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Abstract | In this study we use data from a large online survey of Australian women to examine whether the increased time spent at home, social isolation and financial stress resulting from COVID-19 containment measures were associated with a higher likelihood of physical and sexual violence among women in current cohabiting relationships with and without a history of violence.

An increase in the amount of time spent at home with a partner did not in itself increase the likelihood of violence among either group. However, the probability of repeat or first-time violence was between 1.3 and 1.4 times higher for women who had less frequent contact with family and friends outside of the household during the pandemic.

While financial stress prior to the pandemic was a strong predictor of violence for both groups, the probability of first-time violence was 1.8 times higher among women who experienced an increase in financial stress. We conclude that the pandemic was associated with an increased risk of violence against women in current cohabiting relationships, most likely from a combination of economic stress and social isolation.

Social isolation, time spent at home, financial stress and domestic violence during the COVID-19 pandemic

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A wide range of measures have been introduced to prevent the spread of the novel coronavirus (COVID-19) and reduce the risks to the health of the Australian public. These containment measures have raised concerns about their potential impacts on the safety of victims of domestic violence, particularly women and children (Peterman et al. 2020; Pfitzner, Fitz-Gibbon & True 2020).

While Australian service providers have reported increased demand from victims of domestic violence (Pfitzner, Fitz-Gibbon & True 2020), there has as yet been little evidence of an increase in police recorded violence (Freeman 2020; Kim & Leung 2020). Increases in recorded incidents and calls for police assistance have been observed in several US studies, but not in all cities (Ashby 2020; Leslie & Wilson 2020; Mohler et al. 2020; Piquero et al. 2020), whereas there was a significant decline in the United Kingdom (Halford et al. 2020).

Importantly, police and service provider data are unable to capture the experiences of women who could not seek help. This is especially relevant during the pandemic because of the added barriers to help-seeking for women required to socially distance at home with a violent partner. Surveys conducted in several countries have shown an increase in self-reported domestic violence following the introduction of stay-at-home orders and lockdowns (Arenas-Arroyo, Fernández-Kranz & Nollenberger 2020; Béland et al. 2020; Perez-Vincent et al. 2020). A recent survey of 15,000 Australian women revealed that 8.8 percent of respondents who had been in a cohabiting relationship had experienced actual, attempted or threatened physical or sexual violence by a current or former partner in the three months prior to the survey, conducted in May 2020 (Boxall, Morgan & Brown 2020). Two-thirds of women who reported having experienced physical or sexual violence said either that it was the first time their partner had been violent, or that the violence was getting worse.

Several factors have been identified as possible drivers of an increased risk of violence towards women. The first, and most obvious, is the increased time that women and their partners have been required to spend together at home as a direct consequence of social distancing requirements and the closure of non-essential services, schools and businesses. By late March, and well into April, many Australians had changed their behaviour and were maintaining social distance and avoiding public places (Australian Bureau of Statistics (ABS) 2020a, 2020b).

Situational stressors associated with the pandemic may further exacerbate the risk of domestic and family violence. There is mounting evidence of the financial impact of the pandemic on Australian households. Economic stress has been widely shown to be a risk factor for domestic violence (Pattavina, Socia & Zuber 2015; Smith & Weatherburn 2013), with physical forms of violence concentrated in areas of higher socio-economic disadvantage (Hulme, Morgan & Boxall 2019), and repeat victimisation linked to the presence of offender money problems (Dowling & Morgan 2019). One in three Australian households reported being financially worse off by March (ABS 2020a) and the number of people employed in Australia fell by nearly 600,000 in April alone (ABS 2020c). Financial stress and job insecurity likely placed significant situational stress on many cohabiting couples.

Related to this is the negative psychological impact of social distancing measures, with growing evidence of stress, anger and psychological distress during the pandemic (Shanahan et al. 2020; Van Rheenen et al. 2020). Although this may not, in and of itself, lead to increased violence, there has also been an increase in alcohol consumption (Biddle et al. 2020) which, together with poor mental health, is associated with an increased risk of violence (Elbogen & Johnson 2009). Notably, victim support services have reported an increase in alcohol involvement in domestic violence incidents (Women's Safety NSW & Foundation for Alcohol Research and Education 2020).

Finally, COVID-19 containment measures may further compound social isolation experienced by victims—especially those experiencing coercive control—by limiting their opportunities to seek help from family and friends or from formal support services (Peterman et al. 2020; Pfitzner, Fitz-Gibbon & True 2020). Certainly, Boxall, Morgan and Brown (2020) found evidence that women who had experienced physical or sexual violence, particularly those who were also subjected to coercive control, encountered barriers to help-seeking due to safety concerns.

