

Better off alone:

An analysis of women's calls to the Domestic Violence helpline 1522 in Italy during the COVID-19 Pandemic

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Abstract

Violence against women is not only a social issue, but a deep wound that crosses generations and communities. As perpetrators are most often belonging to the household of the victim, the restrictive measures adopted to contain the spread of COVID-19 immediately raised concerns regarding the risk of increases in domestic violence against women due to forced confinement. Yet, the same concerns contributed to raise awareness on the phenomenon and spread knowledge on the availability of support services for victims. Our study analyzes ISTAT data on the calls to the 1522 helpline, the Italian national helpline for gender-based violence, in the period 2015–2022, with particular attention to the impact of the pandemic. Comparing the trends of the calls to denounce episodes of violence with those of the calls to ask information about the 1522 service, we can distinguish the effect of the pandemic on violence from that of the growing awareness about the phenomenon. Our results show that, although reporting rates of gender-based violence increased during the COVID-19 pandemic, the actual rates of violence rose disproportionately due to forced confinement. Moreover, our results suggest that the post-pandemic reporting of violence cases appears to have stabilized on higher level relative to the pre-pandemic time, although this seems related to greater awareness of the phenomenon. In our further investigation broken down by age, it emerges that the increase is particularly marked among girls under the age of 17 and between young women aged 18-24, whose reports more than doubled.

Keywords: domestic violence, women, COVID-19 pandemic

1. Introduction

Domestic violence against women is a violation of human rights and represents a global, social and public health crisis. According to the World Health Organization (WHO), one in three women worldwide experiences physical or sexual violence during her lifetime, often within the family context (Mikton & World Health Organization,

2010). This phenomenon has devastating effects on the physical and psychological health of victims and contributes to the perpetuation of cycles of inequality and poverty. The United Nations has recognized the urgency of addressing this issue by including it among the goals of the 2030 Agenda for Sustainable Development, emphasizing the need for structural policies to combat gender-based violence (United Nations, 2015).

With the outbreak of the Covid-19 epidemiological emergency in the early months of 2020, media, institutions and specialized services quickly remarked the increased risk of domestic abuses against women due to the forced confinement.¹ Indeed, it is well established that gender-based violence increases during periods of close family proximity (Vazquez et al., 2005; Joshi and Sorenson, 2010; [Boutilier et al., 2017](#); [Di Tommaso and Muratori, 2020](#)). Agüero (2021) documents a 48% surge in calls to Peru's Línea 100 helpline during the initial lockdown months, with consistent trends across various demographic and socioeconomic groups. Similarly, Leslie and Wilson (2020) find a 7.5% rise in DV-related police calls in the United States between March and May 2020. In the European context, Brink et al. report a 40% increase in helpline calls in Austria, Flanders, Spain, and the UK. Collectively, these findings highlight a significant rise in demand for help and support, suggesting that DV indeed intensified during the pandemic restrictions.

Concerns around the risk of increased abuses were aggravated by the consideration that confinement itself could prevent victims from denouncing cases, as victims living with their abuser may face difficulties in finding safe spaces to report violence and seek psychological support (Di Tommaso and Muratori, 2020). In the early lockdown months, the authors recorded a worrying 55.1% decrease in the calls to the "Telefono Rosa" helpline service in Italy, which likely reflects a severe underreporting of cases of violence. Underreporting of gender-based violence is, indeed, a well-known phenomenon, with formal reports representing only a fraction of actual cases (e.g., Palermo, Bleck, and Peterman, 2014)

An implication noted by some studies is that domestic violence against women may have actually declined during the pandemic, at least in terms of documented physical injuries or formal reports. For instance, Nittari et al. (2021) find a decrease in DV-related hospitalizations in a major Milan hospital in 2020 compared to previous years, despite an increase in the severity of cases. Similarly, Gosangi et al. (2020) report fewer emergency hospitalizations for intimate partner violence in 2020 relative to 2017–2019, though, again, with more severe injuries. In Italy, Brink et al. (2021) highlight a decrease in both police reports and helpline calls (excluding the 1522 helpline, which they did not consider), attributing this decline to the country's strict lockdown policies.

