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ORIGINAL RESEARCH

Domestic Violence Victims in Shelters: What Do We Know About Their Mental Health?

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Abstract

In this study, the relationship between mental disorders, childhood trauma and sociodemographic characteristics was evaluated in women staying in shelters due to domestic violence. The study comprised 59 volunteers, staying in women's shelters in Istanbul due to domestic violence. The structured clinical interview for DSM-IV TR axis 1 disorders (SCID-I), Domestic Violence Data Form, Hamilton Rating Scale for Depression, Beck Anxiety Inventory and Childhood Trauma Questionnaire were applied by a psychiatric expert in face-to-face interviews. Of the cases 76.3% were diagnosed with at least one psychiatric disorder. Post traumatic stress disorder was the most common diagnosis (50.8%). In our study 59% of women had attempted suicide at least once, and 66% of these were found to have attempted suicide after violence started. Previous psychiatric diagnosis and exposure to childhood abuse were observed to be risk factors for suicide attempts. Psychiatric disease comorbidities and suicide attempt were identified at high rates in women exposed to domestic violence.

Keywords Woman · Domestic violence · Shelter · Depression · Psychiatric disorder

Introduction

According to the World Health Organization (WHO), violence is the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation (Mayor 2002). "Domestic violence" is a type of violence that includes all types of violent behavior directed against either spouse within the group defined as a family to force, humiliate, punish, demonstrate power or relieve anger-tension. Domestic violence is a repetitive process and increases as the relationship continues (Heise 1993).

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The WHO conducted research in ten countries (Bangladesh, Ethiopia, Japan, Brazil, Peru, Namibia, Samoa Island Group, Serbia, Montenegro, Thailand and Tanzania), after interviewing 24,097 women it reported that the percentage of women who were exposed to physical or sexual violence from their partners was 15–71% (Garcia-Moreno et al. 2006). According the Study of Domestic Violence Toward Turkish Women conducted by the Family Research Council of the Prime Ministry of Turkey, 26–57% of married women have experienced physical or sexual violence from their spouse/partner or people they live with. Generally in the country it is reported that 39% of married women have experienced physical violence, 15% sexual violence, 42% physical or sexual violence and 44% emotional violence/abuse from their partner or people they live with, at some period. According to the literature, women who are exposed to physical or sexual violence from their spouse/partner are three times more likely to consider suicide than women who have not experienced violence, and are four times more likely to attempt suicide. One of every ten women stated they had been beaten while pregnant (T.C. Başbakanlık Kadının Statüsü Genel Müdürlüğü 2009).

Women who are exposed to domestic violence are reported to carry a significantly high risk of mental disorders compared with women not exposed to violence. The

psychiatric disease spectrum of these women was very broad, the most frequent were depression and/or post-traumatic stress disorder (PTSD) (Cavanaugh et al. 2013). While the rate of depression in the general population is 12%, for victims of domestic violence this rate is 35% (Stein and Kennedy 2001). PTSD in the general population is 10.4% while for women who are exposed to domestic violence it varies from 55 to 92%. The severity of PTSD is evaluated based on degree and frequency of abuse and the relationship with presence of depression (Helfrich et al. 2008). In the general population the rate of phobias is 10.3% and any anxiety disorder is 14%; however, for women exposed to violence, specific phobias are reported as 27–36%, and anxiety disorders are 19–54.4%. The prevalence of any mental disorder (58.9%) is twice that of the general population (22.1%) (Few 2005). The depression and a suicidal rate was found high especially on the women who are exposed to partner violence and living in low and middle-income countries (Devries et al. 2013). It is indicated that the most important risk factors for suicide attempts except the psychiatric diseases with high risk of suicidal attempts are exposure to domestic violence, being divorced, sexual abuse in childhood and having a mother who has been exposed to violence by her husband (Devries et al. 2011).

In Turkey, although there are sufficient societal studies on the incidence of domestic violence, there are very few studies on the effect of domestic violence on mental health, and these appear to focus on patients who request psychiatric care. We hypothesize that disorders linked to trauma, mainly PTSD and other axis I disorders, will be more frequent in women staying in shelters due to domestic violence compared with the normal population. As a result, the aim in this study was to research the relationship between mental disorders and childhood trauma and level of violence experienced, and sociodemographic characteristics of women living in shelters due to domestic violence.