Aim

Given most of these causal mechanisms are largely speculative in nature, this study aimed to test the following hypotheses about the relationship between the COVID-19 pandemic and the onset of physical and sexual violence experienced by women:

- Hypothesis 1: Women who spend more time at home with their partner, particularly partners with a history of violence towards them, will be more likely to experience violence during the initial stages of the COVID-19 pandemic.
- Hypothesis 2: Women who experience a greater level of social isolation as a consequence of the social distancing measures introduced to prevent the spread of COVID-19 will be more likely to experience physical violence by a cohabiting partner.
- Hypothesis 3: The level of financial stress experienced by households will have increased during the pandemic, and women in households with a high degree of financial stress will be more likely to experience violence.

We explore these hypotheses as they relate to two separate cohorts of women in current cohabiting relationships: those who had experienced physical or sexual violence by their partner before February 2020, and those who had not experienced prior violence.

Method

Sample

This study was conducted using data from an online survey of 15,000 women aged 18 years and over which examined the impact of the COVID-19 pandemic on experiences of domestic violence. The survey, conducted in May 2020, asked respondents about their experience of domestic violence in the three months since February 2020, when COVID-19 first started impacting Australia.

The survey was sent to female members of an online research panel aged 18 years or over. Proportional quota sampling, a non-probability sampling method, was used. In this study we used unweighted data, given our primary interest is in the relationship between variables. The overall completion rate for the survey was 13.7 percent, which compares favourably to online panels for family and domestic violence (eg Miller et al. 2016). Further information on the survey methodology and sampling strategy is provided in the technical appendix to Boxall, Morgan and Brown's (2020) Statistical Bulletin.

For the purpose of the current study, we limited the sample to women who had been in a relationship in the 12 months prior to the survey, and excluded a small number of respondents (n=47, 0.3%) with missing, inconsistent or implausible responses to demographic questions. We then limited the sample further to women in a current cohabiting relationship (n=7,514, 81% of women who had been in a relationship at some stage in the 12 months prior to the survey). Women who were not in a current cohabiting relationship were excluded because the amount of the time spent at home with their partner in the three months prior to the survey could not be reliably estimated.

To understand the specific impact of the pandemic on domestic violence, we separated those women who had not experienced physical or sexual violence by their intimate partner prior to February (*n*=6,925, 92% of women in current cohabiting relationships) from those who had (*n*=521, 7% of women in current cohabiting relationships). Women who were unsure whether they had experienced violence prior to February 2020 (*n*=68, 1%) were not included in the current study.

Dependent variable

The dependent variable in this study was whether the respondent had experienced physical or sexual violence by an intimate partner in the three months prior to the survey. This captures the period during which COVID-19 first posed a threat in Australia, and during which the major containment measures were introduced.

Physical violence was defined as the occurrence, attempt or face-to-face threat of physical assault by an intimate partner. Respondents were asked about a range of behaviours, including whether their partner had:

- choked, strangled or grabbed them around the neck;
- hit them with something that could hurt them, beat them, stabbed them with a knife or shot them with a gun;
- thrown anything at them that could hurt them, slapped, bit, kicked or hit them with a fist;
- pushed, grabbed or shoved them; or
- physically assaulted them in any other way.

The questions about physical violence were taken from the Personal Safety Survey (ABS 2017). Respondents were also asked a question from the same source about sexual violence—specifically, whether their partner had forced them, tried to force them or threatened to force them to take part in sexual activity against their will.

Respondents were recorded as having experienced physical or sexual violence in the last three months if they answered yes to at least one of the five physical violence items or the question about sexual violence. Following the questions about physical and sexual violence, respondents were asked whether their partner had ever been physically or sexually violent towards them before February 2020.

Independent variables

Sociodemographic characteristics

Respondents were asked to provide basic demographic information including age, Indigenous status, whether they spoke a language other than English most often at home, their highest education level, whether they were pregnant, presence of long-term health conditions (and whether they impacted everyday activities) and the number of children living at home.

Prior experience of emotionally abusive, harassing and controlling behaviour

Consistent with the question about prior physical or sexual violence, respondents were also asked whether their partner had ever engaged in any emotionally abusive, harassing or controlling behaviour (see Boxall, Morgan & Brown 2020 for a definition) towards them prior to February 2020.

Time spent at home with their partner

Respondents were asked to report how many days per week, on average, they spent the entire day at home with their partner in the three months prior to the survey. They were also asked to report how many days per week, on average, they spent at home with their partner prior to February 2020. These responses were used to determine whether the amount of time spent with their partner had increased, decreased or stayed the same.

Social isolation

Respondents were asked about the amount of contact they had in the three months prior to the survey with friends or family they did not live with. Contact could mean communicating in person, on the phone, by email, or online via messenger apps or social media. Responses were categorised using a five-point scale ranging from no contact at all to contact more than once a week.

