JOURNAL OF PSYCHIATRIC NURSING

DOI: 10.14744/phd.2020.16362
J Psychiatric Nurs 2020;11(1):28-34

Original Article



Frequency of traumatic stress, anxiety and depressive symptom in individuals exposed to long-term terrorist incidents

📵 Funda Gümüş, 📵 Gülhan Yiğitalp

Department of Nursing, Dicle University, Atatürk School of Health, Diyarbakır, Turkey

Abstract

Objectives: The research was conducted to determine the post-12 month frequency of traumatic stress, anxiety, depressive symptoms and related risk factors in individuals who were exposed to terrorist incidents in areas experiencing prolonged armed conflict.

Methods: The research was carried out using a cross-sectional, descriptive-correlational design. The research sample consisted of 331 individuals who voluntarily agreed to participate in the research, lived in areas experiencing prolonged armed conflict, and were exposed to terrorist attacks. For data collection, a personal information form, the Traumatic Stress Symptom Scale (TSSS), the Beck Depression Inventory (BDI), and the Beck Anxiety Scale (BAS) were used. In the data analysis, descriptive analysis, Mann Whitney U Test, Kruskal Wallis Test, multiple regression and Spearman correlation were used.

Results: It was determined that 79.2% of the individuals participating in the study had potential traumatic stress symptoms, and that in 52% of the individuals, depression accompanied the traumatic stress symptoms. Furthermore, it was found that 70.7% of the individuals had symptoms indicating depressiveness and anxiety. Results of the correlation analysis at the 0.01 level showed that there was a positive-high level correlation between TSSS and BDI, a positive-moderate level correlation between TSSS and BAS, and a positive-moderate correlation between BDI and BAS. A statistically significant difference was found between the mean total scale scores on the TSSS, BDI and BAS in terms of the economic status of the individuals Finally, it was determined that there was a statistically significant relationship between the mean total scores on the TSSS, BDI and BAS and the individuals' status of being in need of immediate psychological support.

Conclusion: It was observed that all the participants had anxiety, and that most of them had depressive symptoms and a high level of traumatic stress.

Keywords: Anxiety; depressive symptom; terror; trauma; traumatic stress.

Terrorism is a phenomenon that has been a long-standing problem for societies and governments, particularly in terms of its psychological impact on individuals, who are the most affected by it.^[1] For many years now, it has been affecting the lives of everyone across the world, not least of all Turkey. ^[1,2] Recently, protracted terrorist actions had taken place in a district of Turkey's Southeastern Anatolia Region. These actions, which lasted for approximately four months, started

with the terrorist organization preventing individuals who lived in the neighborhoods from entering or departing their houses, from accessing health and education services, and from maintaining their daily and business life. In the course of restoring public order and ensuring the safety of property and infrastructure, which involved removing barriers, closing pits, defusing explosives placed in different locations, on roads and in buildings, it was reported that many people had been



What is known on this subject?

 Human-caused traumatic events, like terrorism and war, cause serious psychiatric problems, including traumatic stress, anxiety and depression.

What is the contribution of this paper?

 This study found that all the participants had anxiety, that the majority had depressive symptoms and traumatic stress, and that anxiety and depression symptoms increased traumatic stress symptoms.

What is its contribution to the practice?

 Mental health nurses have the important role of raising awareness about these individuals in the field and clinic and of implementing nursing care when necessary.

evacuated from the region and that numerous individuals had been injured or died. [3]

Human-caused traumatic events, such as terrorism and war, can affect each individual who experiences them differently, with some experiencing vulnerability, fear, desperation, a sense of terror, avoidance, suspicion, anger, hostility, loneliness, detachment, or loss of confidence. [4,5] Some individuals may want to talk about the event, receive information and share it, while others may show no interest in talking about it or may behave as if nothing had happened. [4] These reactions subside in most people after a few days or weeks; however, in some cases, these reactions persist and make people's daily life extremely difficult.[6] When exposed to trauma, the self is subjected to more internal and/or external stimuli than which it can cope, and as a result of inability to deal with the events effectively, the individual experiences severe psychiatric problems, like post-traumatic stress disorder (PTSD), anxiety and depression. [7,8] These serious psychiatric problems are also known to cause significant disability and loss of function in individuals. Therefore, it is important to minimize PTSD, anxiety and depressive symptoms in individuals to a manageable level during treatment.[9]

