



## Original Article

# Intimate partner violence and women's mental health during the pandemic

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### Abstract

**Objectives:** When considered within the scope of measures and measures taken under pandemic conditions, women's mental health and violence against women, which is a global public health problem, are affected in adapting to changing living conditions. Our study aims to determine the intimate partner violence (IPV) and mental status of women during the pandemic period and to compare the mental health of women and the situation of IPV.

**Methods:** This study is descriptive relation seeking and was carried out between March and April 2021 through online using Google Forms. During the pandemic period, 204 women were reached to determine their anxiety, depression, and IPV status. The data were collected with a form that included the demographic characteristics of women, their exposure to IPV and the types of violence they were exposed to, the "Generalized Anxiety Disorder-7 (GAD-7)," and the Patient Health Questionnaire (PHQ-9).

**Results:** It was determined that there was an increase in women's exposure to IPV during the pandemic period, emotional violence, and controlling behavior were the highest, and normal-mild anxiety and mild-moderate depression were the majority in the GAD-7 and PHQ-9 scale sub-dimensions. In addition, it was found that anxiety and depression scores increased in parallel with the increase in physical, sexual, and emotional violence and controlling behaviors.

**Conclusion:** As a result of this study, the problems experienced during the pandemic period caused an increase in women's exposure to partner violence and anxiety and depression levels. It is noteworthy that IPV has an effect on the increase in anxiety and depression levels. In this context, our study will be a solid foundation for developing an effective psychological intervention for women during the pandemic period.

**Keywords:** Anxiety; COVID-19; depression; intimate partner violence; pandemic.

Violence against women by their husbands is one of the most common forms of violence against women.<sup>[1-3]</sup> Physical violence, sexual violence, emotional abuse, and controlling behaviors, which are the most common forms of IPV, are seen as a global public health problem.<sup>[2-4]</sup>

In the COVID-19 pandemic, many governments have implemented strategies to slow the outbreak. These include abolishing or restricting public gatherings and advising people to "stay at home," as well as providing flexible conditions such as working from home and distance learning in all schools,

universities, and non-essential businesses.<sup>[4,5]</sup> In the COVID-19 pandemic, these measures to reduce the risk of transmission have increased prolonged and forced contact between family members and led to a reduction in means of recreation, boredom, loss of contact with wider social circles, and economic hardship.<sup>[6]</sup> The COVID-19 pandemic has caused a major physical health problem as well as a psychosocial crisis.<sup>[4,5]</sup>

Stress factors such as unemployment or inability to meet basic needs caused by the pandemic period increase relational conflicts.<sup>[7,8]</sup> Studies examining the relationship between eco-

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conomic hardship and IPV have shown that parenting stress, economic hardship, and food insecurity increase the risk of IPV.<sup>[9,10]</sup> Studies on IPV during the pandemic period are limited. In line with the predicted data and reports, it is stated that psychological violence, physical violence, and asylum requests increased by 93%, 80%, and 78%, respectively, in March 2020 compared to the year before the pandemic in our country.<sup>[11]</sup> Based on media reports and newspapers, the United Nations has reported that reports of domestic violence have increased in Germany, the USA, Cyprus, Singapore, Singapore, France, Argentina, Canada, and the United Kingdom.<sup>[12]</sup> Stephenson et al.<sup>[13]</sup> (2021) found that the sexual IPV rate was 2.2%, physical IPV rate was 1.8%, and emotional IPV rate was 10.3% during the COVID-19 pandemic.

It is emphasized that women who have been subjected to IPV experience problems such as sleep problems, anxiety, depression, sleep problems, gastrointestinal and gynecological problems, post-traumatic stress disorder and suicide attempts, unwanted pregnancies, and chronic pain more than women who have not been subjected to IPV.<sup>[2,3]</sup> These problems may persist even after the act of violence has ended.<sup>[2,3]</sup>

The aim of this study is to determine the IPV and mental status of women during the pandemic period and to compare the mental health of women and the situation of IPV. This study will provide important evidence in revealing the acute impact of the pandemic period on women, determining priority areas in protecting and improving women's mental health and maintaining their well-being. It will also reveal the impact of the frightening devastation of interpersonal violence on women's mental health.