Financial stress

Respondents were asked to rate the level of financial stress they had experienced in the three months prior to the survey on a scale from 1 to 5 (where 1=none and 5=extreme). They were also asked to rate their level of financial stress prior to February 2020. These were compared to determine whether financial stress had increased during the pandemic. In addition to the question about financial stress, they were asked whether they or their partner had lost their job or had taken a pay cut in the three months prior to the survey.

Analysis

The analysis was undertaken in two stages. First, the relationship between explanatory variables and self-reported physical or sexual violence in the three months prior to the survey was examined using chi-square tests of independence or Fisher's exact test. For variables with more than two categories, standardised adjusted residuals were analysed to determine which of the observed frequencies differed from the expected frequencies.

The second stage of the analysis used a multivariate logistic regression model to measure the independent effect of the major variables of interest on the likelihood of having experienced violence, while controlling for the effect of other risk factors for violence. Model fit was assessed using the Hosmer–Lemeshow goodness of fit test, Cragg–Uhler (Nagelkerke) R^2 and the area under the receiver operating characteristic curve (AUROC). Multicollinearity was also examined.

Results from a second model predicting the onset of physical violence among women who had not experienced prior violence by their current cohabiting partner before February 2020 were confirmed using rare events logistic regression (King & Zeng 2001). This is appropriate when, as a general rule, the probability of the outcome variable is lower than five percent. The coefficients produced by the standard logistic regression and rare events logistic regression were compared. Given there were no substantive differences between the two models, results from the standard multivariate logistic regression are reported, since this allows for predictive margins to be estimated.

Limitations

The survey was limited to women who had access to the internet and were registered as part of the online panel. Non-probability sampling means that, although the sample was large and there was a high concordance with several population-level demographic characteristics, not everyone had an equal likelihood of being selected to participate in the research, meaning results are not necessarily generalisable to the wider female population. Further, the accuracy of the results is limited by women's willingness to report violence, even anonymously, while some may have been unable to participate due to safety concerns. It is also difficult to accurately capture the complex forms of violence and abuse experienced by victims of domestic violence in a short survey with simple yes/no responses.

There are additional limitations to the current study that should also be acknowledged. First, as this study is based on cross-sectional data, a causal relationship between the main variables of interest—time at home, social isolation and financial stress—and physical or sexual violence cannot be established. Second, because of time constraints, only a limited number of questions could be asked as part of the survey. While questions about the nature of violence experienced by women were drawn from established surveys, questions about financial stress, social isolation and time spent with a partner were based on a smaller number of questions. The responses may not capture the nuance of women's experiences with respect to these risk factors for violence. Third, and relatedly, there may be unmeasured confounding factors that are relevant to women's experiences of violence, such as alcohol use and psychological distress.

Results

Nearly three percent (n=200, 2.9%) of women in a current cohabiting relationship who had not experienced violence by their current partner before February 2020 (no prior violence, NPV) reported having experienced physical or sexual violence by their partner for the first time in the three months prior to the survey. Two-thirds of women (n=349, 67.0%) who had experienced prior violence (PV) said they had experienced a further (repeat) act of physical or sexual violence.

Bivariate analysis

The first stage of the analysis examined the bivariate relationships between respondents' experience of physical or sexual violence in the three months prior to the survey and the following variables: demographic characteristics; prior experience of emotionally abusive, harassing and controlling behaviour; time spent with their partner at home; social isolation; and measures of financial stress (Table 1). Among the main variables of interest, less frequent social interaction with friends or family was associated with a higher prevalence of self-reported violence (PV: $\chi^2(2)=43.4$, $p<0.001$, $\varphi_c=0.29$; NPV: $\chi^2(2)=30.4$, $p<0.001$, $\varphi_c=0.07$). There was a statistically significant association between a change in the number of days spent at home with a partner and experience of physical or sexual violence (PV: $\chi^2(2)=17.0$, $p<0.001$, $\varphi_c=0.18$; NPV: $\chi^2(2)=25.6$, $p<0.001$, $\varphi_c=0.06$); however, women who reported spending less time at home were more likely to experience violence.

Finally, there were statistically significant associations between the three measures of financial stress—self-reported financial stress prior to the pandemic, whether financial stress had increased and whether the respondent or their partner had lost their job or taken a pay cut—and the experience of physical or sexual violence during the pandemic. More specifically, higher levels of financial stress prior to February 2020 were associated with a higher prevalence of violence (PV: $\chi^2(4)=92.0$, $p<0.001$, $\varphi_c=0.42$; NPV: $\chi^2(4)=141.4$, $p<0.001$, $\varphi_c=0.14$). An increase in financial stress was associated with lower rates of violence among women in abusive relationships ($\chi^2(1)=4.4$, $p<0.05$, $\varphi=-0.09$), but a higher prevalence of violence among women with no prior violence ($\chi^2(1)=14.1$, $p<0.001$, $\varphi=0.05$). Women who reported they or their partner had lost their job or taken a pay cut were more likely to report having experienced violence (PV: $\chi^2(1)=36.1$, $p<0.001$, $\varphi=0.26$; NPV: $\chi^2(1)=22.3$, $p<0.001$, $\varphi=0.06$).