Methods

Sampling

Our research was conducted in female shelters run by the city council or the Social Services Directorate in Istanbul. A total of 59 female volunteers participated who were staying in the shelters duo to domestic violence. Those staying in the shelters due to reasons other than domestic violence and those with a psychotic disorder, bipolar disorder (manic period), or dementia were excluded from the study. Although the number of participants aimed for by the study was higher, the voluntary nature of participation meant it remained at 59. There were eight women's shelters in Istanbul during the study. We planned to include all the women's shelters in the study, but two of them didn't accept to participate in the study. There were totaly 76 women staying in the other six participating shelters. Six of the women staying in the shelter were excluded from the study because they were in the shelter for a different reason other than domestic violence. Four of the women staying in the shelter were excluded from the study because they were illetarate. Seven of the women staying in the shelter due to domestic violence were excluded from the study because they didn't agree to participate in the study. A total of 29 female volunteers who were staying in the shelters because of being exposed to domestic violence participated in the study. The participants were interviewed using the diagnostic structured clinical interview for DSM-IV-TR axis I disorders (SCID-1) by an expert psychiatrist and all of them were eligible for study. The socio-demographic data form, violence data form, childhood trauma questionnaire (CTQ28), Hamilton scale rating for depression (HAM-D) and Beck anxiety inventory (BAI) were applied. Informed consent was obtained from all participants, and the study was reviewed and approved by a local ethical committee.

Tools

Domestic Violence Data Form

This semi-structured form was prepared by the authors to research the presence of domestic violence, type, duration, perpetrator, and reaction of the victim. To describe the type of violence, the Conflict Tactics Scale and other forms used to study domestic violence in Turkey were used. The Conflict Tactics Scale has frequently used criteria that evaluate different types of violence in the family (Straus et al. 1996). The questions relate to five different types of violence (physical, verbal, sexual, economic and limiting social relations). The questionnaire was used in the form of a semi-structured interview.

DSM-IV Clinical Interview Form for Axis I Disorders (SCID-I)

Developed by First et al. (1997) to diagnostically classify patients, we used the structured clinical interview for DSM-IV axis I disorders (clinical version), which was translated into Turkish by Corapcioglu et al. (1999).

Hamilton Rating Scale for Depression (HAM-D)

The HAM-D was developed by Williams (1988) and was designed to be administered by a clinician to people with depressive symptoms. It is comprised of 17 questions and a maximum of 53 points can be obtained. Points of 14 and

above indicate depression. The validity and reliability of the Turkish form was tested by Akdemir et al. (1996).

Beck Anxiety Inventory (BAI)

BAI measures the frequency of anxiety symptoms in an individual. Comprising 21 items, with scores ranging from 0 to 3, this is a Likert-type self-evaluating scale. The higher the total points, the higher the anxiety experienced by the individual. Developed by Beck et al. (1988) the validity and reliability studies for Turkey were completed by Ulusoy et al. (1998).

Childhood Trauma Questionnaire (CTQ-28)

The CTQ-28 was developed by Bernstein et al. (2003). It was tested for Turkish validity and reliability by Sar et al. (2012). It is a five-point likert type self-reporting scale. It comprises questions evaluating emotional, physical and sexual abuse, as well as physical and emotional neglect in childhood.

Statistical Analysis

To evaluate the data obtained in the study, the Statistical Package for Social Sciences (SPSS) 18 software was used for statistical analyses. Descriptive statistical data were calculated as mean, standard deviation, frequency and percentage. To evaluate the distribution of continuous variables, the Kolmogorov–Smirnov test was used. The independent t test was used for data with normal distribution. The Mann–Whitney U test was used for non-normal distribution two groups. For more than two groups we used the Kruskal–Wallis test. The Mann–Whitney U test was used to identify the group causing the difference. The relationships between scale points were evaluated by Pearson correlation analysis. Statistical significance was accepted as $p < 0.05$.

