









BMJ Open Prevalence and associated factors with sexual violence victimisation youth before, during and after the COVID-19 lockdown: a cross-sectional study in Spain

Belén Sanz-Barbero ^{1,2} Carme Saurina ^{1,3} Laura Serra ^{1,3}
 Gemma Renart Vicens ^{1,3} Laura Vall-Llosera Casanovas ^{1,3}
 Laura Otero-García ^{1,4} María José López ^{1,5,6} Glòria Perez,¹
 Carmen Vives-Cases ^{1,7}

To cite: Sanz-Barbero B, Saurina C, Serra L, *et al.* Prevalence and associated factors with sexual violence victimisation youth before, during and after the COVID-19 lockdown: a cross-sectional study in Spain. *BMJ Open* 2021;**11**:e055227. doi:10.1136/bmjopen-2021-055227

► Prepublication history and additional supplemental material for this paper are available online. To view these files, please visit the journal online (<http://dx.doi.org/10.1136/bmjopen-2021-055227>).

Received 08 July 2021
Accepted 02 November 2021



© Author(s) (or their employer(s)) 2021. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

For numbered affiliations see end of article.

Correspondence to

Dr Belén Sanz-Barbero;
bsanz@isciii.es

ABSTRACT

Objectives To analyse the prevalence of sexual violence (SV) and associated factors in Spanish young adults in the last year and before, during and after the COVID-19 lockdown.

Design Cross-sectional study based on the online ‘SV in Young People Survey’ (2020).

Setting Non-institutionalised population residing in Spain.

Participants 2515 men and women aged 18–35 years old. The participants were obtained from a probability based, online closed panel of adults aged 16 or older that is representative of the non-institutionalised population. The sample designed includes quotas by sex, age, region and country of origin.

Outcomes measures and analyses SV victimisation by sociodemographics, sexual attraction and couple-related characteristics during the past year and before, during and after the COVID-19 lockdown (March–June 2020). Prevalence ratios were calculated using robust Poisson regression models.

Results In Spain, 8.5% of young people experienced SV during the past year. The greatest prevalence was observed in women with bisexual attraction (17.5%) and in men with homosexual attraction (14.2%). During the COVID-19 lockdown, the prevalence of SV victimisation was lower (1.9%), but unwanted intercours increased, affecting 64.4% of those exposed to SV during the period. People with homosexual or bisexual attraction were more likely to experience SV in all of the studied periods (PR_{before}: 2.01; $p < 0.001$; PR_{during}: 2.63 $p = 0.002$; PR_{after}: 2.67; $p < 0.001$). Women were more likely than men to experience SV prior to the lockdown, while no cohabitation increased the likelihood to experience SV after this period.

Conclusions SV victimisation in Spanish youth is high. During COVID-19, there were changes in the magnitude of factors associated with SV. It seems that SV events decreased in people who did not live with their partners, but unwanted intercours increased. The development of prevention strategies to address SV in youth should take into account social inequalities by sex, sexual orientation and origin.

Strengths and limitations of this study

- This is the first study in Spanish youth that analysed sexual violence (SV) victimisation in young women and men during the last 12 months, taking in account sociodemographics, sexual attraction and couple-related characteristics.
- Data collection was carried out at the end of 2020, thus, it was possible to assess the impact of the COVID-19 lockdown on SV victimisation and its associated factors in young people.
- The limited sample size and the low frequency of sexual minorities do not allow us to analyse the different sexual minorities independently.
- The sample size of this study, the analysis of short time periods and the low prevalence of SV during the time periods considered, mean that these results should be interpreted with caution.

INTRODUCTION

Sexual violence (SV) is defined as any sexual act or attempt, unwanted sexual comments or acts to traffic against a person’s sexuality using coercion by any person, regardless of their relationship with the victim, in any setting, including but not limited to home and work.¹

Sexual intimate partner violence (Sex-IPV) is one of the forms of SV that has been studied most. It is primarily perpetrated by men against women,² but a high prevalence of Sex-IPV victimisation has been also reported by men.³ In the USA, an estimated 15.8% of women and 9.5% of men have experienced other forms of Sex-IPV during their lifetimes.² In relation to non-partner SV, it has been estimated that 7.2% of women over age 15 worldwide have experienced any form



of non-partner SV.⁴ In the European Union-28 context, a total of 11% of women have experienced Sex-IPV or non-partner SV.⁵

There is an increasing awareness of the magnitude of non-partner SV/Sex-IPV, especially in relation to youth.¹ Recent published meta-analysis shows that 9% of teenagers have experienced sexual dating violence. It has been reported that girls have higher rates of victimisation than boys (14% vs 8%).⁶ In Spain, according to the latest Macro-survey on Violence against Women, 8.4% of ever-partnered women have suffered Sex-IPV. In women aged 16–24, this percentage reaches 12.4%, compared with the 8.9% of women aged 25 and over. Non-partner SV is reported to be 1.8 times higher among women aged 16–24 as compared with women aged 25 years old and over (11% vs 6%).⁷

Non-partner SV and Sex-IPV have short-term and long-term health consequences, including a high risk of depression, suicide and femicide/homicide; sexually transmitted infections; induced abortion and alcohol consumption.^{4 5 7} The presence of this negative health effects is alarming.⁸ The silence and stigma that usually surround experiences of non-partner SV and Sex-IPV may influence not only the severity of these health consequences, but also the victim's help-seeking behaviour.^{9 10}

Addressing SV and Sex-IPV is a priority. Further research about the associated factors in youth is needed to inform existing primary prevention strategies.^{11 12} Non-partner SV and Sex-IPV have been associated with individual, relational and social factors like sexism and traditional gender stereotypes,^{13 14} exposure to sexually explicit material,¹⁵ a large age gap between couples or lack of social support.¹⁴ Current knowledge about SV among youth in socially disadvantaged circumstances, due to their sexual orientation, migrant status or socioeconomic situation, is still rather scarce and the studies usually integrate SV with other forms of violence like physical-IPV.¹⁶

This study is part of a larger project on SV, and the use of pornography in young adults in Spain, which occurs in the context of the proposal of a new national law to cope with SV and guarantee sexual freedom.¹⁷ In addition, our data collection was carried out at the end of 2020, thus, it was possible to describe, in young people, the prevalence of SV victimisation and its associated factors during the last 12 months and in different period related to the COVID-19 lockdown. Previous studies have already pointed to a possible increase in the prevalence of IPV and, above all, its severity, including more frequent SV in particular Sex-IPV.^{18–20} However, further research that distinguishes between the risk of Sex-IPV and non-partner SV in young adults during the period is needed.