Table 1: Bivariate relationships between explanatory variables and experience of physical or sexual violence by a current cohabiting partner in the last three months

		Prior violence (*n*=521)			No prior violence (*n*=6,925)		
		n	Violence (%)	χ^2	*n*	Violence (%)	χ^{2a}
Age group	18–24	93	85.0	85.3***	435	9.7	158.0***
	25–34	151	80.1		1,309	5.7	
	35–44	108	70.4		1,458	3.2	
	45–54	85	57.7		1,344	1.6	
	55+	84	28.6		2,379	0.6	
Highest level of education	Up to Year 11 (or equivalent)	67	53.7	9.4*	932	2.4	9.3*
	Year 12 (or equivalent)	48	72.9		954	1.8	
	Vocational qualification	153	63.4		1,944	2.7	
	University	253	71.5		3,095	3.5	
Usual place of residence	Major city	413	69.7	6.8**	5,174	3.2	7.5**
	Regional or remote	108	56.5		1,751	1.9	
Aboriginal or Torres Strait Islander	Yes	129	95.4	62.4***[b]	157	14.7	***[b]
	No	387	57.6		6,734	2.6	
	Did not say	5	60.0		34	14.7	
Non-English speaking at home	Yes	185	85.4	44.0***	1,101	5.5	30.6***
	No	336	56.9		5,824	2.4	
Restrictive long-term health condition	Yes	194	85.1	45.6***	637	6.0	23.7***
	No	327	56.3		6,288	2.6	
Currently pregnant	Yes	113	94.7	50.1***	131	9.9	***
	No	408	59.3[c]		6,794	2.7[d]	

Table 1: Bivariate relationships between explanatory variables and experience of physical or sexual violence by a current cohabiting partner in the last three months (cont.)

		Prior violence (*n*=521)			No prior violence (*n*=6,925)		
		n	Violence (%)	χ^2	*n*	Violence (%)	χ^{2a}
Number of children living at home	None	217	56.7	17.9***	4,049	2.5	8.2*
	1–2	258	74.4		2,424	3.7	
	3+	46	73.9		452	2.7	
Prior emotionally abusive, harassing and controlling behaviour	Yes	439	71.8	29.1***	553	13.6	300.7***
	No	63	39.7		6,210	1.7	
	Unsure	19	47.4		162	11.7	
Frequency of social interaction with friends or family with whom they do not live (last three months)	More than weekly	211	53.1	43.4***	3,834	2.0	30.4***
	Weekly	78	60.3		1,334	3.4	
	Less than weekly	232	81.9		1.757	4.6	
Average number of days per week spent at home with partner	Increased	246	61.0	17.0***	3,597	2.8	25.6***
	Decreased	83	85.5		471	6.6	
	Stayed the same	192	66.7		2,857	2.4	
Financial stress prior to Feb 2009	None	83	33.7	92.0***	2,764	1.1	141.4 ***
	Low	98	54.1		1,995	2.8	
	Moderate	107	63.6		1,481	3.4	
	High	142	80.3		528	9.3	
	Extreme	91	94.5		157	10.2	
Increase in financial stress in last three months	Yes	171	60.8	4.4*	2,392	3.9	14.1***
	No	350	70.0		4,533	2.3	
Respondent or partner lost their job or took a pay cut	Yes	288	78.1	36.1***	1,953	4.4	22.3***
	No	233	53.2		4,972	2.3	

***statistically significant at $p<0.001$, **statistically significant at $p<0.01$, *statistically significant at $p<0.05$

a: Where chi-square statistic not reported, Fisher's exact test was used due to small cell counts

b: Chi-square and Fisher's exact tests exclude women who did not disclose whether they were from an Aboriginal or Torres Strait Islander background

c: Includes women who were not sure if they were pregnant (*n*=8)

d: Includes women who were not sure if they were pregnant (*n*=50)

Source: Impact of COVID-19 on domestic violence survey, AIC [computer file]

Multivariate logistic regression

We then used multivariate logistic regression to determine the independent effect of each of these variables on the likelihood of a woman having experienced physical or sexual violence in the three months prior to the survey, controlling for other factors. The final models for women who had experienced prior violence (Model 1) and women who had not experienced prior violence (Model 2) are described in Table 2.

Women who had experienced violence prior to the pandemic

For women who had experienced past violence, the odds of experiencing violence in the three months prior to the survey were much lower for respondents aged 55 and over (AOR=0.25), compared with respondents aged 25 to 34 (the reference group). Aboriginal and Torres Strait Islander women were significantly more likely to have experienced violence during the pandemic (adjusted odds ratio (AOR)=5.46), as were women who had previously experienced emotionally abusive, harassing or controlling behaviour (AOR=3.44).

