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Effects of the COVID-19 Pandemic on the Lives of Women with Different Socioeconomic Backgrounds and Victimization Experiences in Portugal

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Abstract: The heavy economic, social, and psychological toll of pandemic lockdowns around the world and their disproportionate effect on women are widely acknowledged, but different socioeconomic backgrounds and contexts may influence the degree to which stay-at-home measures impact their lives. Additionally, knowing that violence against women tends to increase during times of crisis, we are testing if the additional burden of victimization represents an added load to the perceived social impacts of the lockdown. Using 2021 survey data from a random sample of 1541 Portuguese women, the paper explores, through logistic regression models, the social impact of the lockdown on the lives of women, its socioeconomic determinants, and the role played by violence against women during the pandemic. The results show that the COVID-19 pandemic lockdown did not equally affect all facets of women's social lives, and women with higher education status and that experienced income reductions due to the measures taken to control the pandemic are more prone to experience a more severe negative impact of the lockdown on the various facets of their lives. Additionally, having been a victim during the pandemic partially mediates the effect of education and income reduction on the social outcomes of the lockdown.

Keywords: COVID-19; pandemic; violence against women; social impact; cultural characteristics; Portugal

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1. Introduction

On 11 March 2020, the World Health Organization (WHO) declared a state of pandemic caused by COVID-19. The economic, social, and psychological impact of lockdowns and other restricting measures taken by governments to control the spread of the virus around the world is clear (Chu et al. 2020; Pietrabissa and Simpson 2020; Clemente-Suárez et al. 2020; Ammar et al. 2020), with some country-specific study results already published, revealing that these measures did not impact equally on all segments of the population. For instance, in Germany, research from Naumann et al. (2020) showed uneven economic effects that followed pre-existing social inequalities; in Italy, a similar segregated effect occurred regarding socioeconomic status (Bonaccorsi et al. 2020); and in China the impact of lockdown measures had different effects on the physical and psychological effects according to job status (Zhang et al. 2020). In fact, previous disease outbreaks and complex emergencies have shown to have a disproportionate impact not only on women's health but also on social and economic deprivation, jeopardizing human rights (Davies and Bennett 2016; Enarson and Fordham 2001), a trend which has not changed with the COVID-19 pandemic: "across every sphere, from health to the economy, security to social protection, the impacts of COVID-19 are exacerbated for women and girls simply by virtue of their

sex" (United Nations 2020, p. 2). These spheres include violence against women, which is known to increase during periods of emergency and crisis (Peterman et al. 2020; John et al. 2020; Singh and Singh 2021; Mittal and Singh 2020; Molyneaux et al. 2020; Sánchez et al. 2020), particularly domestic and intimate partner violence: the lockdown reduces the victims' social contacts and decreases their ability to seek help or report the situation, while the perpetrator has a reinforced sense of control and impunity (Bradbury-Jones and Isham 2020; Piquero et al. 2021; Lorente Acosta 2020; Moreira and Costa 2020).

In Portugal, similarly to most European countries (ACAPS 2020), the government adopted very restricting measures to contain the spread of the SARS-CoV-2 virus, following the declaration of the pandemic by WHO on 11 March 2020. Shortly after, on 18 March, the Portuguese president declared a state of emergency, marking this date as the beginning of the first lockdown, even though the stay-at-home instructions were only announced by the government one day later. The country then started to lift restrictions through a progressive plan initiated on 4 May 2020. Different measures were adopted throughout that year, according to the evolution of the pandemic, resulting in another set of mobility and contact restrictions in early 2021, put in place to face the second wave of the pandemic.

As with other countries, Portugal faced hard challenges with major consequences for people's lives. Although some impacts have already been explored in the Portuguese context (Escola Nacional de Saúde Pública-Universidade Nova de Lisboa 2020a), this issue has not yet been addressed with a nation-wide representative survey. As the crisis' impact is not homogenous (Chu et al. 2020; Smith and Judd 2020), with women being disproportionately affected (Davies and Bennett 2016; Enarson and Fordham 2001; United Nations 2020), the current paper proposes to address the social consequences of the lockdown among Portuguese women. Research has shown, as the commonly used metaphor "we are not all in the same boat" goes, that the impact of the pandemic is not homogeneous for all socioeconomic contexts (Wandrekar et al. 2020; Turliuc and Candel 2021; Herten-Crabb and Wenham 2021). As such, we hypothesize that different socioeconomical backgrounds and contextual conditions influence the impact that the COVID-19 pandemic lockdown had on different aspects of women's social lives. Additionally, knowing that violence against women tends to increase in times of crisis (Peterman et al. 2020; John et al. 2020; Singh and Singh 2021; Mittal and Singh 2020; Molyneaux et al. 2020; Sánchez et al. 2020), we are interested in testing if the additional burden of victimization represents an added load to the perceived social impacts of the lockdown. Since violence may also, in certain circumstances, be influenced by some socioeconomic features (as seen in previous research, e.g., by Tekkas Kerman and Betrus (2018), Visaria (2000), and O'Donnell et al. (2002), and by our research team on the Lisbon municipal survey and Azores regional survey on gender and violence), we hypothesize that victimization during the pandemic mediates the impact of the socioeconomic context on the social consequences of the lockdown.

The goal of this paper is therefore to explore the social impact of the lockdown on women's lives, its socioeconomic determinants, and whether victimization during the pandemic mediated the effect of socioeconomic background on the social consequences of the lockdown.

2. Materials and Methods

The used data are part of a larger dataset that results from a national survey conducted under a project grant to perform an analysis of the impact of the COVID-19 pandemic on violence against women in Portugal.