In examining the studies conducted after terrorist attacks throughout the world, PTSD rates were found to be between 7%–35%.^[10] In Turkey, the rate of PTSD in the general population was found to be between 5%–9%,^[11] and it was between 5.9%–29.9% in the studies carried out after terrorist actions.^[8,12]

Bryant et al.[13] conducted a study with patients exposed to trauma and found that 31% of the patients had a psychiatric disorder, the most common being depression and anxiety disorders. Priebe et al.[14] reported that 15.1%–41.8% of adults exposed to the Balkan war had anxiety disorder. Although the symptoms of post-traumatic stress and trauma-related psychopathology have decreased over time, it is not uncommon for PTSD, depression and anxiety to continue for a long time after their onset. Consequently, all types of trauma, which have been on an upward trend in today's global society, directly and indirectly affect people in Turkey and all over the world. Mental health nurses have great responsibilities in terms of preparing various interventions to address negative situations after trauma, recognizing symptoms in the early period, taking precautions and rehabilitating individuals who have experienced trauma. Although Turkey has been exposed to terrorist attacks in its recent history, there are only a limited

number of studies that have been conducted on how these attacks psychologically impacted the people. This study aims to determine the frequency of traumatic stress, anxiety, depressive symptom and related risk factors 12 months after terroristic events in individuals living in regions where protracted armed conflicts occurred.

Materials and Method

Research Design

This study used a cross-sectional and descriptive-correlational research design.

Participants

The population of the study consisted of individuals who lived in a region where protracted armed conflicts occurred between March 3 and July 26 of 2017, and who were exposed to terrorist attacks and witnessed the events visually or audibly. The exact number of individuals in the population is unknown due to the fact that there was a ban on entering some places for security reasons, and that some buildings had been demolished, resulting in some people being displaced from their houses after the events. The sample of the study included the people living in a neighborhood of the region noted, where the terrorist actions were most intense and the homes were left undemolished. Permission to carry out the research in this area was granted by the District Police Department. For the study, approximately 250 households were able to be reached.

The inclusion criteria applied for the study were that individuals lived in the region during the events, were between the ages of 16 and 65 years, did not have communication problems, and agreed to participate in the study (for those under the age of 18, both their consent and their parents' consent were obtained). The study included more than one individual from each home that agreed to participate and met the inclusion criteria of the study.

When collecting the data, 171 (34.1%) of the 502 people who were reached refused to participate, stating "I do not want to participate in the study". The data forms were completed by the researchers through the face-to-face interview method during the day on weekdays in the houses of the individuals or at their doors. Each interview lasted 25 to 30 minutes.

Data Collection Tools

Data were collected using a personal information form, the Traumatic Stress Symptom Scale (TSSS), the Beck Depression Inventory (BDI) and the Beck Anxiety Inventory (BAI).

Personal Information Form: This form was created by the researchers based on a review of the relevant literature^[2] and included 17 questions on the sociodemographic characteristics of individuals, such as their age, gender, marital status, number of children, educational status, job/profession, who they lived with, order number in the family (i.e. youngest, eldest or middle child) and income status. The form also included

questions regarding information about their experiences, such as "Have you ever received help for your psychological problems?", "Do you need psychological support right now?", and "Have your relationship with your environment changed negatively after being a victim of terrorism?"

Traumatic Stress Symptom Scale (TSSS): This self-report scale was developed by Başoğlu et al.[15] to determine the possibility of PTSD and depression accompanying PTSD over the course of the previous month. The scale includes 23 items, with each item rated on a scale of 0–3. The first 17 items correspond to PTSD symptoms specified in DSM-IV, while the last six items correspond to depression symptoms. A score above 25 on the 17 PTSD-related items indicates possible PTSD, while a score above 38 obtained from all 23 items indicates depression accompanying PTSD. The Cronbach's alpha coefficient of the original scale was reported to be 0.81 and 0.91 in this study.

