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# Emotional violence within intimate partner violence against Turkish women in rural and urban areas

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## Abstract

**Background** The purpose of this study is to determine the factors related to women's exposure to emotional violence by their spouses/partners in the 12 months prior to the survey, according to their place of residence (rural, urban) in Türkiye.

**Methods** Binary logistic regression analysis was utilized to determine the factors associated with women's exposure to emotional violence from their spouses/partners. The independent variables of the study were those used in the National Research on Domestic Violence against Women in Türkiye (2014). A total of 6,458 women—4,404 from urban areas and 2,054 from rural areas—were included in the analysis.

**Results** The findings obtained from the analyses indicated that women's exposure to emotional violence was associated with various factors such as age, educational level, marital status, and women's higher income contribution to the household. It was also found that afraid of spouse/partner, controlling behavior of spouse/partner, and other variables related to spouse/partner were associated with women's exposure to emotional violence. In rural, a woman with a higher income contribution to the household is less likely to be exposed to emotional IPV. A woman with no formal education, a primary and secondary school graduate spouse/partner is less likely to be exposed to emotional IPV than a woman with a high school graduate spouse/partner. The likelihood of a woman with a spouse/partner using drugs to be exposed to emotional IPV is lower than a non-user.

**Conclusions** The results of the study are important in that they can be a source of information for policies and programs to prevent IPV against women. This study can also be a significant guide in determining priority areas for the resolution of emotional IPV against women. The study suggests developing proper strategies for reducing emotional violence, such as training and programs to help women pursue non-violent pathways in their relationships. It recommends expanding interventions to empower women economically that help prevent violence.

**Keywords** Emotional intimate partner violence, Violence against women, Binary logistic regression, Residential differences, Türkiye

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## Introduction

Violence against women is a complex, multidimensional issue [1]. One of its most widespread forms is intimate partner violence (IPV), which can occur across all societies and cultures [2]. IPV is an act perpetrated by a current or former male intimate partner in the context of marriage, cohabitation, or any other formal or informal union [3]. IPV encompasses various types of abuse, including physical, sexual, and non-physical violence such as emotional, psychological, social, and economic forms [4]. While physical violence has traditionally received the most attention, emotional or psychological violence can inflict equally—or even more—devastating harm [5, 6].

Research indicates that these different forms of IPV often intersect. Physical and sexual violence typically occur within a broader pattern of coercive control that includes emotional abuse, and many women experience multiple types simultaneously [7, 8]. Notably, physical or sexual IPV rarely appears without emotional abuse; indeed, women subjected to physical aggression frequently report experiencing emotional violence as well [9, 10]. Despite the gravity of physical and sexual IPV, emotional abuse alone can be highly detrimental, eroding self-worth, self-esteem, and mental health [11, 12].

Quantitative studies have traditionally focused on physical IPV, with less emphasis on emotional violence [13, 14]. In many cases, however, physical and sexual aggression may be threatened rather than carried out, or may occur only episodically—yet they are often embedded in an ongoing pattern of emotional abuse [15]. Evidence also suggests that experiencing multiple forms of violence leads to worse health outcomes than experiencing any single form [16, 17].

Emotional violence entails behaviors designed to inflict psychological harm—verbal or nonverbal actions that control, humiliate, threaten, or isolate the victim [18–20]. Sometimes described as “brainwashing,” it systematically dismantles a person’s sense of self [11]. Although this type of abuse is widespread, it often remains hidden within cultural norms that minimize its severity [21, 22]. Emotional violence goes by various names—psychological violence, verbal abuse, psychological mistreatment, and psychological aggression—and has only relatively recently garnered research interest [23–25].

Reducing emotional IPV is recognized as a progress indicator in the Sustainable Development Goals [26]. Yet, there is no consensus on its precise assessment, and it remains understudied compared to physical or sexual abuse [27, 28]. Globally, emotional violence prevalence estimates range from 20 to 75%, frequently co-occurring with other forms of IPV [13]. Some survivors even perceive emotional abuse as more damaging than physical or sexual violence, highlighting the urgent need for deeper

investigation into its causes, manifestations, and impacts [12, 15].

Socioeconomic and cultural factors also shape emotional IPV. Rural settings, often characterized by more traditional norms and lower education levels, tend to show higher rates of psychological abuse due to entrenched male-dominant beliefs [29–31]. Conversely, urban contexts may offer some protective factors, such as better education and economic opportunities, though emotional IPV still persists [32]. Understanding how these contextual elements influence both the occurrence and perception of emotional IPV is crucial for tailoring effective interventions and supporting survivors in all environments.

To this end, in order to investigate and address emotional violence, the factors causing this type of violence need to be clarified. Understanding risk factors is of importance for developing prevention programs. In literature, although intimate partner violence is investigated comprehensively with regard to demographic, socioeconomic and cultural determinants, there are few studies on the determinants of emotional intimate partner violence. Little is known about emotional IPV exposure of women living in different residences in Türkiye. As far as we know, this is the first study on determining the factors associated with emotional IPV exposure of women by place of residence across Türkiye. This study is original research that examines how emotional violence against women in Türkiye differs according to urban and rural settlements and what factors are associated with it. The study shows how cultural and socioeconomic differences, particularly between rural and urban areas, affect the type and intensity of violence experienced by women.

In this study, answers were sought to the following questions:

Is the emotional IPV exposure of women different according to their place of residence?

Is there a relationship between the sociodemographic, economic characteristics, spouse/partner characteristics and other types of violence of women and the emotional exposure of women to IPV?

Are the factors associated with emotional IPV exposure of women in different places of residence the same?

## Literature review

Globally, a significant proportion of women aged 15 and over have experienced some form of violence in their lifetime [33]. Intimate partner violence (IPV) is a prevalent issue affecting millions of women worldwide, with most acts of violence against women being perpetrated by their intimate partners [34]. IPV can impact families across all sociocultural contexts, though its severity varies based on sociocultural characteristics [35]. Risk factors for IPV differ across regions, as violence can affect women

regardless of age, education, marital status, nationality, income, religion, or ethnicity [36].

The definition of IPV in literature often focuses on physical and sexual violence, with emotional or psychological violence frequently overlooked. This omission stems from the difficulty in defining emotional violence, particularly from the victim's perspective. However, emotional violence often coexists with other forms of IPV, even though it can occur independently [37, 38]. Clinical studies indicate that psychological violence can occur without physical violence, but physical violence rarely occurs without psychological violence [20]. Emotional violence is often a precursor to physical violence and is strongly linked to other forms of IPV [39–41]. Women experiencing higher levels of psychological IPV are more likely to also experience physical and sexual IPV [19]. Emotional violence is more widespread than economic violence and is closely associated with physical violence [42, 43]. Men often use emotional and physical violence as tactics to maintain economic control over women [44].

Several factors influence women's exposure to emotional violence. Education plays a significant role, with less educated women being more vulnerable to emotional violence [45–47]. However, some studies suggest that women with primary or secondary education face higher emotional IPV rates than uneducated women [48, 49]. The education level of women's partners also correlates with emotional IPV [34, 50–52].