The sample size was estimated based on a stratified approach, accounting for age and region (NUTS 2). In order to have a margin of error of 2.5%, a sample of 1536 women aged 18 or above living in Portugal (Continental and Autonomous Regions) was estimated. Since the survey was conducted through telephone interviews, the subjects were randomly selected from a database of mobile and landline numbers. Given the lack of previous knowledge of the region associated with the mobile phone, interviews were carried out first for mobile numbers, completing the work with interviews for fixed numbers, in order

to meet the proportion of interviews by NUTS 2. A total of 1541 valid interviews were obtained with a margin of error for the estimation of the prevalence of violence of ± 2.5%, for a 95% confidence level.

The survey was administered by computer-assisted telephone interviewing (CATI) in January 2021. This delivery method was considered the most adequate due to the impossibility of face-to-face interviewing, which is preferable whenever possible, during the lockdown periods. Also, by reducing the effect of the interviewer's presence and by reinforcing anonymity, CATI facilitates the disclosure of sensitive situations and experiences (United Nations 2014).

Although less common in social sciences research, telephone interviewing has been gaining ground in scientific research (Bryman 2012; United Nations 2014). Among its limitations is the impossibility of reaching the segment of the population that has no telephone (landline or mobile). However, in the case of Portugal, that can be considered a residual portion since, according to 2015 data[1], 93.4% of private households had a mobile phone and 77.2% had a landline. Additionally, telephone interviews have two other limitations: they must be necessarily briefer because respondents are less tolerant to longer interviews and more prone to quit; and visual aids cannot be used. These issues were, in this case, addressed by trimming the questionnaire to its essential elements, and by designing it with short and direct questions and response options.

Even though telephone interviewing was considered the most appropriate method, some further issues should be considered, particularly in what concerns data collection on violence against women during the COVID-19 pandemic. Following United Nations and World Health Organization recommendations (United Nations Women and World Health Organization 2020), measures were taken by the research team to guarantee the confidentiality and anonymity of the data collected (through an informed consent form), and the interviewers was properly trained for this purpose. The process of data collection also ensured the safety of the interviewers, by adopting all the measures recommended by the Directorate-General for Health in relation to workspaces. Furthermore, so as to promote the safety of the interviewees, the interviewers checked with the respondent if the survey could privately and safely take place; additionally, the interviewers were given a set of contacts of specialized victim services, covering the entire national territory, which was provided to the respondents whenever necessary or requested.

The questionnaire focused on victimization, where women were asked if they had ever experienced different violent situations, assessed through 12 acts of psychological, physical, and sexual violence. The reported acts were then characterized according to time-frame, aggressor, place of occurrence, perceived motives, victim's reaction, and presence of another person. The questionnaire also included other aspects such as sociodemographic characterization, the women's context during the first lockdown (from 18 March to early May 2020) and the following months (until late January 2021, when the data collection was finalized), and the perceived social and psychological impact of the lockdown. The design of the questionnaire was based on the teams' scientific groundwork on national, regional, and local surveys on gender-based violence and domestic violence, but it also benefited from a set of international reference instruments for data gathering, such as the European Union Agency for Fundamental Rights' survey on violence against women (European Union Agency for Fundamental Rights 2014) and the United Nations' guidelines for producing statistics on violence against women (United Nations 2014). It also accounted for national and international studies on the context of the pandemic caused by COVID-19 that were being conducted at the time and that made their questionnaires publicly available (e.g., Escola Nacional de Saúde Pública-Universidade Nova de Lisboa 2020b; UN Women 2020), in order to fine-tune the indicators and/or variables to measure the influence of the lockdown on women's lives. The chosen methods and techniques have taken into account the most relevant scientific research in this domain, which also include the works of significant researchers, such as Sylvia Walby and colleagues (Walby and Myhill 2001; Walby et al. 2017) and Claudia Garcia-Moreno and colleagues (Jansen et al. 2004; Garcia-

Moreno et al. 2005), and institutions, such as the United Nations (United Nations 2014) and the Organization for Security and Co-operation in Europe (OSCE 2019), to determine the indicators and methods for surveying violence against women and gender-based violence.

To assess whether and to what extent the social impact of the lockdown was felt differently according to heterogenous socioeconomic contexts, and if victimization furthered that effect, we have carried out binary logistic regressions, following the proposed mediation model in Figure 1.

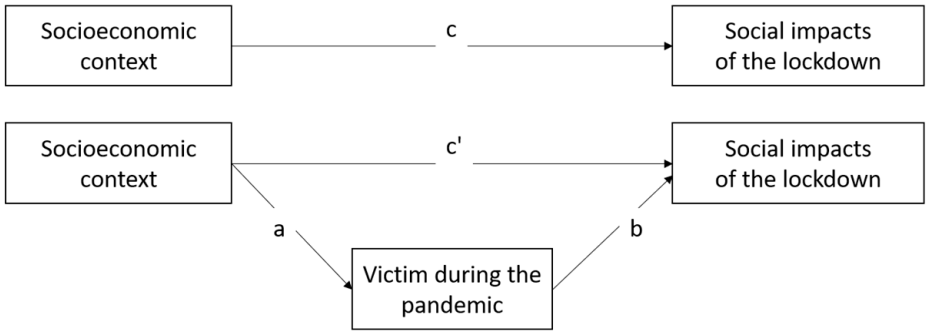

Figure 1. Proposed mediation model for predicting the social impacts of the pandemic in women's lives.

This model allows us to: (1) identify the effect of socioeconomic contexts on victimization during the pandemic (Figure 1, arrow a); (2) test for the effect of victimization during the pandemic on the social impact of the lockdown (Figure 1, arrow b); and (3) evaluate whether victimization during the pandemic mediated (Figure 1, arrow c') or not (Figure 1, arrow c) the effect of socioeconomic background on the social consequences of the lockdown.

