

OPEN ACCESS

Published: February 28, 2023

Citation: Marchesini N,
Avveduto S, et al., 2023. How
Are You? A Sociological Case
Report of the COVID-19
Pandemic from Professionals in
Italy, Medical Research Archives,
[online] 11(2).
https://doi.org/10.18103/mra.
v11i2.3455

Copyright: © 2023 European Society of Medicine. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

DOI

https://doi.org/10.18103/mra. v11i2.3455

ISSN: 2375-1924

RESEARCH ARTICLE

How Are You? A Sociological Case Report of the COVID-19 Pandemic from Professionals in Italy

Nicolo' Marchesini^{1,3}, Sveva Avveduto^{1,3}, Giuliana Rubbia^{2,3}

- ¹ National Research Council of Italy CNR
- ² National Institute of Geophysics and Volcanology of Italy INGV
- ³ Observatory on Gender and Talents GeTa

ABSTRACT

COVID-19 has turned our lives upside down. The first lockdown occurred in Italy in the spring of 2020, drastically disrupting people's daily schedules, work schedules, socialisation, and relationships with co-workers, family and friends. To overcome physical isolation, collect impressions and keep a record of the period, the "How are you?" online questionnaire has been designed as a potential conversation among friends during home confinement for all but essential reasons. What impact this situation had on people?

The study investigates some of the social and relational consequences the first lockdown in Italy had on a group of professionals in terms of similarities and differences regarding changes and limitations on their work and daily routines, primarily focusing on the emotions felt at that time

Text mining techniques have been applied to almost one hundred replies, as well as an unsupervised method of emotion analysis; the latter is used for the entire sample and a subgroup consisting only of female scientists.

Our findings show that during the Spring 2020 lockdown, a moment of physical and relational confinement was bear, causing bewilderment due to several factors: in terms of work-life balance, the overlap between public and private space, and the established daily routine to return, while regarding the relational sphere, the lack of physical contacts and interactions - such as support for dependent elderly - that technology has only partly been able to fill. Two primary emotions emerge from the entire sample: acceptance of the virus containment measures imposed and restlessness about the present and future. The group of female scientists appears more optimistic.

The experienced situation of deprivation of individual freedoms such as movement and social contact, however, has brought along a new awareness of the frailties of our society, refocusing attention on the importance of scientific research, ecological transition, and, more generally, a reflection on our development model.

^{*}Correspondence: <u>nicolo.marchesini@irpps.cnr.it</u>



Introduction

The multiple effects that COVID-19 had, and is having, on the economy and society still need to be fully explored. Among the many possible impacts, what entails different levels of severity and involvement is most certainly gender-related. Indeed, men and women behave differently towards a pandemic situation according to their roles in society¹⁻³.

The first report to imagine the different levels of impact and to provide policy recommendations was drafted by Blasko et al. for the European Commission a few months after the pandemic outbreak; it contains no data but only indications and perspectives to "assess potential consequences of the COVID-19 outbreak on women and gender equality in Europe" 4(p2). The report quickly concludes that, unlike previous crises, "[...] the current crisis seems to be more or less genderneutral, [...] this one will most probably hit women and men in more similar ways" 4(p9). Numerous studies have reached this conclusion quickly, even highlighting the major disadvantage for women⁵⁻⁹. Women are among those who have been most affected by the crisis generated by the COVID-19 pandemic, starting with economic issues and ending with social and, of course, health issues. In terms of job losses and reduced working hours, many studies have shown that women have been more affected than men by national lockdowns and social distancing measures 9-12, especially in femaledominated sectors such as health and care professions, retail, and education^{6,13}. To support the recovery of the population, including women, the European Union approved the Next Generation EU plan containing the Recovery and Resilience Facility. The policy binds the Member States to work towards improving "the resilience, crisis preparedness, adjustment capacity and growth potential of the Member States, by mitigating the social and economic impact of that crisis, in particular on women" 14(p15) (art. 4, par. 1) to obtain financial support from the Union.

However, such economic instability intertwines with social and family dynamics that have characterised women's gender roles for centuries. Indeed, the division of unpaid labour remains tied to prevailing cultural norms leading to a gender-stereotyped view of tasks, especially concerning dependant-caring. Despite women's employment steadily increasing over the long term, the dual-income family model is becoming more widespread in

Europe. The latest European data confirm that women in all the EU Member States still spend significantly more time on housework and childcare than men^{15,16}. In more than half of European countries, women spend more than twice as much time on housework as men and in Italy, 140% more time¹⁷.

Women, moreover, not only do most of the unpaid care work in households but also face additional high risks in addition to economic insecurity, such as risks of violence, exploitation, abuse or harassment, exacerbated during periods of crisis and quarantine^{18–20}.

The Lockdown narratives

Since the COVID-19 pandemic began, especially during the first months in which the most significant and severe restrictions were suddenly put in place¹⁵, thousands of archives have been collected to classify and monitor shared information on the virus and its impacts. Curators have been mainly scientific institutions, and the archives contain scientific and medical data. However, many universities and other cultural or organisations, as well as individuals, have begun to collect "a bit of everything" potentially useful to describe the period. From tweets to video diaries, from masks in all their varieties to recordings of familiar songs: everything has become a matter of study and conservation²¹.

As happened in other countries²²⁻²⁵, in Italy, memories have been collected by universities, such as the Bicocca University²⁶, and several were the initiatives of narrative medicine^{27,28} over the first pandemic months. In parallel, investigations in different areas were performed. For instance, people's trust in information sources concerning the new virus has been analysed²⁹, such as their emotions³⁰, the reactions of public employees³¹, the gender perspective of home working as perceived in public research organizations³²; and the unveiled science-society relationships have deepened³³. Studies and investigations began in the first months and continue even now.

