

Inequalities in intimate partner violence screening and receiving information among diverse groups of women: an online survey during COVID-19 lockdowns

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ABSTRACT

Background Research shows violence against women likely increases during emergencies. COVID-19's emergence exacerbated intimate partner violence (IPV), suggesting that healthcare services (HCS) should have increased IPV screening efforts and referrals of victims to support services. However, little is known about the prevalence of IPV screening and information provision during COVID-19 lockdowns.

Methods We examined prevalence of 'ever been screened' (ES) for IPV and 'receiving information about support services' (RI) in HCS during COVID-19 lockdowns and compared these among non-immigrant Jewish women, immigrant Jewish and other women, and Palestinian women citizens in Israel. We collected data during Israel's second and third COVID-19 lockdowns (October 2020–February 2021) using a structured, online, self-administrated Arabic-language and Hebrew-language questionnaire. Eligibility criteria included women ≥ 18 years old, citizens of Israel, in a current intimate relationship (permanent or occasional) who used social media or smartphones. In total, 519 women completed the survey: 73 Palestinian, 127 Jewish immigrants and others, and 319 non-immigrant Jewish.

Results Overall, 37.2% of women reported any IPV, of whom just 26.9% reported ES, 39.4% reported RI and 13.5% reported both (ES&RI). Palestinian women reported higher IPV rates (49.3%) compared with non-immigrant Jewish (34.2%) and immigrant Jewish and other (37.8%) women; however, they reported lower ES (OR 0.64, 90% CI (0.34 to 1.86) and RI 0.29 (0.17 to 0.50).

Conclusions In a survey during COVID-19 lockdowns, only about one-quarter of women who reported IPV were ES for IPV, or RI about support services, suggesting strengthened IPV screening is needed in HCS during emergencies, particularly targeting minority women, who report higher IPV but receive fewer services.

INTRODUCTION

Intimate partner violence (IPV) is a persistent public health problem associated with poor physical and mental health among women.^{1–3} Research during COVID-19 lockdowns showed increased IPV among women.^{4–7} Healthcare services (HCSs) might be expected to have increased IPV detection efforts through additional screening and support-service information provision during this emergency. However, little is known about the actual prevalence of these activities. We examined IPV

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Previous research indicates low screening rates for intimate partner violence (IPV) and provision of information on relevant support services among women experiencing IPV, particularly minority women.

WHAT THIS STUDY ADDS

⇒ This is the first study to examine IPV screening and receiving information on support services during COVID-19 lockdowns in Israel, and among few conducted worldwide. We found low rates of IPV screening and receiving information among women reporting IPV during the second and third lockdowns in Israel, particularly Palestinian minority women.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our results reinforce the importance of IPV screening and information provision through healthcare services during emergencies. Healthcare services guidelines must be implemented to ensure medical teams can safely detect and assist women experiencing IPV, with emphasis on minority-group women.

screening and information provision for support services during COVID-19 lockdowns.

Research shows IPV is likely to increase during emergencies.⁸ In the first 2 years of the COVID-19 pandemic (2020–2022), IPV rates escalated dramatically.^{4–7} Findings from a 2020 survey among 15 000 women in Australia found increased IPV rates during the COVID-19 pandemic.⁶ Of those who reported experiencing sexual or physical IPV, two-thirds reported that IPV started or increased since the pandemic began.⁶ For women who experience IPV, the pandemic and lockdowns obstructed help-seeking,^{5 9 10} as perpetrators frequently remained at home. Recognising this phenomenon, medical organisations and scholars suggested safety plans for IPV screening, including online IPV screening⁵ using dichotomous questions on stress and safety, and referrals to support services when needed.¹¹ Other proposed techniques included having women sign for help and use 'safe words'.¹²

While the effectiveness of universal IPV screening has not been proven, studies show that, during routine times, HCSs provide a safe place for women to disclose IPV.^{1 13} But while many countries have enacted policies for IPV screening and



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referrals to support services,^{2 13 14} screening approaches differ across jurisdictions, and no uniform international IPV screening guidelines for HCS yet exist.¹³ The US Preventive Services Task Force supports universal IPV screening in HCS,¹⁴ asserting that all women should be screened regardless of symptomatology, be informed of support services, and receive referrals in positive screening cases.¹⁴ Despite this, screening rates remain low.^{13 15 16} In one study in Canada, less than 50% of physicians and about a third of nurses reported routinely screening women for IPV.¹⁵

During emergencies, HCS may be the only safe setting for women to disclose IPV. HCS must, therefore, take measures to increase IPV screening during such periods.^{12 17} Studies show women who experience IPV use HCS more often compared with non-victims and that screening increases chances of them disclosing IPV to medical staff.^{3 18 19}