¹ See, e.g., statements of the World Health Organization (<https://iris.who.int/bitstream/handle/10665/331699/WHO-SRH-20.04-eng.pdf>) and the Council of Europe (<https://pace.coe.int/en/news/7824/-put-safety-of-women-at-the-heart-of-all-measures-to-tackle-coronavirus-says-rapporteur>).

Other researchers challenge the narrative of rising risk of violence by emphasizing the complexities of measuring DV accurately. These studies argue that increased reporting does not necessarily imply an actual increase in violence but may instead reflect higher awareness. Chen et al. (2024) illustrate this in the U.S. context, emergency calls for DV rose initially but DV crime rates dropped by 10% in cities like Chicago and Los Angeles, suggesting discrepancies between perception and actual incidence. Their analysis of police reports, emergency services data, and hospital records concludes that DV might have decreased overall, putting in doubt early pandemic assumptions.

These considerations highlight the urgent need to jointly address the issue of awareness and actual risk of violence in order to clarify the effect of the COVID-19 pandemic and lockdown measures on domestic violence. In this paper, we propose a very simple approach to the issue. Drawing on data on the calls to the 1522 Italian national anti-violence helpline, we can distinguish calls into two broad categories based on the recorded reason for calling: victims calls and information calls to request information about the service. The former refer to calls made by victims and witnesses of violence to denounce episodes of violence and seek emergency support. The latter refer to calls made to request information about the service, legal advice and the functioning of Anti-Violence Centers (“Centri Anti-Violenza”, CAV).

We take information calls as a control group in our analysis. Our key assumption is that, comparing the trends in the information calls with the trends in the victim calls, we can effectively purge the trends in the violence cases from variations in the awareness of the service.

The remainder of the paper is organized as follows. In Section 2, we present the data and methodology of our paper. In Section 3, we review the core results. In Section 4, we present additional results relating to the demographic profile of victims. In Section 5 we discuss the main findings. Section 6 concludes.

2. Data and Methods

Our analysis relies on data on the calls to the 1522 helpline against Violence and Stalking. The 1522 helpline is a public service promoted by the Italian Presidency of the Council of Ministers - Department for Equal Opportunities that offers help and support to victims of violence and stalking.² The number is free of charge and is active 24 h a day.

Data on the calls to the 1522 helpline are publicly available from the Italian National Institute of Statistics (ISTAT), covering the years 2013 to 2022. For the purposes of this study, we focus solely on calls made by women, neglecting the minority of calls made by men. The dataset includes detailed information on the reasons for the calls

² For more information, see <https://www.1522.eu/?lang=en>

made to 1522, referred to as *Motivi della chiamata* in Italian. We categorized the 14 available reasons in the dataset into two main groups:

1. **Victim Calls (Categories 1–5):** These reflect direct and indirect reporting of violent or abusive situations and are critical to understand the actual prevalence and characteristics of violence. They include:
 - *“Richiesta di aiuto vittima di stalking”*: Help requested by stalking victims.
 - *“Richiesta di aiuto vittima di violenza”*: Help requested by victims of physical, psychological, sexual, or economic violence.
 - *“Richiesta di aiuto per discriminazione”*: Calls regarding gender or other forms of discrimination.
 - *“Segnalazione di un caso di violenza”*: Third-party reports of witnessed violence.
 - *“Emergenza”*: Emergency situations involving immediate danger.
2. **Information Calls (Categories 6–14):** These reflect the level of public awareness, professional engagement, and the functioning of support systems. They include:
 - *“Info sul servizio 1522”*: Inquiries about how the helpline operates.
 - *“Info sui CAV”*: Information about anti-violence centers (CAVs).
 - *“Info giuridiche”*: Legal advice.
 - *“Info per professionisti sulle procedure da adottare in caso di violenza”*: Guidance for professionals handling violence cases.
 - *“Info sulla responsabilità giuridica degli operatori dei servizi pubblici”*: Clarification on the legal responsibilities of public service operators.
 - *“Segnalazione disfunzione servizi pubblici/privati”*: Reports of service failures.
 - *“Segnalazione di info scorretta sui media”*: Concerns over misinformation about violence in the media.
 - *“Chiamata internazionale fuori orario”*: Calls from abroad or outside service hours.
 - *“Numeri utili per chiamate fuori target”*: Referrals for calls outside the helpline's scope.

This classification supports a clearer and more focused analysis of both the direct experiences of violence and the broader societal response.