### Research Questions

What are the experiences of violence against women during the COVID-19 pandemic?

What are the anxiety and depression levels of women during the COVID-19 pandemic?

What is the relationship between the violence experienced by women during the COVID-19 pandemic and their anxiety and depression levels?

## Materials and Method

### Research Design

This study is a descriptive-correlational research conducted to determine the IPV and mental status of women during the pandemic period and to compare the mental health of women and the situation of IPV.

### Sample

Participants were contacted through a web-based electronic survey (Google Form). Invitations to participate were shared across multiple online spaces (Twitter, Instagram, and Facebook). Data were collected from 204 female participants

#### What is presently known on this subject?

- Violence against women is a global public health problem. Although the measures taken during the pandemic period have positive consequences for public health, they also have negative consequences. It is stated that one of these negative consequences may be an increase in intimate partner violence (IPV) and negative effects on women's mental health.

#### What does this article add to the existing knowledge?

- It was determined that IPV, which may or may not have existed before the pandemic, increased during the pandemic and IPV triggered depression and anxiety in women.

#### What are the implications for practice?

- Due to the increase in violence against women during the pandemic period, increased awareness of violence reporting will form the basis for practices to protect and improve women's mental health.

through an online self-reported survey during the period between March and April 2021, approximately 1 year after the onset of the pandemic. All participants were in a relationship with their husband/boyfriend for at least 1 year before the pandemic and during the pandemic.

### Data Collection

#### Personal Information Form

Expert opinion was taken in this form consisting of 20 questions prepared by the researcher based on the literature.<sup>[1-3]</sup> For each item in the form, a four-point Likert type (completely appropriate, quite appropriate, somewhat appropriate, not appropriate) was prepared using Davis (1992) technique. The form was sent to seven experts in mental health and psychiatric nursing. As a result of the evaluations made after the return from the experts, the content validity rate was found to be 0.95.

This form consists of two parts. The first part includes 12 questions about demographic characteristics (age, marital status, educational status, etc.), and the second part includes eight questions about violence-related characteristics. The question type is yes-no. In the questions on IPV, the types of violence are "Physical Violence" (such as twisting your arm, slapping, throwing something that will harm you, kicking, pulling your hair, beating, suffocation, shaking, deliberate burning, threatening with a weapon or other means), "Sexual Violence" (physical force for involuntary sexual intercourse, having sexual intercourse because you are afraid of your partner, having to do things that you find sexually degrading), "Emotional Violence" (insults, swearing, belittling, constant humiliation, threats to remove children), "Controlling Behaviors" (separating from family and friends or preventing you from meeting, monitoring your movements; restricting access to material resources, employment, education or medical care services)<sup>[1]</sup> questions were asked in two different ways: pre-pandemic exposure and post-pandemic exposure.

#### Generalized Anxiety Disorder (GAD-7) Scale

Anxiety status was assessed with "GAD-7."<sup>[14]</sup> The GAD-7 scale was developed by Spitzer et al.<sup>[15]</sup> (2006), and its validity and

reliability were performed by Konkan et al.<sup>[16]</sup> (2013). The GAD-7 scale score is divided into four categories: Normal (0–4), mild (5–9), moderate (10–14) and severe (15–21). Possible scores range from 0 to 21, with higher scores indicating higher levels of generalized anxiety. A cut-off score of  $\geq 10$  was also used. A total score of  $\geq 10$  indicates that the person should be treated.<sup>[15,16]</sup> In this study, Cronbach's alpha value of the scale was found to be 0.936.

### Patient Health Questionnaire-9

Depression status was assessed with the "PHQ-9".<sup>[16]</sup> The PHQ-9 scale was developed by Kroenke et al.<sup>[17]</sup> (2001), and its Turkish validity and reliability were performed by Çorapçioğlu and Özer (2004).<sup>[18]</sup> Cronbach's alpha coefficient of the questionnaire was found to be 0.842.<sup>[17]</sup> Each item of the nine-item scale is rated on a four-point Likert scale, with respondents indicating how often they have been bothered by each symptom in the past 2 weeks using a four-point Likert scale ranging from 0 (Never) to 3 (Almost every day). Scores range from 0 to 27, with higher scores indicating higher levels of depression. The scale was assessed in three ways. First, the scale score was divided into five categories: Normal (0–4), mild (5–9), moderate (10–14), severe (15–19), and very severe (20–27). In the second evaluation, high scores on the scale were considered an indicator of the severity of depression.<sup>[17]</sup> In the third assessment, a cut-off score of  $\geq 10$  was used. Individuals with a cut-off score of  $\geq 10$  were determined as participants who were likely to fulfill the criteria for depressive disorder. In this study, the Cronbach's alpha value of the scale was 0.926.