In Israel, as elsewhere,^{6 7} IPV rates and femicide increased significantly after COVID-19's emergence.^{20–22} During 2020–2021, 56 women were murdered, of whom 20 were killed by an intimate partner.²² IPV is more prevalent among Palestinian and immigrant women.²³ A recent Israeli parliamentary report revealed increased IPV rates during 2019–2021, particularly among Palestinian women citizens (hereafter, Palestinian women).²⁴ In 2019–2021, 30% of Palestinian women reported physical IPV; 23% threats and 24% sexual IPV, rates that are higher than their share of the population.²⁴ Still, to date, Israel lacks population-based studies on IPV, with most data coming from police reports of severe violence against women.²³ On average, over 200 000 women in Israel experience IPV annually, of whom about a quarter report to the authorities and seek help.²⁵ A 2003 circular issued by Israel's Ministry of Health mandated universal screening and support-services information provision in HCS.²⁶ Still, a study conducted by Daoud *et al* with a representative sample of 1401 women of reproductive age in 2014–2015 found only half reported having ever been screened (ES) for IPV within HCS, and just half received information (RI) about support services; only 30% reported being both ES and RI.²⁷ Among women who reported IPV, less than half reported ES for IPV.²⁷ Palestinian women were 1.6 times less likely to report ES for IPV in HCS than Jewish women, and twice as likely to report not RI on support services.²⁷ This was despite Palestinian women's higher reports of IPV (67%, compared with immigrant and non-immigrant Jewish women, at 30% and 27%, respectively).²³ Studies in Israel have identified several barriers, among medical staff, to IPV screening,^{13 28–30} including lack of a valid IPV screening tool, discomfort with IPV screening, fear of offending women, beliefs that IPV is a private matter and uncertainty about coping with women experiencing IPV.^{28 29}

The current study examines prevalence, among women, of ES for IPV and RI about relevant support services in HCS during COVID-19 lockdowns in Israel, and compares prevalence among three groups of women (Palestinian, non-immigrant Jewish, and immigrant Jewish and other). We hypothesised that prevalence of ES and RI would vary across different groups, with Palestinian women reporting receiving these services less often compared with Jewish women (immigrant and other, and non-immigrant).

METHODS

We conducted an online IPV survey during Israel's second and third COVID-19 lockdowns (October 2020–February 2021) with a convenience sample of women recruited through a snowball method. Eligibility criteria included: women ≥ 18 years old, citizens of Israel, with access to the internet or smartphones, who read and write in Arabic or Hebrew, and in an intimate partner

relationship (permanent or occasional). We used REDCap software to prepare a structured, self-administrated online questionnaire in Arabic and Hebrew,^{31 32} which we distributed via social media (Facebook, Instagram, WhatsApp and email). It was not appropriate or possible to involve patients or the public in the design, or conduct, or reporting, or dissemination plans of our research. The study questionnaire included messages encouraging women experiencing IPV to seek help through HCS or elsewhere; we also encouraged women to approach the research team if experiencing IPV, and provided a list of IPV support services at the end of the questionnaire. Of 1350 women who consented to participate, 519 women completed the questionnaire (Palestinian=73; non-immigrant Jewish=319; immigrant Jewish and other=127) and were included in the current analysis. We performed power calculation using WinPepi (V.11.65) based on differences found in a previous study in Israel on IPV screening and RI on support services in HCS before COVID-19.²⁷ We set significance level at $p < 0.10$ and estimated study power at 80%.

Measures

Dependent variables

Our study measures are based on previous research in Israel²⁷ and included the following two yes/no questions: ES screened for IPV in HCS ('Has anyone at HCS ever asked you whether you have experienced IPV?'); and receiving information (RI) about support services ('Have you ever received information about what to do in case you experience IPV?'). ES&RI was an index variable based on positive answers to both questions, with two answer categories: (1) Yes (ES and RI) and (2) No (No for both ES and RI; no for RI or ES). We asked women about ever being screened in HCS (as opposed to during COVID-19 only) because: (1) we collected data during lockdowns; therefore, IPV screening could have taken place within online medical appointments only (phone or videocalls), making queries about current IPV potentially dangerous for women; (2) asking women if they were ever screened covers the COVID-19 period and (3) we sought to compare findings with previous research on IPV screening in HCS in Israel that used this measure.²⁷

Independent variables included: IPV (positive answer for 1 of 10 acts of IPV).²³ Sociodemographic variables included: ethnicity and immigration status: (1) non-immigrant Jewish, (2) Palestinian and (3) immigrant Jewish and other; age (18–25, 26–35, 36–45 and 46–75 years old); marital status: (1) married and cohabiting and (2) not married); change in marital status during COVID-19: (1) no change and (2) have Changed; Women's and partner's education: (1) high school or less/college and (2) university; women's and partner's employment status change during COVID-19: (1) negative/unclear change, (2) no change and (3) positive change; religiosity level: (1) not religious, (2) traditional, (3) religious/very religious; family income source: (1) work/business (only), (2) more than one source and other (3) social allowances/no source; number of children: (1) no children, (2) 1–3 children and (3) 4 or more children. Please see online supplemental appendix 1 for full description of variables.