The dataset on the calls 1522 helpline are disaggregated by region and cover the entire Italian territory. This geographical granularity allows for the identification of potential disparities in domestic violence reporting across Italy.

2.1 Empirical model

Our empirical approach is akin to a difference-in-difference design, in that it assumes that the trends in the information calls provide a valid counterfactual against which we can compare changes in the trends of the calls to denounce violence cases. Our underlying assumption is that greater awareness about the availability of the 1522 support service and, more broadly, the phenomenon of violence against women should increase *both* information calls and victim calls. In other words, fluctuations in public awareness – due, for instance, to advertisement of anti-violence services, public discussions about cases of violence, etc - should be a key driver of the parallel trends between victim calls and information calls. Fluctuations in awareness could be affected by COVID-19, too: during the lockdown months, the institutional alert about the risk of abuses has contributed to a wide media coverage of the issue and to the diffusion of advertisements and campaigns to raise awareness about the availability of the 1522 helpline.

In other words, our identifying assumption is that, comparing the trends in victim calls and information calls, we can purge the effects of awareness from the trends in victim calls, thus addressing Chen et al., (2024)'s critique.

The “treatment” in our setting is the forced confinement at home imposed by the lockdowns introduced to contain the impact of the COVID-19 pandemic, which exposed women to the constant presence of their assailant. Drawing on the abundant literature on the risk of violence from relatives in case of close family proximity, we expect lockdowns to affect victim calls much more intensively than information calls.

Under our assumptions, a disproportionate increase in victim calls relative to information calls would identify the effect of COVID-19 lockdowns on violence, net of its effects on awareness. In this case, we could argue that the dynamics of violence have changed to an extent that exceeds the fluctuations in awareness – which would imply, in short, that the increases in victim calls are not due to awareness but to an actual increase in the risk of domestic violence. Another possibility is that information and victim calls move along similar trends even in the post-COVID period, which would suggest that the COVID-19 lockdowns did not substantially affect cases of violence.

Finally, if we observed that victim calls reduce compared to information calls, we could argue that awareness is growing faster than violence cases.³

The baseline DiD equation of our model is the following:

$$\text{calls}_{it} = \alpha + \beta_1 \cdot \text{covid}_t + \beta_2 \cdot \text{victims}_i + \delta \cdot (\text{covid}_t \times \text{victims}_i) + \varepsilon_{it}$$

The dependent variable is the number of calls made to the 1522 helpline in region i at time t , which captures both calls made by victims and those made to request general information. The model includes three main components. The first is a time dummy (covid_t) equal to 1 if the call occurred in the post-COVID period (2020–2022), and equal to 0 in the pre-COVID period (2015–2019). The second term is a victim dummy (victims_i), equal to 1 when the call can be categorized as a victim call, and 0 if it is an information call. The third term is an interaction between the two, which we label “did” in our estimates. The coefficient on this interaction term is of primary interest, as it estimates the differential effect of the pandemic on calls made to denounce cases of violence. This allows for an assessment of whether the increase in calls post-COVID was disproportionately driven by victims, thereby providing evidence of heightened domestic violence risk during crisis periods. The model also includes a constant (α), and an idiosyncratic error term (ε_{it}) to absorb unobserved regional and temporal shocks.

Drawing on this common structure, we perform a few variations of our experimental setup altering three analytical parameters to ensure robustness and explore potential model sensitivity:

1. **Clustering of Standard Errors and regional fixed effects:** The study tests models with no clustering, clustering at the regional level, and clustering by region with fixed effects for both region and year. This progression helps control for unobserved regional heterogeneity and time-specific shocks.
2. **Definition of Informational Calls:** We apply two classifications to define information calls: “All Info,” which includes all non-victim calls (possibly capturing indirect requests for help), and “Explicit Info,” which narrows the scope to only clearly defined informational requests. The explicit info includes only the category “*Info sul servizio 1522*” (Information on the 1522 service).

³ The relevant possibility that women locked down with their assailants are unable to find safe spaces to ask for information or call for support (Di Tommaso and Muratori, 2020) may imply that we underestimate the effects of COVID-19 on violence, but it does not seem to challenge our identifying assumption. Indeed, these limitations should affect victim calls much more strongly than information calls – in absence of a potential assailant in the same household, women should not face substantial hindrances in asking for information. Yet, the underreporting due to fear of being caught may lead us to underestimate the effects of lockdowns, implying that we are estimating a lower bound of the effects.