Health status is another critical factor. Women with chronic illnesses or depression are more likely to experience violence [50, 53]. Additionally, partners' alcohol use is strongly associated with emotional violence, as alcohol consumption can lead to a loss of emotional control [29, 54]. Studies have consistently linked alcohol use by husbands to higher rates of emotional IPV [55–59]. Smoking, both by women and their partners, is also associated with increased IPV, particularly during pregnancy [52, 60, 61].

Age is a significant factor in emotional IPV. Younger women are more likely to experience psychological violence, and younger partners are also more prone to perpetrate such violence [62, 63]. Women aged 25–34 are less likely to experience emotional IPV compared to those aged 15–24 [64]. Similarly, emotional violence decreases with age among pregnant women [65]. The age difference between partners also plays a role, with larger age gaps reducing the likelihood of emotional IPV [35]. However, women older than their spouses face increased risks of all types of emotional IPV [32].

The number of children a woman has is associated with IPV. Women with one or more children are more likely to experience emotional violence [35, 49, 66, 67]. Socio-economic status also influences emotional violence, with poorer women reporting higher levels of emotional IPV

[25, 34]. Women from higher-income households experience lower rates of emotional violence compared to those from lower-income households [48, 55, 59, 68, 69]. Employment status is another factor, with working women reporting higher rates of emotional violence than housewives [70]. However, wealth has a more protective effect than employment, as women with property are less likely to suffer from emotional violence [71, 72].

Marital status is also linked to emotional violence. Married women report lower emotional IPV than unmarried women [73]. Extramarital affairs increase the risk of all types of IPV [74, 75]. The type of marriage, such as polygamy, is associated with higher emotional violence rates compared to monogamous marriages [48, 76, 77]. The length of the relationship is another significant factor, with longer relationships increasing the likelihood of emotional violence [29, 35, 62, 64].

Witnessing domestic violence during childhood is a strong predictor of emotional IPV in adulthood [50, 67, 78]. Women who witnessed parental violence are more likely to experience emotional violence [56, 79]. Childhood exposure to violence also increases the risk of psychological IPV in later life [19, 80].

In summary, emotional violence is a pervasive issue with multifaceted risk factors, including education, health status, substance use, age, socioeconomic status, marital dynamics, and childhood experiences. Addressing these factors is crucial for developing effective interventions to reduce IPV and support victims.

## Materials and methods

### Study design

The National Research on Domestic Violence against Women in Türkiye is one of the most comprehensive studies conducted nationwide in order to understand the dimension, content, causes and effects and risk factors of domestic violence experienced by women in Türkiye [124].

Research questionnaire was developed by considering the questionnaires using WHO's study titled "Multi-country Study on Women's Health and Domestic Violence against Women" [13]. New questions were added to the questionnaire in line with the needs of the country, especially aiming to follow legal regulations [81].

### Setting

Within the framework of the National Research on Domestic Violence against Women in Türkiye, the country was divided into 30 strata to facilitate reliable national and urban/rural estimates across the 12- and 5-region classifications. With the exception of Istanbul—one of the 12 regions—the urban-rural stratification in the remaining regions was distributed at approximately a 75–25% ratio. In Istanbul, approximately 5% of the households

were selected from rural areas. In the research, settlements with populations of 10,000 and more constitute the urban strata, and those with a population less than 10,000 constituted the rural strata. Cluster sampling was used in the investigation. The field application of the study in 2014 started on April 8, 2014 and was completed on July 11, 2014 [81].

### Participants

National research on domestic violence against women in Türkiye investigated women between the ages of 15–59. In this study, women, who are married, had a relationship or is still have a relationship were included in the analysis. Women who had never been in a relationship were excluded from the study.

### Data sources/measurement

In this study, the cross-sectional data of the “National Research on Domestic Violence against Women in Türkiye” carried out by Hacettepe University Institute of Population Studies in 2014 were executed. The National Research on Domestic Violence against Women in Türkiye was conducted in 2008 and 2014. No current studies were conducted after 2014. The sample size is more than enough although the data is from 10 years ago. Another advantage of this study is that the sample is representative of Türkiye in general.

Questionnaires were administered by the research team in the National Research on Domestic Violence against Women in Türkiye. Ethical rules developed by WHO were followed at every stage of the research, and various measures were taken to ensure the safety of both the interviewed women and the research team. Consent was obtained from each responder before any interview, and interviewers signed questionnaires regarding these consents. The researchers were provided with training on the Code of Ethics and Safety, and acted by paying attention to the sensitivity of the subject at the beginning, during and after the interview process. In the event of more than one woman in 15–59 age group in a household, one woman was selected by following a random method for not asking the same questions to more than one woman in a household, and interview was made with one woman selected in each household. Research teams acted sensitively to make interviews with women in a lonely environment. Moreover, all interviewees were trained regarding the confidentiality of interviews. Respondents were informed that answers would be kept confidential during the approval and informing stage [81].

### Study size

In the research dated 2014, face-to-face interviews were made with 7,462 women aged 15–59 in 11,247 sample households, and women questionnaires were completed