Statistical analysis

We converted data collected by REDCap^{31 32} into SPSS format for analysis for which we used SPSS V.26. Only women with complete data were included in the analysis. We first calculated prevalence of each dependent variable (ES, RI and ES&RI) and the main independent variable of IPV for the total study sample and each study group. Second, we used χ^2 test to examine the association

Table 1 Characteristics of the study sample by ethnonational identity and immigration status

Characteristic	Total	Non-immigrant Jewish	Palestinian	Immigrant Jewish and other	P value
	n=519 (%) N	n=319 (61.5%) N (%)	n=73 (14.1%) N (%)	n=127 (24.5%) N (%)	
Age					<0.001
18–25	170 (32.8)	137 (42.9)	12 (16.4)	21 (16.5)	
26–35	170 (32.8)	104 (32.6)	28 (38.4)	38 (29.9)	
36–45	111 (21.4)	52 (16.3)	18 (24.7)	41 (32.3)	
46–75	68 (13.1)	26 (8.2)	15 (20.5)	27 (21.3)	
Marital status					<0.001
Not married	152 (29.3)	118 (37)	8 (11)	26 (20.5)	
Married and cohabiting	367 (70.7)	201 (63)	65 (89)	101 (79.5)	
Change in marital status during COVID-19					0.100
No change	447 (86.1)	267 (83.7)	64 (87.7)	116 (91.3)	
Has changed	72 (13.9)	52 (16.3)	9 (12.3)	11 (8.7)	
Women's education					0.005
High school or less/college	206 (39.7)	142 (44.5)	18 (24.7)	46 (36.2)	
University	313 (60.3)	177 (55.5)	55 (75.3)	81 (63.8)	
Partner's education					0.712
High school or less/college	263 (52.8)	165 (53.9)	37 (53.6)	61 (49.6)	
University	235 (47.2)	141 (46.1)	32 (46.4)	62 (50.4)	
Women's employment status change during COVID-19					0.062
Negative change/unclear	167 (32.2)	112 (35.1)	16 (21.9)	39 (30.7)	
No change	97 (18.7)	63 (19.7)	17 (23.3)	17 (13.4)	
Positive change	255 (49.1)	144 (45.1)	40 (54.8)	71 (55.9)	
Partner's employment status change during COVID-19					0.007
Negative change/unclear	146 (29.6)	87 (28.7)	19 (27.5)	40 (33.1)	
No change	59 (12)	49 (16.2)	3 (4.3)	7 (5.8)	
Positive change	288 (58.4)	167 (55.1)	47 (68.1)	74 (61.2)	
Religiosity level					<0.001
Not religious	335 (64.5)	211 (66.1)	15 (20.5)	109 (85.8)	
Traditional	112 (21.6)	64 (20.1)	34 (46.6)	14 (11)	
Religious/very religious	72 (13.9)	44 (13.8)	24 (32.9)	4 (3.1)	
Family income source					<0.001
Work/business	307 (59.7)	174 (55.1)	53 (72.6)	80 (64)	
More than one source and other	157 (30.5)	107 (33.9)	9 (12.3)	41 (32.8)	
Social allowances/no source	50 (9.7)	35 (11.1)	11 (15.1)	4 (3.2)	
No of children					<0.001
No children	259 (49.9)	200 (62.7)	12 (16.4)	47 (37)	
Children 3–1	214 (41.2)	94 (29.5)	47 (64.4)	73 (57.5)	
4 and more	46 (8.9)	25 (7.8)	14 (19.2)	7 (5.5)	

between independent variables and ES, RI and ES&RI. We found a correlation between women's age and number of children ($r>0.06$), and therefore, excluded 'number of children' to avoid multicollinearity in the multivariate analysis. We examined interactions of independent variables with the association between ethnicity and immigration status and ES and ES&RI. However, no interactions were significant in the multivariate analysis. Finally, we conducted multiple logistic regression models for each of the dependent variables (ES, RI and ES&RI) while accounting for the same set of independent variables that were significantly associated (<10%) with at least one of the dependent variables in the univariate analysis; these included: ethnicity and immigration status, any IPV, age, marital status, religiosity level, women's education and women's employment status.

RESULTS

Table 1 shows characteristics of the total study sample and by ethnicity and immigration status. Of 519 women participants,

61.5% were non-immigrant Jewish, 14.1% were Palestinian and 24.5% were immigrant Jewish and other. Mean age was 32.8 (SD=10.6), range: 18–75. Most women were married or cohabiting (70.7%). Most women did not report a change in marital status during COVID-19 (86.1%). Over half of women (60.3%), and close to half of their partners (47.2%) had university education. Close to 50% of women and 60% of partners had a positive change in employment status during COVID-19. Close to 65% of women were not religious. More than half reported family income based on work or business. Nearly half of women had no children; just over 40% were mothers of one to three children. We found significant differences between groups (Palestinian, non-immigrant Jewish and immigrant Jewish and other) in most characteristics, except partner's education and change in marital status during COVID-19.