Women who reported having less than weekly contact with family and friends outside of their household during the pandemic were significantly more likely to experience violence than women who had contact with family and friends more than once a week (AOR=3.52). Further, higher levels of financial stress were associated with a higher likelihood of violence, particularly among women reporting extreme levels of financial stress (AOR=10.30); however, there was no effect associated with increased financial stress or the loss of a job or paid hours.

Women who reported a decrease in the amount of time spent at home with their partner were more likely to experience violence (AOR=2.58), controlling for other factors. Further analysis of responses revealed that 70.4 percent of women who had experienced violence and decreased the amount of time spent with their partner said that police had been notified following the most recent incident. It is possible that the time spent at home decreased in response to the violence, either because of criminal justice intervention or because the respondent had taken steps to reduce contact with their violent partner.

Women who had not experienced violence prior to the pandemic

For women who had not experienced violence prior to the pandemic, the results were slightly different. Women aged 18 to 24 were more likely than women aged 25 to 34 to have experienced physical or sexual violence (for the first time) during the pandemic (AOR=1.68), while women aged 35 to 44 (AOR=0.61), 45 to 54 (AOR=0.32) and women 55 years and over (AOR=0.16) were less likely to have experienced violence than the reference category. Women who completed Year 12 or equivalent were less likely than those who had completed Year 11 or below to experience violence (AOR=0.44), but there was no difference among women with higher levels of education. Women living in regional or remote areas were less likely than women in major cities to experience violence (AOR=0.65), controlling for other factors, while Aboriginal and Torres Strait Islander women (AOR=2.40) and women with long-term health conditions that impacted their everyday activities were more likely to experience violence (AOR=1.78). There was a strong association between experience of prior emotionally abusive, harassing and controlling behaviour and the onset of violence during the pandemic (AOR=6.89).

In terms of the main variables of interest, several key findings emerged. There was a strong, significant relationship between financial stress prior to the pandemic and the onset of violence. Relative to women who reported no financial stress, women who reported low (AOR=1.70), moderate (AOR=1.85), high (AOR=4.58) and extreme levels (AOR=4.45) of financial stress were more likely to experience violence. In addition, women who reported an increase in financial stress during the pandemic were significantly more likely to experience first-time violence (AOR=2.02). In contrast, the likelihood of violence was the same for women who said they or their partner had lost their job or paid hours and for those who said they had not. The frequency of social interaction with family and friends was also a significant predictor of the onset of violence during the pandemic, with women reporting weekly (AOR=1.55) or less than weekly (AOR=1.46) contact with family or friends outside of the home more likely to experience violence. However, there was no evidence of a relationship between changes in the amount of time spent at home with a partner and the onset of violence.

Table 2: Logistic regression model predicting experience of physical or sexual violence by a current cohabiting partner in the three months prior to the survey

		Model 1: Prior violence (*n*=516)[a]		Model 2: No prior violence (*n*=6,925)[b]	
		AOR	95% CI	AOR	95% CI
Age group (vs 25–34)	18–24	1.35	0.60–3.04	1.67*	1.07–2.63
	35–44	0.62	0.30–1.30	0.61*	0.39–0.92
	45–54	0.56	0.27–1.16	0.32***	0.19–0.54
	55+	0.25**	0.12–0.56	0.16***	0.09–0.30
Highest level of education (vs Up to Year 11 or equivalent)	Year 12 or equivalent	1.97	0.64–6.10	0.44*	0.21–0.92
	Vocational qualification	1.63	0.72–3.70	0.72	0.40–1.30
	University	1.45	0.64–3.29	0.76	0.44–1.34
Usual place of residence (vs Major city)	Regional or remote	0.55	0.29–1.05	0.65*	0.44–0.98
Aboriginal or Torres Strait Islander (vs No)	Yes	5.46**	1.74–17.13	2.40**	1.31–4.36
	Rather not say	–	–	6.70**	2.13–21.02
Non-English speaking background (vs No)	Yes	1.17	0.59–2.30	1.21	0.84–1.73
Restrictive long-term health condition (vs No)	Yes	1.39	0.74–2.62	1.78**	1.17–2.69
Currently pregnant (vs No)	Yes	1.96	0.73–5.27	1.62	0.82–3.02
Number of children living at home (vs None)	1–2	0.93	0.52–1.65	1.07	0.76–1.50
	3+	0.63	0.24–1.67	1.62	0.87–3.02
Prior emotionally abusive, harassing and controlling behaviour (vs No)	Yes	3.44**	1.58–7.48	6.89***	4.86–9.76
	Unsure	1.64	0.50–5.37	5.77***	3.18–10.45

Table 2: Logistic regression model predicting experience of physical or sexual violence by a current cohabiting partner in the three months prior to the survey (cont.)