To compute these models, we used nine variables concerning the socioeconomic contexts, seven variables addressing the negative impact of the pandemic in different social aspects of women's lives, and one variable assessing victimization during the pandemic (see Table 1). The "victim during the pandemic" variable identifies the women who were victim of at least one act of physical/psychological/sexual violence during the pandemic period in Portugal under analysis (from 18 March 2020 to 27 January 2021) and that had never experienced violence before. This last condition enables us to isolate the violence that occurred specifically and solely during this period and that is not included in a violence trajectory; to include victimization in previous time periods would introduce different contexts that would bias the specific pandemic effect we are trying to identify.

The social impacts of the lockdown were summarized in profiles identified through a hierarchical cluster analysis, using the squared Euclidean distance as the measure of similarity, and tested with different clustering methods. The decision on the number of clusters was based on the decrease of the agglomeration coefficients. The final classification of the subjects in each cluster was conducted with the k-means non-hierarchical method (Marôco 2014).

Statistical analyses were performed with IBM SPSS Statistics statistical package, version 26.

Table 1. Frequency distribution of the selected variables.

Socioeconomic Context	n	%	Social Impacts (Lockdown Affected Negatively . . .)	n	%
During the lockdown lived			**Home environment**		
Alone	222	14.4	Not at all	736	48.4
With someone else	1315	85.6	Slightly	355	23.4
Marital status			Moderately	287	18.9
Single	345	22.4	Very	142	9.3
Married	848	55.1	**Social life**		
Divorced	186	12.1	Not at all	314	20.4
Widowed	161	10.5	Slightly	239	15.5
Education level *			Moderately	332	21.6
No education/primary (ISCED 1)	312	20.3	Very	654	42.5
Secondary (ISCED 2 and 3)	607	39.5	**Financial status/income**		
Tertiary (ISCED 6–8)	617	40.2	Not at all	858	56.7
Employment status			Slightly	220	14.6
Paid job	886	57.9	Moderately	213	14.1
Student/unemployed/on sick leave, informal caregiver, unpaid work	264	17.2	Very	221	14.6
Retired	381	24.9	**Time management**		
Lived in a house with outdoor space			Not at all	596	38.7
Yes	1202	78.9	Slightly	309	20.1
No	322	21.1	Moderately	316	20.5
Age group			Very	319	20.7
18–24	133	8.6	**Autonomy/freedom**		
25–44	439	28.5	Not at all	227	14.7
45–64	523	33.9	Slightly	213	13.8
65+	446	28.9	Moderately	390	25.3
Has children			Very	710	46.1
Yes	1167	75.7	**Psychological well-being**		
No	374	24.3	Not at all	435	28.3
Employment status changed due to the pandemic			Slightly	411	26.7
Yes	587	55.9	Moderately	427	27.7
No	463	44.1	Very	266	17.3
Reduction in household income			**Physical well-being**		
No reduction	1021	67.6	Not at all	541	35.1
Slight reduction (<30%)	186	12.3	Slightly	393	25.5
High reduction (30–50%)	155	10.3	Moderately	363	23.6
Severe reduction (>50%)	149	9.9	Very	243	15.8
Victimization	n	%			
Victim during the pandemic					
Yes	75	4.9			
No	1466	95.1			

* The education level was measured according to the Portuguese system and then grouped into the International Standard Classification of Education (ISCED) for international standardization.

3. Results

Regarding the impact of the lockdown on the different social aspects of women's lives, we have identified, through a cluster analysis, two main homogenous groups that are characterized by the intensity of the effect: women in cluster 1 (n = 759) perceive a lower negative impact of the lockdown on the different aspects of their social life, such as time management, psychological well-being, autonomy/freedom, physical well-being, and social life, when compared with women in cluster 2 (n = 782), that express a higher negative impact of the lockdown. Women in both clusters considered that the lockdown did not have a significant effect on their home environment and their financial status/income, even though the impact among women in cluster 2 is more visible (Figure 2). Since cluster 1 relates to a lower impact of the lockdown and cluster 2 to a higher impact, we can consider cluster 1 as the resilient cluster and cluster 2 as the more vulnerable cluster.

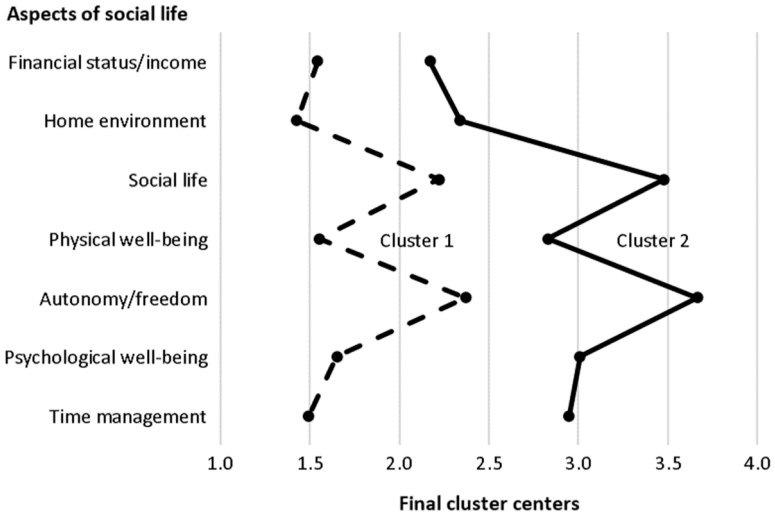

Figure 2. Profiles of the social impact of the lockdown on women. Note: The final cluster centers are computed as the mean for each variable within each final cluster; it reflects the characteristics of the typical case for each cluster in the chosen cluster solution.