Figure 1 shows prevalence of ES, RI and ES&RI in the total sample and by ethnonational group and immigration status. Approximately one-fifth of women reported ES (21.8%), less

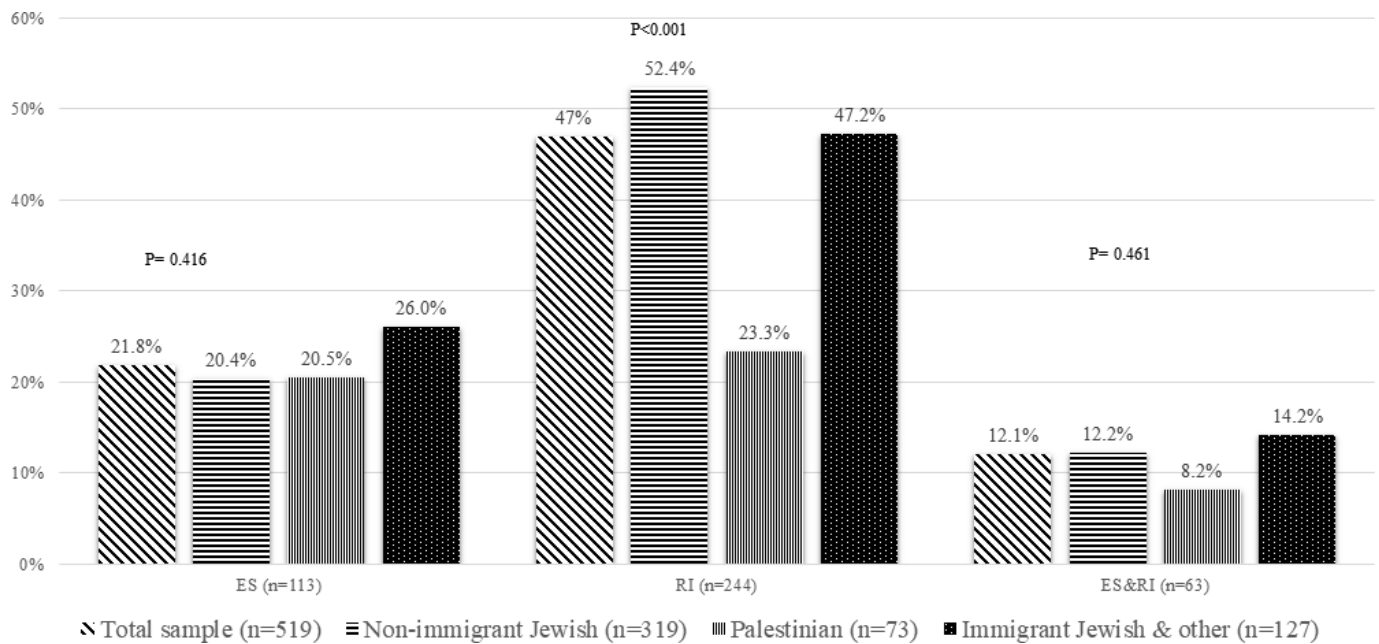


Figure 1 Prevalence of ever been screened (ES) for intimate partner violence and receiving information (RI) on services in the total study sample and by ethnonational identity and immigration status (n=519).

than half RI (47%) and only 12.1% reported ES&RI. We found significant differences among the study groups (Palestinian, non-immigrant and immigrant Jewish and other) regarding RI only. Jewish immigrant and other women, and non-immigrant Jewish women reported higher RI and ES&RI rates than Palestinian women. Non-immigrant Jewish women reported slightly lower ES than the other two groups.

Prevalence of any IPV was close to 38% in the total sample. We found significant differences between the study groups with regards to any IPV: Palestinian, and immigrant-Jewish and other women reported higher rates of any IPV (49.3% and 37.8%, respectively) than non-immigrant Jewish women (34.2%) (figure 2).

We also found significant differences by ethnonational identity and immigration status regarding ES and RI. Of the women who reported IPV, only about 27% reported ES, close to 40% reported RI and 13.5% reported both (ES&RI) (figure 3). While

Palestinian women who experienced IPV reported higher ES compared with non-immigrant Jewish women and immigrant Jewish and other women, they also reported lower RI (30.6% and 25%, respectively). Jewish non-immigrant women, and immigrant Jewish and other women reported higher prevalence of RI (45% and 37.5%, respectively) and less ES (25.7% and 27.1%, respectively) (figure 3).

Table 2 shows that reporting ES was significantly higher among women aged 36–45; those who were married or cohabiting; with university education; reporting a positive change in their employment status during COVID-19; religious and with children. Reporting RI about support services was significantly higher among women without children, or with 1–3 children. ES&RI were significantly higher from age 26 to 45; among married or cohabiting women; with higher education; religious and with one to three or more children.