2.2 Additional Analyses: the profile of victims

2.2.1 Victim Calls by Age Group

A second step in our analysis is to perform a demographic breakdown of victim calls, concentrating exclusively on female victims across different age groups. to explore how domestic violence reporting patterns vary by age over time. Unlike the previous sections, we need to focus on victim calls as the demographic profile of information calls is unavailable in the ISTAT data. Furthermore, we cannot maintain the regional breakdown of previous analyses as the data broken down by age are not further disaggregated by region.

The analysis categorizes calls into the following seven age groups: 14–17, 18–24, 25–34, 35–44, 45–54, 55–64, and 65 years and older. The under-17 category specifically focuses on girls aged 14 to 17, excluding those younger than 14 due to the limited ability of very young girls to access or make calls to 1522 helpline.

The analysis spans the full observation period from 2013 to 2022, enabling the identification of long-term patterns. To control for demographic variations across time, the number of calls is normalized using annual female population data from ISTAT, calculated for each age group. For example, the 18–24 group includes the summed female population of ages 18 through 24 for each year, and the same logic is applied to all other age categories.

Statistically, due to the lack of data on the information calls, this part of the research employs linear regression rather than the DiD model.

This analysis provides crucial complementary insights to the overall study by highlighting how external crises such as the pandemic may have differentially impacted domestic violence reporting among young women who may face unique access barriers to help services and other age groups.

2.2.2 Victim Calls by civil status

We can also distinguish the civil status of female victims. The objective is to investigate how the relationship status may have influenced the volume of victim calls made to the 1522 helpline, particularly during the COVID-19 pandemic. The categories examined in this analysis are single, married, separated, divorced, and widowed women.

Our working hypothesis builds on the assumption that women cohabiting with a partner, typically those who are married or in a relationship, were especially vulnerable during lockdowns. In contrast, women who were not cohabiting with a potential perpetrator, such as separated, divorced, or widowed, may have experienced different exposure to domestic violence, potentially making them a natural comparison group.

Again, unfortunately, the information about the civil status is unavailable for information calls, limiting our ability to perform a diff-in-diff design in this case. Unlike the age-based analysis, where calls were normalized by the female population in each age bracket using ISTAT data, this civil status analysis is not normalized, due to the lack of disaggregated population data by civil status. Therefore, the analysis relies on absolute call numbers, which may bias the interpretation of trends.

Overall, the main research combined with the additional analyses by age group and civil status provide a more nuanced and demographically targeted view of the phenomenon. This analytical structure makes it possible to identify which groups of women were most affected and how reporting behaviour changed over time and across categories. Our contribution to the literature therefore lies in offering detailed empirical evidence on the pandemic's impact, supporting the development of more effective prevention and intervention policies tailored to the specific characteristics of victims.

3. Results: Dynamics in victim calls relative to information calls

Our results show that there was an increase in the overall trend of calls in the post-COVID period. The details of the Difference-in-Differences analysis demonstrated that even though there were fewer calls from victims compared to all other types of calls, they increased more sharply during the COVID-19 pandemic, resulting in a statistically significant interaction term.

The first experimental result is the one that uses all non-victim calls as a benchmark to compare with the calls from victims. The non-victim call dataset was broader than just those explicitly asking for information, thus providing us with a broader picture of the domestic violence trend against women across Italy before and during the pandemic.

The following results use data normalized per 1,000 women. The trends in normalized calls are graphically represented in Figure 1 below, with victim calls represented in red and information-seeking calls in blue. Inspection of the graph shows that, until 2019, the dynamics of victim calls were similar, albeit slightly lower, to those of information calls, with the exception of 2017. In contrast, the graph clearly shows a marked increase in the victim calls in 2020.