Aim of the study

Therefore, the starting point of this study covers two main aspects: 1) the social impact that the pandemic produced on the population, particularly on the more vulnerable groups such as women, and 2) the emotional impact of the pandemic and the consequent containment measures during the most

acute phase had on a collective level. Under these circumstances, the social perception of this exceptional period in the population is highly remarkable about three key aspects: (1) what impact (e.g. daily routines, particular feelings, involvement in work) did the shutdowns of all work activities considered non-essential have on working life?; (2) what were the main changes in individual daily life, both as strengths and as limitations and withdrawals?; and (3) what legacy the pandemic may have had on a social level?

Data collection and methodology

To keep track of such experiences in Italy, the National Research Council, with the "Donne e Scienza" Association, decided to seize the moment and the opportunity to record such an unusual event and its impact on a selected group of people such as professors and scientists, intellectuals and artists. From mid-March 2020, representatives of the scientific community, culture and politics, civil society and the professions were asked to share their experiences and considerations³⁴. The interviews were structured over twelve questions sent by email, and respondents were selected through a convenience sampling technique. The first two questions regarded participants' demographic aspects, while the remaining ten questions were formulated to mock spontaneous, typical friends' like a stream of conversation. During COVID-19, respondents were asked how their daily work- and personal lifetimes had changed, how the extended time they suddenly had available was used, and what they would take with them once the emergency was over. Therefore, rather than being representative of the country, data collecting tries to capture the feelings and concerns of the people involved at that time.

Developing the contribution to the Gender and Talent Observatory (GeTa)³⁵ technical report, the present study aims to answer the three abovementioned research questions on crucial aspects, i.e. impact on work habits, daily life and expected pandemic legacy. The adopted methodology implies analysing the syntactic structure and terms used in 3 of the 12 questions in the questionnaire, specifically, Q3 How have your working time and work habits changed? to answer research question no.1, Q4 What has changed in your daily habits? In leisure, socialisation, personal and home care, nutrition? to answer research question no.2 and Q11 - What will change afterwards? What would you like to take with you from this experience when it

is over? What would you not like to forget? for the last research question.

Moreover, we focused part of the investigation on a specific subset of this study's sample³⁶ composed of only women in science professions, such as researchers and technologists, press officers, human resources consultants, and diversity officers with disciplines ranging from the Social Sciences and Humanities to STEM (Science, Technology, Engineering, and Mathematics) in research centres, agencies and higher education institutions. The reasons for this choice lie in the proven impact of the pandemic, as highlighted in the introduction, the subsample size (56% of the total sample), and the background proximity to the authors (peer group). The results of this study are significant because Italy was the second country hit by the virus after China and the first in Europe to experiment with limitations a lockdown, with public health and political decisions that have been controversial³⁷. Beyond the intrinsic value of these testimonies, they are publicly available³⁴; therefore, further analysis can be performed on a unique sample in terms of time, space, and professions; the text analysis proved to be a valuable tool to grasp meanings in narratives massively.

The sample

From mid-March to the beginning of June 2020, during the first phase of the emergency in Italy, 96 responses were received. The text analysis focused on the answers in Italian (86 in total) to form a cohesive and syntactically comparable linguistic corpus without a translation since this was likely to distort the terms used in the answers. 84% of the responses came from women, 78% from people over 50, and only four questionnaires from people permanently or temporarily abroad. anonymous contributions in the sample are limited in number (7 out of 86). The most frequent professionals who contributed included academics (a few retired), journalists and writers. The largest group of respondents comprises middle-aged, highly educated Italian women working in universities and research centres who are sending their testimonies from Central Italy. During the period, this group of people shared the same lifestyle organisation, e.g., the lockdown duration, working conditions, behaviours and needs, part of them related to their professions and gender. In particular, home working has been experienced



following the decrees mandating the Universities, schools, and office closures.

The analyses

Text mining techniques were applied to identify systematic patterns among the responses to the various questions. In particular, our analysis focuses on the relationships between word components, focusing on pairs of adjacent words (bi-grams). The primary language adopted in the questionnaire is Italian, so the text analysis included exclusively Italian words. We decided not to translate the graphs generated by the analysis into another language (i.e., English) to avoid losing the linguistic and semantic characteristics of the language used; therefore, the interpretation of graphs is here provided in English, with terms in Italian shown in brackets. On the contrary, excerpts from narratives commented on in the following sections appear between quotation marks and are translated into English to make reading easier.

Additionally, an analysis of emotions was carried out regarding one core question to analyse the peculiarity of the period and feelings arising from experiencing such an emergency as a global pandemic. We identified two balanced groups of three emotions each, based on the fundamental emotions defined by the psychology underlying classic emotion detection³⁸ and interweaving them with the "COVID-19 emotions" ^{39–41}, each referring to a positive and to a negative context. Using Laser³⁸, a popular system for the semantic representation of the period with vectors or sentence embeddings³⁹, we identified the presence or absence of such emotions in every response.

