.01
Concern about distance from loved ones	.08	1.69	n.s.	.21	3.17	.002	.06	0.99	n.s.
Concern how to take care about children	-.04	-0.91	n.s.	.06	0.96	n.s.	.01	0.23	n.s.
Social support from family	-.02	-0.32	n.s.	-.18	-2.33	.02	-.20	-3.50	.001
Social support from friends	-.01	-0.13	n.s.	-.09	-1.15	n.s.	.02	0.29	n.s.
Resilience	-.36	-8.65	.001	-.20	-2.57	.01	-.19	-3.68	.001
Resilience x Fear of COVID-19	-.11	-1.84	.06	.01	0.02	n.s.	-.17	-1.83	.06
Resilience x Concern about the risk to get virus	.10	1.55	n.s.	.09	0.95	n.s.	.16	1.84	.06
Resilience x Concern about own economic situation	.03	0.58	n.s.	-.03	-0.34	n.s.	-.02	-0.39	n.s.
Resilience x Concern about job/school tasks	.02	0.41	n.s.	-.08	-1.15	n.s.	-.02	-0.31	n.s.
Resilience x Concern about distance from loved ones	.01	0.11	n.s.	-.11	-1.55	n.s.	.01	0.20	n.s.
Resilience x Concern how to take care about children	-.04	-0.88	n.s.	-.01	-0.18	n.s.	-.01	-0.24	n.s.
Social support from family x Fear of COVID-19	-.14	-2.12	.04	.03	0.24	n.s.	.03	0.34	n.s.
Social support from family x Concern about risk to get virus	.01	0.17	n.s.	-.08	-0.70	n.s.	.01	0.16	n.s.
Social support from family x Concern about economic sit,	.06	1.37	n.s.	-.09	-1.13	n.s.	.07	0.99	n.s.

	Italy			Immigrants			Romania		
	$\beta$	$t$	$p$	$\beta$	$t$	$p$	$\beta$	$t$	$p$
Social support from family x Concern about job/school	−.02	−0.53	n.s.	−.03	−0.46	n.s.	.02	0.32	n.s.
Social support from family x Concern about distance	.09	1.77	n.s.	.08	1.07	n.s.	.11	1.64	n.s.
Social support from family x Concern about children	−.03	−0.63	n.s.	.04	0.66	n.s.	−.02	−0.37	n.s.
Social support from friends x Fear of COVID−19	.11	1.89	.06	.03	0.24	n.s.	.09	0.92	n.s.
Social support from friends x Concern about risk to get virus	−.16	−2.37	.02	−.10	−0.84	n.s.	−.08	−0.81	n.s.
Social support from friends x Concern about economic sit.	.01	0.01	n.s.	−.03	−0.33	n.s.	.01	0.07	n.s.
Social support from friends x Concern about job/school	−.02	−0.37	n.s.	.04	0.46	n.s.	.04	0.74	n.s.
Social support from friends x Concern about distance	−.07	−1.26	n.s.	.03	0.32	n.s.	−.07	−1.14	n.s.
Social support from friends x Concern about children	.10	2.33	.02	−.06	−0.81	n.s.	−.04	−0.61	n.s.

**Table 4.**  
*Results of hierarchical regression analysis for distress during COVID-19.*

included double interactions between fear of COVID-19 and social support from family, and between every single concern and social support from family. Finally, we considered also double interactions between fear of COVID-19 and social support from friends, and between every single concerns and social support from friends. The analyses were run separately for each group.

Results in Italian sample showed that the regression model accounted for good percentage of variance (43%) ( $F(30, 456) = 11.32, p < .001$ ).

Among the socio-demographic variables, we found a significant effect only of gender ( $\beta = .10, t = 2.69, p < .01$ ), indicating that female have higher level of distress. The analysis confirmed that fear from COVID-19 is a strong predictor of distress ( $\beta = .22, t = 3.71, p < .001$ ). We found a significant effect of concerns about work/study ( $\beta = .14, t = 2.72, p < .01$ ). This is the most important concern in Italian sample, but it was expected knowing that high percentage of the participants are students. As expected, analysis showed a significant effect of resilience on distress ( $\beta = -.36, t = -8.65, p < .001$ ). More interesting, we found a significant effect of interaction between resilience and fear of COVID-19 ( $\beta = -.11, t = -1.84, p < .06$ ). In addition, we found an effect of interaction between fear of COVID-19 and social support from family ( $\beta = -.14, t = -2.12, p < .04$ ), and between fear and social support from friends ( $\beta = .11, t = 1.89, p < .06$ ).

We have calculated the test in order to check the Multicollinearity, the VIF value and the Tolerance Statistic. The largest VIF (4.04) is for interaction between social support from family and concern about the economic situation, but it is not greater than 10, so it is within tolerance. The corresponding Tolerance Statistic is (0.87), is not below 0.1, and again this is within tolerance. Thus, we can conclude that we do not have Multicollinearity.