Results

The ages of the 59 participants ranged from 18 to 53 years. The average age was 31.31 ± 7.68 years. The distribution of ages of participants was 8.5% 20 years or younger, 42.4% 20–30 years, 39% 30–40 years, and 10.2% were aged over 41 years. The sibling number of participants was three or less for 23.7% and four or more for 76.3%. A large proportion of the women who were exposed to violence were born in Eastern Anatolia (28.8%) and in the Marmara region (23.7%). The socio-demographic and familial characteristics of participants are given in Table 1. Suicide had been attempted at least once by 59.3% of participants (n = 35).

Table 1 Socio-demographic and family characteristics of the study sample

Age (Mean ± SD)	31.31 ± 7.68
Education (n, %)	
Literate	5 (8.5)
Primary school	36 (61)
Middle school	8 (13.6)
High school	10 (16.9)
Marital status (n, %)	
Unmarried, living together	7 (11.9)
Married, living together	29 (49.2)
Divorced	15 (25.4)
Married, living separately	8 (13.6)
Birth place	
Marmara Region	14 (23.7)
Mediterranean Region	2 (3.4)
Black Sea Region	7 (11.9)
Aegean Region	3 (5.1)
Central Anatolia Region	8 (13.6)
Eastern Anatolia Region	17 (28.8)
South East Anatolia Region	7 (11.9)
Abroad	1 (1.7)
Employment (n, %)	
Unemployed	47 (79.7)
Employed	12 (20.3)
Number of siblings (median, min–max)	5 (1–10)
Number of children (median, min–max)	2 (0–10)
Habitat (n, %)	
Core family	40 (67.8)
Extended family	8 (13.6)
With relative	10 (16.9)
Orphanage	1 (1.7)
Loss of parent in childhood (n, %)	13 (22)
Separated parents (n, %)	5 (8.5)
Migration (n, %)	39 (66.1)
Alcohol-substance use (n, %)	
None	56 (94.9)
Only alcohol	1 (1.7)
Both	2 (3.4)
Past history of psychiatric appointment (n, %)	24 (40.7)
Suicide attempt (n, %)	
None	24 (40.7)
Once	15 (25.4)
More than once	20 (33.9)
Time of suicide attempt	
Before violence started	8 (22.9)
After violence started	23 (65.7)
Both	4 (11.4)
Age at first marriage (years)	
14 or less	8 (13.6)
15–18	28 (47.5)
19–22	13 (22)

Table 1 (continued)

23–25	7 (11.9)
Over 25	3 (5.1)
Choice of spouse	
Own choice, family approval	12 (20.3)
Own choice, not approved by family	24 (40.7)
Not own choice, forced by family	23 (39)
Intermarriage	11 (18.6)
Premarital dating	27 (45.8)
Criminality	5 (8.5)

Of those, 65.7% stated they had attempted suicide after the violence had begun (Table 1).

The women's rate perpetrated violence by their partner was 79.7%. More than 10 years of domestic violence was experienced by 39% of participants (Table 2). While 44.1% of volunteers stated their partners did not use alcohol or drugs, 22% reported alcohol use, and in 33.9% both alcohol and drug use were present. The partners of these women had criminal records due to crimes toward people (37.3%), with material goods (11.9%), and due to public offences (18.6%). The percentage of partners with no criminal record was 50.8%.

The women were exposed to emotional, verbal and economic violence simultaneously. The percentage of those who experienced sexual violence was 78%, with 98.3% experiencing violence limiting social relationships. In total, 89.9% of the women were exposed to violence during pregnancy. The characteristics relating to violence during pregnancy are given in Table 2.

Table 2 Characteristics of violence toward women

Perpetrator (n, %)	
Spouse	47 (79.7)
Spouse and family	12 (20.3)
Duration of violence (n, %)	
< 6 months	4 (6.8)
6 months–1 year	3 (5.1)
1–2 years	8 (13.6)
2–5 years	8 (13.6)
5–10 years	13 (22)
More than 10 years	23 (39)
Witness to violence between parents as a child (n, %)	26 (44.1)
Sexual assault (n, %)	46 (78)
Rape by spouse (n, %)	23 (39)
Forced by spouse to have intercourse with another	8 (13.6)
Violence during pregnancy	53 (89.8)
Physical violence	40 (67.8)
Emotional violence	48 (81.4)
Sexual violence	26 (44.1)
Economic violence	31 (52.5)
Societal violence	27 (45.8)

In all, 76.3% of the women who had been exposed to violence had been diagnosed as having a psychiatric disorder. The most frequently observed psychiatric disorder was PTSD (50.8%) with major depression in second place (37.3%) (Table 3). The presence of any psychiatric diagnosis in the women who were victims of violence and relationship to a range of variables related to demographics and violence are shown in Table 4. The presence of any psychiatric disease was significantly higher in those who had attempted suicide compared with those who had not attempted suicide ($p = 0.027$) (Table 4). There was no significant difference in the socio-demographic characteristics of those with major depression, generalized anxiety disorder (GAD) and PTSD diagnosis.