Main testimonies

The first two questions analysed - Q3 How have your working time and work habits changed? and Q4

What has changed in your daily habits? In leisure, socialisation, personal and home care, nutrition? allow us to capture life changes experienced before and during the lockdown. As shown by the bi-grams relating to Q3 (Fig.1), at the centre of the change in times and habits are the work (lavoro) and the home (casa), those two aspects that have undergone radical changes following confinement, and to which the topics most discussed by the interviewees are linked: the change (cambiare) in habits (abitudine), the teleworking (telematico) methods (modalità), the desire to be able (potere) to return (tornare) to work in the "classic" way, the home seen as a space isolating (stare), as an office (ufficio), as a place that can allow concentration (concentrare). The primary working modality is the home working - called "smartworking" in Italy, unannouncedly introduced along with the lockdown. It seems to create a strong link between the working dimension and the home in terms of physical space "Now my work is done in smartworking within my bedroom equipped as an office, for certainly more than 8 hours" (Anonymous A) - and in terms of conflict. Some respondents say that not much has changed compared to the previous situation. At the same time, several point out that they have to take turns with their partner to manage all their daily commitments: "I take shifts with my husband so that we both work in smartworking. The time spent working is less continuous" (Anonymous B). Time turns out to be fluid, oscillating between being dilated and slow as well as occupied: if, on the one hand, being confined at home produces a sort of loss of the "sense of time and the days passing", on the other hand, "work helps because there is any way an agenda (and therefore a calendar) of meetings to attend to, deadlines to cope with, emails to answer or send" (S. L.).



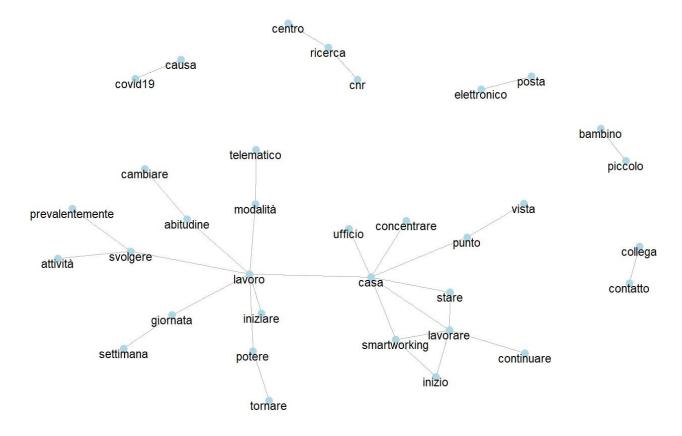


Figure 1. Network plot of the bigrams among the answers to Question 3 (abs freq $\geq = 3$).

The analysis of the text in Q4 reveals the subsequences in Fig.2. The home (casa) remains the change core even in daily habits not strictly related to work. People have had to give up seeing and directly caring (cura) for their often-elderly beloveds (caro), as testified by M.C.A.: "I have experienced difficulties in caring for my elderly parents: I do their shopping and take care of urgent paperwork, but I remain at a distance to avoid the

risks of infection", by using social platforms to keep (tenere) relationships (contatto) with them. Social media, especially those allowing video calls (chiamata), have become the critical tool of the new sociality (socialità), allowing people to keep in touch and see (vedere) friends (amico) as well as relatives (parente) even for people not used to using social media in this way.



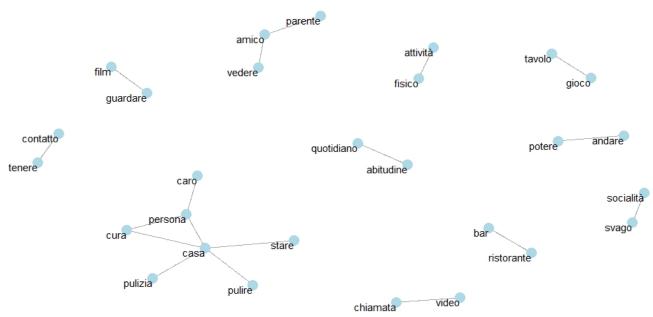


Figure 2. Network plot of the bigrams among the answers to Question 4 (abs freq ≥ 3).

All participants found a way of coexisting with the Coronavirus and everything it has entailed on a personal and social level. However, many of the contributions about daily habits are composed of positive aspects and challenging and struggling sides. Therefore, to get a general picture of the respondents' perception of this set of answers, an emotion analysis (Fig.3) was carried out. By assessing the distance of each sentence per response over each emotion vector and considering the smaller the distance, the greater the adherence to that emotion, the presence of each emotion for each sentence could be assessed dichotomously (presence/absence). Considering the first two emotions with the smallest distance but still significant (values above 0.5), eventually, the number of responses showing each emotion was calculated.

Concerning the change in daily habits, 82.6% of the respondents show acceptance towards the lockdown, while 80.2% feel restlessness. However, negative feelings of restlessness, fear, and sadness prevail within the sample.

Despite the severe limitations in place, a more positive attitude towards the lockdown appears in

the subgroup of women researchers than in the whole sample. Indeed, optimism is identified in 87.5% of the answers, often associated with hope and the desire for improvement concerning the current situation. In comparison, acceptance of logistical and social constraints appears in 75% of the answers, related to the ability to understand the severity of conditions and to the rediscovery of home as a pleasant place to experience peacefulness and tranquillity. If at the same time, an emotion of sadness appears in 52.1% of the answers (against 47.7 in the overall sample), the sub-sample of female scientists shows a lower level of restlessness and fear, at 58.3% and 27.1%, respectively, than among all the respondents (80.2% and 46.5). According to Galasso et al., "women are more likely to see COVID-19 as a severe health problem, to agree with restraining public policy measures adopted in response to it, and to comply with them. Gender differences in attitudes and behaviour are substantial in all countries" 40(p1), maybe with a most pronounced trust in science among higher-educated people⁴¹ like members of this sample.