Based on these profiles we then assessed the socioeconomic determinants of the profiles of social impacts of the lockdown, that is, if the more resilient and the more vulnerable profiles resulted, in any way, from different baseline socioeconomic contexts.

The adjusted logistic regression shows that only education level and reduction in income due to the pandemic are significant in predicting different impacts of the lockdown in the considered social life aspects (Table 2, Model 1). The resulting coefficients reveal that women who had their household income reduced because of the pandemic have a higher probability of being in cluster 2, i.e., of being more vulnerable to negative social impacts of the lockdown. Additionally, the more severe the reduction in income, the higher the probability of being in cluster 2, hinting at a spillover effect from financial vulnerability to other facets of women's lives.

With regard to education, when compared with those with no education or primary education, women with secondary and tertiary education have a higher probability of being in cluster 2, i.e., to have been more vulnerable to negative social effects of lockdown. It should be noted that women with secondary and tertiary education are mainly women of working age, whether or not employed, and that changed their job status during the pandemic; on the contrary, women with primary or no education are mainly older retired women, with no changes in their job status (data not shown). This may help to explain the more disruptive effect that lockdown had on the social lives of more educated women.

To test for the effect of the socioeconomic context on victimization during the pandemic, and of the victimization during the pandemic on the social impact of the lockdown, we have computed Models 2 and 3, respectively. For Model 2, we have only considered the socioeconomic variables that were significant in predicting the profiles of social impacts of the lockdown—education and reduction in household income.

Model 2 (Table 3) shows us that women that had a severe reduction in their household income have a higher probability of having been a victim of at least one act of violence during the pandemic, when compared with those who had no reduction in their household income. The same is true for women with secondary and tertiary education, who have a higher probability of having been victims during the pandemic, when compared to those with primary or no education (Table 3, Model 2). This reveals a higher vulnerability of women with a more disrupted economic situation and of those with a more active work and social life (as stated previously, higher levels of education are associated with working age and active employment status). This is in line with what has been previously found in Portugal through the COVID-19 Barometer of the National School of Public Health—NOVA

University of Lisbon: based on a non-representative sample of women and men, older people (65+ years old) were found to have felt less anxious and agitated compared to the working age group, hinting at the possibility that the lockdown and other social distancing measures had a more grievous effect on the psychological well-being of the more active population (Escola Nacional de Saúde Pública-Universidade Nova de Lisboa 2020a).

Model 3 shows us that having been a victim of violence during the pandemic increases the probability of having felt more strongly the negative social impact of the lockdown (of being in the more vulnerable profile) (Table 4, Model 3). This is in line with previous studies that showed that, in a regular (non-critical) moment/setting, victims are more likely to be penalized with additional social costs (Lisboa et al. 2006).

Table 2. Model 1—Socioeconomic determinants of the profiles of social impacts of the lockdown.

Variables	B	Std. Error	Wald	df	*p*-Value	Exp(B)
Lived with someone else during lockdown [yes]	0.220	0.247	0.795	1	0.373	1.246
Marital status [Single (0)]			4.087	3	0.252	
Married	0.190	0.216	0.770	1	0.380	1.209
Divorced	0.486	0.276	3.091	1	0.079	1.625
Widowed	−0.070	0.400	0.031	1	0.860	0.932
Education [No education/primary (0)]			18.663	2	0.000	
Secondary	0.494	0.243	4.149	1	0.042 *	1.640
Tertiary	0.945	0.246	14.750	1	0.000 *	2.572
Employment status [Paid job (0)]			3.192	2	0.203	
Student	0.060	0.226	0.069	1	0.792	1.061
Unemployed	−0.574	0.335	2.934	1	0.087	0.563
Sick leave, informal caregiver, unpaid work	−0.145	0.159	0.828	1	0.363	0.865
Retired			3.192	2	0.203	
House with outside space [Yes]	0.060	0.226	0.069	1	0.792	1.061
Age [18–24 (0)]			5.658	3	0.130	
25–44	0.318	0.311	1.048	1	0.306	1.375
45–64	0.013	0.330	0.002	1	0.969	1.013
65+	−0.218	0.422	0.268	1	0.605	0.804
Has children [Yes]	0.101	0.209	0.233	1	0.629	1.106
Employment status changed [Yes]	−0.022	0.148	0.022	1	0.881	0.978
Household income [No reduction (0)]			26.709	3	0.000	
Severe reduction (>50%)	0.993	0.233	18.138	1	0.000 *	2.699
High reduction (30–50%)	0.802	0.218	13.540	1	0.000 *	2.230
Slight reduction (<30%)	0.418	0.196	4.573	1	0.032 *	1.519
Constant	−0.949	0.386	6.045	1	0.014	0.387
Model Evaluation						
Likelihood ratio test			$\chi^2(17) = 100.455$; $p < 0.001$			
Hosmer and Lemeshow			$\chi^2_{HL}(8) = 8.746$; $p = 0.364$			
Nagelkerke R^2			0.124			
Correctly predicted			63.8%			

* $p < 0.05$. DV reference category: resilient profile (cluster 1). Note: The model evaluation comprises goodness of fit measures to "know whether the probabilities produced by the model accurately reflect the true outcome experience in the data" (Hosmer et al. 2013, p. 153). The likelihood ratio test checks whether the model with explanatory variables is an improvement over the baseline model; *p*-values < 0.05 (for a 95% level of confidence) means a significant computed model. The Hosmer and Lemeshow test calculates if the observed event rates match the expected event rates in population subgroup; a non-significant test indicates a good fit. Nagelkerke R^2 reports how much variation in the outcome is explained by the model; its evaluation needs to take into consideration that low R^2 values in logistic regression are the norm (Hosmer et al. 2013). The correctly predicted percentage depicts how well the model predicts the outcomes.