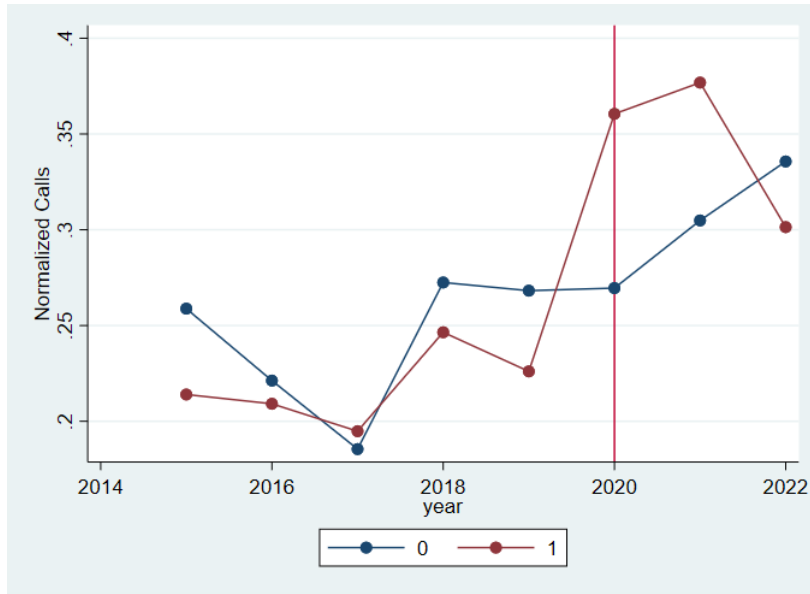


Figure 1. Average normalized

calls by region, year and type of call. Information calls (victim=0) are represented in blue, while victim calls (victim=1) are represented in red. In this specification, all information calls on the 1522 service are included in the control group.

Table 1 quantifies these changes in a regression. The results show approximately 0.24 calls per 1,000 women during the pre-COVID period. The number of normalized calls increased on average by 0.0621 calls per 1,000 women during the post-COVID period, and the increase in calls from victims compared to non-victims during the COVID period was on average 0.0660 calls per 1,000 women .

(1)		(1)			
normalized_calls		normalized_calls			
covid	0.0621*** (4.20)	covid	0.0621*** (6.55)	victims	-0.0250* (-2.43)
victims	-0.0231 (-1.78)	victims	-0.0231* (-2.15)	did	0.0660*** (5.91)
did	0.0660** (3.12)	did	0.0660*** (6.15)	_cons	0.210*** (30.79)
_cons	0.241*** (26.63)	_cons	0.241*** (14.55)	N	328
N		N		t statistics in parentheses	
328		328		* p < 0.05, ** p < 0.01, *** p < 0.001	

Table 1. Results of the diff-in-diff approach

described in equation (1). The left panel reports the results of analyses where the standard errors were not clustered. The middle panel reports the results of analyses with clustered standard errors. The right panel reports the results of analyses with clustered standard errors and region and year fixed effects. In this specification, all kinds of information calls are included in the control group.

This corresponds to a 23.7% increase in calls from women who were not victims of violence after the COVID-19 pandemic, compared to a 59.5% increase for victims.

In Figure 2 and Table 2, we present the results of an alternative specification only referring to the calls that explicitly requested information, in order to narrow down our non-victim call dataset and provide a clearer picture of the trend in domestic violence against women. Again, victim calls and information calls appear to evolve along similar trends pre-COVID, while a marked and rather persistent increase in the post-COVID victim calls emerges: victim calls nearly double compared to the pre-pandemic period (an increase of 0.0827 victim calls per 1,000 women versus a baseline level of 0.0700 calls per 1,000 women across the entire period and the whole Italian population).

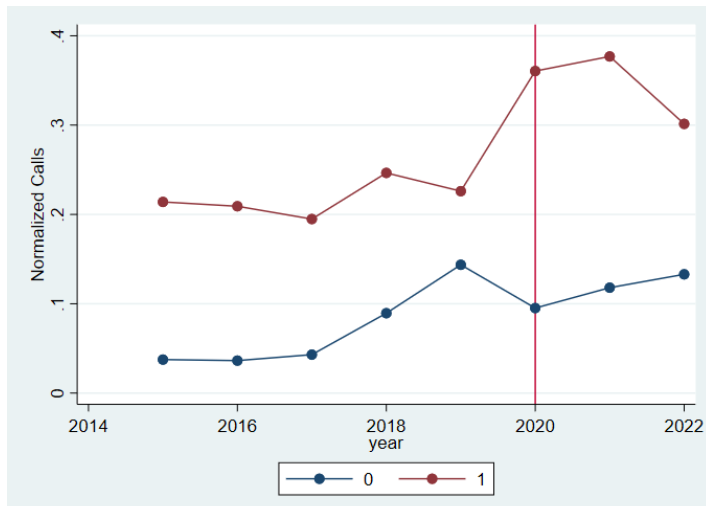


Figure 2. Average normalized calls by region, year and type of call. Information calls (victim=0) are represented in blue, while victim calls (victim=1) are represented in red. In this specification, only information calls on the 1522 service are included in the control group.