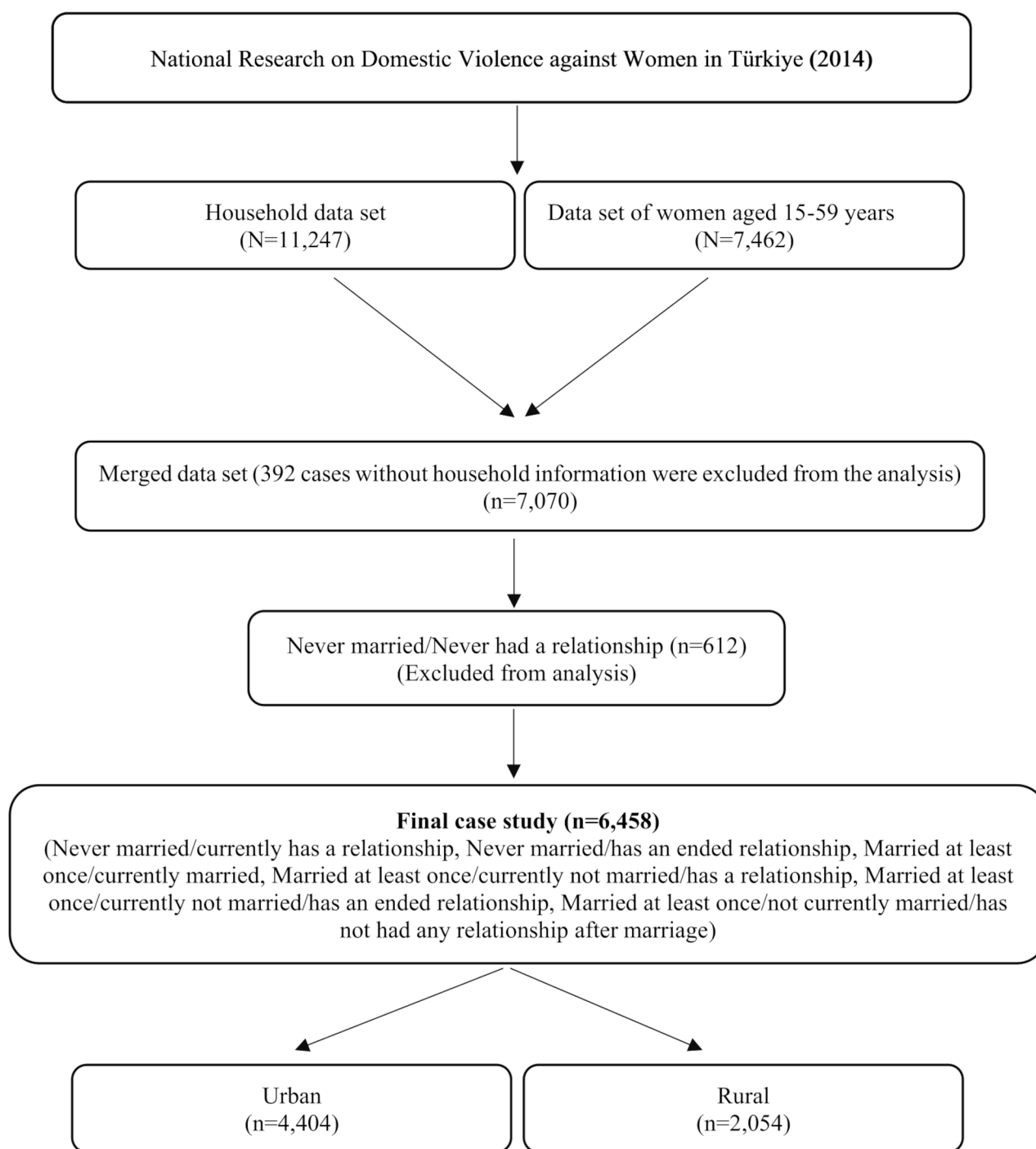
with a rejection of 4.4%. The response rate in women interviews was 83.3% [81]. Women weights calculated in accordance with the sample design of the research were added to these data sets [81].

In the National Research on Domestic Violence against Women in Türkiye, survey was administered by two questionnaires of the household questionnaire (number of individuals in a household, number of rooms in a household, welfare level indicators etc. were questioned) and the woman questionnaire (socio-demographic and other characteristics of women and their husbands/partners were inquired). These data were sent in two separate Excel files. The Excel file consisting of household and women data were combined into a single data file. The selection process of the sample to be included in the study is given in Fig. 1. Since the study examines the partner/spouse violence experienced in the past 12 months by women who are married, have lived in a relationship, or are currently in a relationship, the data of 612 women who had never been in a relationship at the time of the survey were excluded from the study. As a result, the number of units to be considered was calculated as 6,458.

### Outcome variables

According to the National Research on Domestic Violence against Women in Türkiye, the following questions were asked to the women participating in the survey about their exposure to emotional violence in the recent year as of the survey period: “Did your spouse or one of your partners upset you by insulting or swearing at you?”, “Did your spouse or one of your partners insult or humiliate you in front of others?”, “Did your spouse or one of your partners frighten or threaten you? (for example, by staring, shouting, or breaking something)” and “Did your spouse or one of your partners threaten to harm you or your relatives?” The emotional violence experiences of women assessed with these questions were used to establish a dependent variable. If the participating women experienced at least one of the afore-mentioned situations in the recent 1 year as of the survey period, they were considered victims of emotional violence by their spouses/partners, but if they did not befall none of them, they were deemed to have not experienced emotional violence.

The dependent variable of the study is the exposure of women to emotional violence in the recent 1 year as of the survey period, according to their place of residence (urban, rural). The participating women were assigned the code “1” if they were exposed to emotional violence from their spouses/partners, and “0” if they did not. A separate binary logit model was established for each place of residence.



**Fig. 1** Selection process of women aged between 15 and 59 years among individuals in the National Research on Domestic Violence against Women in Türkiye

### Independent variables

The independent variables of the study were those used in the National Research on Domestic Violence against Women in Türkiye and found to be significant after literature review. Demographic and socioeconomic variables for women are as follows: age (15–24, 25–34, 35–44, 45–54 and 55+), education level (no formal education,

primary school, secondary school, high school, university graduate), marital status (unmarried, married), women's higher income contribution to the household (no, yes) and afraid of spouse/partner (no, yes).

Demographic variables related to the woman's spouse/partner: education level of spouse/partner (no



formal education, primary school, secondary school, high school, university graduate).

All partner-related variables: spouse/partner's substance use (no, yes), spouse/partner's involvement in physical altercations with other men (no, yes), spouse/partner's infidelity (no, yes), acceptance of wife-beating (no, yes), spouse/partner's coercive control (spouse/partner preventing the woman from communicating with friends (no, yes), spouse/partner displaying anger when the woman interacts with other men (no, yes), spouse/partner restricting or monitoring the woman's social media use (no, yes), experience of economic abuse by spouse/partner (no, yes), experience of physical abuse by spouse/partner (no, yes), experience of sexual abuse by spouse/partner (no, yes).

Other factors that may be associated with violence: experience of economic abuse by spouse/partner (no, yes), experience of physical abuse by spouse/partner (no, yes), experience of sexual abuse by spouse/partner (no, yes), experience to physical abuse by someone other than spouse/partner (no, yes), experience to sexual abuse by someone other than spouse/partner (no, yes), experience to emotional abuse by someone other than spouse/partner (no, yes).

Ordinal and nominal variables were defined as dummy variables in order to observe the effects of categories of all variables to be included in the binary logistic regression model [82, 83].

### Analysis method

Survey statistics in Stata 15 (Stata Corporation) were used to account for the complex sampling design and weights [84]. Weighted analysis was performed [85, 86]. Initially, the frequency and percentages of the exposure of the participating women to emotional violence by their spouses/partners and the independent variables were obtained. In this study, binary logistic regression method was utilized to research the differences between exposure to emotional violence by place of residence.

Binary logistic regression was conducted to determine the risk factors that were influential on the exposure to emotional IPV. The particular analysis is used to study the relationship between the dependent variable and the independent variable(s) in cases where the result (dependent) variable has two options (binary/dichotomy) [87]. Binary logistic regression not only provides the opportunity to evaluate the statistical significance of each independent variable as a risk factor but also the opportunity to calculate the odds ratio [88].

## Results

### Descriptive statistics

The study found that 20.87% of women residing in rural areas and 26.17% of women residing in urban areas were

exposed to emotional violence by their spouses/partners in the 12 months prior to the survey. The frequencies and percentages regarding the factors of the emotional IPV exposure of women according to their place of residence in Türkiye are demonstrated in Table 1.

### Model estimation

It was tested whether there was a multicollinearity between the independent variables to be included in the binary logistic regression model [89, 90]. It is argued that the variables with a variance inflation factor (VIF) of 5 and above cause moderate multicollinearity problems, while those with 10 and above cause high degree of multicollinearity problem [91, 92]. In this study, there is no variable result in a multicollinearity problem between the independent variables (Appendix 1).