Table 3. Model 2—Socioeconomic determinants of victimization during the pandemic.

Variables	B	Std. Error	Wald	df	*p*-Value	Exp(B)
Education [No education/primary (0)]			6.374	2	0.041	
Secondary	1.227	0.486	6.371	1	0.012 *	3.411
Tertiary	1.082	0.489	4.893	1	0.027 *	2.951
Household income [No reduction (0)]			8.362	3	0.039	
Severe reduction (>50%)	0.907	0.330	7.540	1	0.006 *	2.477
High reduction (30–50%)	0.483	0.369	1.712	1	0.191	1.621
Slight reduction (<30%)	0.484	0.345	1.976	1	0.160	1.623
Constant	−4.241	0.457	86.006	1	0.000	0.014
Model Evaluation						
Likelihood ratio test			$\chi^2(5) = 19.063$; $p = 0.002$			
Hosmer and Lemeshow			$\chi^2_{HL}(5) = 2.188$; $p = 0.823$			
Nagelkerke R^2			0.039			
Correctly predicted			95.2%			

* $p < 0.05$. DV reference category: non victim.

Table 4. Model 3—Victimization effect on the lockdown social impacts' profiles.

Variables	B	Std. Error	Wald	df	*p*-Value	Exp(B)
Victim during the pandemic [Yes]	1.100	0.271	16.526	1	0.000 *	3.004
Constant	−0.019	0.052	0.134	1	0.715	0.981
Model Evaluation						
Likelihood ratio test			$\chi^2(1) = 18.867$; $p < 0.001$			
Nagelkerke R^2			0.016			
Correctly predicted			51.7%			

* $p < 0.05$. DV reference category: resilient profile (cluster 1).

Finally, to assess if victimization during the pandemic mediated the effect of the socioeconomic context on the negative social impact of the lockdown, we have computed Model 4 (Table 5), using a bootstrapping procedure (Preacher and Hayes 2008).

Table 5. Model 4—Mediation model for predicting the lockdown social impacts on women's lives.

Variables	B	Bias	Std. Error	Sig. (2-Tailed)	95% CI
Education [No education/primary (0)]					
Secondary	0.859	0.006	0.163	0.001 *	0.542; 1.180
Tertiary	1.180	0.004	0.157	0.001 *	0.872; 1.489
Household income [No reduction (0)]					
Severe reduction (>50%)	1.025	0.017	0.199	0.001 *	0.652; 1.446
High reduction (30–50%)	0.741	0.007	0.183	0.001 *	0.388; 1.126
Slight reduction (<30%)	0.413	−0.001	0.173	0.014 *	0.066; 0.754
Victim during the pandemic [Yes]	0.935	0.041	0.297	0.001 *	0.443; 1.596
Constant	−1.057	−0.008	0.137	0.001	−1.343; −0.794
Model Evaluation					
Likelihood ratio test			$\chi^2(6) = 134.261$; $p < 0.001$		
Hosmer and Lemeshow			$\chi^2_{HL}(6) = 3.311$; $p = 0.769$		
Nagelkerke R^2			0.114		
Correctly predicted			62.3%		

* $p < 0.05$. DV reference category: resilient profile (cluster 1). IV reference categories: No education/primary education; no reduction in household income. Bootstrap results are based on 1000 bootstrap samples.

Our results reveal that the relationship between predictors and the outcome is significant and partially mediated by victimization. Hence, different layers of vulnerability are in play when assessing the effects of the lockdown on women's lives.

4. Discussion

The results show that the COVID-19 pandemic lockdown in Portugal did not equally affect all facets of women's social lives; in fact, among the considered aspects, the home environment and the financial status were the aspects least negatively affected by the lockdown: more than half of the respondents (56.7%) stated that the lockdown did not negatively affect their financial status and income at all; almost half of the women (48.4%) stated that the stay-at-home measures did not have a negative impact on their home environment. However, we should note that our sample is not representative of the employment status, since there may be an overrepresentation of women with more secure jobs, less vulnerable to economic disruptions. Higher job security and higher paying jobs can more easily be migrated to a remote working mode and increases the chance of having better housing conditions and technological equipment (Almeida and Santos 2020), thus reducing the disruption caused by the lockdowns. In fact, a study on mobility under COVID-19 restrictions in Italy has shown that the lockdown had a greater impact on the poorer segments of the population (Bonaccorsi et al. 2020), thus revealing the uneven socioeconomic consequences of the political measures to contain the pandemic. However, the main finding regarding the social consequences of the lockdown is that the different social life facets are homologous: the cluster analysis showed that the women who were more harshly affected in one facet were similarly affected in all others, while those who experienced a lesser impact likewise avoided severe effects on other aspects of their lives, from which we can draw a parallel with Bourdieu's homology theory (Bourdieu 1984), suggesting that there is an underlying social structure that segments different aspects of social life and behavior in homologous patterns.

With regard to the relation between our three constructs, women with higher education status and that experienced income reductions due to the measures taken to control the pandemic were more prone to experience a more severe negative impact of the lockdown on the various facets of their lives. This may seem contradictory with the results that found that lower income jobs and lower educated workers were more affected by the restrictive governmental stay-at-home measures, as shown, for example, by a study conducted in Germany (Naumann et al. 2020). However, we must consider that in the current analysis women with lower education levels are mainly older retirees that experienced no changes in their job status, which may contribute to explain the lower disruptive effect of the lockdown on the various aspects of their social lives. Additionally, having been a victim during the pandemic (victim of at least one act of physical/psychological/sexual violence between 18 March 2020 and 27 January 2021), which by itself also increases the probability of experiencing the social impacts of the lockdown more negatively, partially mediates the effect of education and income reduction on the social outcomes of the lockdown. This suggests that victimization represents an additional weight in the perceived social impacts of the lockdown, which were already unevenly distributed.