This study was based on the hypothesis that SV risk factors would remain in the different periods analysed. However, it is possible that the magnitude of the SV risk factors associated with SV in cohabiting couples increased during lockdown period. The aim of this paper was to analyse the prevalence of SV and its associated factors in

Spanish young adults in the past year and before, during and after the COVID-19 lockdown period in Spain.

METHODS

Population and sample

Cross-sectional study of the SV in Young People Survey carried out online with young men and women age 18–35 residing in Spain. Calculation of the sample was carried out using the most recent data on the prevalence of SV against women in Spain⁷ corrected for sex. The minimum sample size needed was estimated at 2500 questionnaires with quotas by sex, age, autonomous community (region) and country of origin, in order to guarantee a sample error of $\pm 5\%$, considering a 95% CI and prevalence estimates with a precision level of $(\pm) 0.9$. The sample was obtained from a voluntary panel that included 138 393 adults over age 16. This panel is designed to be fully representative of the non-institutionalised Spanish civilian population. The sample design included quotas by sex, age, region and country of origin, in order to represent the population between ages 18 and 35 residing in Spain. Panelists were invited by email to complete the survey. Those who accepted received (via email) an individual link to complete the online survey. Panelists received only non-survey-specific incentives through a point-based rewards programme, which they could use to purchase products from different stores. After conducting a first pilot study, a database of 2525 people was obtained. Once refined, it resulted in 2515 registrations. The response rate was 62.3%. Data collection was carried out from 15 October 2020 to 28 October 2020.

Measurements

The main outcome, prevalence of SV victimisation (sex-IPV and/or non-partner SV) during the past 12 months (SV12m), was measured using eight items following national⁷ and international survey guidelines (see online supplemental file 1).²¹ When one of the participants responded affirmatively to having experienced one of a number of sexual violence behaviours during last 12 months, we considered the person to have been exposed to SV12m. Then we asked: *Thinking back to how long we have lived through lockdown (March 14 through May 9, 2020), did this behavior happen ... before lockdown? ... during lockdown? or ... after lockdown? (you may check all the applicable response options).*

Covariables were included that had been associated with SV12m victimisation in prior studies, such as socio-demographic variables, sexual attraction and relationship status.^{6 11}

Socioeconomic variables: sex (man, woman), age, country of birth (Spain, outside of Spain), highest completed studies (no studies, primary studies, secondary studies, higher education); work situation: 'have you worked for pay in the last 12 months?' (yes/no).

Variables related to relationship status: 'Do you currently have a partner?' (yes/no). Those who had a

partner were asked about their living situation. Response categories were: yes, we live together/yes, but we live together only intermittently (phases, weekends)/no, we live in different domiciles. The variable was categorised in terms of continuous cohabitation/non-cohabitation; the latter included intermittent cohabitation and non-cohabitation. Information was collected about whether participants had minor children from either one of the partners. The variable was categorised as: yes, minor children of one or both/no minor children.

Sexual attraction data were collected using the following question: 'With which of the following affirmations do you feel most identified?': I'm only attracted to women/I'm normally attracted to women but sometimes I'm attracted to men/I'm attracted to both women and men/I'm normally attracted to men, but sometimes I'm attracted to women/I'm only attracted to men/I'm not attracted to men nor women—no response. Those who reported being exclusively attracted to people of the same sex were included in the homosexual category (gay/lesbian, according to sex). Those who reported only being attracted to people of the opposite sex were classified as heterosexual. Those who responded not being attracted to any sex (n=6) were considered missing values.

Statistical analysis

First, we described the prevalence of SV12m victimisation in the total sample and stratified by sex, according to the covariables described above. Later, we described the prevalence of SV victimisation before, during and after the COVID-19 lockdown period. The differences of the frequency distribution in the covariates were estimated using Pearson's χ^2 test. When the expected values in any of the cells were below 5 we used Fisher's exact test. We also described the frequency of each SV12m behaviours, in the whole sample and stratified by sex, in addition to the frequency of each SV behaviour before, during and after lockdown.

Finally, Poisson models with robust variance were estimated to analyse the association between the covariables and SV prevalence victimisation in the different periods. Unadjusted and later adjusted, prevalence ratios (PR) were calculated. In order to obtain model adjustment, variables were included sequentially when they resulted in statistical significance in the unadjusted model. Interactions were explored between sex and the covariables included in the models. No statistically significant interaction was identified.

Patient and public involvement

Patients or the public were not involved in the design, or conduct, or reporting, or dissemination plans of our research.

RESULTS

Table 1 shows the prevalence of SV12m victimisation in the whole sample and stratified by sex. In Spain, 8.5% of youth experienced SV12m. The prevalence was greater in women

(10.5%) than in men (6.8%), and in those born outside of Spain (12% vs 8.1%). Among men, the prevalence was greater in those who reported homosexual (14.2%) and bisexual attraction (10.6%). In women, the prevalence increased among those with bisexual attraction (17.5%). In women, SV12m decreased as age increased ($p<0.001$). It was also lower in those who were cohabitating with their partner (7.4%).