Comparing the number of suicide attempts of participants with childhood trauma, there was no statistically significant relationship found between physical neglect and sexual abuse with number of attempts (Table 5). Comparing the number of suicide attempts of these women with average points for emotional neglect, emotional abuse and physical abuse, there was a statistically significant relationship found ($p = 0.002$, $p = 0.002$ and $p = 0.013$, respectively) (Table 5). When the group causing the difference was examined, it was found that the emotional neglect, emotional and physical abuse of those who had attempted suicide more than once was significantly higher than those who had not attempted suicide ($p = 0.001$, $p = 0.001$ and $p = 0.006$, respectively). Additionally, women who were exposed to any type of violence during pregnancy scored significantly higher for emotional abuse than those who did not experience violence during pregnancy ($p = 0.036$) (Table 5). The average HAM-D score was 13.58 ± 10.8 and the average score for Beck anxiety inventory was 20.88 ± 15.14. Although there was no

Table 3 Psychiatric diagnoses of participants

	Current disease (n, %)	Chronic disease (n, %)
Major depression	22 (37.3)	33 (55.9)
Post traumatic stress disorder (PTSD)	30 (50.8)	25 (42.4)
Generalized anxiety disorder	14 (23.7)	11 (18.6)
Social anxiety disorder	3 (5.1)	4 (6.8)
Specific phobia	21 (35.6)	21 (35.6)
Panic disorder	6 (10.2)	5 (8.5)
Obsessive compulsive disorder	1 (1.7)	1 (1.7)
Adjustment disorder	6 (10.2)	0
Dysthymic disorder	1 (1.7)	1 (1.7)
Somatization disorder	2 (3.4)	2 (3.4)

Table 4 Relationship between socio-demographic, familial and violence data with psychiatric diagnosis of participants

	Psychiatric disorder		Major depression		GAD		PTSD	
	n, %	p	n, %	p	n, %	p	n, %	P
Previous request for psychiatric care	21 (87.5)	0.172	11 (45.8)	0.395	9 (37.5)	0.081	12 (50)	0.783
Loss of parent in childhood	12 (92.3)	0.159	5 (38.5)	0.583	6 (46.2)	0.06	8 (61.5)	0.328
Witness to violence between parents as a child	21 (80.8)	0.680	11 (42.3)	0.662	7 (26.9)	0.839	14 (53.8)	0.399
Suicide attempt								
None	14 (58.3)		7 (29.2)		3 (12.5)		8 (33.3)	
Once	13 (86.7)	0.027	5 (33.3)	0.340	4 (26.7)	0.207	6 (40)	0.096
More than once	18 (90)		10 (50)		7 (35)		13 (65)	
Time of suicide								
Before violence began	7 (87.5)		2 (25)		3 (37.5)		3 (37.5)	
After violence began	22 (95.7)	0.357	12 (52.2)	0.407	6 (26.1)	0.582	15 (65.2)	0.376
Both	3 (75)		2 (50)		2 (50)		2 (50)	
Violence during pregnancy	39 (73.6)	0.319	4 (66.7)	0.183	13 (24.5)	0.560	24 (45.3)	0.579