The coefficients and standard errors of the estimated binary logistic regression models are given in Table 2. In the whole model estimated for all participating women, it is observed that women's place of residence is associated with exposure to emotional IPV.

It is demonstrated in Table 2 regarding the model estimated for women living in urban that the following variables resulted in significant results: age (15–24), education level, marital status, afraid of spouse/partner, spouse/partner's involvement in physical altercations with other men, spouse/partner's infidelity, acceptance of wife-beating, spouse/partner's coercive control, experience of economic abuse by spouse/partner, experience of physical abuse by spouse/partner, experience of sexual abuse by spouse/partner, experience to sexual abuse by someone other than spouse/partner and experience to emotional abuse by someone other than spouse/partner. On the other hand, the following variables provided significant results in the model estimated for women living in rural areas in Table 2: age (15–24), education level (primary school), marital status, women's higher income contribution to the household, education level of spouse/partner (no formal education, primary school, secondary school), afraid of spouse/partner, spouse/partner's substance use, spouse/partner's fighting with other men, spouse/partner's infidelity, spouse/partner preventing the woman from communicating with friends, spouse/partner displaying anger when the woman interacts with other men, experience of economic abuse by spouse/partner, experience of physical abuse by spouse/partner, experience of sexual abuse by spouse/partner, experience to physical abuse by someone other than spouse/partner, experience to sexual abuse by someone other than spouse/partner and experience to emotional abuse by someone other than spouse/partner.

The marginal effects and standard errors of factors associated with women's emotional exposure to IPV by their place of residence are given in Table 3. The study

**Table 1** The results regarding the factors of the emotional IPV exposure of women according to their place of residence

Variables		Whole Model		Urban		Rural	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
<b>Age</b>							
	15–24	803	12.4	550	12.5	253	12.3
	25–34	1985	30.7	1474	33.5	511	24.9
	35–44	1750	27.1	1209	27.5	541	26.3
	45–54	1412	21.9	891	20.2	521	25.4
	55 +	508	7.9	280	6.4	228	11.1
<b>Education level</b>							
	No formal education	1241	19.2	668	15.2	573	27.9
	Primary School	2907	45.0	1840	41.8	1067	51.9
	Secondary School	879	13.6	646	14.7	233	11.3
	High School	916	14.2	781	17.7	135	6.6
	University	515	8.0	469	10.6	46	2.2
<b>Marital status</b>							
	Unmarried	904	14.0	659	15.0	245	11.9
	Married	5554	86.0	3745	85.0	1809	88.1
<b>Women's higher income contribution to the household</b>							
	Yes	6136	95.0	4158	94.4	1978	96.3
	No	322	5.0	246	5.6	76	3.7
<b>Spouse/partner's education level</b>							
	No formal education	328	5.1	186	4.3	142	7.0
	Primary School	2738	42.7	1572	36.0	1166	57.2
	Secondary School	1050	16.4	742	17.0	308	15.1
	High School	1456	22.7	1137	26.0	319	15.6
	University	836	13.0	731	16.7	105	5.1
<b>Afraid of spouse/partner</b>							
	No	5388	83.4	3701	84.0	1687	82.1
	Yes	1070	16.6	703	16.0	367	17.9
<b>Spouse/partner's substance use</b>							
	No	6419	99.4	4374	99.3	2045	99.6
	Yes	39	0.6	30	0.7	9	0.4
<b>Spouse/partner's involvement in physical altercations with other men</b>							
	No	5803	89.9	3917	88.9	1886	91.8
	Yes	655	10.1	487	11.1	168	8.2
<b>Spouse/partner's infidelity</b>							
	No	5786	89.6	3916	88.9	1870	91.0
	Yes	672	10.4	488	11.1	184	9.0
<b>Acceptance of wife-beating</b>							
	No	3940	61.0	2891	65.6	1049	51.1
	Yes	2518	39.0	1513	34.4	1005	48.9
<b>Spouse/partner preventing the woman from communicating with friends</b>							
	No	5537	85.7	3757	85.3	1780	86.7
	Yes	921	14.3	647	14.7	274	13.3
<b>Spouse/partner displaying anger when the woman interacts with other men</b>							
	No	3438	53.2	2390	54.3	1048	51.0
	Yes	3020	46.8	2014	45.7	1006	49.0
<b>Spouse/partner restricting or monitoring the woman's social media use</b>							
	No	5245	81.2	3589	81.5	1656	80.6
	Yes	1213	18.8	815	18.5	398	19.4
<b>Experience of economic abuse by spouse/partner</b>							
	No	4622	72.5	3045	69.8	1577	78.2
	Yes	1754	27.5	1315	30.2	439	21.8
<b>Experience of physical abuse by spouse/partner</b>							

**Table 1** (continued)

Variables		Whole Model		Urban		Rural	
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
	No	4329	67.0	2989	67.9	1340	65.2
	Yes	2129	33.0	1415	32.1	714	34.8
<b>Experience of sexual abuse by spouse/partner</b>							
	No	5755	89.1	3933	89.3	1822	88.7
	Yes	703	10.9	471	10.7	232	11.3
<b>Experience to physical abuse by someone other than spouse/partner</b>							
	No	5610	86.9	3814	86.6	1796	87.4
	Yes	848	13.1	590	13.4	258	12.6
<b>Experience to sexual abuse by someone other than spouse/partner</b>							
	No	6060	93.8	4079	92.6	1981	96.4
	Yes	398	6.2	325	7.4	73	3.6
<b>Experience to emotional abuse by someone other than spouse/partner</b>							
	No	5137	79.5	3455	78.5	1682	81.9
	Yes	1321	20.5	949	21.5	372	18.1
<b>Place of residence</b>							
	Urban	4404	68.2				
	Rural	2054	31.8				

highlighted that the significance and impact of these variables on emotional exposure varied across places of residence. Detailed information on these regional differences in the significance and impact of the variables can be found in Appendix 2.

Regarding women in urban areas, the likelihood of emotional IPV among women aged 15–24 is 32.2% higher than among women aged 25–34 (reference group) in Table 3. With respect to education levels of women, it is observed that the likelihood of emotional IPV among women primary, secondary, high school, and university graduates are 21.5%, 35.3%, 40.6%, and 34.6% higher than among women with no formal education, respectively. The likelihood of emotional IPV among married women is 123.6% higher than among unmarried women.

The likelihood of emotional IPV among women who are afraid of their spouse/partner is 41.7% higher than those who are not afraid. The likelihood of emotional IPV among women's spouse/partner's involvement in physical altercations with other men is 29.5% higher than those who do not fight. The likelihood of emotional IPV among women who are cheated on is 26.4% higher than those who are not cheated on. It is seen that the likelihood of emotional IPV among women whose spouse approves of a man's beating his wife is 15.6% lower than those who disapprove.