During the lockdown (table 2), the prevalence of SV victimisation was 1.8%, and there were no significant differences by sex. Among the heterosexual population the prevalence of SV victimisation was lower in all of the study periods (5%, 1.3% and 1.6% before, during and after, respectively) than the bisexual population (11.8%, 3.8% and 4.5% before, during and after, respectively) and homosexual men (8.4%, 2.5% and 5.0% before, during and after, respectively). During the COVID-19 lockdown, there were no statistically significant differences in the prevalence of SV victimisation by place of birth (born abroad: 2.3% vs born in Spain: 1.8%) but this difference became statistically significant after the lockdown (4.0% vs 2.1%). Those who cohabit had a greater prevalence of SV victimisation before (5% vs 7.6%) and after the (1.4% vs 2.7%) than those who do not cohabit, but this difference was not statistically significant during the lockdown (2.3% vs 1.5%).

The most prevalent behaviours (table 3) among those who experienced SV12m victimisation were 'unwanted touching of intimate body parts', reported by 73.6% of women and 61.6% of men. Unwanted intercourses were present in 39.4% of people who experienced SV12m. During the lockdown these practices affected 64.4% of those exposed to SV during this period.

Tables 4 and 5 show the variables associated with SV prevalence, in different study periods. There is an independent effect of sex on the probability of experiencing SV12m. In the last 12 months (table 5), the probability of SV victimisation was 54% greater in women than in men, although this difference was not observed neither during nor after the lockdown. The probability of SV12m was greater among the population born outside of Spain than in the Spanish-born population (PR: 1.54 (1.07; 2.19)). This difference lost statistical significance during and after the lockdown period (PR: 1.83 (0.94; 3.57)) approaching statistical significance ($p<0.07$). Those with homosexual or bisexual attraction had a greater probability of experiencing SV than those with heterosexual attraction in all of the studied periods, during last 12 months (PR: 1.98 (1.52; 2.59)), prior (PR: 2.01 (1.46; 2.76)) during (PR: 2.63 (1.42; 4.88)) and after (PR: 2.67 (1.54; 4.61)) the lockdown.

DISCUSSION

In Spain 9 of every 100 young people ages 18–34 have experienced SV12m victimisation. The overall prevalence was greater among women (10.5%) and in those born outside of Spain (12%). By sex, the prevalence was greater among men with non-heterosexual attraction

Table 1 Prevalence of sexual violence victimisation in the past 12 months in the total sample and stratified by sex, Sexual Violence in Young People Survey, 2020

	Have you experienced sexual violence in the past 12 months? (n.a=41)														
	Total sample					Men					Women				
	%yes	%no	Total	P value		%yes	%no	Total	P value		%yes	%no	Total	P value	
Age (years)				0.002	0.240									<0.001	
18–24	10.8	89.2	859			7.0	93.0	429			14.7	85.3	430		
25–29	9.1	90.9	696			8.4	91.6	347			9.7	90.3	349		
30–35	6.2	93.8	919			5.4	94.6	465			7.0	93.0	454		
Sex				0.001											
Man	6.8	93.2	1241			6.8	93.2	1241			—	—	—		
Woman	10.5	89.5	1233			—	—	—			10.5	89.5	1233		
Country of birth				0.027	0.107									0.189	
Other country	12.0	88.0	301			10.2	89.8	128			13.3	86.7	173		
Spain	8.1	91.9	2173			6.4	93.6	1113			10.0	90.0	1060		
Level of studies (n.a=22)				0.427	0.761									0.646	
Up to secondary	8.1	91.9	760			6.4	93.6	424			10.3	89.7	336		
Higher education	8.9	91.1	1692			6.8	93.2	806			10.7	89.3	886		
Sexual attraction (n.a=33)				<0.001	<0.001									<0.001	
Lesbian	0.0	100.0	26			—	—	—			0.0	100.0	26		
Gay	14.2	85.8	120			14.2	85.8	120			—	—	—		
Bisexual	15.1	84.9	451			10.6	89.4	160			17.5	82.5	291		
Heterosexual	6.7	93.3	1844			5.2	94.8	944			8.3	91.7	900		
Paid work in the last 12 months (n.a=15)				0.129	0.418									0.155	
No	7.0	93.0	530			5.6	94.4	251			8.2	91.8	279		
Yes	9.1	90.9	1929			7.0	93.0	984			11.2	88.8	945		
Currently has a partner (n.a=46)				0.228	0.350									0.576	
Yes	8.0	92.0	1628			5.9	94.1	763			9.8	90.2	865		
No	10.8	89.2	546			9.0	91.0	289			12.8	87.2	257		
I've never had a partner	7.9	92.1	254			6.7	93.3	165			10.1	89.9	89		
Currently cohabitates (n.a=62)				0.026	0.283									0.01	
No	9.7	90.3	679			5.8	94.2	327			13.4	86.6	352		
Yes	6.6	93.4	933			5.8	94.2	432			7.4	92.6	501		
Never had a partner/I don't have a partner	9.88	90.1	800			8.1	91.9	454			12.1	87.9	346		

Continued

Table 1 Continued

	Have you experienced sexual violence in the past 12 months? (n.a.=41)														
	Total sample					Men					Women				
	%yes	%no	Total	P value		%yes	%no	Total	P value		%yes	%no	Total	P value	
Couple—one/both—has minor children (n.a.=44)				0.644					0.886					0.231	
No	9.02	91.0	1840		6.6	93.4	918			11.4	88.6	922			
Yes	7.14	92.9	336		8.1	91.9	135			6.5	93.5	201			
I've never had a partner	7.87	92.1	254		6.7	93.3	165			10.1	89.9	89			
Total	8.5	91.4	2474		6.8	93.2	1241			10.5	89.5	1233			

Values in bold mean statistically significant associations.
n.a, no answer.