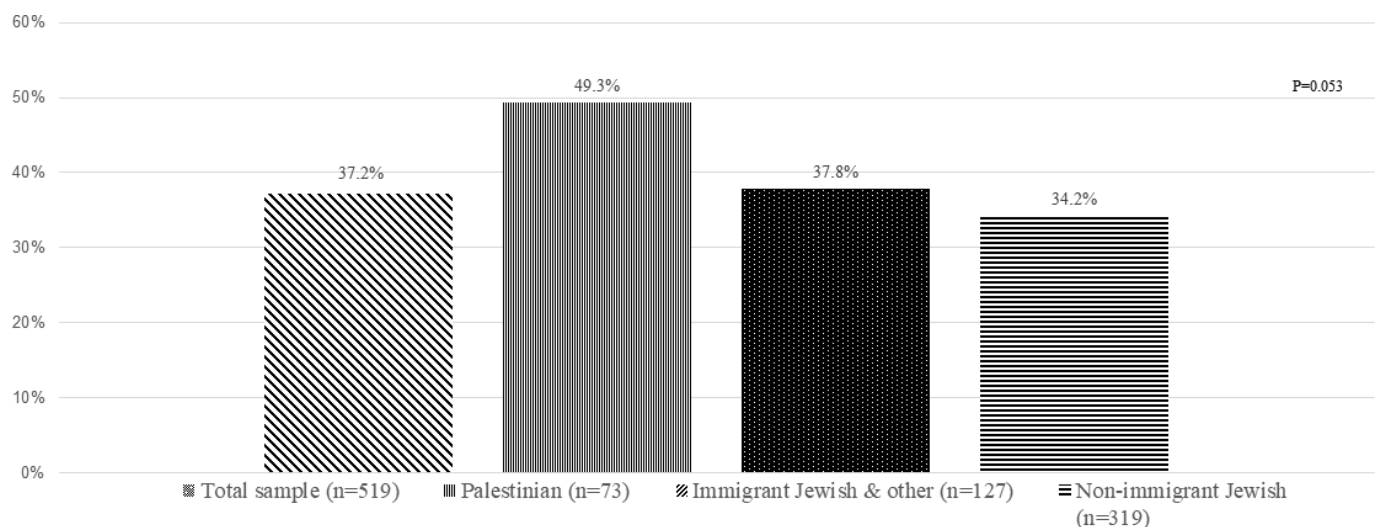


Figure 2 Prevalence of intimate partner violence in the total sample and by ethnonational identity and immigration status.

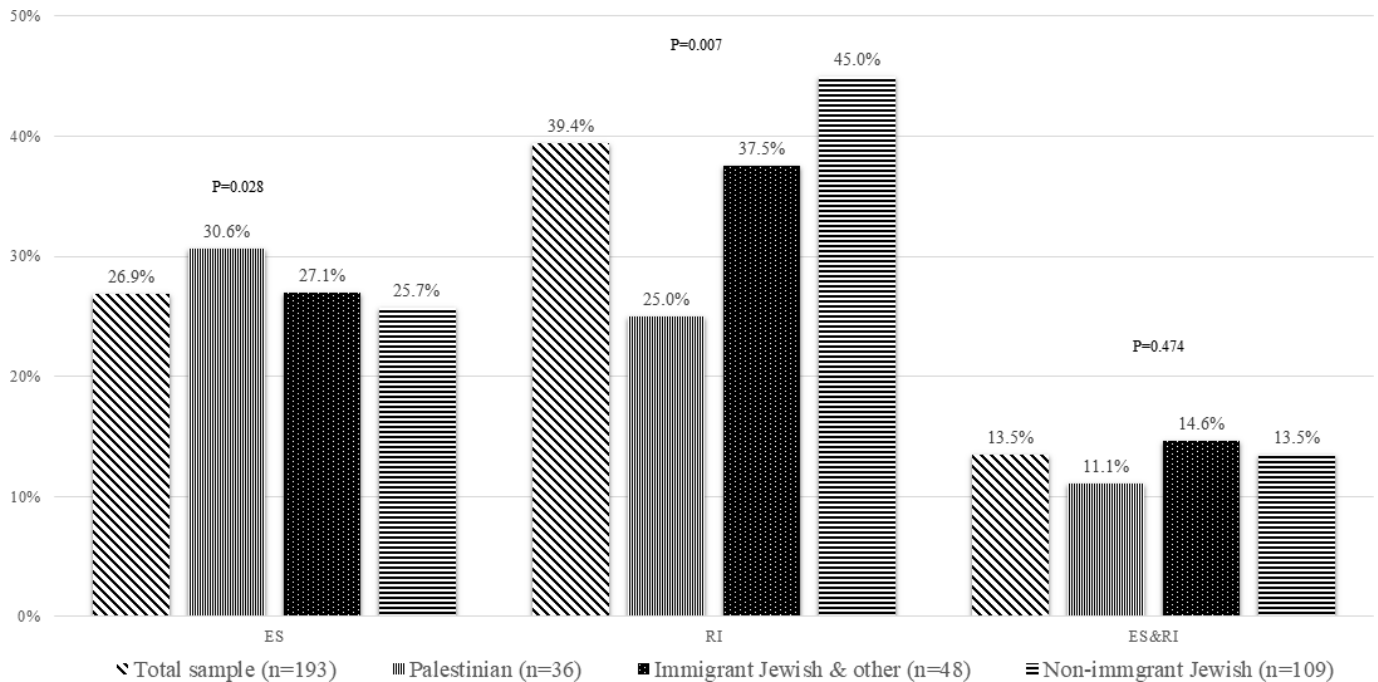


Figure 3 Prevalence of ever been screened (ES) and receiving information (RI) among women reporting intimate partner violence in the total study sample and by ethnonational identity and immigration status (n=193).