(1)		(1)		(1)	
	normalized_calls		normalized_calls		normalized_calls
covid	0.0454*** (4.51)	covid	0.0454*** (14.83)	victims	0.148*** (17.10)
victims	0.148*** (16.98)	victims	0.148*** (17.82)	did	0.0827*** (8.57)
did	0.0827*** (5.81)	did	0.0827*** (8.93)	_cons	0.0815*** (9.94)
_cons	0.0700*** (11.35)	_cons	0.0700*** (15.16)	N	320
N		N		t statistics in parentheses	
320		320		* p < 0.05, ** p < 0.01, *** p < 0.001	
t statistics in parentheses		t statistics in parentheses			
* p < 0.05, ** p < 0.01, *** p < 0.001		* p < 0.05, ** p < 0.01, *** p < 0.001			

Table 2. Results of the diff-in-diff approach described in equation (1). The left panel reports the results of analyses where the standard errors were not clustered. The middle panel reports the results of analyses with clustered standard errors. The right panel reports the results of analyses with clustered

standard errors and region and year fixed effects. In this specification, only information calls on the 1522 service are included in the control group.

Coherently, comparing the various results obtained (without clustering, with clustering by region, and with year and region dummies), we again find a statistically significant increase in the Difference-in-Differences coefficient, indicating a rise in victim cases during the COVID-19 pandemic compared to calls explicitly requesting information. This points to an even greater and more significant increase than the previous result, which included all types of information-seeking calls.

This second experiment confirms and strengthens the results obtained in the first analysis, providing a more precise understanding of the pandemic's impact on calls to the 1522 helpline. Shifting to a more focused dataset, solely concentrating on calls for information directly related to the helpline, allowed us to exclude potential biases from calls not directly connected to domestic violence.

The results suggest that the pandemic not only increased awareness and usage of the 1522 service but also led to an actual rise in reported domestic violence. The significance of the differences observed in models with and without clustering reinforces the idea that the impact of COVID-19 on emergency calls was not uniform at the territorial level but was influenced by regional specificities and temporal variations.

Overall, these results highlight the urgency of policies and interventions that ensure more effective access to support services, especially in crisis situations like those triggered by global health emergencies. The need for flexible and adaptable protection systems emerges, suggesting that institutional responses should be more responsive in identifying and addressing the increased risk of domestic violence during periods of isolation and social instability.

4. Supplementary analysis: the age and civil status profile of victims

In addition to our experiment comparing trends before and after the pandemic using all calls, we dig deeper into the analysis of available ISTAT data on calls made by female victims, broken down by demographic group. This was aimed at identifying the women most severely affected, potentially helping to prioritize support efforts and guide further research toward those most in need. As mentioned, we conducted two analyses: one based on age groups and the other on civil status. The results of these studies helped us understand which women were most impacted by domestic violence during the COVID-19 pandemic.

4.1 Analysis based on age groups

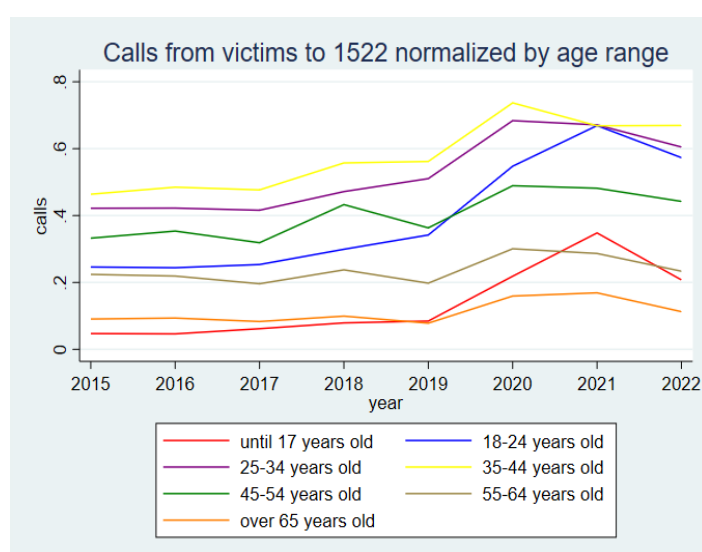
The first experiment focuses on calls to the 1522 helpline broken down by age group. We performed a normalization of the available data from ISTAT regarding the different