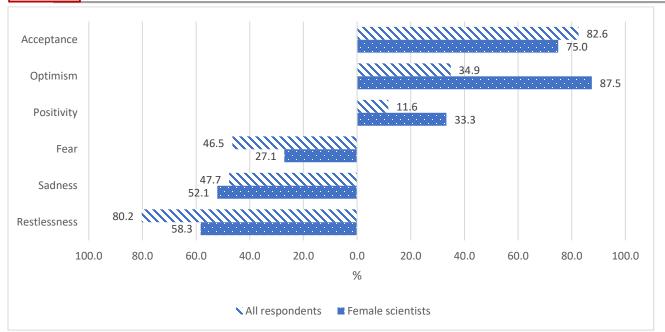


Figure 3. Emotions analysis: percentage of each emotion occurrence within the overall sample and the female scientists' sample to Question 4.

As the survey took place during the first months of the pandemic, Q11 - What will change afterwards? What would you like to take with you from this experience when it is over? What would you not like to forget? concerns expectations towards the future (Fig.4). At that time, the shock of the pandemic and the subsequent casualties appeared to have led respondents to state that they would like to (volere) forget (dimenticare) what had happened in order to (potere) return (tornare) to pre-pandemic normality

(normalità). At the same time, however, this difficult (brutto) period (periodo) brought along an awareness (consapevolezza) of our fragility (fragilità) as a society: the lesson (lezione) emphasised by the virus (virus) concerns the importance of bonds and affection such as seeing (vedere) friends (amico), the importance of our rights (diritto) and our freedom (libertà), as well as highlighting the central role of scientific (scientifico) research (ricerca) and public (pubblica) health system (sanità).



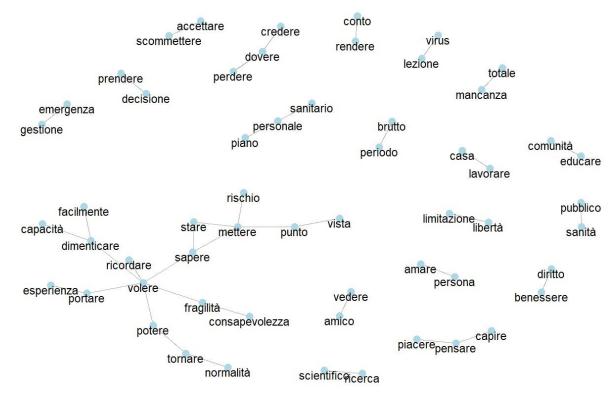


Figure 4. Network plot of the bigrams among the answers to Question 11 (abs freq \geq 2)

Discussion

The image emerging from the analysis of the questionnaires relates to the beginning of the pandemic in Italy, spent mainly in complete lockdown (9 March to 18 May 2020) or just ended. During the months of home confinement, all movement outside the home was prohibited except for those essential, i.e., shopping or for health reasons; the armed forces controlled public spaces; all work and social activities were suspended, but those essential (health services and supermarkets). According to Q3 How your working time and work habits have changed? the house has become a contradictory space. The introduction of emergent homeworking as the primary way of working has revolutionised people's everyday life, both positively and negatively. Indeed, the overlapping work space with private space has given people a "sense of time and the days that go by" (S.L.) but also created conflict situations. The interviewees' narratives report both the initial perception of novelty - "everyone thinks that the fact that you are at home [means that] in the "meantime" you can also do this or that, so time fills up every day" (F.F.) and the daily difficulties - "The first week we navigated by sight, but it didn't work, we were tired and a bit nervous. So, we made a plan: to establish a quarantine routine" (B.L.K.). This situation, just mentioned by the respondents, is subsequently confirmed by several studies highlighting how the pandemic has aggravated the gender gap in paid and unpaid work^{2,42-44}. This kind of result corroborates our initial research question confirming that women suffered from multiple expectations and were asked to fulfil at the same time different commitments without any break between private and working life, and without any help they generally had, their career suffered from being hampered by this situation⁵.

At the same time, the Q4 What has changed in your daily habits? In leisure, socialisation, personal and home care, nutrition? allowed for a more intimate look at people's everyday lives. On the one hand, the lockdown allowed people to rediscover and cultivate personal interests that "normal" life had stifled. Food played a central role in daily habits^{45,46}, carving out some time for cooking, especially for those used to having lunch outside the home due to work requirements, and tying in with the desire to eat healthily, as confirmed in a longitudinal study about food consumption during and after the first COVID-19 lockdown in Italy⁴⁷: "Thanks to what they bring me and what I have crammed (before COVID-19) in the pantry and

freezer, I cook remarkable dishes: little quantity but good quality" (L.M.). Additionally, time for reading and watching films plays a central role in the economy of the day^{48,49}. On the other hand, the (lack of) care for people and beloveds is the aspect that has been the most suffered, only partly mitigated by the use of social platforms to maintain relations with them. Social networks and video calls have become the key tool of the new sociality in COVID-19 times, partly limiting the experience of potential loneliness and severely impacting psychological well-being^{50–52}.

At the time of the questionnaire, the images of the many casualties due to COVID-19 were still highly vivid, especially in Northern Italy⁵³. This collective shock and fear strongly conditioned respondents' narratives, bringing out polarised feelings and emotions. The emotions analysis highlighted an attitude aimed primarily at accepting the rules imposed and the deprivation of many individual freedoms, together with feelings of a negative nature such as restlessness, sadness and fear. This indication is in line with what has emerged in the literature studying feelings and emotions following local lockdowns⁵⁴⁻⁵⁶. On the other hand, the subgroup of women scientists shows, above all, greater optimism towards the future and less anxiety about the pandemic situation than the overall sample: in fact, it seems that the training and tools possessed lead respondents to have greater confidence in science and its role in overcoming the pandemic 41,57 .