(homosexual: 14.2% and bisexual: 10.6%) and in women with bisexual attraction (17.5%).

The prevalence of SV12m identified in this study is greater than that shown in the last Macro Survey on Violence Against Women carried out in Spain.⁷ This greater prevalence, even though our study period included men and women and the lockdown period, in which there was a reduction in SV, could be related to the use of a different methodology for retrieving information. While both questionnaires used the same questions to collect exposure to SV, collection in the Macro Survey cited above took place through computer-assisted personal interviews. In our study, the people surveyed carried out the survey online through a link sent through email, thus, they had the opportunity to complete the questionnaire in complete privacy. Also, it is possible that the recognition and declaration of SV among young people in Spain has increased in recent times given the greater visibility of SV in recent years.²²

This work suggests for the first time using empirical data that the prevalence of SV victimisation could have decreased in Spain during the lockdown period, though its severity could have increased. This decrease, also observed in other countries through the decrease in the use of emergency services for sexual aggression,²³ could reflect the decrease in SV during this period outside of cohabitation situations. In this sense, the study shows that the behaviours related to 'unwanted touching of intimate parts', which frequently occurs in public spaces, seem to have decreased during the COVID-19 lockdown period. However, unwanted sexual intercourses probably increased during the lockdown period. Along the same lines of argument, the probable greater severity of SV identified in this period could be due to the exposure to Sex-IPV between cohabiting partners. Even though studies using empirical data during this recent period are scarce, the current evidence suggests that, during this period both in Spain²⁴ as well as in other European countries, there was an increase in calls to helpline centres for victims of gender violence, while there was also a decrease in formal complaints.²⁵ Studies published by Gosangi show greater severity of injuries in women attended at gender violence emergency service centres.²⁶

Our results allow us to partially accept the hypothesis raised in this work. Some risk factors, such as belonging to sexual minorities, remained associated with SV in all the periods studied. Other factors, such as sex, did not show significant associations with SV during and after the confinement period.

The greatest SV risk was observed among women before the lockdown, but not during the lockdown. This could be explained by the decrease in the high level of SV experienced by women beyond the SV experienced in the family environment.^{5,7}

Related to sexual attraction, our results highlight how people with lesbian, gay or bisexual (LGB) attraction have a higher prevalence and probability of SV victimisation in all of the periods analysed; this association



Table 2 Prevalence of sexual violence (SV) victimisation by period related to the COVID-19 lockdown, SV in Young People Survey, 2020

	Have you experienced SV in the last 12 months before the lockdown?						Have you experienced SV during the lockdown?						Have you experienced SV after the lockdown?						
	Yes	%	No	%	No	P value	Yes	%	No	%	No	P value	Yes	%	No	%	No	P value	Total
Age (years)						0.018						0.974							0.114
18-24	68	8.0	784	92.0	833		16	1.9	833	98.1			22	2.6	829	97.4			851
25-29	45	6.5	648	93.5	680		12	1.7	680	98.3			21	3.0	671	97.0			692
30-35	43	4.7	872	95.3	898		17	1.9	898	98.1			14	1.5	901	98.5			915
Sex						<0.001						0.472							0.329
Man	55	4.5	1180	95.5	1209		25	2.0	1209	98.0			25	2.0	1210	98.0			1235
Women	101	8.2	1124	91.8	1202		20	1.6	1202	98.4		0.478	32	2.6	1191	97.4			1223
Country of birth						0.075													0.037
Other country	26	8.7	273	91.3	291		7	2.3	291	97.7		0.387	12	4.0	286	96.0			298
Spain	130	6.0	2031	94.0	2120		38	1.8	2120	98.2			45	2.1	2115	97.9			2160
Level of studies (n.a=22)						0.224													0.631
Up to complete secondary	41	5.4	715	94.6	743		11	1.5	743	98.5			19	2.5	736	97.5			755
Higher education	113	6.7	1569	93.3	1647		33	2.0	1647	98.0			37	2.2	1644	97.8			1681
Sexual attraction (n.a=33)						<0.001						0.004							<0.001
Lesbian	0	0.0	26	100.0	26		0	0.0	26	100.0			0	0.0	26	100.0			26
Gay	10	8.4	109	91.6	116		3	2.5	116	97.5			6	5.0	113	91.6			119
Bisexual	53	11.8	395	88.2	430		17	3.8	430	96.2			20	4.5	427	88.2			447
Hetero	91	5.0	1743	95.0	1807		24	1.3	1807	98.7			30	1.6	1803	95.0			1833
Currently has a partner (n.a=46)						0.426						0.778							0.114
Yes	98	6.1	1519	93.9	1582		31	1.9	1582	98.1			32	2.0	1583	98.0			1615
No	44	8.1	500	91.9	534		10	1.8	534	98.2			19	3.5	525	96.5			544
I've never had a partner	11	4.3	242	95.7	249		4	1.6	249	98.4			5	2.0	248	98.0			253
Currently cohabitates with partner (n.a=62)						0.029						0.264							0.021
No	51	7.6	624	92.4	662		10	1.5	662	98.5			18	2.7	656	97.3			674
Yes	46	5.0	880	95.0	904		21	2.3	904	97.7			13	1.4	912	98.6			925

Continued

Table 2 Continued

	Have you experienced SV in the last 12 months before the lockdown?				Have you experienced SV during the lockdown?				Have you experienced SV after the lockdown?				
	Yes	%	No	%	Yes	%	No	%	Yes	%	No	%	Total
I've never had/ do not have a partner	55	6.9	742	93.1	14	1.8	783	98.2	24	3.0	773	97.0	797
One or both members of couple have minor children (n.a.=44)													
No	122	6.7	1707	93.3	31	1.7	1794	98.3	45	2.5	1782	97.5	1827
Yes	21	6.3	313	93.7	10	3.0	324	97.0	6	1.8	328	98.2	334
I've never had a partner	11	4.3	242	95.7	4	1.6	249	98.4	5	2.0	248	98.0	253
Total	156	6.3	2304	93.7	45	1.8	2411	98.2	57	2.3	2401	97.68	2458