### Data Analysis

Descriptive statistics (percentage and frequency distribution, mean, and median) tests including Chi-square test were used to evaluate the relationship between sociodemographic characteristics and depression (divided into two categories with a scale cut-off score  $\geq 10$ ) and anxiety disorder (divided into two categories with a scale cut-off score  $\geq 10$ ).

Descriptive tests (frequency and frequency distribution) were used to determine the types of partner severity and sub-dimensions of the PHQ-9 and GAD-7 scales during the pandemic period.

One-way ANOVA test was used to compare depression (mean score of the GAD-9 scale) and anxiety (mean score of the GAD-7 scale) with increased/unchanged/decreased severity during the pandemic period. In the evaluations,  $p < 0.05$ ,  $p < 0.01$ , and  $p \leq 0.001$  were used as significance levels. SPSS Statistic® 21.0 software was used to analyze the data (IBM SPSS Statistics, New York, NY, USA).

### Ethical Issues

COVID-19 scientific research permission was obtained from the Ministry of Health and approved by the Istinye University Ethics Committee (Approval Number: 2021/04, Decision No: 4).

In addition, since the data were collected online, the process of obtaining informed consent was presented on the home page before starting the survey and was implemented in such a way that the participants who agreed to participate could switch to the survey questions. This study is conducted in accordance with the principles of the Declaration of Helsinki.

## Results

When the demographic characteristics of the participants were analyzed, 52.9% ( $n=108$ ) were 34 years of age or older and 77.9% ( $n=159$ ) lived with their husbands or boyfriends. Almost three-quarters of the women were university graduates or higher ( $n=157$ , 71.1%), and almost three-quarters of their husbands/partners were university graduates or higher ( $n=148$ , 72.5%). It is seen that 66.7% ( $n=136$ ) of the women were working during the pandemic, and their economic status was close to those whose income was equal to expenses ( $n=89$ , 43.6%) and those whose income was less than expenses ( $n=86$ , 42.2%). There was a difference between age, marital status, and anxiety and depression levels ( $p < 0.01$ ). There was a relationship between marital status and experience of IPV ( $p < 0.05$ ) (Table 1).

When IPV in the COVID-19 period was examined, it was observed that the highest increasing types of violence were emotional violence ( $n=7.4$  35%) and controlling behaviors ( $n=7.4$  35%) (Fig. 1).

When the GAD-7 scale sub-dimensions were analyzed, 44.6% ( $n=91$ ) of the participants had normal anxiety, 31.4% ( $n=64$ ) had mild anxiety, 14.2% ( $n=29$ ) had moderate anxiety, and 9.8% ( $n=20$ ) had high anxiety; when the PHQ-9 scale sub-dimensions were analyzed, 4.9% ( $n=26$ ) of the participants had normal depression, 39.2% ( $n=80$ ) had mild depression, 16.2% ( $n=33$ ) had moderate depression, 11.8% ( $n=24$ ) had severe depression, and 6.9% ( $n=14$ ) had very severe depression (Fig. 2).

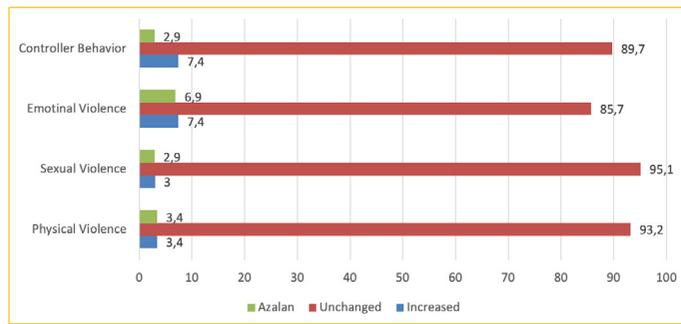
A significant difference was found between types of IPV and anxiety and depression levels ( $p \leq 0.001$ ). Bonferroni test was applied to test the direction of significance and it was found that anxiety and depression scores increased in parallel with the increase in physical, sexual, and emotional violence and controlling behaviors in the pandemic (Table 2).