The perception just described also transpires in the narratives about the future and the development of the pandemic. The respondents' desire to forget the dark moment is mixed with a desire to remember, to keep what has been learned in this experience, aim to overcome it and return to the so-called normality. Moments experienced both individually and as a community seem to have produced, in the sample studied, a greater awareness of our fragilities as a society: "I don't want to forget the sense of People, of solidarity, of understanding of problems, that this event brought to civil society" (V.D.P.); but also "I would like to bring with me the awareness of our fragility" (So.M.) and "I would like to forget all the painful news and dramatic images of this bad period" (Si.M.); "The awareness that everyone's behaviour counts within our society" (P.C.). The importance of individual behaviour from a collective perspective is linked to scientific research and the ecological transition that was only

beginning to be discussed at the time. The pandemic "was a unique opportunity to give social importance to scientific research and make people perceive it as a useful tool", and it brought a "great novelty: [...] the use of science by the central government to make complex and responsible decisions [...] experts' groups supporting institutions is a new practice that must absolutely remain. [...] It is, therefore, necessary to fight to impose - for the near future - different ways to create decision-making groups" (S.F.). For example, the lockdown unequivocally showed the effects of reduced traffic, cleaner air and health effects⁵⁸⁻⁶¹. As one respondent notes, "The satellite data show us an incredible decrease in pollutant emissions, a good lesson in combating the greenhouse effect" (P.C.) and, in other contexts, the decrease in anthropogenic noise^{62,63}, detected, for example, even by seismic networks 64,65. "We cannot go back to the so-called normality because the problem lies precisely in this normality, like a bug in an apple: the chain of errors linked by a predatory development model endangering the planet for recent decades. [...] There is not a previous situation to return to, but a future to invent together. [...] We, therefore, need a qualitative leap in our collective consciousness to radically transform both economy and society towards a more ecological model" (G.F.).

The fact that the sample was not constructed according to criteria of statistical representativeness, and therefore the information gathered cannot be considered extendable to the population under study, can be considered a limitation of the study. Despite this, the observed results corroborated the evolution and impact in economic-social terms of the pandemic in Italy, proving that the syntactic structures and sentiments underlying the narratives can be considered illustrative of the period experienced.

Conclusions

Through written testimonies from several professionals, the work aimed to highlight feelings and perspectives experienced in Italy during COVID-19 in the Spring of 2020, one of the most dramatic historical episodes. The research aimed at acquiring new knowledge on how and how much the pandemic impacted a specific target. i.e., women professionals, assuming that they were suffering from the effect of COVID-19 as everyone in their daily life but particularly hit as women and as part of a community that until that period considered meeting colleagues and exchanging results an essential part of their jobs. Therefore, this specific,

even if restricted, group of people was chosen as the target of our study.

The COVID-19 epidemic has changed employees' everyday lives, including jobs, family routines, and society. The text analysis and the original language of several answers confirmed our assumptions. Lockdown generated confusion because abruptly implemented; work and public venues clashed with private ones; daily tasks became challenging; new communication methods only partially offset isolation and social estrangement. There was a strong tendency toward restlessness, fear, and sadness. Being alone made liberties once thought fundamental and essential, like travelling, getting out, and moving to foster relationships, even from a physical and tactile perspective, more apparent. Women professionals appear to be severely hit by the situation that hindered them from ruling their professional life as requested by their jobs. This condition has been largely proved in literature. The negative impact of the pandemic on work includes the inability to travel to conferences or other important events, interruptions to experiments or fieldwork, teaching duties, course attendance, and publishing delays^{66,67}, with potential significant short- and longer-term effects on careers. Different

fields are affected differently, with variations among bench sciences and less equipment-intensive fields⁶⁸. Women professionals have been impacted⁶⁹ regardless of the discipline, from physicians⁷⁰ to astronomers⁷¹ and earth scientists⁷². The pandemic made it clear how important it is to make science-driven decisions and make sanitary measures available to everyone. Finally, comments highlighted the need to protect the environment from the materialistic culture that rules western cultures.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Acknowledgements

Thanks to Dr Yuri Bizzoni (Aarhus University) for his constant and precious advice and expertise on machine learning techniques and for enabling the authors to understand the wonders and potentials of text analysis.

The Observatory Gender and Talents— GeTa www.irpps.cnr.it/en/geta-osservatorio-su-genere-e-talenti/ of the National Research Council of Italy — Institute for Research on Population and Social Policies (CNR-IRPPS) finance this publication.