Values in bold mean statistically significant associations.
n.a, no answer.

was independent of the rest of the variables. Given the social isolation that took place during the lockdown, it is possible that the prevalence of SV in the LGB population compared with the heterosexual population in this period, reflects Sex-IPV. According to the Minority Stress Model,²⁷ people who belong to a minority group are exposed to excess psychosocial stress due to the fact that they belong to a socially stigmatised and marginalised group. This model distinguishes between external and internal stressors. In the specific case of sexual minorities, social homophobia is among the external types of stressors and results in experiences of violence, assault and discrimination. Internal stressors include internalised homophobia, defined as the level at which people who belong to a sexual minority group internalise and integrate into their own identities negative feelings, attitudes, beliefs and behaviours related to their homosexuality.²⁸ Various studies have suggested that internalised homophobia could be related to greater risk of victimisation and perpetration of violence²⁹ towards people of the same sexual orientation. Higher levels of internalised homophobia have been associated with higher levels of IPV in couples of the same sex.²⁸

Bisexual people have been described in the literature as a doubly stigmatised group, exposed to discrimination by homosexuals and by heterosexuals.³⁰ In our study, the small sample size and low prevalence of non-heterosexual people did not allow us to analyse different sexual minorities independently. However, at the descriptive level, we did observe a higher prevalence of SV among bisexual people, primarily among bisexual women (17.5%). Although there is scarce literature that characterises perpetrators of sexual violence towards homosexual and bisexual people, the study carried out by Mellins³¹ shows that 97% of bisexual women and 75% of lesbian women who are sexually assaulted were assaulted by a man. It is possible that the greater SV victimisation by bisexual women is due to belonging to two discriminated groups, that is, to say, due to their being women and being a sexual minority.

Some authors suggest that the scarcity of empirical data related to bisexuality has contributed to bisexuality being socially falsely stereotyped as a 'phase' or 'fictitious' sexual identity.³⁰ In this sense, the studies carried out by Friedman *et al*³² found that 14.4% of undergraduate students affirmed that 'bisexuality was not a valid sexual orientation'. Other studies show that bisexual people are perceived as confused about their sexual orientation.³³ Even though research is still limited, there are authors who suggest that bisexual people experience internalised biphobia that could contribute to the risk of IPV in this sexual minority.³⁴

The greater probability of women born outside of Spain of experiencing SV is supported by a both national³⁵ and international literature.³⁶ Immigrant women in Spain have a greater risk of IPV,³⁵ and being killed as a result of IPV.³⁷ The greater gender inequality in countries of origin,³⁸ economic dependence, lack of social support,

Table 3 Frequency of violent behaviours between people who experienced sexual violence in the past 12 months, by sex²

Sexual violence behaviours	Full sample						Men			Women		
	Lockdown period			Lockdown period			Lockdown period			Lockdown period		
	VS 12m (n=213)	Before (n=156)	During (n=45)	After (n=57)	VS 12m (n=86)	Before (n=55)	During (n=25)	After (n=25)	VS 12m (n=129)	Before (n=101)	During (n=20)	After (n=32)
1.-Have you been obligated to engage in sexual conduct through threats, physical force or harm in some way?	6.1	5.8	11.1	5.3	9.3	9.1	20.0	12.0	3.9	4.0	0.0	0.0
2.-Have you been obligated to engage in sexual conduct because of your inability to refuse due to being under the influence of alcohol or drugs?	10.8	7.1	15.6	14.0	11.6	5.5	20.0	20.0	10.1	7.9	10.0	9.4
3.-Have you engaged in sex you did not want due to fear of the consequences if you said no?	19.2	19.2	20.0	21.1	16.3	12.7	8.0	28.0	20.9	22.8	35.0	15.6
4.-Have you been obligated to engage in sexual conduct when you did not want to?	20.2	17.9	22.2	21.1	18.6	14.5	16.0	28.0	20.9	19.8	30.0	15.6
5.-Has anyone tried, and failed, to obligate you to have sex against your wishes?	23.5	22.4	17.8	14.0	25.6	21.8	20.0	16.0	21.7	22.8	15.0	15.6
6.-Has anyone touched your intimate parts—genitals or chest—or has anyone touched you in a sexual way when you did not want it?	69.5	73.7	44.4	50.9	61.6	69.1	48.0	48.0	73.6	76.2	40.0	53.1
7.-Has anyone obligated you to touch another person in his/her intimate parts—genitals or chest—or have you been forced to engage in sexual touching when you did not want to?	15.5	10.9	20.0	14.0	12.8	7.3	20.0	12.0	17.1	12.9	20.0	15.6
8.-Has anyone obligated you to engage in a sexual practice other than those mentioned here?	8.5	7.1	8.9	3.5	15.1	14.5	16.0	8.0	3.9	3.0	0.0	0.0
1-4.-Unwanted sexual conduct with penetration	39.4	37.8	64.4	54.4	36.0	32.7	56.0	56.0	41.1	40.6	75.0	53.1

Sexual Violence in Young People Survey, 2020.