		Model 1: Prior violence (*n*=521)[a]		Model 2: No prior violence (*n*=6,925)[b]	
		AOR	95% CI	AOR	95% CI
Frequency of social interaction with family and friends (vs More than weekly)	Less than weekly	3.52***	2.00–6.19	1.46*	1.03–2.06
	Weekly	1.74	0.89–3.41	1.55*	1.03–2.32
Average number of days per week spent at home with partner (vs Remained the same)	Increased	0.90	0.52–1.57	1.07	0.76–1.52
	Decreased	2.58*	1.11–6.01	1.28	0.77–2.13
Financial stress prior to February 2020 (vs None)	Low	2.67*	1.27–5.63	1.70*	1.06–2.73
	Moderate	1.78	0.82–3.85	1.85*	1.13–3.03
	High	2.36*	1.04–5.32	4.58***	2.63–8.00
	Extreme	10.30***	3.12–33.99	4.45***	2.11–9.39
Increase in financial stress in last three months (vs No)	Yes	0.96	0.53–1.75	2.02***	1.39–2.92
Respondent or partner lost their job or took a pay cut (vs No)	Yes	0.99	0.56–1.75	1.07	0.76–1.51
	Constant	0.14**	0.04–0.52	0.01***	0.01–0.03

***statistically significant at $p<0.001$, **statistically significant at $p<0.01$, *statistically significant at $p<0.05$

a: Likelihood–ratio test $\chi^2(26)=172.92$, $p<0.001$; Hosmer–Lemeshow $\chi^2(8)=7.94$, $p=0.44$; AUROC=0.869; Nagelkerke $R^2=0.491$; Excludes 5 women who did not disclose whether they were from an Aboriginal or Torres Strait Islander background

b: Likelihood–ratio test $\chi^2(27)=402.62$, $p<0.001$; Hosmer–Lemeshow $\chi^2(8)=7.86$, $p=0.45$; AUROC=0.862; Nagelkerke $R^2=0.264$

Note: Model was specified with robust standard errors. AOR=adjusted odds ratio, CI=confidence interval

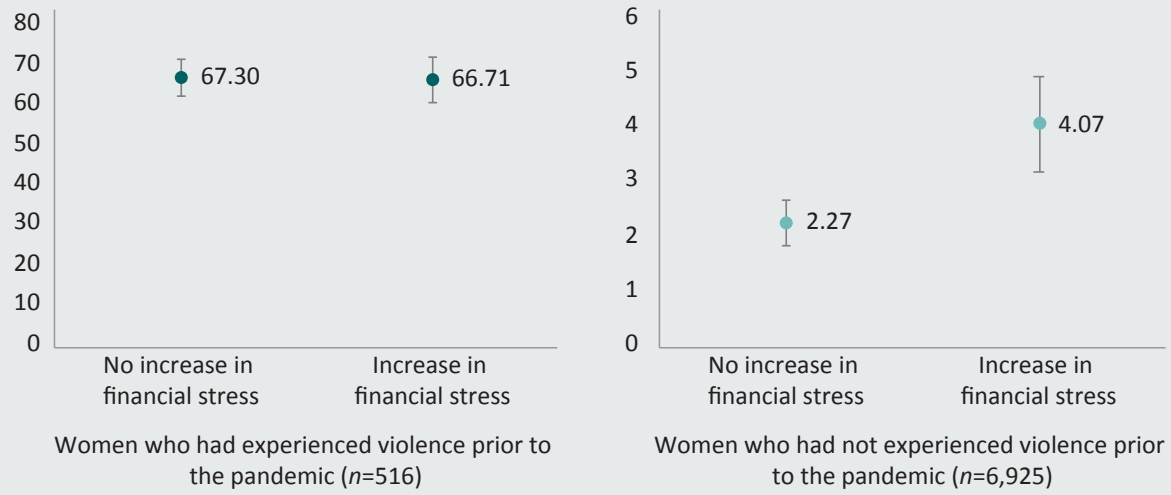
Source: Impact of COVID-19 on domestic violence survey, AIC [computer file]

Predicted probability of physical or sexual violence

We then estimated the average predictive margins, adjusted for covariates using marginal standardisation (Muller & MacLehose 2014), for financial stress and social isolation. Predictive margins indicate the average predicted probability of the outcome of interest being observed—in this case, the experience of physical or sexual violence in the three months prior to the survey—when a certain characteristic is present, controlling for the other variables in the logistic regression models in Table 2. We also calculated the average marginal effect (AME), which is the average change in probability.

The predicted probability of first-time violence was 1.8 times higher for women who reported an increase in financial stress during the pandemic (4.1%) than for women who did not report an increase in financial stress (2.3%; AME=1.8pp, $z=3.44$, $p<0.01$; see Figure 1). Critically, one in three women (34.5%) who had not experienced violence by their partner prior to the pandemic reported an increase in financial stress after February 2020. Women who had previously experienced violence were just as likely to report an increase in financial stress (32.8%); however, there was no difference in the probability of physical or sexual violence between those respondents who did (66.7%) and did not (67.3%) report an increase in financial stress ($z=-0.14$, $p=0.888$). It is worth noting that women who had experienced violence before February 2020 were significantly more likely than other women to report high or extreme levels of financial stress before the start of the pandemic ($\chi^2(4)=633.9$, $p<0.001$, $\varphi_c=0.29$).