References

- Etheridge B, Spantig L. The gender gap in mental well-being at the onset of the Covid-19 pandemic: Evidence from the UK. European Economic Review. 2022;145:104114. doi:10/gq7gxm
- Eurofound. COVID-19 Pandemic and the Gender Divide at Work and Home. Publications Office of the European Union; 2022:86. https://www.eurofound.europa.eu/sites/defaul t/files/ef_publication/field_ef_document/ef22 010en.pdf
- 3. Gustafson PE. Gender differences in risk perception: theoretical and methodological perspectives. *Risk Anal.* 1998;18(6):805-811. doi:10/br4xng
- 4. Blasko Z, Papadimitriou E, Manca AR. How Will the COVID-19 Crisis Affect Existing Gender Divides in Europe? Publications Office of the European Union; 2020:22. https://op.europa.eu/en/publication-detail/-/publication/c74af327-8441-11ea-bf12-01aa75ed71a1
- Hazarika OB, Das S. Paid and unpaid work during the Covid-19 pandemic: a study of the gendered division of domestic responsibilities during lockdown. *Journal of Gender Studies*. Published online December 18, 2020. doi:10.1080/09589236.2020.1863202
- 6. Bluedorn J, Caselli F, Hansen NJH, Shibata I, Tavares MM. Gender and Employment in the "She-COVID-19 Recession: Evidence on Cessions." International Monetary Fund; 2021:24. https://www.imf.org/en/Publications/WP/Issue s/2021/03/31/Gender-and-Employment-inthe-COVID-19-Recession-Evidence-on-Shecessions-50316
- Fuller S, Qian Y. Covid-19 and The Gender Gap in Employment Among Parents of Young Children in Canada. Gender & Society. 2021;35(2):206-217. doi:10/gjhtck
- Collins C, Ruppanner L, Christin Landivar L, Scarborough WJ. The Gendered Consequences of a Weak Infrastructure of Care: School Reopening Plans and Parents' Employment During the COVID-19 Pandemic. Gender & Society. 2021;35(2):180-193. doi:10/gjk25v
- EIGE. Gender Equality Index 2022. The COVID-19 Pandemic and Care. Publications Office of the European Union; 2022:126.

- https://eige.europa.eu/publications/gender-equality-index-2022-covid-19-pandemic-and-care
- EIGE. Gender Equality and the Socio-Economic Impact of the COVID-19 Pandemic. Publications Office of the European Union; 2021:75.
- Fabrizio S, Gomes DBP, Tavares MM. COVID-19 She-Cession: The Employment Penalty of Taking Care of Young Children. International Monetary Fund; 2021. Accessed November 8, 2022.
 - https://www.imf.org/en/Publications/WP/Issues/2021/03/03/COVID-19-She-Cession-The-Employment-Penalty-of-Taking-Care-of-Young-Children-50117
- ISTAT. Rapporto annuale 2022. La situazione del Paese. Istituto nazionale di Statistica; 2022:295.
 https://www.istat.it/storage/rapporto-annuale/2022/Rapporto Annuale 2022.pdf
- Eurofound. COVID-19: Implications for Employment and Working Life. Publications Office of the European Union; 2021:86. https://www.eurofound.europa.eu/sites/defaul t/files/ef_publication/field_ef_document/ef20 050en.pdf
- Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 Establishing the Recovery and Resilience Facility. Vol 057.; 2021. Accessed November 8, 2022.
 http://data.europa.eu/eli/reg/2021/241/oj/eng
- 15. Eurobarometer. Gender equality and gender pay gap [database]. Published 2017. https://europa.eu/eurobarometer/surveys/detail/2154
- Giménez JI, Molina Chueca JA. The Gender Gap in Time Allocation in Europe. SSRN Journal. Published online 2020. doi:10/gq68th
- Eurofound. European Quality of Life Survey [database]. Published 2016. https://www.eurofound.europa.eu/data/european-quality-of-life-survey
- Ertan D, El-Hage W, Thierrée S, Javelot H, Hingray C. COVID-19: urgency for distancing from domestic violence. Eur J Psychotraumatol. 2020;11(1):1800245. doi:10/gjkz45



- UN Women. COVID-19 and Ending Violence Against Women and Girls. United Nations Entity for Gender Equality and the Empowerment of Women (UN Women); 2020:10.
 - https://www.unwomen.org/en/digital-library/publications/2020/04/issue-brief-covid-19-and-ending-violence-against-women-and-girls
- 20. EIGE. The COVID-19 Pandemic and Intimate Partner Violence against Women in the EU. Publications Office of the European Union; 2021:78. https://eige.europa.eu/publications/covid-19pandemic-and-intimate-partner-violenceagainst-women-eu
- 21. Spinney L. What are COVID archivists keeping for tomorrow's historians? *Nature*. 2020;588(7839):578-580. doi:10/gj7n4d
- Tucker N. Library Seeks Pictures of Pandemic Experiences. Library of Congress Blog. Published September 9, 2020. Accessed November 8, 2022. //blogs.loc.gov/loc/2020/09/library-seeks-pictures-of-pandemic-experiences/
- Health & Care Professions Council. COVID-19 - Your stories. Published 2021. Accessed November 8, 2022. https://www.hcpcuk.org/covid-19/your-stories/
- 24. Cambridge University Library. Covid-19 Collection. Published April 16, 2020. Accessed November 8, 2022. https://www.lib.cam.ac.uk/collections/departm ents/manuscripts-university-archives/significantarchival-collections/covid-19
- 25. Plymouth City Council. COVID-19 Memory Box - Be part of history and share your story. Published 2020. Accessed November 8, 2022. https://www.plymouth.gov.uk/covid-19memory-box-be-part-history-and-share-yourstory
- 26. Castiglioni M. COVID 19 e Narrazioni aperte sugli adulti di oggi. Dipartimento di Scienze Umane per la Formazione "Riccardo Massa." Published March 27, 2020. Accessed November 8, 2022. https://www.formazione.unimib.it/it/universit% C3%A0-e-territorio/blog/covid-19-e-narrazioni-aperte-sugli-adulti-oggi
- Fondazione ISTUD. Narrarsi Ai Tempi Del COVID-19.; 2020:16. https://www.medicinanarrativa.eu/wp-