The likelihood of emotional IPV among women who are prevented from meeting with their friends is 54.1% higher than those who are not. The likelihood of emotional IPV among women with a spouse/partner who gets angry when the woman interacts with other men is 30% higher than those who are not angry. The likelihood of emotional IPV among women with a spouse/partner

restricting or monitoring the woman's social media use is 24% higher than those who are not.

The likelihoods of emotional IPV among women who are exposed to economic, physical and sexual violence by their spouse/partner are 28.9%, 74.3%, and 40% higher than a woman who has not been subjected to these types of violence, respectively. For the women living in urban areas, the likelihood of emotional IPV among women with exposure to sexual and emotional violence by someone other than a spouse/partner is 28% and 43.8% higher than women not exposed to these types of violence, respectively.

Regarding women in rural areas, the likelihood of emotional IPV among women aged 15–24 is 58.3% higher than among women aged 25–34. It is seen that the likelihood of emotional IPV among women who have a primary school degree is 26.9% higher than among women with no formal education. The likelihood of emotional IPV among married women is 86.9% higher than among unmarried women. A woman with a higher income contribution to the household is 147.8% less likely to experience emotional IPV than a woman who does not contribute more. A woman with no formal education, primary and secondary school graduate spouse/partner is 83.5%, 31.6% and 45% less likely to be exposed to emotional IPV than a woman with a high school graduate spouse/partner, respectively.

The likelihood of emotional IPV among women who are afraid of their spouse/partner is 32% higher than those who are not. The likelihood of emotional IPV among women with a spouse/partner using drugs is 243.2% lower than a non-user. The likelihood of emotional IPV among women with a spouse/partner's involvement in



**Table 2** Estimated model results of factors associated with women's emotional exposure to IPV by place of residence

Variables	Whole Model		Urban		Rural	
	$\beta$	Std. Error	$\beta$	Std. Error	$\beta$	Std. Error
<b>Constant</b>	-4.190 <sup>a</sup>	0.252	-4.103 <sup>a</sup>	0.292	-3.579 <sup>a</sup>	0.395
<b>Age (reference: 25–34)</b>						
15–24	0.505 <sup>a</sup>	0.151	0.454 <sup>b</sup>	0.180	0.794 <sup>a</sup>	0.253
35–44	0.076	0.106	0.137	0.121	-0.129	0.201
45–54	-0.107	0.119	-0.108	0.139	-0.101	0.218
55 +	-0.272	0.171	-0.292	0.208	-0.249	0.301
<b>Education level (reference: no formal education)</b>						
Primary School	0.314 <sup>b</sup>	0.126	0.282 <sup>c</sup>	0.160	0.338 <sup>c</sup>	0.192
Secondary School	0.467 <sup>a</sup>	0.171	0.470 <sup>b</sup>	0.204	0.194	0.283
High School	0.540 <sup>a</sup>	0.170	0.545 <sup>a</sup>	0.199	0.266	0.329
University	0.466 <sup>b</sup>	0.209	0.460 <sup>c</sup>	0.236	0.516	0.555
<b>Marital status (reference: unmarried)</b>						
Married	1.441 <sup>a</sup>	0.164	1.534 <sup>a</sup>	0.192	1.041 <sup>a</sup>	0.266
<b>Women's higher income contribution to the household (reference: no)</b>						
Yes	-0.342	0.227	-0.189	0.245	-1.701 <sup>a</sup>	0.533
<b>Spouse/partner's education level (reference: high school)</b>						
No formal education	-0.067	0.224	0.221	0.269	-1.041 <sup>a</sup>	0.374
Primary School	-0.174	0.113	-0.153	0.129	-0.413 <sup>b</sup>	0.204
Secondary School	-0.110	0.132	-0.033	0.150	-0.580 <sup>b</sup>	0.244
University	-0.203	0.148	-0.212	0.161	-0.097	0.322
<b>Afraid of spouse/partner (reference: no)</b>						
Yes	0.562 <sup>a</sup>	0.107	0.588 <sup>a</sup>	0.127	0.412 <sup>b</sup>	0.180
<b>Spouse/partner's substance use (reference: no)</b>						
Yes	-0.129	0.552	0.141	0.627	-2.698 <sup>b</sup>	1.061
<b>Spouse/partner's involvement in physical altercations with other men (reference: no)</b>						
Yes	0.424 <sup>a</sup>	0.124	0.413 <sup>a</sup>	0.144	0.566 <sup>a</sup>	0.220
<b>Spouse/partner's infidelity (reference: no)</b>						
Yes	0.411 <sup>a</sup>	0.124	0.369 <sup>a</sup>	0.144	0.518 <sup>b</sup>	0.233
<b>Acceptance of wife-beating (reference: no)</b>						
Yes	-0.153 <sup>c</sup>	0.088	-0.211 <sup>b</sup>	0.106	0.002	0.148
<b>Spouse/partner preventing the woman from communicating with friends (reference: no)</b>						
Yes	0.715 <sup>a</sup>	0.118	0.780 <sup>a</sup>	0.141	0.566 <sup>a</sup>	0.200
<b>Spouse/partner displaying anger when the woman interacts with other men (reference: no)</b>						
Yes	0.373 <sup>a</sup>	0.087	0.407 <sup>a</sup>	0.104	0.257 <sup>c</sup>	0.150
<b>Spouse/partner restricting or monitoring the woman's social media use (reference: no)</b>						
Yes	0.294 <sup>a</sup>	0.104	0.332 <sup>a</sup>	0.122	0.218	0.174
<b>Experience of economic abuse by spouse/partner (reference: no)</b>						
Yes	0.389 <sup>a</sup>	0.088	0.396 <sup>a</sup>	0.102	0.420 <sup>b</sup>	0.164
<b>Experience of physical abuse by spouse/partner (reference: no)</b>						
Yes	1.067 <sup>a</sup>	0.091	1.032 <sup>a</sup>	0.107	1.212 <sup>a</sup>	0.162
<b>Experience of sexual abuse by spouse/partner (reference: no)</b>						
Yes	0.634 <sup>a</sup>	0.127	0.569 <sup>a</sup>	0.153	0.889 <sup>a</sup>	0.206
<b>Experience to physical abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.248 <sup>b</sup>	0.119	0.227	0.140	0.395 <sup>c</sup>	0.204
<b>Experience to sexual abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.432 <sup>a</sup>	0.151	0.393 <sup>b</sup>	0.166	0.921 <sup>a</sup>	0.317
<b>Experience to emotional abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.577 <sup>a</sup>	0.100	0.613 <sup>a</sup>	0.116	0.455 <sup>b</sup>	0.182
<b>Place of residence (reference: rural)</b>						
Urban	0.204 <sup>b</sup>	0.088				

<sup>a</sup> $p < 0.01$ ; <sup>b</sup> $p < 0.05$ ; <sup>c</sup> $p < 0.10$

**Table 3** The marginal effects of factors associated with women's emotional exposure to IPV by their place of residence