Table 5 Relationship between abuse in childhood and psychiatric features

	Emotional neglect		Physical neglect		Emotional abuse		Physical abuse		Sexual abuse	
	mean ± sd	p	mean ± sd	p	mean ± sd	p	mean ± sd	p	mean ± sd	p
Loss of parent in childhood										
Absent	12.72 ± 6.33	0.551	10 ± 4.46	0.993	11.26 ± 6.55	0.415	9.87 ± 6.81	0.482	9.28 ± 6.24	0.403
Present	12.23 ± 7.7		10.23 ± 5.31		9.38 ± 5.65		8.46 ± 5.65		8.15 ± 5.36	
Suicide attempt										
None	9.13 ± 4.3	0.002	9 ± 4.08	0.254	7.88 ± 5	0.002	7.75 ± 5.84	0.013	8 ± 5.71	0.209
Once	13.07 ± 6.58		9.4 ± 4.01		10.6 ± 5.75		7.87 ± 4.73		8.47 ± 5.33	
More than once	16.45 ± 6.86		11.8 ± 5.28		16.45 ± 6.86		11.8 ± 5.28		10.7 ± 6.79	
Time of attempted suicide										
Before violence began	14 ± 8.14	0.451	10.38 ± 5.37	0.874	12.62 ± 6.3	0.21	9.38 ± 6.54	0.241	12.13 ± 6.93	0.191
After violence began	14.52 ± 6.45		10.83 ± 4.79		12.04 ± 6.4		10.61 ± 6.43		8.09 ± 5.05	
Both	19.25 ± 5.90		11.75 ± 5.73		17.25 ± 5.56		17.5 ± 8.69		13 ± 9.79	
Violence during pregnancy										
Absent	15.07 ± 5.56	0.184	15.67 ± 7.28	0.383	16 ± 7.84	0.036	14.5 ± 7.6	0.153	9.83 ± 6.52	0.723
Present	12.32 ± 6.67		9.75 ± 4.21		10.26 ± 5.98		9 ± 6.26		8.94 ± 6.03	
Psychiatric diagnosis										
Absent	9.86 ± 5.72	0.059	9.14 ± 3.75	0.565	8.5 ± 5.4	0.119	6.93 ± 4.23	0.259	8 ± 4.13	0.953
Present	13.47 ± 6.66		10.33 ± 4.85		11.58 ± 6.51		10.38 ± 6.96		9.36 ± 6.52	

significant relationship found between childhood abuse and HAM-D score, there was a significant relationship found between the Beck anxiety inventory score and all forms of childhood abuse other than physical neglect (Table 6).

Table 6 Relationship between childhood abuse, HAM-D and Beck anxiety inventory

	HAM-D	Beck anxiety
Physical neglect	−0.015	0.148
Emotional neglect	0.172	0.35**
Emotional abuse	0.146	0.311*
Physical abuse	0.121	0.31*
Sexual abuse	0.02	0.263*

Table shows Pearson correlation coefficients

*p < 0.05, **p < 0.01

Discussion

Studies of domestic violence and mental health, as with any population screening, are based on different sampling groups such as those living in women's shelters or women presenting as day cases, or admitted to psychiatric treatment units.

From what we can determine, although there is sufficient societal research on the incidence of domestic violence in Turkey, and on domestic violence against women and its mental effects in the psychiatric patient group, the lack of clinical study on mental disorders in women exposed to violence and staying in shelters is noteworthy. The number of studies on the mental health effects of domestic violence is very low, and appears to be mainly based on patients who request psychiatric care. In this study, which aimed to research the relationship between mental disorders of women staying in shelters due to domestic violence and the characteristics of violence and socio-demographics, an important relationship between choice of partner and family support was observed with domestic violence. In our study, 40.7% of women chose their own partners independently without family approval. According to a study by Altınay and Arat (2007) those who meet, agree, and marry with family approval experience less violence than those who meet and agree but marry without family approval. Of those who got to know each other and married with family approval, 28% experienced physical violence at least once, this percentage increased to 49% for those who chose their own partner but married without parental approval. It appears that being deprived of family support is an aggravating factor in experiencing violence.

In our study, 28.8% of women who were exposed to violence were from Eastern Anatolia, 23.7% from Marmara, 13.6% from Central Anatolia, 11.9% from the Black Sea, 11.9% from South Eastern Anatolia, 5.1% from Aegean, 3.4% from Mediterranean, and 1.7% were born abroad. This situation is considered to be due to migration to large cities. The percentage of migration among the women in the study was 66%. According to the study by Altınay and Arat (2007) there is a large difference between physical and sexual violence experienced in different geographical regions. According to this study, 39% of women in eastern regions experience physical violence and 14% experience sexual violence. These percentages are 33 and 14% in central/western regions (Altınay and Arat 2007). In another study that researched domestic violence in families of medical students, the percentage of domestic violence was 68.3%, and although domestic violence was higher in South Eastern Anatolia and Eastern Anatolia regions, it was considered to be a general problem in Turkey (Gunes et al. 2000).