Beck Depression Inventory (BDI): This scale is a 21-item self-report inventory which was developed by Beck et al. (1961) to determine the depressive levels of individuals. The Turkish validity and reliability study of the scale was performed by Hisli. ^[16] The objective of the inventory is not to diagnose individuals with depression, but rather, to express the degree of depressive symptoms in numerical terms. Higher scores indicate a greater depressive state. Each item is scored between 0–3, and the possible range of scores on the inventory is between 0–63, with scores between 0–9 indicating normal, those between 10–18 indicating mild, those between 19–29 indicating moderate, and those between 30–63 indicating high depressive symptom levels. In this study, the Cronbach's alpha coefficient of the scale was found to be 0.91.

Beck Anxiety Inventory (BAI): This scale was developed by Beck et al. (1988), and the Turkish validity and reliability study of the scale was carried out by Ulusoy. [17] Each item is rated on a scale of 0–3, with higher scores indicating high anxiety level. Scores between 0–17 indicate low levels of anxiety, those between 18–24 indicate medium levels of anxiety, and those 25 and above indicate a high level of anxiety. The Cronbach's alpha coefficient of the scale was found to be 0.92 and 0.94 in this study.

Ethical Considerations

Ethical approval to perform the study was obtained from the Medical Faculty Non-Interventional Clinical Ethics Committee of a university with decision number 16.12.2016/354. Institutional approval of the study (numbered 02.03.2017/96845539-77518-2017) was obtained from the Police Department of the district where the study was conducted. Verbal consent was received from the participants who met the criteria for being included in the study sample and who agreed to participate. Parental consent was obtained for participants who were between the ages of 16 and 18.

Data Analysis

Data were analyzed using SPSS 22.0 (Statistical Package for the

Social Sciences) software. Frequency, percentage, mean, minimum, maximum, standard deviation, normality tests, Mann Whitney U Test, Kruskal Wallis Test, multiple regression and Spearman correlation were used for the analysis of the data. Cronbach's alpha coefficient was used to perform the internal consistency analysis of the scales. All the results were tested at the 0.05 significance level.

Results

Sociodemographic and Individual Characteristics of the Participants

The mean age of the individuals participating in the study was 32.25±12.47, 58.3% were female, 41.7% were male, 53.2% were married, and 57.7% were primary school graduates. Furthermore, 47.4% of the participants had an income lower than their expenses, 87.9% resided for the longest period of their lives in a city, 94.9% lived with their families, 67.4% had a nuclear family type, 55.9% did not work in an

Table 1. TSSS, BDI and BAI categories of the participants **TSSS BDI** BAI % % n % n n Normal 97 29.3 Mild 108 32.6 Moderate 73 22.1 69 20.8 High 53 16 262 79.2 Possible PTSD symptoms Yes 262 79.2 No 69 20.8 PTSD symptoms + depression Yes 172 52.0 No 159 48.0

TSSS: Traumatic Stress Symptom Scale; BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory; PTSD: Posttraumatic Stress Disorder.

Table 2. Relationship between the mean total scores of TSSS, BDI and BAI

Scales	TSSS	BDI	BAI
TSSS	-	r=0.731*	r=0.650*
		p=0.000	p=0.00
BDI	r=0.731*	-	r=0.660*
	p=0.000		p=0.000
BAI	r=0.650*	r=0.660*	-
	p=0.00	p=0.000	

*Correlations p: Significant at 0.01. TSSS: Traumatic Stress Symptom Scale; BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory.