## Discussion

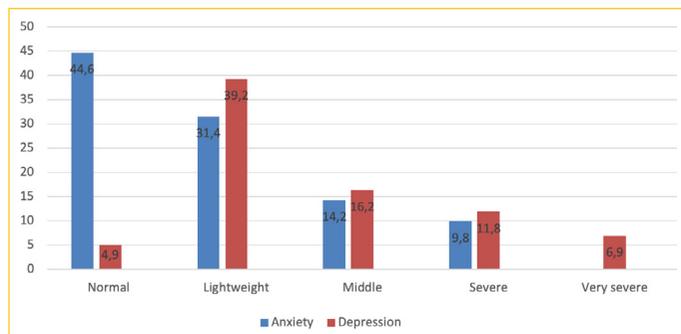
With the COVID-19 pandemic, many countries, including our country, have taken various measures to keep the pandemic under control, and these measures have brought social and individual life changes. Although distance education and working from home, which are some of the measures taken, have benefits, they may cause an increase in women's workload, psychological depression, and IPV victimization. In this context, our study aims to determine the IPV and mental status of women during the pandemic period and to compare the mental health of women and the situation of IPV.

Table 1. Comparison of intimate partner violence, anxiety, and depression disorder in the COVID-19 period with demographic variables and demographic variables (n=204)									
Features	n (%)	IPV		Anxiety disorder*		Depression*			
		Presence** n(%)	p $\chi^2$	Prevalence (%)	p $\chi^2$	Prevalence (%)	p $\chi^2$		
Age									
34 years and below	96 (47.1)	30 (31.3)	0.434	16 (14.8)	0.002	27 (25)	0.003		
Over 34 years old	108 (52.9)	36 (33.3)	$\chi^2=0.101$	32 (33.3)	$\chi^2=8.685$	42 (44.2)	$\chi^2=8.313$		
Marital Status									
Single	45 (22.1)	20 (44.4)	0.039	20 (44.4)	0.000	25 (56)	0.000		
Married or male living together with a friend	159 (77.9)	46 (28.9)	$\chi^2=3.181$	28 (17.6)	$\chi^2=12.585$	44 (27.7)	$\chi^2=13.047$		
Education Status									
Primary education	19 (9.3)	8 (42.1)	0.534	8 (42.1)	0.133	8 (42.1)	0.272		
High School	40 (19.6)	11 (27.5)	$\chi^2=1.914$	9 (22.5)	$\chi^2=4.040$	17 (42.5)	$\chi^2=2.606$		
University and Above	145 (71.1)	47 (32.4)		31 (21.4)		44 (30.6)			
Education Status of partner									
Primary education	20 (9.8)	9 (45)	0.420	8 (40)	0.165	9 (45)	0.069		
High School	36 (17.6)	12 (33.3)	$\chi^2=1.734$	9 (25)	$\chi^2=3.608$	17 (47.2)	$\chi^2=5.361$		
University and Above	148 (72.5)	45 (30.4)		31 (72.5)		43 (29.3)			
Operating status during the pandemic									
Working	136 (66.7)	42 (63.6)	0.315	27 (19.9)	0.059	42 (31.1)	0.222		
Not working	68 (33.3)	2 (36.4)	$\chi^2=0.403$	21 (30.9)	$\chi^2=3.065$	27 (39.7)	$\chi^2=1.510$		
During the pandemic economic situation									
Income less than expenditure	86 (42.2)	21 (46.7)	0.201	25 (29.1)	0.199	33 (38.8)	0.204		
Income equal to expenditure	89 (43.6)	27 (22.5)	$\chi^2=3.207$	19 (21.3)	3.230	30 (33.7)	$\chi^2=3.175$		
Income more than expenditure	29 (14.2)	18 (46.2)		4 (13.8)		6 (20.7)			

Chi-square analysis was conducted between the first column and partner violence, anxiety, and depression. \* A Cut-off score of  $\geq 10$  on the Generalized Anxiety Disorder-7 and Patient Health Questionnaire-9 scales was used. \*\* "yes" is evaluated as "no" IPV: Intimate partner violence.