Although the effects of the lockdown and/or the pandemic have been previously studied in some specific contexts, such as in Germany (Naumann et al. 2020), Italy (Bonaccorsi et al. 2020), and China (Zhang et al. 2020), this work had not yet been carried out in Portugal using a representative sample; for instance, none of the studies on the effect of the pandemic on violence against women funded by the Fundação para a Ciência e a Tecnologia under the Gender Research for COVID-19 grants were representative of the Portuguese population, focusing only on specific regions, types of violence, or on specific victims[2]. The present analysis contributes to the body of knowledge in this area using a random sample of women and a more comprehensive set of social impacts, since most studies tend to focus on work status (Almeida and Santos 2020), on the difficulties in managing paid work and household activities (Hjálmsdóttir and Bjarnadóttir 2021), and on the psychological consequences of the stay-at-home measures (see Clemente-Suárez et al. 2020, for a review).

By showing a relation between the socioeconomic context and the effects of the lockdown, where victimization played an additional role, these results draw attention to the

need for tailored public policies when addressing social inequalities, which is in line with what was found, for instance, in Germany, where public policies mitigated the immediate negative impact of the lockdown but it remained uncertain whether they adequately compensated the pre-existing social inequalities that were bolstered by the pandemic (Naumann et al. 2020). Since different life-cycle moments and economic disruption levels seem to heterogeneously affect how much this pandemic crisis affected different aspects of women's lives, supporting the assessment of Chu et al. (2020) for the disproportionate social effect of the pandemic in some contexts, the necessary universalist vision of compensating measures must be accompanied by specific measures that address the needs of specific population segments, guaranteeing equity beyond equality. This observation is also in line with the conclusions of the United Nations Development Program that considered the gender-sensitive global response policy to the COVID-19 pandemic insufficient, particularly in addressing women's economic insecurity and unpaid care (United Nations Development Programme 2021). This is even more urgent and necessary for those women that, in addition to experiencing the social effects of gender inequalities, are victims of some form of violence, which tend to increase in crisis times as shown by different authors when analyzing the impact of the COVID-19 pandemic on violence against women, gender-based violence, and domestic violence (Sánchez et al. 2020; Singh and Singh 2021; Agüero 2021; Piquero et al. 2021; Mittal and Singh 2020; Lorente Acosta 2020; United Nations Population Fund 2020).

This study therefore provides a comprehensive view of the problem of violence against women, which had not previously been produced in Portugal, by conducting a representative and nation-wide analysis of the different and interactive determinants and impacts of gender inequalities in women's lives. In fact, as noted before, most of the studies conducted during the COVID-19 pandemic on this matter only focused on particular aspects or segments of the population. Although case studies are relevant for improving the knowledge on particular contexts, they are not able to clearly support a more comprehensive discussion on the structural aspect of gender inequalities. This paper thus contributes to this debate by showing the connection between socioeconomic conditions, victimization, and severeness of the impacts of crisis times on women's lives. The same can be said from the methodological standpoint, where nation-wide representative surveys provide a broad perspective, which include diverse contexts, and where the results of powerful statistical tools support the relevance of the hypothesized relations.

There is high potential for future research that further develops knowledge on the immediate consequences of measures taken by governments during crisis periods, and how they affect women differently, but also on the follow-up of these emergency periods, focusing on the medium- and long-term costs in different aspects of social life. As Portugal is an economic and social heterogenous territory, regional differences should be further explored in future works. In addition, the impact of the lockdown, and the pandemic in general, on women who were victims of violence should be further examined: since we found that victims tended to experience more severe social effects of lockdown, attention should be given to what kind of violence was experienced (namely domestic and intimate partner violence) and in what specific way the pandemic exposed them or increased their vulnerability.

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Notes

[1] Statistics Portugal, available at https://www.ine.pt/xportal/xmain?xpid=INE&xpgid=ine_publicacoes&PUBLICACOESpub_boui=298558245&PUBLICACOESmodo=2&xlang=pt (accessed on 22 May 2022).

[2] The description of the funded projects under this grant are available at https://www.fct.pt/media/docs/GenderResearch4Covid19_Projetos_de_investigacao.pdf (accessed on 22 May 2022).

References

ACAPS. 2020. COVID-19 Government Measures Dataset. Available online: https://www.acaps.org/covid-19-government-measures-dataset (accessed on 18 August 2021).

Agüero, Jorge M. 2021. COVID-19 and the rise of intimate partner violence. *World Development* 137: 105217. [CrossRef]

Almeida, Fernando, and José Duarte Santos. 2020. The effects of COVID-19 on job security and unemployment in Portugal. *International Journal of Sociology and Social Policy* 49: 995–1003. [CrossRef]

Ammar, Achraf, Patrick Mueller, Khaled Trabelsi, Hamdi Chtourou, Omar Boukhris, Liwa Masmoudi, Bassem Bouaziz, Michael Brach, Marlen Schmicker, and Ellen Bentlage. 2020. Psychological Consequences of COVID-19 Home Confinement: The ECLB-COVID19 Multicenter Study. *PLoS ONE* 15: e0240204. [CrossRef]

Bonaccorsi, Giovanni, Francesco Pierri, Matteo Cinelli, Andrea Flori, Alessandro Galeazzi, Francesco Porcelli, Ana Lucia Schmidt, Carlo Michele Valensise, Antonio Scala, Walter Quattrociocchi, and et al. 2020. Economic and Social Consequences of Human Mobility Restrictions under COVID-19. *Proceedings of the National Academy of Sciences* 117: 15530–35. [CrossRef] [PubMed]

Bourdieu, Pierre. 1984. *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge.