age groups of female victims of violence, taking into account the differences in population rates across various Italian regions.

	14-17	18-24	25-34	35-44	45-54	55-64	65+
covid	0.194** (5.62)	0.320*** (8.61)	0.205*** (6.73)	0.183** (5.62)	0.111*** (3.91)	0.0587* (3.20)	0.0580** (4.25)
cons	0.0637* (3.01)	0.277*** (12.18)	0.448*** (24.07)	0.509*** (25.58)	0.360*** (20.71)	0.215*** (19.16)	0.0889** (10.65)
N	8	8	8	8	8	8	8

* p < 0.05, ** p < 0.01, *** p < 0.001

Although the baseline number of calls appears higher among women aged 25–34 and 35–44, the most significant increase was recorded among the younger age groups. In particular, calls from minors (under 18) increased by 305%, while among women aged 18–24, the increase was 115%.



This data highlights a specific vulnerability among younger women, who recorded a significant increase in support requests during the pandemic. The reduction in mobility and domestic confinement may have exposed adolescent girls to a higher risk of intrafamilial violence from fathers or brothers, while simultaneously limiting their ability to report such violence through traditional channels, such as schools or social services. The fact that an increase in calls was observed despite these barriers suggests that the need for help within this age group was particularly acute.

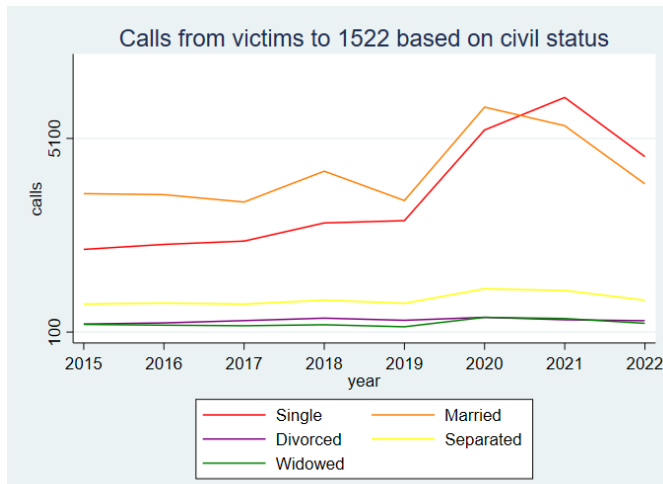
Overall, the data shows a clear trend: the impact of the pandemic on calls to the 1522 helpline was more pronounced among younger women, with diminishing effects as age increases.

4.2 Analysis based on civil status

The second experiment we conducted in addition to our original study focused on calls to the 1522 helpline made by female victims of violence, broken down by civil status. The groups included single women, married women, separated women, divorced women, and widows.

	Single	Married	Widow	Separated	Divorced
covid	2779.2*** (7.32)	1381.5* (2.90)	145.7** (3.91)	251.9* (3.52)	50.07 (1.24)
cons	2588.6*** (11.13)	3705.8*** (12.71)	273*** (11.96)	852.8*** (19.45)	380.6*** (15.40)
N	8	8	8	8	8

* p < 0.05, ** p < 0.01, *** p < 0.001



The group of single women recorded the largest increase in calls, with a rise of 107%, which aligns with the results of the previous experiment indicating greater vulnerability among younger women, who are presumably too young to be in a different civil status.

In parallel, the group of married women showed a significant increase of 37.3%. Although smaller in sample size, the group of widowed women registered a 53.35% increase in calls from the pre-pandemic to the pandemic period. The group of separated women followed with a 29.5% increase, despite having a larger sample size. Lastly, divorced women experienced the smallest increase, at 13.2%.