Variables	Whole Model		Urban		Rural	
	ME	Std. Error	ME	Std. Error	ME	Std. Error
<b>Age (reference: 25–34)</b>						
15–24	0.361 <sup>a</sup>	0.105	0.322 <sup>a</sup>	0.124	0.583 <sup>a</sup>	0.179
35–44	0.057	0.079	0.100	0.089	-0.103	0.160
45–54	-0.082	0.091	-0.082	0.105	-0.081	0.174
55 +	-0.210	0.134	-0.223	0.162	-0.201	0.245
<b>Education level (reference: no formal education)</b>						
Primary School	0.242 <sup>b</sup>	0.099	0.215 <sup>c</sup>	0.124	0.269 <sup>c</sup>	0.155
Secondary School	0.356 <sup>a</sup>	0.130	0.353 <sup>b</sup>	0.154	0.156	0.227
High School	0.408 <sup>a</sup>	0.129	0.406 <sup>a</sup>	0.150	0.213	0.261
University	0.355 <sup>b</sup>	0.158	0.346 <sup>b</sup>	0.176	0.405	0.421
<b>Marital status (reference: unmarried)</b>						
Married	1.172 <sup>a</sup>	0.142	1.236 <sup>a</sup>	0.166	0.869 <sup>a</sup>	0.233
<b>Women's higher income contribution to the household (reference: no)</b>						
Yes	-0.263	0.180	-0.141	0.187	-1.478 <sup>a</sup>	0.494
<b>Education level of spouse/partner (reference: high school)</b>						
No formal education	-0.049	0.166	0.156	0.187	-0.835 <sup>a</sup>	0.311
Primary School	-0.129	0.083	-0.112	0.095	-0.316 <sup>b</sup>	0.153
Secondary School	-0.081	0.098	-0.024	0.109	-0.450 <sup>b</sup>	0.190
University	-0.151	0.111	-0.156	0.120	-0.072	0.240
<b>Afraid of spouse/partner (reference: no)</b>						
Yes	0.406 <sup>a</sup>	0.075	0.417 <sup>a</sup>	0.086	0.320 <sup>b</sup>	0.137
<b>Spouse/partner's substance use (reference: no)</b>						
Yes	-0.098	0.423	0.102	0.449	-2.432 <sup>b</sup>	1.027
<b>Spouse/partner's involvement in physical altercations with other men (reference: no)</b>						
Yes	0.307 <sup>a</sup>	0.087	0.295 <sup>a</sup>	0.099	0.430 <sup>a</sup>	0.160
<b>Spouse/partner's infidelity (reference: no)</b>						
Yes	0.298 <sup>a</sup>	0.087	0.264 <sup>a</sup>	0.100	0.395 <sup>b</sup>	0.171
<b>Acceptance of wife-beating (reference: no)</b>						
Yes	-0.115 <sup>c</sup>	0.066	-0.156 <sup>b</sup>	0.079	0.001	0.117
<b>Spouse/partner preventing the woman from communicating with friends (reference: no)</b>						
Yes	0.508 <sup>a</sup>	0.079	0.541 <sup>a</sup>	0.091	0.432 <sup>a</sup>	0.148
<b>Spouse/partner displaying anger when the woman interacts with other men (reference: no)</b>						
Yes	0.279 <sup>a</sup>	0.065	0.300 <sup>a</sup>	0.076	0.203 <sup>c</sup>	0.118
<b>Spouse/partner restricting or monitoring the woman's social media use (reference: no)</b>						
Yes	0.216 <sup>a</sup>	0.075	0.240 <sup>a</sup>	0.086	0.170	0.135
<b>Experience of economic abuse by spouse/partner (reference: no)</b>						
Yes	0.287 <sup>a</sup>	0.065	0.289 <sup>a</sup>	0.074	0.327 <sup>a</sup>	0.126
<b>Experience of physical abuse by spouse/partner (reference: no)</b>						
Yes	0.783 <sup>a</sup>	0.066	0.743 <sup>a</sup>	0.076	0.947 <sup>a</sup>	0.126
<b>Experience of sexual abuse by spouse/partner (reference: no)</b>						
Yes	0.452 <sup>a</sup>	0.086	0.400 <sup>a</sup>	0.102	0.663 <sup>a</sup>	0.144
<b>Experience to physical abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.183 <sup>b</sup>	0.086	0.164	0.100	0.305 <sup>b</sup>	0.154
<b>Experience to sexual abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.312 <sup>a</sup>	0.105	0.280 <sup>b</sup>	0.114	0.672 <sup>a</sup>	0.211
<b>Experience to emotional abuse by someone other than spouse/partner (reference: no)</b>						
Yes	0.419 <sup>a</sup>	0.071	0.438 <sup>a</sup>	0.080	0.352 <sup>a</sup>	0.137
<b>Place of Residence (reference: rural area)</b>						
Urban	0.155 <sup>b</sup>	0.067				

<sup>a</sup> $p < 0.01$ ; <sup>b</sup> $p < 0.05$ ; <sup>c</sup> $p < 0.10$

physical altercations with other men is 43% higher than those who do not fight. The likelihood of emotional IPV among women who are cheated on is 39.5% higher than those who are not cheated on. The likelihood of emotional IPV among women who are prevented from meeting with their friends is 43.2% higher than those who are not. The likelihood of emotional IPV among women with a spouse/partner who gets angry when the woman interacts with other men is 20.3% higher than those who are not angry.

The likelihoods of emotional IPV among women who are exposed to economic, physical and sexual violence by their spouse/partner are 32.7%, 94.7%, and 66.3% higher than a woman who has not been subjected to these types of violence, respectively. For the women living in rural areas, the likelihood of emotional IPV among women with exposure to physical, sexual and emotional violence by someone other than a spouse/partner is 30.5%, 67.2% and 35.2% higher than women not exposed to these types of violence, respectively.

## Discussion

Intimate partner violence is an important social problem and a global public health problem. Therefore, understanding risk factors is of importance for developing prevention programs. Intimate partner violence may potentially affect every family, albeit at varying levels of violence according to sociocultural characteristics [35]. In rural and urban areas, there are social and cultural differences resulting in different behavior patterns and practices. To this end, the factors affecting the emotional IPV exposure of women in Türkiye according to their place of residence were investigated by administering binary logistic regression analysis in this study.

It was found that women between the ages of 15–24 were more exposed to emotional violence compared to women between the ages of 25–34. The result is consistent with previous studies reporting similar results that advanced age may be protective against IPV [62–64, 93, 94]. The relationship of IPV to the age of the victim is inconsistent in the literature. Some studies show an increase in spouse/partner violence with age. This may be based on the fact that increasing age can lead to longer exposure to violence [38].

Women with primary, secondary, high school, and university degrees were found to be more exposed to emotional IPV than those with no formal education. Several previous studies report similar results [48, 95, 96]. Women with higher levels of education are aware of their basic rights. Therefore, they are likely to attempt to challenge the authority established by their husbands/partners, which will increase violence [49]. Particularly in urban areas, this may be related to the perception that increasing levels of education pose a threat to men's

status as heads of households [97]. In literature, there are also studies discussing that less-educated women are more exposed to emotional violence [25, 45].