In Romanian sample, we considered the same variables as in the previous analysis. The regression model accounted for 49% of variance of distress ( $F(30, 281) = 8.84, p < .001$ ). Here again emerged a significant effect of gender ( $\beta = .09, t = 2.08, p < .04$ ). In addition, we found a significant effect of age ( $\beta = -.12, t = -2.33, p < .02$ ), meaning that more mature participants are less distressed. Then, the analysis confirmed a strong effect of fear of COVID-19 ( $\beta = .33, t = 4.15, p < .001$ ). Moreover, we found a significant effect of concern about work/study ( $\beta = .15, t = 2.52, p < .01$ ), of social support from family ( $\beta = -.20, t = -3.50, p < .001$ ), and of resilience ( $\beta = -.19, t = -3.68, p < .001$ ). More interesting we found an effect of interaction between resilience and fear of COVID-19 ( $\beta = -.17, t = -1.83, p < .06$ ), and a significant interaction between resilience and concern about the risk to get virus ( $\beta = .16, t = 1.84, p < .06$ ). Here also a test of Multicollinearity was tested and it resulted acceptable.

Finally, the results on Romanian immigrants showed that the regression model accounted for 38% of variance of distress ( $F(30, 244) = 4.97, p < .001$ ). Here the analysis has not confirmed the significant effect of fear of COVID-19, but there emerged a significant effect of concerns about own economic situation ( $\beta = .24, t = 3.59, p < .001$ ), and of concern about distance from loved ones ( $\beta = .21, t = 3.17, p < .002$ ). We found also a negative effect of social support from the family ( $\beta = -.18, t = -2.33, p < .02$ ), and of resilience ( $\beta = -.20, t = -2.57, p < .01$ ). We have not found any effect of interaction. The test of multicollinearity confirmed that it is acceptable also in this research group.

In order to better understand the interaction, we conducted a simple slope analysis for the effect of interaction between resilience and fear of COVID-19, considering the aggregated sample. We found that the relationship between fear of COVID-19 and stress is stronger for the people who have lower resilience ( $\beta = .43, t = 11.99, p < .001$ ), then for the people who have better resilience ( $\beta = .33, t = 9.44, p < .001$ ).



#### **4. Discussion and conclusions**

Our primary aim in this research was to explore some psycho-social predictors of fear and distress during the COVID-19 pandemic in three groups of participants: Italians, Romanian immigrants in Italy, and Romanians in Romania.

We found that immigrants have a lower level of fear of Covid-19 than the other two groups. This is certainly not a consequence of safe living conditions and adherence to measures, but rather it is connected with a major focus on other existential problems with which they are concerned. They are concerned mostly about the economic situation and about distance from the loved ones. It seems that these concerns have surpassed the fear of the virus itself. Migrants make up a large percentage of the workforce in sectors that have remained active throughout the crisis, such as agriculture, deliveries, personal care, and health-care provision, and cleaning services. Migrants are over-represented in some of the industries hardly hit by the crisis, such as catering services and non-essential retail, and thus many of them lost jobs.

Fear of COVID-19 is not significantly associated with the knowledge of the numbers of positive cases and deaths in Italy. People have little knowledge about statistics and they estimate the situation in terms of “a lot, many, few...cases”.

We found correlations between fear of COVID-19 and age: younger participants have higher fear than more mature participants. These findings are consistent with recent studies that have confirmed that middle-age people are less vulnerable to psychological stress and social isolation during a pandemic and are less likely to develop symptoms of mental health disorders such as depression and anxiety [76–80]. They have adapted without major difficulties and managed to maintain satisfactory subjective well-being despite the pandemic and restrictive measures.

We found a strong effect of the fear of COVID-19 on distress which is partly reduced by the perception of personal resilience. In general, economic difficulties and concerns about jobs among immigrants, more than in other samples, contribute to increased level of stress. In addition, the perception of personal resilience reduces distress in all groups of participants. Furthermore, the perceived support from family has an important role in reducing distress among Italians and Romanians, but not among immigrants. Particularly surprising is the relatively low level of importance of social support from friends for reducing distress.

The immigrants perceive the lowest social support from friends (probably due to the lack of social network in the host country), but relatively high social support from the family. Despite all this, their level of distress is paradoxically the lowest. This can be related to the subjective perception of their resilience, which is the highest in this group. This corresponds to the data of previous research [41]. In addition, it could be also that immigrants are more focused on economic survival and neglect their psychological well-being, as pointed out in the previous studies [81].

Uncertainty and anxiety due to fear from COVID-19 are strongly associated with distress, which is further exacerbated by different concerns. For immigrants, the major concerns are those regarding the economic situation, which exacerbated further their distress especially in those who do not perceive themselves as resilient and as having good social support. Preventive programs should be focused on promoting major social support to people in need and ensuring that migrants are not left behind.

There are some limitations of the study that should be noted. The research was undertaken during the first wave of the pandemic. The highly uncertain situation of the prolonged pandemic crisis poses additional challenges regarding its

consequences. Therefore, follow-up studies in different phases of the ongoing pandemic are needed.

The impact of some other variables was not considered, due to the limitation of an online survey that must not last too long. The selected variables explained about 35–40% variance of distress what indicates that we should consider other sources of risk or protective factors in future studies and creating some recommendations for improving preventive programs and policies.

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## **Ethical approval**

This research was approved by the Ethics Committee at the authors' departments.

All procedures performed in this study involving human participants were per the said committee's ethical standards and/or national research committee.

## **Declaration of interest**

None.

## **Informed consent**

Informed consent was obtained from all individual participants included in this study.

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