- content/uploads/Narrarsi-ai-tempi-del-COVID-1.pdf
- 28. Polvani S, Cerati M, Cenci C, et al. R-Esistere: le storie dietro ai numeri. Società Italiana di Medicina Narrativa; 2020:20. Accessed November 8, 2022. https://www.medicinanarrativa.it/it/simen/
- Bucchi M, Saracino B. Italian citizens and covid-19. Public Understanding of Science Blog. Published 2020. Accessed November 9, 2022. https://sagepus.blogspot.com/2020/03/italian-citizens-and-covid-19.html
- Cerbara L, Ciancimino G, Crescimbene M, et al. A nation-wide survey on emotional and psychological impacts of COVID-19 social distancing. European Review for Medical and Pharmacological Sciences. 2020;24(12):7155-7163. doi:10/gnpfcz
- 31. FPA Data Insight. Strategie Individuali e Organizzative Di Risposta All'emergenza. FPA; 2020:14.
- Cellini M, Antonucci MC, Avveduto S, et al. Survey on Smart Working within Research Institutions During the Covid-19 Emergency: A Gender Perspective. IRPPS Working papers. 2020;121:65.
- 33. Metcalfe J, Riedlinger M, Bauer MW, et al. The COVID-19 mirror: reflecting science-society relationships across 11 countries. *JCOM*. 2020;19(7):A05. doi:10/ghqfh7
- 34. Avveduto S, ed. How are you? Conversations in the time of COVID-19. CNR Edizioni; 2020. doi: 10.14600/978-88-80803-99-7
- 35. Marchesini N, Avveduto S, Rubbia G. Percezioni e aspettative al tempo del coronavirus: un'indagine qualitativa. In: *Il Mondo Nuovo: La Ricerca Nell'anno Della Pandemia.* Rapporto GETA 2020. Report. CNR Edizioni; 2021:13-28. doi:10.14600/978-88-8080-458-1
- Avveduto S, Marchesini N, Rubbia G. How are you? Impressions on Covid-19 Lockdown from Women Scientists in Italy. In: Proceedings of the 4th International Conference on Gender Research ICGR 2021. Academic Conferences International Limited; 2021:35-44. doi:10.34190/IGR.21.032
- Camporesi S, Angeli F, Fabbro GD.
 Mobilisation of expert knowledge and advice for the management of the Covid-19 emergency



- in Italy in 2020. Humanit Soc Sci Commun. 2022;9(1):1-14. doi:10/grgfrb
- 38. Artetxe M, Schwenk H. Massively Multilingual Sentence Embeddings for Zero-Shot Cross-Lingual Transfer and Beyond. *Transactions of the Association for Computational Linguistics*. 2019;7:597-610. doi:10/gkz62j
- Krasnowska-Kieraś K, Wróblewska A. Empirical Linguistic Study of Sentence Embeddings. In: Proceedings of the 57th Annual Meeting of the Association for Computational Linguistics. Association for Computational Linguistics; 2019:5729-5739. doi:10/ghfp4k
- 40. Galasso V, Pons V, Profeta P, Becher M, Brouard S, Foucault M. Gender Differences in COVID-19 Related Attitudes and Behavior: Evidence from a Panel Survey in Eight OECD Countries. National Bureau of Economic Research; 2020:w27359. doi:10.3386/w27359
- 41. Bromme R, Mede NG, Thomm E, Kremer B, Ziegler R. An anchor in troubled times: Trust in science before and within the COVID-19 pandemic. *PLoS One*. 2022;17(2):e0262823. doi:10/grgfrx
- 42. Burchi S. Lavorare Da Casa Durante La Pandemia. Donne e Smartworking in Toscana. IRES Toscana, CGIL Toscana; 2020:52. https://www.ingenere.it/sites/default/files/rice rche/workingpaper-smartworking_burchi.pdf
- 43. INAPP. Gender Policies Report 2020. Istituto nazionale per le analisi delle politiche pubbliche; 2020:110. https://www.ingenere.it/sites/default/files/rice rche/inapp_gender_policies_report_2020_26. 2.21.pdf
- 44. Boca DD, Oggero N, Profeta P, Rossi MC. Did COVID-19 Affect the Division of Labor within the Household? Evidence from Two Waves of the Pandemic in Italy. Published online June 1, 2021. Accessed November 11, 2022. https://papers.ssrn.com/abstract=3886726
- Grant F, Scalvedi ML, Scognamiglio U, Turrini A, Rossi L. Eating Habits during the COVID-19 Lockdown in Italy: The Nutritional and Lifestyle Side Effects of the Pandemic. *Nutrients*. 2021;13(7):2279. doi:10/gk72zt
- 46. Balest J, Stawinoga AE. Social practices and energy use at home during the first Italian lockdown due to Covid-19. Sustainable Cities and Society. 2022;78:103536. doi:10/gq7st8