In addition to the education level of women, the education level of spouses/partners have been also identified to be significant. It has been determined that women living in rural areas and having spouses/partners without a diploma, with primary and secondary school are less exposed to emotional IPV than women with spouses/partners of high school graduates. Similar to this result, the women with spouses/partners having a primary school education were determined to have higher emotional IPV than the women with spouses/partners who have no formal education [48]. However, the literature reports studies identifying that women with spouses having a lower education level expose to more emotional violence [34, 50, 51, 98].

Marital status emerges as a key factor influencing women's exposure to emotional IPV, with married women facing a higher likelihood of abuse than their unmarried counterparts. Research from Nepal similarly identifies marriage as a risk factor [99], and other studies suggest that married women experience more violence over time due to longer relationship durations [29, 62, 64]. Another perspective highlights the role of patriarchy, where gender inequality and patriarchal norms frequently manifest in spousal abuse [100, 101]. In patriarchal societies, a wife may be seen as belonging not only to her husband but also to his family [30]. Within the Turkish context, traditional norms and values further shape women's roles, potentially exacerbating their vulnerability to IPV [53]. In certain cultural contexts, a husband's family may wield significant influence over his wife, considering it their prerogative to reprimand or lodge complaints with the husband and expecting him to assert his authority through discipline. If the husband refrains from administering such discipline—whether physical or verbal—he may be perceived as weak. Moreover, rigid gender norms dictating women's roles within the household often serve to legitimize partner violence, particularly emotional abuse in the form of verbal aggression [32, 102]. On the other hand, contrary to the result of this study, the literature reports that married women exposed to lower emotional or psychological IPV than unmarried ones [73, 103, 104].

The variable of higher income contribution of women to the household has been found to be associated with exposure to emotional IPV. The women living in rural areas and providing more income to households were determined to have less exposure to emotional IPV than women who do not contribute more. Similar to this result, economically empowered women have been identified to have a lower risk of exposure to emotional IPV [32]. In an investigation carried out in Türkiye, earning

more money than her husband has been detected to reduce psychological violence in rural women [68]. Another study in Türkiye reports that women expose to less economic and emotional violence if they have their own income or revenue [105]. The economic contribution of women to households may decrease the pressure of men to maintain their families. The men, who do not have sufficient welfare, may be reluctant to challenge or isolate their partners who contribute to the household [106].

In this study, it was found that women who are afraid of their spouse/partner are exposed to higher emotional IPV. In a study, women being afraid of their partners was significantly associated with emotional IPV [58, 107]. In the parallel of this result, women who reported being afraid of their spouse/partner are more likely to be exposed to IPV [108]. In a family, there is always a tendency of fear that reflects the imbalance of power between women and their husband or husband's families [109]. Most domestic violence victims report fear of someone in their family or their husbands [110, 111].

When examining the behavioral factors of partners, it was determined that the women with spouses/partners fighting with other men are exposed to higher emotional IPV. In this respect, a previous study suggests that involvement of a partner in physical fights is associated with higher IPV likelihood [112–114]. On the other hand, physical violence of children at the community level by men is positively associated with women's emotional violence [115]. The men showing aggressive behaviors tend to inoculate this to their partners [29].

In the research, the women living in rural areas and with spouses/partners who are drug users have been found to expose exposed to emotional IPV less than the women whose spouses/partners do not use drugs. This may be associated with the different methodologies used. It can also be associated with the different drugs used and the methods of drug administration. On the other hand, this may be associated with lower awareness of emotional IPV in rural areas.

Some research on IPV in rural areas identifies patriarchal values that lead to the normalization of subordination and violence against women. These values often place women in positions of economic dependency, which impacts their ability to successfully end their relationships [116]. This may force women to ignore their spouse/partner's substance use. It may also cause emotional IPV to become less visible with economic dependency.

It is also the case that rural women may create different perceptions or reactions to what is considered an emotionally abusive relationship [117]. It has been reported in the literature that although drug use of women increases their risk of exposure to severe partner violence

from their male partners, drug use of male partners is not suggested to be associated with violence against women [103].

The women, who are cheated on by their spouses/partners, were found to be more likely to be exposed to emotional IPV than those who are not cheated on. Similar to this result, a study conducted in Vietnam argues that women with unfaithful spouses/partners are more likely to have various forms of violence [118]. Moreover, extramarital affairs were identified to be associated with increased rates of all types of IPV (physical, sexual or psychological) [75].

IPV has been perceived as part of the normative structure in patriarchal societies [119]. Patriarchal societies are associated with power and the authority of men over women. Such societies tend to foster the idea that women should be “kept in check” and be submissive and respectful towards their spouses/husbands [120]. For example, women are expected to take care of children, cook delicious meals, keep their houses clean, not deny sexual needs, get permission from their partners, and obey them. When these duties are not fulfilled, a husband may tend to beat his wife to discipline her [121, 122]. In a patriarchal society, social values, norms, and gender roles are transmitted between social groups and diffused from generation to generation. The normalization of wife-beating is based on the patriarchal norm of male domination [31]. In literature, a lot of studies report that the women with husbands, who approve to beat his wife, are more likely to expose to physical, sexual and emotional violence by their husbands [123–125].

In urban areas, women who justify beating their wives were found to be less exposed to emotional IPV. This situation can be associated with the decreasing influence of traditional beliefs, norms, and values with rapid globalization and modernization in urban areas [126]. In conclusion, the legitimization of wife beating based on patriarchal norms affects violence in both urban and rural areas. However, the dynamics specific to each region may lead to differences in the impact of violence. A study similar to these results were found IPV to be higher among women who do not justify beating wives [127]. This may seem highly illogical. It is likely that these women expose to more IPV because they activate their perceptions, so they are disciplined by their partners who call them disobedient [121].

In this study, the variables to be considered controlling behaviors have also been found to be important. Such behaviors refer to insisting on knowing where their partner is and controlling their contact with her friends and family [113]. The women with a spouse/partner blocking friend conversations and getting angry when the woman interacts with other men were found to be exposed to higher emotional IPV. Similar to this result, a woman,

whose spouse/partner becomes jealous of her when talking to any other man, is more likely to report emotional violence than others [115]. Controlling behaviour restricts a woman's social and physical mobility, causes isolation and loss of autonomy [128]. The study also argues that women, who are intervened in social media use, have been more exposed to emotional IPV in urban areas. This may be related to greater social media use in urban areas. Additionally, social media may be associated with causing jealousy, controlling, and aggressive behavior in the partner [129]. Although social media networks allow women, suffering from violence, to maintain their social connections and seek help, they can also trigger their exposure to violence [130].

Other violence types have also been associated with women's exposure to emotional violence. To this end, the women, exposing to economic, physical and sexual violence by their husbands/partners, are more likely to be exposed to emotional IPV. Similar to this result, most of the women, exposing to physical or sexual violence, have been determined to suffer from emotional violence. This shows that physical or sexual violence and emotional violence often take place together [43]. It is well-researched in the literature that emotional/psychological IPV takes place with other violence types and is a pioneer of physical IPV [40]. It has been found that women who are exposed to economic violence are more likely to be affected by other types of violence (psychological, physical or sexual) [131]. The women, exposing to physical and sexual violence, were also identified to suffer from emotional violence [8, 50]. A study carried out in Malawi reports that the women exposing sexual IPV also suffer from serious emotional and physical violence [132].