**Figure 1.** Intimate partner violence in the COVID-19 period.



**Figure 2.** Sub-dimensions of GAD-7 and PHQ-9 scales.

When the demographic characteristics of the participants are analyzed, it is noteworthy that approximately three-quarters of them and their husbands/partners are university graduates and above, and two-thirds of them are employed. When the studies on the relationship between demographic characteristics of women and anxiety and depression were examined, Akbaş et al.<sup>[19]</sup> (2021) found that there was a relationship between women's age and anxiety levels, anxiety increased as age increased and Hyland et al.<sup>[14]</sup> (2020) found that anxiety and depression were high during the pandemic period, and age and being a woman were associated with depression and anxiety. Qiu et al.<sup>[20]</sup> (2020) reported that young age was associated with low anxiety. They also stated that anxiety and psychological well-being levels during the pandemic vary depending on age, and individuals are negatively affected as age increases. Solomon ve Konstantinidou<sup>[21]</sup> (2021) showed that the female gender poses a higher risk for increased anxiety and depression symptoms. In accordance with the literature, in our study with women, it was found that the level of depression and anxiety differed according to age.

According to the literature, it is stated that unemployed women or homemakers are more likely to experience IPV compared to employed women.<sup>[22,23]</sup> Jabbi et al.<sup>[24]</sup> (2020) reported in their study that the cases of IPV increased as the education level and age of the IPV decreased. However, no relationship was found between education and employment status and IPV in our study. The reason for this is thought to be that the education level of the husband and women was high in accordance with the literature, and two-thirds of the women worked, so no relationship was found.

When the studies on women's exposure to IPV during the COVID-19 period are examined, differences in the incidence of violence types stand out. In their study on IPV, Jetelina et al.<sup>[25]</sup> (2021) reported physical and sexual violence as increasing types of violence, and in the study of Gosangi et al.<sup>[26]</sup> (2021), although the total number of women reporting IPV decreased during the pandemic, the incidence of physical IPV was 1, 8 times more, on the other hand, Rayhan and Akter (2021)<sup>[23]</sup> found that the prevalence of IPV in women was approximately 45.29%, 44.12% were emotionally abused, 15.29% were physically abused, 10.59% were sexually abused, and 19.22% were physically or sexually abused. In our study, emotional violence (n=7.4, 35%) and controlling behavior (n=7.4, 35%) were found to be the highest types of IPV that increased during the COVID-19 period. It is thought that the differences between the types of IPV in the studies are different due to cultural factors and demographic characteristics of the participants.

Hyland et al.<sup>[14]</sup> (2020) found that depression and anxiety scores were higher in women than in men. In a study conducted in our country during the COVID-19 period, it was found that approximately one in three participants showed symptoms of hopelessness at a moderate-to-severe level and approximately one in four participants showed symptoms of anxiety.<sup>[27]</sup> In the study conducted by Solumon and Konstantinidou<sup>[21]</sup> (2021), 41% of the participants reported mild anxiety-related symptoms, while 23.1% reported moderate-to-severe anxiety symptoms; regarding depression, 48% reported mild and 9.2% reported moderate-to-severe depression symptoms. In addition, women were found to be at higher risk for increased symptoms of anxiety and depression. In this study, in parallel with the literature, the high number of mildly depressed and normal-mildly anxious women was noteworthy. Although the anxiety and depression levels of the participants were mild or normal-mild, based on the cut-off scores of the GAD-7 and PHQ-9 scales, it is seen that a considerable number of women have anxiety and depression to the extent that they require treatment (Table 1).