- 47. Caso D, Guidetti M, Capasso M, Cavazza N. Finally, the chance to eat healthily: Longitudinal study about food consumption during and after the first COVID-19 lockdown in Italy. Food Quality and Preference. 2022;95:104275. doi:10/gj9fx7
- 48. González AB. Principali tendenze di consumo dei media in Italia: Cosa è cambiato da un anno all' altro? YouGov: What the world thinks. Published 2021. Accessed November 11, 2022.
 - //it.yougov.com/news/2021/02/19/principali -tendenze-di-consumo-dei-media-italia-co/
- 49. Tassi P. 'Fortnite' And 'Call Of Duty'
 Straining Italian Internet As Coronavirus Keeps
 Kids Home. Forbes. Published 2020. Accessed
 November 11, 2022.
 https://www.forbes.com/sites/paultassi/2020/
 03/13/fortnite-and-call-of-duty-strainingitalian-internet-as-coronavirus-keeps-kidshome/
- Latikka R, Koivula A, Oksa R, Savela N, Oksanen A. Loneliness and psychological distress before and during the COVID-19 pandemic: Relationships with social media identity bubbles. Social Science & Medicine. 2022;293:114674. doi:10/gq7srq
- Procaccia R, Segre G, Manzoni GM. Psychological effects of COVID-19 in general Italian population in function of age and gender. Mediterranean Journal of Clinical Psychology. 2022;10(2). doi:10/gg7srx
- 52. Arpino B, Pasqualini M, Bordone V. Physically distant but socially close? Changes in non-physical intergenerational contacts at the onset of the COVID-19 pandemic among older people in France, Italy and Spain. Eur J Ageing. 2021;18(2):185-194. doi:10/gk6v9r
- 53. ISTAT. La Dinamica Demografica Durante La Pandemia COVID-19 Anno 2020. Istituto nazionale di Statistica; 2021. https://www.istat.it/it/archivio/255802
- 54. Wagener A, Stassart C, Etienne AM. COVID-19 and Its Lockdown in Belgium: How Limited Access to Environmental Satisfaction Impacts Emotions? *Psychol Belg.* 2022;62(1):34-46. doi:10/gpccx5
- 55. Surano FV, Porfiri M, Rizzo A. Analysis of lockdown perception in the United States during the COVID-19 pandemic. *Eur Phys J Spec Top.* 2022;231(9):1625-1633. doi:10/gq7wcc



- 56. Giovanardi G, Fiorini Bincoletto A, Baiocco R, et al. Lockdown dreams: Dream content and emotions during the COVID-19 pandemic in an italian sample. *Psychoanalytic Psychology*. 2022;39:111-126. doi:10/hxdg
- 57. Biassoni F, Salducco A, Abati D. The COVID-19 "First Lockdown" Experience in Italy: The Role of Hope and Optimism and Their Impact on Psychological Well-Being and Risk Perception. EJMH. 2022;17(2):89-103. doi:10/grggk9
- 58. ESA. Coronavirus: nitrogen dioxide emissions drop over Italy. Published March 13, 2020. Accessed February 17, 2021. http://www.esa.int/ESA_Multimedia/Videos/2 020/03/Coronavirus_nitrogen_dioxide_emissio ns_drop_over_Italy#.XnNyN9QTqTY.link
- Balasubramaniam D, Kanmanipappa C, Shankarlal B, Saravanan M. Assessing the impact of lockdown in US, Italy and France— What are the changes in air quality? Energy Sources, Part A: Recovery, Utilisation, and Environmental Effects. 2020;0(0):1-11. doi:10/gh2c65
- 60. Mousazadeh M, Paital B, Naghdali Z, et al. Positive environmental effects of the coronavirus 2020 episode: a review. *Environ Dev Sustain*. 2021;23(9):12738-12760. doi:10/gk7h7r
- 61. Wojciechowska W, Januszewicz A, Drożdż T, et al. Blood Pressure and Arterial Stiffness in Association With Aircraft Noise Exposure:Long-Term Observation and Potential Effect of COVID-19 Lockdown. Hypertension. 2022;79(2):325-334. doi:10/gq7wd9
- Manzano JV, Pastor JAA, Quesada RG, et al. The "sound of silence" in Granada during the COVID-19 lockdown. Noise Mapping. 2021;8(1):16-31. doi:10/gk7j68
- 63. Caniato M, Bettarello F, Gasparella A. Indoor and outdoor noise changes due to the COVID-19 lockdown and their effects on individuals' expectations and preferences. *Sci Rep.* 2021;11(1):16533. doi:10/gq7wfb
- Piccinini D, Giunchi C, Olivieri M, et al.
 COVID-19 lockdown and its latency in Northern

- Italy: seismic evidence and socio-economic interpretation. *Sci Rep.* 2020;10(1):16487. doi:10/gk66wh
- 65. Poli P, Boaga J, Molinari I, Cascone V, Boschi L. The 2020 coronavirus lockdown and seismic monitoring of anthropic activities in Northern Italy. Sci Rep. 2020;10(1):9404. doi:10/gq9j4q
- 66. UNESCO. Covid-19 pandemic disproportionately affecting women in science and engineering | UNESCO. Published April 19, 2021. Accessed December 11, 2022. https://www.unesco.org/en/articles/covid-19-pandemic-disproportionately-affecting-women-science-and-engineering
- 67. Viglione G. Are women publishing less during the pandemic? Here's what the data say. Nature. 2020;581(7809):365-366. doi:10/dwdw
- 68. Myers KR, Tham WY, Yin Y, et al. Unequal effects of the COVID-19 pandemic on scientists. Nat Hum Behav. 2020;4(9):880-883. doi:10/gg47x5
- National Academies of Sciences, Engineering, and Medicine. The Impact of COVID-19 on the Careers of Women in Academic Sciences, Engineering, and Medicine. National Academies Press; 2021. doi:10.17226/26061
- Garrido P, Adjei AA, Bajpai J, et al. Has COVID-19 had a greater impact on female than male oncologists? Results of the ESMO Women for Oncology (W4O) Survey. ESMO Open. 2021;6(3):100131. doi:10/grgfsh
- Böhm V, Liu J. Impact of the COVID-19 pandemic on publishing in astronomy in the initial two years. Nat Astron. Published online November 28, 2022:1-8. doi:10/grgnv7
- 72. Wooden P, Hanson B. Effects of the COVID-19 Pandemic on Authors and Reviewers of American Geophysical Union Journals. *Earth and Space Science*. 2022;9(2):e2021EA002050. doi:10/grgnwh