Due to the small sample size of Palestinian women (n=73), we could not conduct multivariate analysis for each group of women separately. Thus, we performed multivariate logistic regression analysis for the total sample (table 3) while including ethnicity and immigration status in the model. We found that women who reported any IPV (OR 1.54, 90% CI 1.04 to 2.27) and were religious/very religious (OR 3.04, 90% CI 1.77 to 5.21) had significantly greater odds of reporting ES, while women aged 46–75 (OR 0.29, 90% CI 0.12 to 0.72) and unmarried women (OR 0.33, 90% CI 0.18 to 0.60) had significantly lower odds of reporting ES (model 1). Regarding RI, after adjusting for different characteristics, Palestinian women (OR 0.29, 90% CI 0.17 to 0.50) and women reporting any IPV (OR 0.65, 90% CI 0.47 to 0.89) had significantly lower odds of RI (model 2). Unmarried women (OR 0.33, 90% CI 0.15 to 0.70) had lower odds of ES&RI, while religious/very religious women (OR 1.92, 90% CI 1.02 to 3.36) had significantly greater odds of ES&RI (model 3).

DISCUSSION

Few studies have examined the prevalence of IPV screening during COVID-19 lockdowns,^{33 34} and none of these address the question of whether women who were screened received information about relevant support services. This is the first study we know of to have been conducted during COVID-19 lockdowns and to examine prevalence of both IPV screening and RI on support services (plus both of these), in HCS. We analysed prevalence of ES, RI and ES&RI among women in different population groups in Israel and among women who reported IPV. We found low prevalence in our overall sample for ES and RI (21.8% and 47%, respectively), while just 12.1% of women reported both (ES&RI). Since we acknowledged the fact that COVID-19 lockdowns limited HCS access and that screening women for IPV during online appointments could endanger them, and since we aimed to compare the current research to previous findings on IPV screening in Israeli HCS,

we used the same measures as in a previous study conducted by Daoud *et al.*²⁷ Although we found similar prevalence of any IPV to that found in a study conducted before COVID-19 in Israel,²³ the current study's findings indicate a decrease in ES, RI and ES&RI rates: in the previous study, close to 49% of women reported ES, 50.5% reported RI, and approximately 30% reported both.²⁷

Another main finding relates to prevalence of ES, RI and ES&RI among women who experience any IPV. Prevalence of IPV in our study was 37.2%, of whom only 26.9% reported having ES in HCS, about 40% reported RI, and only 13% reported both. These rates are lower than those found in a study by Daoud *et al* before COVID-19, with a representative sample of women visiting maternal and child health clinics in Israel, that used the same measures as the current study.²⁷ In that study, ES and RI rates among women who experienced IPV were close to 46%, and the ES&RI rate was 28%.²⁷ Additional finding in this study indicating that IPV victims are less likely to report RI on relevant support services are consistent with the literature, specifically regarding minority women and women who are at greater risk for IPV, who are least likely to receive information on support services.²⁷

Women's low reports of RI and ES could have resulted from greater difficulties faced by medical teams in conducting IPV screening and information provision during the pandemic compared with non-emergency times. While routine difficulties mainly relate to lack of time, universal screening tools or medical personnel training for coping with IPV cases,^{13 28–30} during COVID-19, HCSs were also overloaded. Israel's '20th Dead Sea Conference' on lessons learnt during the pandemic referenced the heavy loads borne by medical teams due to high morbidity during lockdowns and before COVID-19 vaccines.³⁵ This concern with burden reinforces our hypothesis that, in the face of an emergency, the ability to screen women for IPV in HCS is frequently compromised. Although, due to the nature of the current study, we cannot assert a direct association between

Table 2 Univariate associations between independent study variables ever been screened (ES), received information (RI) and ES&RI in the total study sample