Figure 1: Predicted probability of physical or sexual violence in the three months prior to the survey, by change in financial stress (%)

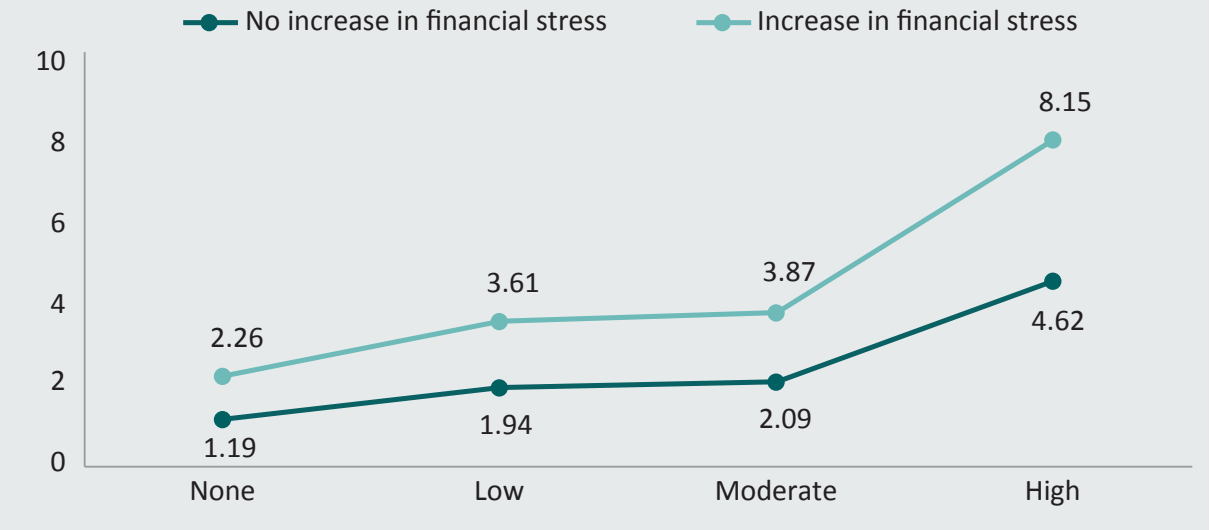


Note: Predictive margins based on logistic regression model reported in Table 2

Source: Impact of COVID-19 on domestic violence survey, AIC [computer file]

We then estimated the predicted probability of first-time physical or sexual violence for women who did and did not report an increase in financial stress, based on their level of financial stress prior to the pandemic (Figure 2). The probability of first-time violence among women who were experiencing a high level of financial stress before the pandemic, and who reported an increase in financial stress, was 8.2 percent, compared with 4.6 percent for women who did not report an increase in financial stress (AME=3.5pp, z=2.8, p<0.01). By comparison, the probability of first-time violence among women who were not financially stressed before the pandemic, but who reported an increase in financial stress, was 2.3 percent—1.1 percentage points higher than women who did not report an increase in financial stress (1.2%; z=3.2, p<0.01).

Figure 2: Predicted probability of first-time physical or sexual violence in the three months prior to the survey, by level of financial stress prior to pandemic (%)

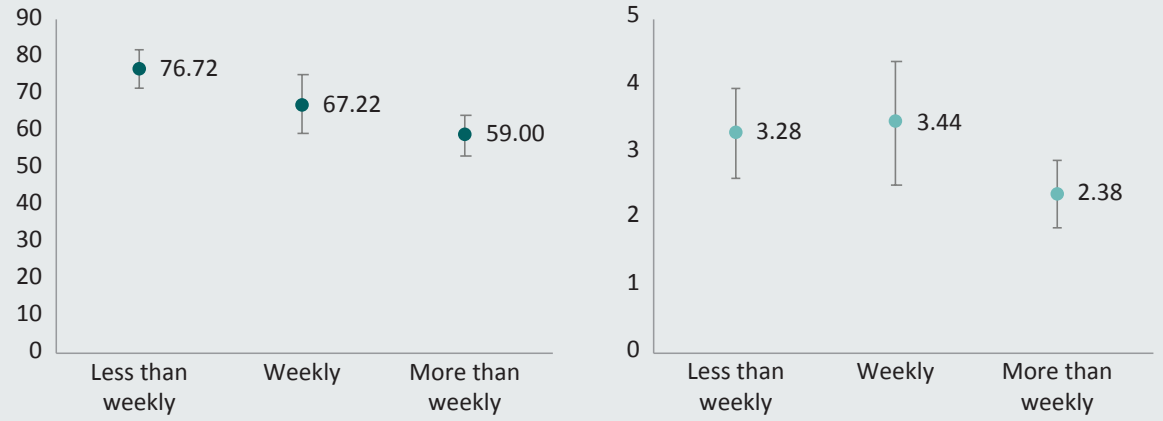


Note: Limited to women who had not experienced violence prior to the pandemic. Women who reported extreme financial stress prior to the pandemic could not report an increase in financial stress and are not included