Bradbury-Jones, Caroline, and Louise Isham. 2020. The Pandemic Paradox: The Consequences of COVID-19 on Domestic Violence. *Journal of Clinical Nursing* 29: 2047–49. [CrossRef] [PubMed]

Bryman, Alan. 2012. *Social Research Methods*. Oxford: Oxford University Press.

Chu, Isaac Yen-Hao, Prima Alam, Heidi J Larson, and Leesa Lin. 2020. Social Consequences of Mass Quarantine during Epidemics: A Systematic Review with Implications for the COVID-19 Response. *Journal of Travel Medicine* 27: taaa192. [CrossRef] [PubMed]

Clemente-Suárez, Vicente Javier, Athanasios A Dalamitros, Ana Isabel Beltran-Velasco, Juan Mielgo-Ayuso, and Jose Francisco Tornero-Aguilera. 2020. Social and Psychophysiological Consequences of the COVID-19 Pandemic: An Extensive Literature Review. *Frontiers in Psychology* 11: 580225. [CrossRef]

Davies, Sara, and Belinda Bennett. 2016. A Gendered Human Rights Analysis of Ebola and Zika: Locating Gender in Global Health Emergencies. *International Affairs* 92: 1041–60. [CrossRef]

Enarson, Elaine, and Maureen Fordham. 2001. From Women's Needs to Women's Rights in Disasters. *Global Environmental Change Part B: Environmental Hazards* 3: 133–36. [CrossRef]

Escola Nacional de Saúde Pública-Universidade Nova de Lisboa. 2020a. Barómetro COVID-19. 15 Semanas a Par-e-Passo com os Portugueses. Available online: https://barometro-covid-19.ensp.unl.pt/15-semanas-a-par-e-passo-com-os-portugueses (accessed on 16 August 2021).

Escola Nacional de Saúde Pública-Universidade Nova de Lisboa. 2020b. Violência Nas Relações de Intimidade em Tempos de COVID-19: Desigualdades de Género e (Novos) Contornos Da Violência Doméstica? Available online: https://www.ensp.unl.pt/projectos/violencia-nas-relacoes-de-intimidade-em-tempos-de-covid-19-desigualdades-de-genero-e-novos-contornos-da-violencia-domestica-vdcovid19 (accessed on 16 August 2021).

European Union Agency for Fundamental Rights. 2014. *Violence against Women: An EU-Wide Survey. Survey Methodology, Sample and Fieldwork*. Luxembourg: Publications Office of the European Union.

Garcia-Moreno, Claudia, Henrica Jansen, Mary Ellsberg, Lori Heise, and Charlotte Watts. 2005. *WHO Multi-Country Study on Women's Health and Domestic Violence against Women. Initial Results on Prevalence, Health Outcomes and Women's Responses*. Geneva: WHO.

Herten-Crabb, Asha, and Clare Wenham. 2021. 'I Was Facilitating Everybody Else's Life. And Mine Had Just Ground to a Halt': The COVID-19 Pandemic and Its Impact on Women in the UK. *MedRxiv*. [CrossRef]

Hjálmsdóttir, Andrea, and Valgerður S. Bjarnadóttir. 2021. "I have turned into a foreman here at home": Families and work–life balance in times of COVID-19 in a gender equality paradise. *Gender, Work & Organization* 28: 268–83. [CrossRef]

Hosmer, David, Stanley Lemeshow, and Rodney Sturdivant. 2013. *Applied Logistic Regression*. New Jersey: Wiley.