It is stated that almost four of every ten married women in our country is exposed to physical violence, 30% is exposed to both physical and sexual violence by their partner at least once in their life (Diner and Toktaş 2013). According to the Study of Domestic Violence Toward Turkish Women by the Family Research Council of the Turkish Prime Ministry (2009), between 26 and 57% of married women experienced physical or sexual violence from their spouse/people they lived with. In our study, all of the women experienced physical violence in addition to emotional-verbal, and economic violence. Of the women who were victims of violence, 78% were exposed to sexual violence, and 98.3% were found to be exposed to violence that limited social relationships. Some 39% of these women were raped by their partners and 14% were forced by their partners to have sexual relations with someone else. In our study, the percentage of those exposed to sexual violence was significantly high; we believe the structured nature of interviews in our study increased trust, which is different to societal studies.

It has been observed that witnessing or exposure to violence in childhood, doubles the likelihood of men practicing violence and the likelihood of women being exposed to violence. (Altınay and Arat 2007). In our study, 44% of the women who were exposed to violence stated that they witnessed domestic violence during their childhood. This finding which is also called "cycle of violence" in the literature, shows parallelism with other researches (Garcia-Moreno et al. 2006; Tjaden and Thoennes 2000).

Many studies have determined that domestic violence is a risk factor for psychiatric diseases. In these studies, the situations that are most frequently observed are PTSD, depression, suicide attempts, alcohol and drug abuse, and aggressive behavior toward children (WHO 2005). Women who are exposed to domestic violence frequently present with somatic, depressive, or anxious complaints (Akyuz et al. 2002). In addition, sleep disorders, lack of motivation, and irritability are frequently observed. Other disorders that may occur, which are especially pronounced in women who marry young and experience violence in this period, with physical symptoms that cannot be fully medically explained are: somatization disorder, hypochondria, pain disorder, and conversion disorder, complicated mental situations of mental disorders, psychosomatic disorders, dysthymic disorders, anxiety disorders, adjustment disorder, and dissociative disorder (Kaya and Kaya 2000). It has been reported that domestic violence should be suspected in married women with continuous worry, depression and psychosomatic symptoms, tiredness, generalized pain, concerns of losing control and repeated suicide attempts (Ozyurt and Deveci 2011). In our study, 76.3% of women who were victims of violence had at least one psychiatric diagnosis. Similarly, Stuart et al. (2006) in a study of women who were victims of domestic violence in the United States of America, reported that 77% of participants had at least one axis I diagnosis. In our study, the psychiatric diseases most commonly identified were, in order, PTSD (50.8%), major depression (37.3%), specific phobia (35.6%) and generalized anxiety disorder (23.8%). In the study by Stuart et al. (2006) PTSD (44%), disorders related to alcohol use (43%), depression (35%) and generalized anxiety disorder (34%) were diagnosed. In a wide case series meta-analysis by Golding (1999) in women exposed to domestic violence, 48% had depression (results

of 18 studies), 64% had PTSD (11 studies), 19% had alcohol addiction or abuse (10 studies) and 9% had drug addiction or abuse (4 studies). In another study of women exposed to domestic violence, the percentage of depression in the general population was 12%, but in victims of domestic violence this percentage was 35% (Gerlock 1999). In another study, PTSD in the general population was 10.4%, but in abused women it was observed to be between 55 and 92% (Helfrich et al. 2008). Phobias in the general population occur in 10.3%, and any anxiety disorder is 14%, but in abused women, specific phobias are between 27–36% and any anxiety disorder is 19–54.4% (Few 2005). Our study is generally in accordance with these studies; however, disorders related to alcohol-drug use were so rare as to be non-existent in our cases. This situation may be explained by socio-cultural characteristics.