Table 3. Effects on the TSSS, the BDI and BAI								
Dependent variable	Independent variable	В	ß	t	р	F	Model (p)	R ²
TSSS	Stable	18.062		12.613		222.371	0.000	0.576
	BDI	0.533	0.527	11.352	0.000			
	BAI	0.323	0.306	6.581	0.000			
TSSS Traumatic Street Sympt		0.323	0.306	6.581				

income-generating job, the mean number of children the participants had was 1.62 ± 2.29 , the mean number of siblings was 6.21 ± 2.64 and the mean place of their order in the family was 3.46 ± 2.38 . Finally, 2.7% of the participants had received

mental help before, 27.8% thought that they needed psychological assistance right now, 48% experienced negative changes in their relationship with their environment after the events.

Table 4. Participants' individual characteristics and mean scale scores								
Characteristics	TSSS	BDI	BAI					
Sex								
Female	38.99±10.88	16.91±11.40	36.94±11.50					
Male	36.92±12.66	15.76±11.79	32.47±9.88					
Z*	-1.48	-0.962	-3.598					
р	0.137	0.336	0.000					
Marital status								
Single	37.28±11.49	16.85±11.73	34.21±10.93					
Married	38.88±11.82	16.06±11.43	35.84±11.15					
Z*	-1.202	-0.491	-1.481					
р	0.229	0.624	0.139					
Employment status								
Employed	37.47±11.90	15.43±10.61	33.84±10.41					
Unemployed	38.65±11.51	17.22±12.23	36.05±11.49					
Z*	-0.921	-1.068	-1.619					
p	0.357	0.285	0.106					
Economic status								
Income lower than expenses ¹	41.77±11.91	18.76±11.39	36.73±11.04					
Income equal to expenses ²	35.31±10.31	14.51±11.52	33.65±10.82					
Income higher than expenses ³	33.53±10.87	13.80±10.95	33.37±11.27					
X ^{2**} (df:2)	29.79	14.040	7.682					
р	0.000	0.001	0.021					
	1>2. 1>3	1>2. 1>3	1>2					
Getting psychological assistance								
Yes	47.77±6.74	25.66±8.94	44.44±10.48					
No	37.86±11.68	16.11±11.53	34.81±10.98					
Z*	12.822	10.159	2.59					
p	0.000	0.000	0.76					
Needs psychological assistance now								
Yes	46.15±9.79	23.38±7.16	40.73±10.62					
No	35.04±10.86	13.76±10.44	32.89±10.46					
Z*	-7.661	-6.819	-5.922					
p	0.000	0.000	0.000					

^{*:} Mann-Whitney U Test; **: Kruskal Wallis Test. TSSS: Traumatic Stress Symptom Scale; BDI: Beck Depression Inventory; BAI: Beck Anxiety Inventory.

Traumatic Stress Symptoms, Depression and Anxiety Scale Scores of the Participants

Among the participants, 79.2% had traumatic stress symptoms, and 52% had depression accompanying traumatic stress symptoms. Furthermore, 70.7% of the participants had depressive symptoms (32.6% mild, 22.1% moderate and 16% high) and all of them experienced anxiety (79.2% high and 20.8% moderate) (Table 1).

The total mean scores obtained by the participants on the TSSS, BDI and BAI were 38.13±11.68, 16.43±11.56 and 35.07±11.06, respectively. Results of the Shapiro Wilk Test (p<0.05) indicated that the three scales did not show normal distribution; therefore, Spearman Correlation test, one of the non-parametric statistical methods, was applied. From the correlation analysis, it was found that there was a positive high relationship (r=0.731; p<0.001) between the TSSS and the BDI at the level of 0.01, a positive moderate relationship (r=0.650; p<0.001) between the TSSS and the BAI, and a positive moderate relationship (r=660; p<0.001) between the BDI and the BAI (Table 2). The multiple regression analysis conducted to determine the relationship between the TSSS and the BDI and the BAI found that this relationship was statistically significant (F=222.371; p<0.001), meaning that depressive symptoms and anxiety (as explanatory power for depressive symptoms) were significant determinants of traumatic stress symptoms (R²=0.576), and that when the participants had high anxiety and depression scores, there was a rise in traumatic stress symptoms. In this model, depression and anxiety, the independent variables, were found to explain 57.6% of traumatic stress symptoms, the dependent variable (Adjusted R Square=0.331) (Table 3).