Characteristic	Total	ES (yes)	RI (yes)		ES&RI (yes)		
	n=519	n=113 (21.8%)	n=244 (47%)	n=63 (12.1%)			
	N (%)	N (%)	P value	N (%)	P value	N (%)	P value
Age			<0.001		0.324		0.016
18–25	170 (32.8)	22 (12.9)		89 (52.4)		12 (7.1)	
26–35	170 (32.8)	45 (26.5)		72 (42.4)		27 (15.9)	
36–45	111 (21.4)	39 (35.1)		51 (45.9)		19 (17.1)	
46–75	68 (13.1)	7 (10.3)		32 (47.1)		5 (7.4)	
Marital status			<0.001		0.284		0.001
Not married	152 (29.3)	13 (8.6)		77 (50.7)		7 (4.6)	
Married and cohabiting	367 (70.7)	100 (27.2)		167 (45.5)		56 (15.3)	
Change in marital status during COVID-19			0.835		0.118		0.919
No change	447 (86.1)	98 (21.9)		204 (45.6)		54 (12.1)	
Has changed	72 (13.9)	15 (20.8)		40 (55.6)		9 (12.5)	
Women's education			0.003		0.199		0.054
High school or less/college	206 (39.7)	31 (15)		104 (50.5)		18 (8.7)	
University	313 (60.3)	82 (26.2)		140 (44.7)		45 (14.4)	
Partner's education			0.572		0.663		0.944
High school or less/college	263 (52.8)	56 (21.3)		126 (47.9)		33 (12.5)	
University	235 (47.2)	55 (23.4)		108 (46)		29 (12.3)	
Women's employment status change during COVID-19			0.027		0.446		0.162
Negative change/unclear	167 (32.2)	36 (21.6)		84 (50.3)		19 (11.4)	
No change	97 (18.7)	12 (12.4)		41 (42.3)		7 (7.2)	
Positive change	255 (49.1)	65 (25.5)		119 (46.7)		37 (14.5)	
Partner's employment status change during COVID-19			0.552		0.579		0.48
Negative change/unclear	146 (29.6)	34 (23.3)		65 (44.5)		14 (11.6)	
No change	59 (12)	10 (16.9)		31 (52.5)		5 (8.5)	
Positive change	288 (58.4)	67 (23.3)		136 (47.2)		40 (13.9)	
Religiosity level			<0.001		0.372		0.021
Not religious	335 (64.5)	65 (19.4)		165 (49.3)		40 (11.9)	
Traditional	112 (21.6)	18 (16.1)		49 (43.8)		8 (7.1)	
Religious/very religious	72 (13.9)	30 (41.7)		30 (41.7)		15 (20.8)	
Family income source			0.961		0.169		0.783
Work/business	307 (59.7)	68 (22.1)		134 (43.6)		36 (11.1)	
More than one source and other	157 (30.5)	33 (21)		83 (52.9)		21 (13.4)	
Social allowances/no source	50 (9.7)	11 (22)		23 (46)		5 (10)	
No of children			<0.001		0.052		0.003
No children	259 (49.9)	32 (12.4)		134 (51.7)		19 (7.3)	
1–3 children	214 (41.2)	65 (30.4)		94 (43.9)		37 (17.3)	
4 and more	46 (8.9)	16 (34.8)		16 (34.8)		7 (15.2)	

the pandemic and women's low reports of IPV screening, RI and both, those difficulties should be addressed.

Another important finding relates to inequalities in ES and RI among women from different ethnonational and immigrant groups. The ORs of Palestinian women reporting ES (OR 0.64, 90% CI (0.34 to 1.86) and RI (OR 0.29, 90% CI (0.17 to 0.50) were lower than for non-immigrant Jewish women. Although the OR of Palestinian women reporting ES was not significant, our findings are consistent with Daoud *et al*,²⁷ who found that Jewish women (immigrant and non-immigrant) reported more ES and RI in HCS than Palestinian women.²⁷

Differences in our study between ethnic groups in ER, RI and both might relate to several factors: the gap in Palestinian women's reports on RI might relate to limited access to, and provision of, support services and Arabic-language information, which have previously been noted in Israel.^{36 37}

Access to, and utilisation of, HCS is an important factor as well. A systematic review found that women who visited maternal clinics, emergency departments and antenatal care were more likely to be screened for IPV.¹³ A previous study in Israel by Daoud *et al*³⁸ that compared HCS utilisation patterns between women experiencing IPV versus not experiencing IPV found a significant association between high HCS utilisation and experiencing IPV for some services.³⁸ Utilisation patterns differed among Palestinian and Jewish women, with more gynaecologist and ER service use among Palestinian women.³⁸ The finding that Palestinian women who reported any IPV also reported slightly higher screening rates than Jewish women non-immigrant women, and Jewish immigrant and other women reporting any IPV might also have several explanations. First, prevalence of any IPV among Palestinian women was close to 50%. Higher reports of ES among them (although not significant) might be

Table 3 Multivariate logistic regression results for ES (ever been screened), RI (received information) and ES & RI screened and received information (in the total study sample (n=519))

Characteristic	Model 1 ES	Model 2 RI	Model 3 ES&RI
	OR (90% CI)	OR (90% CI)	OR (90% CI)
Ethnicity and immigration status			
Palestinian	0.64 (0.34 to 1.86)	0.29 (0.17 to 0.50)***	0.48 (0.21 to 1.09)
Immigrant Jewish and other	1.50 (0.94 to 2.38)	0.83 (0.57 to 1.21)	1.16 (0.66 to 2.04)
Non-immigrant Jewish	1	1	1
Any IPV			
Yes	1.54 (1.04 to 2.27)*	0.65 (0.47 to 0.89)**	1.17 (0.73 to 1.89)
No	1	1	1
Age			
46–75	0.29 (0.12 to 0.72)**	1.02 (0.57 to 1.83)	0.53 (0.18 to 1.52)
36–45	1.40 (0.72 to 2.74)	0.88 (0.51 to 1.52)	1.27 (0.55 to 2.93)
26–35	1.14 (0.62 to 2.09)	0.77 (0.49 to 1.23)	1.44 (0.67 to 3.07)
18–25	1	1	1
Marital status			
Not married	0.33 (0.18 to 0.60)**	1.01 (0.68 to 1.49)	0.33 (0.15 to 0.70)**
Married	1	1	1
Religiosity level			
Religious/very religious	3.04 (1.77 to 5.21)***	1.04 (0.63 to 1.69)	1.92 (1.02 to 3.36)*
Traditional	0.87 (0.51 to 1.48)	1.06 (0.71 to 1.58)	0.62 (0.30 to 1.25)
Not religious	1	1	1
Women's education			
High school or less/college	0.69 (0.41 to 1.14)	1.08 (0.73 to 1.59)	0.86 (0.46 to 1.59)
University	1	1	1
Women's employment status during COVID-19			
Negative change/unclear	1.10 (0.71 to 1.72)	1.05 (0.73 to 1.51)	0.98 (0.57 to 1.68)
No change	0.65 (0.34 to 1.25)	0.75 (0.47 to 1.18)	0.71 (0.32 to 1.57)
Positive change	1	1	1