Taken together, these results suggest that COVID-19 amplified pre-existing risk situations, with particularly pronounced effects on single and married women. The increase in calls among separated and widowed women also highlights that the pandemic acted not only as a catalyst for ongoing violence but also as a stress factor that made certain categories of women more exposed to new forms of distress and vulnerability.

5. Discussion

The increase in calls was observed across various age groups, although some categories showed more pronounced changes, highlighting potential differences in vulnerability factors. In particular, younger women and those of working age appeared to experience a more significant rise in help-seeking, which may be attributed to greater exposure to controlling dynamics and isolation during the lockdowns.

Moreover, the analysis by marital status revealed that married or cohabiting women reported a sharper increase in calls compared to other categories, suggesting that forced cohabitation may have exacerbated pre-existing conflicts or generated new forms of abuse.

These results confirm findings from previous studies on the relationship between pandemic restrictions and the rise in domestic violence, emphasizing the critical role that confinement conditions can play in limiting opportunities to escape or access support resources.

Interesting considerations emerge when comparing the longer-term effects of COVID-19 in the two specifications reported in Section 3. From both specifications, it is clear that the post-COVID level of victim calls remains substantially higher than pre-COVID, suggesting that the long-run effect of confinement may have changed household habits towards a greater likelihood of violence. Most of the increases in violence are concentrated in 2020 and 2021. In 2022, the number of calls to denounce violence cases was still much higher than pre-COVID. Yet, in the first specification, this increase but appears matched by a substantial increase in the calls for information, suggesting that a positive, longer-run, side-effect of the pandemic may have been an increase in the awareness about the 1522 services and, more broadly, on the phenomenon of violence against women. The positive, long-run effect on awareness is apparent also from the second specification, although less marked.

In light of the collected data, it is crucial that emergency response policies include specific measures for the protection of domestic violence victims. However, to gain a more accurate understanding of vulnerability mechanisms and the effects of the pandemic on domestic violence, further research is needed that digs deeper into the drivers of calls to the 1522 services. One approach could include the analysis of monthly or even daily data on help requests, as well as cross-referencing with other demographic and social data. This would allow for better identification of the most affected demographic and a deeper understanding of the specific mechanisms contributing to domestic violence during times of crisis. The ability to intervene in a timely and targeted manner could mitigate the negative effects of future emergency situations, ensuring greater protection for women at risk of violence. Unfortunately, this analysis was prevented due to the sensitivity and unavailability of microdata on 1522 calls.

6. Concluding remarks

Our research provides a significant contribution to understanding the impact of the COVID-19 pandemic on domestic violence against women in Italy, using calls to the anti-violence helpline 1522 as a key indicator. To ensure the robustness of our findings, we adopted multiple methodological approaches, including a novel application of the Difference-in-Differences method over an extended timeframe from 2015 to 2022. This long-term scope enabled us to isolate the specific effects of the

pandemic from other long-term trends, offering a clear view of the relationship between public health restrictions and domestic violence.

The results indicate that the increase in calls cannot be attributed solely to heightened public awareness or media coverage but instead reflects a real rise in episodes of violence. In particular, calls made by victims showed a more substantial increase compared to informational calls, suggesting an actual growth in domestic violence cases. The age-based analysis revealed that younger women were disproportionately affected, highlighting the need for targeted interventions for this especially vulnerable group. Additionally, the marital status analysis confirmed that women living with a partner experienced a more significant rise in calls, reinforcing the hypothesis that forced cohabitation during lockdowns intensified the risks of violence.

The analysis of historical trends showed that the pattern of calls followed more complex dynamics, with an initial rise, a subsequent decline, and a renewed increase during the pandemic. This suggests that while COVID-19 had a considerable impact, other factors—such as cultural changes and awareness campaigns—also played a role in shaping the phenomenon over time.

In conclusion, our research confirms that the pandemic had a significant effect on domestic violence in Italy and provides a more detailed understanding of the most affected categories and the factors influencing the trends in reporting. These findings emphasize the importance of flexible policies and adaptable support systems capable of effectively responding to emergencies and protecting the most vulnerable groups. Finally, our study offers a solid framework for future research on domestic violence in crisis situations, contributing to better preparedness and response in future emergencies.

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