Source: Impact of COVID-19 on domestic violence survey, AIC [computer file]

Finally, we estimated the predicted probability of physical or sexual violence among women with and without prior experience of violence according to their frequency of social interaction with family or friends (Figure 3). Among women who had experienced violence prior to the pandemic, the probability of physical or sexual violence was 17.7 percentage points (1.3 times) higher for women with less than weekly contact than for women who maintained more than weekly contact with friends and family (76.7% vs 59.0%; z=4.49, p<0.001). The difference between women with less than weekly contact and women with weekly contact was also significant (AME=9.5pp; z=1.98, p<0.05). Among women who had not experienced violence prior to the pandemic, the probability of first-time violence was 1.4 times higher for women with less than weekly contact (AME=0.9pp; z=2.1, p<0.05) and for women with weekly contact (AME=1.1pp; z=2.0, p<0.05) than for women who maintained more than weekly contact with family and friends.

Figure 3: Predicted probability of physical or sexual violence in the three months prior to the survey, by frequency of social interaction (%)



Source: Impact of COVID-19 on domestic violence survey, AIC [computer file]

Discussion

In this study we examined the impact of the COVID-19 pandemic on the likelihood of self-reported partner violence among Australian women in current cohabiting relationships, using data from a large online survey. The specific impacts of increased time spent at home, social isolation and financial stress on rates of physical and sexual violence during the COVID-19 pandemic were examined. The majority of women had not experienced violence by their partner prior to the pandemic. Among those who had, two-thirds experienced further violence. Three percent of women experienced the onset of violence during the pandemic.

We did not find any evidence that an increase in the amount of time spent at home directly influenced the likelihood of either repeat or first-time violence. However, women who had less frequent contact with family and friends outside of the household during the pandemic were more likely to experience both repeat and first-time violence. The probability of violence was between 1.3 and 1.4 times higher among women who had less frequent contact with non-household members. We were unable to measure changes in the frequency of contact, but there is compelling data showing the social distancing requirements introduced to reduce community transmission of COVID-19 significantly impeded social interaction with non-household members (ABS 2020b).

Women in households with higher levels of financial stress before the pandemic were more likely to experience physical or sexual violence, irrespective of whether they had experienced violence by their partner before February 2020. While the level of financial stress leading into the pandemic was a strong predictor of violence for both groups, the probability of first-time violence was 1.8 times higher among women who experienced an increase in financial stress. This indicates the financial impact of the pandemic has affected women's safety. Of course, financial stress does not exist in a vacuum, and there is a complex interplay with other factors—not all women who reported an increase in financial stress experienced violence—but we suggest it presents a significant situational stressor that impacted on women's safety during the pandemic.

Although they were not the focus of the current study, we identified several other factors associated with an elevated risk of violence during the pandemic. Women who have restrictive long-term health conditions were more likely to experience the onset of violence during the pandemic, while Aboriginal and Torres Strait Islander women and women who had experienced emotionally abusive, harassing and controlling behaviour prior to February were more likely to experience violence, irrespective of whether they had previously experienced violence. The latter is particularly notable in the context of first-time violence, and highlights the importance of intervening early to prevent the escalation of non-physical to physical forms of violence within a relationship. Conversely, there was some evidence that women living in regional or remote areas were less likely to experience the onset of violence, once other factors were taken in account; however, the onset of violence is only one measure of the impact of the pandemic, and it is possible that they experienced other negative consequences.

Overall, we conclude that the early stages of the COVID-19 pandemic were associated with an increased risk of violence against women in current cohabiting relationships, most likely from a combination of increased economic stress and social isolation. The limitations of our survey need to be acknowledged, particularly as they relate to drawing conclusions about causal relationships using a cross-sectional survey. Nevertheless, we believe the data from this survey make an important contribution to our understanding of the impact of the COVID-19 pandemic on domestic violence, and can help inform targeted efforts to address women's safety. This research contributes to a growing body of international evidence demonstrating the impact of the pandemic on domestic violence and, in particular, the impact of the economic consequences of containment measures (Arenas-Arroyo, Fernández-Kranz & Nollenberger 2020; Béland et al. 2020). More broadly, these findings may have implications for how we understand the onset of domestic and family violence, and the role that situational stressors play in establishing patterns of violence and abuse perpetrated against women.

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