Jansen, Henrica, Charlotte Watts, Mary Ellsberg, Lori Heise, and Claudia García-Moreno. 2004. Interviewer Training in the WHO Multi-Country Study on Women's Health and Domestic Violence. *Violence Against Women* 10: 831–49. [CrossRef]
John, Neetu, Sara E Casey, Giselle Carino, and Terry McGovern. 2020. Lessons Never Learned: Crisis and Gender-based Violence. *Developing World Bioethics* 20: 65–8. [CrossRef] [PubMed]
Kerman, Kader Tekkas, and Patricia Betrus. 2018. Violence against Women in Turkey: A Social Ecological Framework of Determinants and Prevention Strategies. *Trauma, Violence, & Abuse* 21: 510–26. [CrossRef]
Lisboa, Manuel, Isabel Carmo, Luísa Branco Vicente, António Nóvoa, Pedro Pita Barros, Ana Roque, Sofia Marques Silva, Luísa Franco, and Sofia Amândio. 2006. *Prevenir Ou Remediar - Os Custos Sociais e Económicos Da Violência Contra as Mulheres*. Lisboa: Colibri.
Lorente Acosta, Miguel. 2020. Gender-Based Violence during the Pandemic and Lockdown. *Spanish Journal of Legal Medicine* 46: 139–45. [CrossRef]
Marôco, João. 2014. *Análise Estatística Com o SPSS Statistics*. Lisboa: Report Number.
Mittal, Shalini, and Tushar Singh. 2020. Gender-Based Violence during COVID-19 Pandemic: A Mini-Review. *Frontiers in Global Women's Health* 1: 4. [CrossRef]
Molyneaux, Robyn, Lisa Gibbs, Richard A Bryant, Cathy Humphreys, Kelsey Hegarty, Connie Kellett, H Colin Gallagher, Karen Block, Louise Harms, John F Richardson, and et al. 2020. Interpersonal Violence and Mental Health Outcomes Following Disaster. *BJPsych Open* 6: e1. [CrossRef]
Moreira, Diana Nadine, and Mariana Pinto da Costa. 2020. The Impact of the Covid-19 Pandemic in the Precipitation of Intimate Partner Violence. *International Journal of Law and Psychiatry* 71: 101606. [CrossRef]
Naumann, Elias, Katja Möhring, Maximiliane Reifenscheid, Alexander Wenz, Tobias Rettig, Roni Lehrer, Ulrich Krieger, Sebastian Juhl, Sabine Friedel, and Marina Fikel. 2020. COVID-19 Policies in Germany and Their Social, Political, and Psychological Consequences. *European Policy Analysis* 6: 191–202. [CrossRef]
O'Donnell, Christopher J, Angie Smith, and Jeanne R Madison. 2002. Using Demographic Risk Factors to Explain Variations in the Incidence of Violence against Women. *Journal of Interpersonal Violence* 17: 1239–62. [CrossRef]
OSCE. 2019. *OSCE-Led Survey on Violence Against Women: Main Report*. Vienna: OSCE.
Peterman, Amber, Alina Potts, Megan O'Donnell, Kelly Thompson, Niyati Shah, Sabine Oertelt-Prigione, and Nicole van Gelder. 2020. *Pandemics and Violence against Women and Children*. Washington, DC: Center for Global Development, p. 528. Available online: https://www.cgdev.org/publication/pandemics-and-violence-against-women-and-children (accessed on 24 July 2021).
Pietrabissa, Giada, and Susan G Simpson. 2020. Psychological Consequences of Social Isolation during COVID-19 Outbreak. *Frontiers in Psychology* 11: 2201. [CrossRef]
Piquero, Alex R, Wesley G Jennings, Erin Jemison, Catherine Kaukinen, and Felicia Marie Knaul. 2021. Domestic Violence during the COVID-19 Pandemic-Evidence from a Systematic Review and Meta-Analysis. *Journal of Criminal Justice* 74: 101806. [CrossRef]
Preacher, Kristopher J, and Andrew F Hayes. 2008. Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models. *Behavior Research Methods* 40: 879–91. [CrossRef] [PubMed]
Sánchez, Odette R, Diama B Vale, Larissa Rodrigues, and Fernanda G Surita. 2020. Violence against Women during the COVID-19 Pandemic: An Integrative Review. *International Journal of Gynecology & Obstetrics* 151: 180–87. [CrossRef]
Singh, Devendra, and Virendra Singh. 2021. An Increase in Gender-Based Violence During COVID-19. *Journal of Midwifery and Reproductive Health* 9: 2762–66. [CrossRef]
Smith, James A, and Jenni Judd. 2020. COVID-19: Vulnerability and the Power of Privilege in a Pandemic. *Health Promotion Journal of Australia* 31: 158–60. [CrossRef]
Turliuc, Maria Nicoleta, and Octav Sorin Candel. 2021. Not All in the Same Boat. Socioeconomic Differences in Marital Stress and Satisfaction during the Covid-19 Pandemic. *Frontiers in Psychology* 12: 635148. [CrossRef]
UN Women. 2020. Rapid Gender Assessments on the Socioeconomic Impacts of COVID-19. Available online: https://data.unwomen.org/rga (accessed on 14 October 2020).
United Nations Development Programme. 2021. COVID-19 Global Gender Response Tracker. Global Factsheet, Version 2. Available online: https://www.undp.org/publications/covid-19-global-gender-response-tracker-fact-sheets (accessed on 28 July 2021).
United Nations Population Fund. 2020. Gender Equality and Addressing Gender-based Violence (GBV) and Coronavirus Disease (COVID-19) Prevention, Protection and Response. Available online: https://www.unfpa.org/resources/gender-equality-and-addressing-gender-based-violence-gbv-and-coronavirus-disease-covid-19 (accessed on 8 August 2021).
United Nations Women and World Health Organization. 2020. Violence against Women and Girls. Data Collection during COVID-19. Available online: https://www.unwomen.org/-/media/headquarters/attachments/sections/library/publications/2020/vawg-data-collection-during-covid-19-compressed.pdf?la=en&vs=2339 (accessed on 8 August 2021).
United Nations. 2014. Guidelines for Producing Statistics on Violence against Women—Statistical Surveys. Department of Economic and Social Affairs. Available online: http://unstats.un.org/unsd/gender/docs/Guidelines_Statistics_VAW.pdf (accessed on 3 November 2020).
United Nations. 2020. The Impact of COVID-19 on Women. Policy Brief. Available online: https://www.un.org/en/coronavirus/UN-response (accessed on 28 July 2021).
Visaria, Leela. 2000. Violence against Women: A Field Study. *Economic and Political Weekly* 35: 1742–51.
Walby, Sylvia, and Andrew Myhill. 2001. New Survey Methodologies in Researching Violence Against Women. *British Journal of Criminology* 41: 502–22. [CrossRef]

Walby, Sylvia, Jude Towers, Susie Balderston, Consuelo Corradi, Brian Francis, Markku Heiskanen, Karin Helweg-Larsen, Lut Mergaert, Philippa Olive, Emma Palmer, and et al. 2017. *The Concept and Measurement of Violence Against Women and Men*. Bristol: Polity Press.

Wandrekar, Jagruti, Advaita Nigudkar, and Eaishwarya Natekar. 2020. Are We Really All in the Same Boat? Emotional Epidemiology of COVID-19 and Psychological and Social Variables Affecting Well-Being. *International Journal of Indian Psychology* 8: 1366–78. [CrossRef]

Zhang, Stephen X, Yifei Wang, Andreas Rauch, and Feng Wei. 2020. Unprecedented Disruption of Lives and Work: Health, Distress and Life Satisfaction of Working Adults in China One Month into the COVID-19 Outbreak. *Psychiatry Research* 288: 112958. [CrossRef]