When the individual characteristics of the participants and the mean total scores of the scales were compared in terms of the groups, there was a significant difference between the participants' total BAI mean scores only by gender (p<0.001). There was no significant difference between the marital status of the individuals and the status of working in an income generating job and the mean total score (p>0.05). A significant difference was found between the mean total scale scores of the TSSS, the BDI and BAI (p<0.05) according to the economic statuses of the participants. The mean total TSSS and the BDI scores of the participants whose income was lower than their expenses were higher than those of whose income was equal to or higher than their expenses. The mean total BAI scores of those whose income was lower than their expenses was higher than those of whose income was equal to their expenses (p<0.05). It was further found that the mean total TSSS and BDI scores significantly differed according to whether the participants had received psychological assistance before; however, according to whether they needed to receive psychological assistance right now, the mean total TSSS, BDI and BAI scores were statistically significant (p<0.05) (Table 4).

Discussion

This study, which was conducted to determine the post-12 month frequency of traumatic stress, anxiety and depressive symptoms and related risk factors in individuals living in a region with protracted armed conflicts, found that 79.2% of the participants had possible traumatic stress symptoms, and that 52% had depression accompanying stress symptoms. In addition, approximately three-fourths (70.7%) of the participants had depressive symptoms (32.6% mild, 22.1% moderate and 16% high), and all of them experienced anxiety (79.2% high and 20.8% moderate levels). Post-traumatic stress disorder (PTSD), depression and anxiety symptoms are common among individuals who have been exposed to terrorist actions.[18] A study conducted with people exposed to war in Algeria, Cambodia, Ethiopia and Gaza reported the prevalence rates of PTSD, mood disorders and anxiety as 16%–37%, 5%-% 23% and 10%-% 40%, respectively. [19] The relevant literature indicates that the incidence rate of PTSD is 7%-35% in the general population.[10] In a study that Njenga et al.[20] conducted after a terrorist attack, it was reported that the rate of possible PTSD was 35%. Gabriel et al.[10] reported the rate of traumatic stress symptoms as 44.1% in a group that had sustained physical injuries after a terrorist attack and as 12.3% in those who had witnessed the attack. In a study by Freeman et al., [21] it was found that the rate of PTSD was 53%. A study that Ikin et al.[7] conducted with Korean veterans found that 17% of the veterans had PTSD and depression together, 15% had only PTSD and 6% had only depression. In a study carried out with individuals who sought psychiatric assistance 4-6 years after being exposed to war trauma, it was reported that the participants' lifetime PTSD rate was 100%, their current PTSD rate was 87%, their lifelong depression rate was 95%, their current depression rate was 50%, and their anxiety rates were high.[21] Ikin et al.[7] conducted a study with surviving veterans of Australia and reported that 32% of the veterans met the criteria for a PTSD diagnosis, and that 23% met the criteria for a depression diagnosis. Another study conducted with soldiers injured in a war found that 53% had depression that accompanied the PTSD.[22] In examining the studies carried out in Turkey on this subject, it was observed that at the end of the first month, PTSD developed among 12.5% of the people who had witnessed the attack visually and aurally and among 9.6% at the end of the third month following the terrorist attack that occurred in Diyarbakır.[2] A study carried out two months after the terroristic bombings in Istanbul found that the rate of PTSD was 5.9% among adolescents in a school in the region where the explosions occurred, while the rate of PTSD among adults who presented to the police stations after the explosions was 29.9%.[12] The rate of possible PTSD and that of depression accompanying it were reported to be 29.6% and 16.6%, respectively, in individuals who were injured in conflicts with the terrorist organization.[8] In the study that Pham et al.[23] conducted in Rwanda, they found that the prevalence of PTSD was 24.8%. Karam et al.[24] performed a study in Lebanon and reported