*p<0.05, **p<0.01, ***p<0.001.
IPV, intimate partner violence.

associated with higher HCS visits, specifically to maternal and child health clinics.³⁸ Second, the small sample size of the Palestinian women's group (n=73) might have affected variances for this group.

In the multivariate analysis, women aged 46–75 and unmarried women were less likely to be ES and had lower odds for ES&RI. Religious women had greater odds of being ES and ES&RI. Those findings partly coincide with a previous study conducted in Israel using the same measures as the current study.²⁷

Study limitations

We used a convenience sample of women with access to the Internet or smartphones. Women lacking this connectivity (eg, Orthodox Jewish women) and women who do not use social media could not participate—a clear limitation. As well, women experiencing IPV were probably more reluctant to follow the link to our survey, as this could have exposed them to threat by abusive partners during lockdowns. Further, we asked whether women had ES for IPV and ever received information without specifying a timeframe in our questions. Consequently, we cannot definitively ascertain whether they were screened and received information during the COVID-19 pandemic. However, these same questions were used before COVID-19's appearance in Israel. Therefore, we could compare answers from before the pandemic with those during COVID-19. Future research should specify a timeframe in survey questions.

CONCLUSIONS

Minority women and women experiencing IPV reported lower rates of ever being screened for IPV and ever RI in HCS in a survey conducted during COVID-19 lockdowns. Both services should be strengthened during emergencies. Tailored interventions in HCS should acknowledge IPV screening and information provision barriers for minority and immigrant women.

Contributors ND initiated the study and was responsible for the study design and all aspects of the study. ND is the guarantor and she accepts full responsibility for the work and/or the conduct of the study, had access to the data, and controlled the decision to publish. BA was responsible for data collection, data analysis, and writing of the findings under the supervision of ND. BA prepared the first draft of the paper together with ND. RS helped with programming the study questionnaire with REDCap. SAZ contributed with Arabic- and Hebrew-language questionnaires and other study forms, programming the questionnaires in REDCap, and data collection. All authors read and approved the last version of the paper.

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Patient consent for publication Not applicable.

Ethics approval This study involves human participants and this study was approved by the Ethics Board of the Faculty of Health Sciences at Ben-Gurion University of the Negev. Participants gave informed consent to participate in the study before taking part.

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Variable	Definitions
<i>Intimate partner violence (IPV)</i>	A 10-item questionnaire on acts of violence perpetrated by the participant's intimate partner (answer categories: never, seldom, frequently, always). Acts referred to different IPV types (physical, sexual, economic, social control, and emotional violence). We defined women as experiencing any IPV if they provided at least one positive answer to one question, and we dichotomized any IPV into no (never)/yes (all other categories).
<i>Ethnicity and immigration status</i>	Created by combining two variables: ethnicity (Jewish, Palestinian, Other) plus country of birth (Israel or elsewhere). We categorized participants into three groups based on responses: 1. non-immigrant Jewish, 2. Palestinian, and 3. immigrant Jewish and other (i.e., "other" women who immigrated to Israel not self-identifying as Jewish or Palestinian).
<i>Age</i>	Was measured using a direct question ("How old are you?") plus a question about year of birth; we created a variable with four categories: 18–25, 26–35, 36–45, and 46–75 years old.

<i>Marital status</i>	Was measured using a direct question. Answer categories: 1. married & cohabiting (including common-law partners); 2. not married (single, divorced, widow, separated, and other).
<i>Change in marital status during Covid 19</i>	Was measured using a direct question with two answer categories: 1. no change, 2. has changed (including married, divorced, separated, widowed, and other).
<i>Women's and partner's education</i>	Was measured using a direct question; answer categories: 1. high school or less/college, 2. university (bachelor's, master's, or Ph.D.)
<i>Women's and partners' employment status change during Covid-19</i>	Was measured using a direct question with three answer categories: 1. negative/unclear change, 2. no change, 3. positive change.
<i>Religiosity level</i>	Was measured using a direct question; with three answer categories: 1. not religious, 2. traditional, 3. religious/very religious.
<i>Family income source</i>	Was measured using a direct question; answer categories: 1. work/business (only), 2. more than one source and other (combinations of family income sources and other resources (e.g., family support, scholarships, military salary, pension, land), 3. social allowances/no source.
<i>Number of children</i>	Was measured using a direct question; answer categories 1. no children, 2. 1 to 3 children,

	3. 4 or more children.
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