Table 4 Variables associated with sexual violence in the past 12 months, before, during and after the lockdown, unadjusted analysis, robust Poisson regression

Variables	Last 12 months			In the 12 months prior to the lockdown			During the lockdown			After the lockdown		
	PR	95% CI	P value	PR	95% CI	P value	PR	95% CI	P value	PR	95% CI	P value
Sex (ref: man)												
Woman	1.55	1.19 to 2.01	0.001	1.85	1.35 to 2.55	0.000	0.81	0.45 to 1.45	0.473	1.29	0.77 to 2.17	0.331
Age	0.96	0.93 to 0.98	0.002	0.96	0.93 to 0.99	0.009	1.01	0.95 to 1.08	0.653	0.98	0.93 to 1.03	0.368
Country of birth (ref: Spain)												
Outside of Spain	1.47	1.05 to 2.06	0.026	1.45	0.97 to 2.16	0.073	1.33	0.60 to 2.96	0.479	1.93	1.03 to 3.61	0.039
Sexual attraction (ref: heterosexual)												
Lesbian/Gay/Bisexual	2.12	1.63 to 2.75	<0.001	2.14	1.57 to 2.91	<0.001	2.58	1.43 to 4.63	0.002	2.68	1.60 to 4.50	<0.001
Level of studies (ref: up to secondary study completion)												
Higher education	1.12	0.84 to 1.50	0.428	1.24	0.88 to 1.75	0.226	1.35	0.68 to 2.65	0.389	0.87	0.51 to 1.51	0.631
Paid work in the last 12 months (ref: no)												
Si	1.30	0.92 to 1.83	0.133									
Cohabitation (ref: yes)												
No	1.48	1.11 to 1.96	0.008	1.45	1.04 to 2.03	0.030	0.72	0.40 to 1.29	0.266	2.03	1.10 to 3.76	0.024
Minor children, own and/or those of the partner (ref: no)												
Yes	0.80	0.53 to 1.21	0.297	0.98	0.63 to 1.54	0.944	1.78	0.89 to 3.56	0.104	0.75	0.32 to 1.73	0.496

Sexual Violence in Young People Survey, 2020.
 Values in bold mean statistically significant associations.
 PR, prevalence ratio.;

Table 5 Variables associates with sexual violence in the last 12 months, before, during and after the lockdown, multivariate analysis, robust Poisson regression

Variable	Last 12 months			In the 12 months prior to the lockdown			During the lockdown			After the lockdown		
	PR	95% CI	P value	PR	95% CI	P value	PR	95% CI	P value	PR	95% CI	P value
Sex (ref: man)												
Woman	1.54	1.17 to 2.03	0.002	1.77	1.27 to 2.46	0.001	0.70	0.38 to 1.30	0.263	1.32	0.77 to 2.28	0.311
Age	0.96	0.93 to 0.99	0.037	0.97	0.92 to 1.01	0.115	1.00	0.92 to 1.08	0.928	1.01	0.95 to 1.08	0.679
County of birth (ref: Spain)												
Outside of Spain	1.54	1.07 to 2.19	0.020	1.51	0.99 to 2.30	0.059	1.40	0.62 to 3.14	0.415	1.83	0.94 to 3.57	0.077
Sexual attraction (ref: heterosexual)												
LGB	1.98	1.52 to 2.59	<0.001	2.01	1.46 to 2.76	<0.001	2.63	1.42 to 4.88	0.002	2.67	1.54 to 4.61	<0.001
Level of studies (ref: up to completion of secondary studies)												
Higher education	1.16	0.84 to 1.60	0.380	1.45	0.99 to 2.13	0.055	1.34	0.65 to 2.77	0.431	0.96	0.53 to 1.74	0.883
Paid work in the last 12 months (ref: no)												
Yes	1.66	1.13 to 2.45	0.010	--	--	--	--	--	--	--	--	--
Cohabitation (ref: yes)												
No	1.34	0.93 to 1.94	0.119	1.41	0.99 to 2.20	0.133	0.76	0.34 to 1.71	0.512	2.16	1.00 to 4.64	0.049
Minor children, one's own and/or those of the partner (ref: no)												
Yes	1.06	0.65 to 1.74	0.817	1.34	0.76 to 2.36	0.307	1.95	0.83 to 4.59	0.128	1.24	0.48 to 3.21	0.652
Sexual Violence in Young People Survey, 2020.												
Values in bold mean statistically significant associations.												
LGB, Lesbian/Gay/Bisexual; PR, prevalence ratio.;												

presence of minor children in the home and/or barriers to accessing formal resources make it difficult to escape from IPV and aggravate situations in which immigrant women are exposed.¹⁰ Contrary to expectations, we have not identified significant associations between the place of origin and the victim in the different periods studied. It is possible that this lack of association could be explained by the lack of precision associated with the sample size. It is in this sense to point out that although the adjusted prevalence ratios of this variable are not significant, its value is above the value 1 in all the periods analysed.

Even though our study shows novel results that advance the knowledge of SV, and that our sample includes quotas by sex, age, region and country of origin, in order to represent the population between 18 and 35 years old residing in Spain the study results should be interpreted considering its limitations. The sample size of this study, the analysis of concrete time periods, and the low prevalence of SV during the time periods considered mean that these results should be interpreted with caution. In this article, we analyse the prevalence of SV during the last 12 months, and in the 12 months prior, during and after the lockdown. These periods are not exclusive, so we cannot compare the periods to each other. Despite this limitation, the results obtained in this study are consistent with the results published in previous scientific literature. The cross-sectional study design did not allow us to establish a causal relationship, but it did provide the ability to estimate prevalences. In this sense, the sample design, as well as the wide range of the panel used, provided the opportunity to approach the exposure of young people in Spain to SV.

The prevalence of SV observed in Spanish young people is alarming. While COVID-19 lockdown measures decreased SV events that occurred outside of cohabitation situations, the exposure to unwanted intercourses increased during the lockdown. The groups with greater exposure to SV included women, those born outside of Spain and those belonging to the LGB sexual minority. In terms of this last group, more studies are needed that use scales adapted to the different forms of communication and relation established in sexual encounters among different groups.³⁹ The development of more effective strategies for prevention of SV in young people requires a consideration of the social inequalities in sex, in sexual orientation and in country of birth that were observed in this study.