One of the life-threatening results of violence is the risk of suicide. According to Stark and Flitcraft (1996) the probability of women who are victims of violence attempting suicide is estimated to be 5 times more than for women who have not been exposed to violence. The suicide rate in the ones staying in shelters because of domestic violence is increasing compared to the normal population (Wolford-Clevenger and Smith 2015). In Golding's (1999) meta-analysis, the suicide history of domestic violence victims was between 4.6–77%. In Gokalp et al. (1999) study, 47% of the women who participated had a history of suicide attempt, and half of those repeated the attempt. In our study, the rate of suicide attempts was very high. Of the participants, 59% had attempted suicide at least once and the majority attempted suicide after violence began. These results are in accordance with the literature and it is considered that being exposed to domestic violence increases the risk and number of suicides.

In our study, a statistically significant relationship was found between a suicide attempt and at least one of the psychiatric diagnosis of women. This suggests that there is a direct relationship between a psychiatric diagnosis and an increase in the number of suicide attempts. In addition, the rate of at least one psychiatric diagnosis is higher in women who have attempted suicide after the onset of violence. According to the study of Gökalp et al. (1999), 59% of the women who have PTSD diagnosis, have also attempted suicide. Half of the women who attempted suicide have been shown to repeat the suicide attempts. In our study, PTSD was diagnosed in 19 out of 35 women who had suicide attemption history. The diagnose of PTSD seems to be higher in women who attempt suicide after the onset of violence. Thus, it can be interpreted that diagnosis of PTSD with exposure to violence increases the suicide attempts.

It is fairly common to have a history of abuse during childhood or exposure to any kind of violence including domestic violence during adolescence. These women are exposed to domestic violence more than others (Desai et al. 2002). Studies have shown that sexual abuse in childhood is associated with high rates of depression and a more chronic course of depression in adulthood. There is also a high risk of self-harming behavior and potential for harmful relationships among the women who were exposed to trauma during their childhood (Gladstone et al. 2004; Bensley et al. 2003). A large proportion (60%) of the women who were exposed to domestic violence and participated in our study, had their first marriage in their childhood (under 18 years of age). Considering that the entire study population was exposed to domestic violence, it can be said that a large proportion of these people were exposed to childhood trauma at the same time. Any diagnosis of violence to women which was compared with the childhood trauma subscales. Although there was no statistically significant relationship between any diagnosis and physical abuse, emotional neglect, physical abuse, emotional abuse, or sexual abuse, the child trauma subscale scores of the psychiatric diagnosed participants were higher than those who did not.

It is known that trauma in childhood is a risk factor for suicide attempts. In a study published by Read et al. (2001), the presence of sexual abuse in childhood was a very important predictor for depression diagnosis from the point of view of suicide attempts in adulthood. Exposure to physical violence by her husband or the person whom with she lives together are identified as other important risk factors in terms of suicidial attempts (Devries et al. 2011). In addition, childhood sexual abuse have been reported for 11% of women who have a suicidal attempt (Andrews et al. 2004; Devries et al. 2011). In our study, the number of suicide attempts did not have a significant relationship with the subscales of physical neglect and sexual abuse on the childhood trauma scale. However, women with one or more suicide attempts were found to have statistically significantly high average points for emotional neglect, physical abuse and emotional abuse subscales compared with women with no attempt at suicide.

There are some limitations of our study. One of these is that the study only included women's shelters in Istanbul and the number of cases is insufficient. Increasing the number of cases requires studies incorporating different states. Another is that that the SCID-I used to evaluate results does not allow for diagnosis of dissociative disorder. As a result, no cases of dissociative disorder were identified and this is a deficit of the study. Lastly, our study is cross-sectional. As it was not a longitudinal study and no direct relationship between exposure to domestic violence and psychopathology could be found. The results of our study only indicate the presence of a potential relationship between domestic violence and axis I disorders. To determine causality, longitudinal studies are required.

In conclusion, our study found that comorbidities of psychiatric disorders, especially PTSD and major depression, were found at high rates in women who had been exposed to domestic violence, and it was determined that these women had a high risk of suicide attempt. When we consider that a significant portion of suicide attempts took place after violence began, the cycles that cause violence need to be broken to end domestic violence. Assesment and intervention strategies covering the whole population should be developed for a successful struggle against violence. We observed that clinically structured psychological support or psychiatric services are not available in women's shelters. There is a very important need for these institutions helping women who are victims of violence to organize psychological support and treatment services.

Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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