Machorrinho et al.<sup>[28]</sup> (2021), one of the studies examining the relationship between IPV and anxiety and depression, found that women who had experienced IPV had high levels of anxiety and depression. Cardoso et al.<sup>[29]</sup> (2020) stated that anxiety and depression levels were high in people who were subjected to sexual violence in their study with traumatized people. The World Health Organization (2017)<sup>[30]</sup> states that those exposed to IPV lead to post-traumatic stress and other anxiety disorders, suicide attempts, eating disorders, sleep difficulties, and depression. Another study by Ferdos et al.<sup>[31]</sup> (2017) states that anxiety and depression levels are high in women who have experienced IPV. In our study, in parallel with the literature, it was found that there was an increase in anxiety and depression scores in parallel with the increase in physical, sexual, and emotional violence and controlling behaviors.

**Table 2. Comparison of GAD-7 and PHQ-9 scores according to the variable of types of violence during the pandemic period**

Scale	Types of violence	n	X	SS	F	p	Significant difference
GAD-7	<b>Physical Violence</b>						
	Decreased	7	6.86	5.521	5.030	0.007*	Increased>Unchanged
	Unchanged	190	6.16	5.247			
	Increased	7	12.57	5.503			
	<b>Sexual violence</b>						
	Decreased	4	9.5	4.756	8.387	0.000*	Increased>Unchanged
	Unchanged	194	6.09	5.221			
	Increased	6	14.50	3.728			
	<b>Emotional violence</b>						
	Decreased	10	7.20	5.473	8.971	0.000*	Increased>Unchanged
	Unchanged	179	5.86	5.091			
	Increased	15	11.79	4.693			
	<b>Controller behavior</b>						
	Decreased	6	9.33	5.465	8.826	0.000*	Increased>Unchanged
	Unchanged	183	5.90	5.145			
Increased	15	11.40	5.396				
PHG-7	<b>Physical Violence</b>						
	Decreased	7	11	6.506	5.516	0.004	Increased>Unchanged
	Unchanged	190	8.50	6.083			
	Increased	7	16.14	8.214			
	<b>Sexual violence</b>						
	Decreased	4	12.5	4.509	8.921	0.000	Increased>Unchanged
	Unchanged	194	8.474	6.092			
	Increased	6	18.66	6.282			
	<b>Emotional violence</b>						
	Decreased	10	10	4.784	7.628	0.001	Increased>Unchanged
	Unchanged	179	8.23	6.006			
	Increased	14	14.64	6.640			
	<b>Controller behavior</b>						
	Decreased	6	9.833	4.535	8.622	0.000	Increased>Unchanged
	Unchanged	183	8.311	6.076			
Increased	15	15.06	6.659				

GAD-7: Generalized anxiety disorder-7, PHQ-9: Patient health questionnaire-9 \*p>0.001.

### Limitations

In the study, data were collected through an online form. People without internet or smartphones could not be reached. In addition, it is thought that the high level of education (university and above) of the participants and their partners affected their experiences of violence. IPV status and mental health profiles of illiterate women could not be determined. Anxiety and depression levels of women before the pandemic were not determined. Therefore, the amount of increase in current anxiety and depression levels could not be determined, and data were obtained based on their current status. The focus of the subject on concepts that require sensitivity may affect the expansions in the answers given.

### Conclusion

During the pandemic, it was concluded that women were negatively affected psychologically and there was an increase in exposure to intimate violence. Psychological counseling and related training should be increased during the pandemic period; awareness of 24-h hotline services and public awareness programs for reporting violence should be increased, and the effectiveness of the practices should be monitored. In addition, frontline psychiatric nurses should be aware of IPV and should evaluate this situation and integrate it into their interventions for the patient.

**Ethics Committee Approval:** COVID-19 scientific research permission was obtained from the Ministry of Health and approved

by the Istinye University Ethics Committee (Approval Number: 2021/04, Decision No: 4).

**Conflict of interest:** There are no relevant conflicts of interest to disclose.

**Peer-review:** Externally peer-reviewed.

**Authorship contributions:** Concept – S.U.Y., Z.Z.; Design – S.U.Y., Z.Z.; Supervision – S.U.Y.; Fundings – S.U.Y.; Materials – S.U.Y., Z.Z.; Data collection &/or processing – S.U.Y., Z.Z.; Analysis and/or interpretation – S.U.Y., Z.Z.; Literature Search – Z.Z., S.U.Y.; Writing – S.U.Y.; Critical review – S.U.Y., Z.Z.

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