Author affiliations

¹CIBERESP, Madrid, Spain

²National School of Public Health, Instituto de Salud Carlos III, Madrid, Spain

³Research Group on Statistics, Econometrics and Health (GRECS), University of Girona, Girona, Spain

⁴Nursing Department. Faculty of Medicine, Universidad Autónoma de Madrid, Madrid, Spain

⁵Agència de Salut Pública de Barcelona, Barcelona, Spain

⁶IIB Sant Pau, Barcelona, Spain

⁷Department of Community Nursing, Preventive Medicine and Public Health and History of Science, Alicante University, Alicante, Spain

Contributors BS-B: Guarantor of the study. Initiated the collaborative project, designed data collection tools, monitored data collection, designed statistical analysis plan, cleaned and analysed the data, wrote the manuscript draft and edited the manuscript. CS: Participated in the design project, participated in the statistical analysis design and in the interpretation of data, revised the paper and approved the final version of the manuscript. LS: Participated in the design project, participated in the discussion of the results, revised the paper and approved the final version of the manuscript. GR: Participated in the design project, designed data collection tools, revised and discuss the results, revised the paper and approved the final version of the manuscript. LV-LC Participated in the design project, participated in the statistical analysis design, revised and discuss the results, revised the paper and approved the final version of the manuscript. LO-G Participated in the design project, revised and discuss the results, revised the paper based on intellectual contribution and approved the final version of the manuscript. MJL: Participated in the design project, designed data collection tools, participated in the statistical analysis design, revised and discuss the results, revised the manuscript and approved the final version of the manuscript. GP: Participated in the design project, participated in the statistical analysis design, revised and discuss the results, participated in reviewing, editing and revising the manuscript and approved the final version of the manuscript. CV-C: Initiated the collaborative project, designed data collection tools, participated in the discussion of the results and revised the paper based on intellectual contribution and approved the final version of the manuscript.

Funding This research was supported by the CIBER of Epidemiology and Public Health of Spain; Grant ESP20PI02.

Disclaimer This article presents independent results and research. The views expressed are those of the authors and not necessarily those of the Instituto de Salud Carlos III.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval This study was approved by the Ethics Committee of Alicante University (ref. UA-2020-07-07).

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request.

Supplemental material This content has been supplied by the author(s). It has not been vetted by BMJ Publishing Group Limited (BMJ) and may not have been peer-reviewed. Any opinions or recommendations discussed are solely those of the author(s) and are not endorsed by BMJ. BMJ disclaims all liability and responsibility arising from any reliance placed on the content. Where the content includes any translated material, BMJ does not warrant the accuracy and reliability of the translations (including but not limited to local regulations, clinical guidelines, terminology, drug names and drug dosages), and is not responsible for any error and/or omissions arising from translation and adaptation or otherwise.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iDs

Belén Sanz-Barbero <http://orcid.org/0000-0001-6030-061X>

Carme Saurina <http://orcid.org/0000-0003-4549-8845>

Laura Serra <http://orcid.org/0000-0002-8835-6890>

Gemma Renart Vicens <http://orcid.org/0000-0001-6037-9225>

Laura Vall-Llosera Casanovas <http://orcid.org/0000-0001-7059-1596>

Laura Otero-García <http://orcid.org/0000-0002-0171-2806>

María José López <http://orcid.org/0000-0003-4402-2239>

Carmen Vives-Cases <http://orcid.org/0000-0002-6797-5051>

REFERENCES

- 1 World Health Organization/London School of Hygiene and Tropical Medicine. *Preventing intimate partner and sexual violence against women: taking action and generating evidence*. Geneva: World Health Organization, 2010. https://www.who.int/violence_injury_prevention/publications/violence/9789241564007_eng.pdf