Different forms of violence are often intertwined and continuous rather than singular events and result in a "systemic violence" [133]. It is of importance to understand that there are different types of spouse/partner violence against women and there is a cause-effect relationship between them. The environments supporting and witnessing violence will increase violent behavior, and these effects will determine the direction of anti-violence efforts [134].

One of the significant results of the study is exposure to violence by someone other than spouse/partner. The women suffering from physical, sexual and emotional violence by someone other than their spouses/partners have been reported to expose more emotional IPV. Physical or sexual violence experiences of women above 15 by someone other than their spouses/partners have been specified to be a risk factor for intimate partner violence [135]. A previous study also argues that the women reporting violence in their childhood have been found to have higher levels of psychological IPV [19]. This shows that childhood sexual and emotional violence

has significant effects on women's lifetime experience of violence [80]. Called the cycle of violence in the literature [136], this emphasizes the importance of socializing without any violence [50].

## Conclusions

Violence against women inflicts severe harm on human society, violating women's fundamental rights and perpetuating patriarchal norms. Intimate partner violence (IPV) remains pervasive worldwide, with emotional abuse often going unrecognized due to its intangible nature. Nonetheless, emotional violence profoundly undermines women's well-being, and physical aggression rarely occurs without psychological coercion. Consequently, understanding both perpetrators' and victims' characteristics is essential for identifying risk and protective factors.

This study emphasizes that the impact of factors shaping women's exposure to emotional IPV varies by place of residence. Marriage emerges as a significant risk factor, necessitating efforts to strengthen couples' conflict-resolution and communication skills, possibly through marital education or family therapy. Programs should also target younger women, raising their awareness of nonviolent relationship norms. Radio and television broadcasts, as well as brochures, can be employed to reach both rural and urban communities, while mobile outreach teams or local leaders can address service gaps in rural areas. Family education must promote respect and nonviolent conflict resolution.

Addressing IPV in broader society requires interventions that challenge cultural norms supporting abuse and controlling behaviors, as well as economic empowerment for women—especially in rural regions. Emotional violence in particular demands a multidisciplinary, long-term approach that involves policymakers, social service professionals, and public health institutions. Such efforts must consider women's roles, decision-making power, and socioeconomic contexts, while dismantling entrenched gender norms that underlie all forms of violence against women.

## Limitations of the study

Data from a nationally representative sample in Türkiye were used in this investigation. Binary logistic regression was used to determine the factors affecting women's exposure to emotional intimate partner violence by place of residence in Türkiye. This study has several limitations. First, the data in this study were secondary data. The variables required for statistical analysis consisted of the variables in the dataset. Second, since the data are cross-sectional, the definite causal relationship cannot be established regarding emotional intimate partner violence against women. Thirdly, the study's data is

based on the women's own responses. Due to the lack of official data, the results obtained by the data collection method may be biased. Fourthly, the study asked a question about spouse/partner drug use: "Did your last spouse (the person you were with) use drugs?". However, it is not specified what kind of drugs and at what times. The data are outdated because the most recent data on the topic was collected in 2014. Finally, the National research on domestic violence against women in Türkiye was first conducted in 2008. The next study was conducted in 2014. Due to the pandemic, "National research on domestic violence against women" could not be conducted in 2020. The most recent National research on domestic violence against women in Türkiye data shared by Hacettepe University Institute of Population Studies is that of the year 2014. The sample size is more than enough although the data is from 11 years ago. Another advantage of this study is that the sample is representative of Türkiye in general.

## Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12889-025-22009-7>.

Supplementary Material 1

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## Author contributions

ÖA conceived and led the design and development of the study proposal. ÖA and AD supervised data collection, led the data analysis and drafting the manuscript. AD made substantial contributions to the conceptualization and design of the study, data interpretations and writing the manuscript. All authors read and approved the final version of the manuscript.

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## Data availability

The data underlying this study is subject to third-party restrictions by the Turkish Statistical Institute. Data are available from the Turkish Statistical Institute ([bilgi@tuik.gov.tr](mailto:bilgi@tuik.gov.tr)) for researchers who meet the criteria for access to confidential data. The authors of the study did not receive any special privileges in accessing the data.

## Declarations

### Ethics approval and consent to participate

The data were obtained through the joint teamwork of both the Turkish Statistical Institute (TurkStat) and the European Union Statistical Office (SOEU). We obtained this data from TurkStat in return for a contract without needing an ethics committee document and used it in our study. TurkStat is an institution that compiles, evaluates, and presents statistical information to decision-makers to prepare development plans and programs, make economic decisions, and address all other issues needed. TurkStat carries out internationally comparable statistical production activities according to the standards of organizations such as the European Union Statistical Office, the United Nations, OECD, ILO, etc. TurkStat collects data within the scope of

the Official Statistics Program. The Official Statistics Program is prepared for five-year periods based on the Turkish Statistics Law No. 5429 to determine the basic principles and standards regarding the production and publication of official statistics and to ensure the production of up-to-date, reliable, timely, transparent and impartial data in areas of need at national and international levels [137]. TurkStat also conducts the National Research on Domestic Violence against Women in Türkiye within the scope of the Official Statistics Program put into effect by law. Since the National Research on Domestic Violence against Women in Türkiye is conducted within the scope of legal responsibility by the state, ethical approval is not required [138].

For this study, secondary data were employed. Official approval was received from the Turkish Statistical Institute to use the microdata set from the National Research on Domestic Violence against Women in Türkiye.

Field team members were selected from among university graduates or students under the age of 30 who were able to work continuously during the field study process. A two-week training programme was carried out for these team members. The training programme focused on topics such as interviewing techniques, typical questionnaire applications, domestic violence and gender issues. The training was conducted by the project assistants and academic staff of HUIPS, and experts from different organisations and institutions. The programme contributed to raise the awareness of interviewers and provided them with techniques to gather information without disturbing the interviewed women [81, 139].

Each stage of the study was guided by ethical guidelines prepared by the WHO to assure the safety of both the interviewer and the women interviewed. The title of the study was determined so as not to include the word violence in order to avoid further violence against the women interviewed, and the details of the study were not shared with anyone other than these women. Questions were asked after obtaining the respondent's consent, and only one woman from each household was interviewed to avoid over-representation of any household. Field researchers were trained in the confidentiality of the research and supervised by research supervisors and academic staff. Non-governmental organisations and public institutions dealing with domestic violence were informed about the women who said they were exposed to any form of violence in order to ensure their safety [81, 139]. Informed consent was obtained from all the participants and their legal guardians. The Turkish Statistical Institute also received a "Letter of Undertaking" authorizing it to use the study's data.

## Consent for publication

Not applicable.

## Competing interests

The authors declare no competing interests.

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