- 2 Breiding MJ, Smith SG, Basile KC, *et al.* Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization—national intimate partner and sexual violence survey, United States, 2011. *MMWR Surveill Summ* 2014;63:1–18.
- 3 Forsman RL. Prevalence of sexual assault victimization among College men, aged 18–24: a review. *J Evid Inf Soc Work* 2017;14:421–32.
- 4 World Health Organization. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and nonpartner sexual violence. ISBN: 978 92 4 156462 5, 2013. Available: <https://www.who.int/publications/i/item/9789241564625> [Accessed 8 Jun 2021].
- 5 European Union Agency for Fundamental Rights. European Union agency for fundamental rights: violence against women survey, 2012. Available: https://fra.europa.eu/sites/default/files/fra-2014-vaw-survey-at-a-glance-oct14_en.pdf [Accessed 5 Jun 2021].
- 6 Wincentak K, Connolly J, Card N. Teen dating violence: a meta-analytic review of prevalence rates. *Psychol Violence* 2017;7:224–41.
- 7 Ministry of Equality. Government delegation against gender violence. Macro-survey on violence against women 2019. Available: https://violenciagenero.igualdad.gob.es/violenciaEnCifras/macroencuesta2015/pdf/Macroencuesta_2019_estudio_investigacion.pdf [Accessed 17 Jun 2021].
- 8 Olshen E, McVeigh KH, Wunsch-Hitzig RA, *et al.* Dating violence, sexual assault, and suicide attempts among urban teenagers. *Arch Pediatr Adolesc Med* 2007;161:539–45.
- 9 Sanz-Barbero B, Barón N, Vives-Cases C. Prevalence, associated factors and health impact of intimate partner violence against women in different life stages. *PLoS One* 2019;14:e0221049.
- 10 Sanz-Barbero B, Briones-Vozmediano E, Otero-García L, *et al.* Spanish intimate partner violence survivors help-seeking strategies across the life span. *J Interpers Violence* 2020;8:886260520976213.
- 11 Lundgren R, Amin A. Addressing IPV and SV among adolescents: emerging evidence of effectiveness. *J Adolesc Health* 2015;56:S42–50.
- 12 Mujal GN, Taylor ME, Fry JL, *et al.* A systematic review of bystander interventions for the prevention of sexual violence. *Trauma Violence Abuse* 2021;22:381–96.
- 13 Koeppke S, Eyssel F, Bohner G. "She deserved it": Effects of sexism norms, type of violence, and victim's pre-assault behavior on blame attributions toward female victims and approval of the aggressor's behavior. *Violence Against Women* 2014;20:446–64.
- 14 Tarzia L, Tyler M. Recognizing connections between intimate partner sexual violence and pornography. *Violence Against Women* 2021;27:2687–2708.
- 15 Tarzia L. Toward an ecological understanding of intimate partner sexual violence. *J Interpers Violence* 2020;088626051990029.
- 16 Jennings WG, Okeem C, Piquero AR, *et al.* Dating and intimate partner violence among young persons ages 15–30: evidence from a systematic review. *Aggress Violent Behav* 2017;33:107–25.
- 17 Draft organic law for the comprehensive guarantee of sexual freedom. Available: <https://www.igualdad.gob.es/normativa/normativa-en-tramitacion/Documents/APLOGILSV2.pdf> [Accessed 17 Jun 2021].
- 18 Rabby MII, Hossain F, Akhi IJ, *et al.* Sexual violence against COVID-19-Positive girls in India. *Asia Pac J Public Health* 2021;33:316–7.
- 19 Dosdale C, Skarparis K. Supporting survivors of sexual violence and abuse during the COVID-19 pandemic. *Br J Nurs* 2020;29:1159–63.
- 20 Johnson K, Green L, Volpelliier M, *et al.* The impact of COVID-19 on services for people affected by sexual and gender-based violence. *Int J Gynaecol Obstet* 2020;150:285–7.
- 21 United Nations. *Guidelines for producing statistics on violence against women statistical surveys.* United nations, 2014.
- 22 Ministry of Equality. Government delegation against gender violence. The situation of violence against women in adolescence in Spain. Available: https://violenciagenero.igualdad.gob.es/violenciaEnCifras/estudios/investigaciones/2021/pdfs/Estudio_ViolenciaEnAdolescencia.pdf [Accessed 17 Jun 2021].
- 23 Muldoon KA, Denize KM, Talarico R, *et al.* COVID-19 pandemic and violence: rising risks and decreasing urgent care-seeking for sexual assault and domestic violence survivors. *BMC Med* 2021;19:20.
- 24 Rodríguez-Jiménez R, Fares-Otero NE, García-Fernández L. Gender-Based violence during COVID-19 outbreak in Spain. *Psychol Med*;7:1–2.
- 25 Godin M. France to house domestic abuse victims in hotels amid time, 2020. Available: <https://time.com/5812990/france-domestic-violence-hotel-coronavirus/> [Accessed 17 Jun 2021].
- 26 Gosangi B, Park H, Thomas R, *et al.* Exacerbation of physical intimate partner violence during COVID-19 pandemic. *Radiology* 2021;298:E38–45.
- 27 Meyer IH, Prejudice MIH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. *Psychol Bull* 2003;129:674–97.
- 28 Badenes-Ribera L, Sánchez-Meca J, Longobardi C. The relationship between internalized homophobia and intimate partner violence in same-sex relationships: a meta-analysis. *Trauma Violence Abuse* 2019;20:331–43.
- 29 Carvalho AF, Lewis RJ, Derlega VJ, *et al.* Internalized sexual minority stressors and same-sex intimate partner violence. *J Fam Violence* 2011;26:501–9.
- 30 Turell SC, Brown M, Herrmann M. Disproportionately high: an exploration of intimate partner violence prevalence rates for bisexual people. *Sexual and Relationship Therapy* 2018;33:113–31.
- 31 Mellins CA, Walsh K, Sarvet AL, *et al.* Sexual assault incidents among College undergraduates: prevalence and factors associated with risk. *PLoS One* 2017;12:e0186471.
- 32 Friedman MR, Dodge B, Schick V, *et al.* From bias to bisexual health disparities: attitudes toward bisexual men and women in the United States. *LGBT Health* 2014;1:309–18.
- 33 Higgins A, Doyle L, Downes C. The LGBT Ireland report: national study of the mental health and wellbeing of lesbian, gay, bisexual, transgender and intersex people in Ireland. GLEN and belong to, 2016. Available: <http://bit.ly/2xvY9xi> [Accessed 17 Jun 2021].
- 34 Rollé L, Giardina G, Caldarrera AM, *et al.* When intimate partner violence meets same sex couples: a review of same sex intimate partner violence. *Front Psychol* 2018;9:1506.
- 35 Sanz-Barbero B, Vives-Cases C, Otero-García L, *et al.* Intimate partner violence among women in Spain: the impact of regional-level male unemployment and income inequality. *Eur J Public Health* 2015;25:1105–11.
- 36 Sanz-Barbero B, López Pereira P, Barrio G, *et al.* Intimate partner violence against young women: prevalence and associated factors in Europe. *J Epidemiol Community Health* 2018;72:611–6.
- 37 Sanz-Barbero B, Heras-Mosterio J, Otero-García L. Perfil sociodemográfico del feminicidio en España y su relación con las denuncias por violencia de pareja [Sociodemographic profile of femicide in Spain and its association with domestic abuse reporting]. *Gac Sanit* 2016;30:272–8.
- 38 World Economic Forum. Global gender gap index 2015. Available: <http://reports.weforum.org/global-gender-gap-report-2015/the-global-gender-gap-index-2015/> [Accessed 17 Jun 2021].
- 39 Fernández-Dávila P. ¿Se puede hablar realmente de actos de "violencia sexual" en los contextos de chemsex? Reflexiones desde los entendimientos de los hombres que practican ChemSex y la cultura sexual gay. [Can we really talk about "sexual violence" in the chemsex scene? Reflections from the chemsex users' understandings and the gay sex culture]. *Health and Addictions* 2021;21:124–37.