that anxiety disorders and mood disorders were at the rates of 11% and 7%, respectively. A study conducted after terrorist actions and a war found that 15.6%-41.8% of adults had anxiety disorder.[14] The findings from the present study are higher than those reported in the literature and are more in line with the results of studies conducted with war veterans. This could be related to the fact that the terrorist action lasted for a long time (approximately four months), that individuals were exposed to significant violent events during this period, and that the individuals participating in the study experienced and witnessed substantial material losses and moral deprivations. Close proximity to human-made traumatic events negatively affects mental health. The severity of the event, giving aid to individuals who were traumatized and loss of resources can increase symptoms of traumatic stress. The meaning given to trauma and the death threat perceived by the person at the time of trauma are reported to be determinant in the development of PTSD, depression and anxiety symptoms.[9]

This study found that an increase in depression and anxiety symptoms increased traumatic stress symptoms. Life is no longer what it used to be after a traumatic event. People who have experienced trauma feel that they have changed dramatically; their identities, affectivity, physiological responses, perspectives, and interactions with others are fully transformed. They no longer have a sense of safety, predictability and trust. A 20-year follow-up study carried out with war veterans found that nearly half of the veterans in the study had lifelong PTSD, anxiety and depression altogether. In addition, 26.7%–30.1% of the veterans had PTSD, anxiety and depression, and 75%-80% had depression and/or anxiety. It should be taken into account that PTSD may develop in patients who have anxiety and mood disorders. [9] The results of this study are consistent with those in the relevant literature, but more studies in this field need to be conducted.

Anxiety disorders are more common among women than among men, both in the general population and after a traumatic experience.[25] This study also found that the level of anxiety experienced by women was higher than that experienced by men after terrorist actions. The ways which men and women are affected by terrorist actions, their perception of these actions and their way of coping with them are different. Men have more confidence in the mechanisms of coping with terrorist actions than that of women and show a more optimistic attitude. This is because men focus on events and methods of dealing with events, whereas women focus more on how to protect their families and loved ones. When, where and how the terrorist action will happen is not known; therefore, it is understandable that people who try to develop measures of protection may adopt a more desperate and pessimistic point of view when they see that they can never be fully protected.[1] Women are thought to experience more anxiety due to these differences.

In this study, no significant difference was found in terms of the participants' marital status and income-generating employment status and the scales' mean total scores; however, those with low economic status who now needed psychological assistance and who had previously received psychological assistance were more likely to have symptoms of PTSD, depression and anxiety. Studies conducted after terrorist attacks have revealed that the severity of trauma, its recurrence and subjective meaning, the presence of childhood trauma, insufficient support system, low educational level,^[2] being young, single, divorced, widowed, or a woman and having inadequate financial resources^[4,8,20] facilitated the development of anxiety, depression and PTSD. A study conducted in Turkey found no difference between marital and educational statuses in terms of PTSD development.^[2] It can be argued that the results of this study are compatible with those in the literature.

Limitations of the Study

While there have been studies conducted after terrorist attacks in Turkey before, this study is the first of its kind, insofar as it involved individuals who were exposed to and witnessed a protracted (approximately four months) series of terrorist actions. In this study, the primary limitation was the reluctance of the individuals to participate in the study due to the insecurity they felt as a result of terrorist actions.

Conclusion

This study found that all the participants had anxiety, and a majority had depressive symptoms and traumatic stress symptoms. Furthermore, anxiety and depression symptoms increased traumatic stress symptoms, and women experienced more anxiety than that of men as a result of the terrorist actions. Moreover, the levels of traumatic stress and depression and anxiety symptoms were high in individuals who had low economic status and in those who stated that they needed psychological assistance now. The levels of traumatic stress and depression symptoms were also high in individuals who had previously received psychological assistance.

Not only Turkey, but the rest of the world as well is at risk for the recurrence of terroristic actions. These terroristic actions are known to affect civilians as much as the individuals forming the security forces, and although the affected people experience psychological symptoms, most of them do not resort to treatment. The healing process in social traumas is challenging and long. During the treatment process, it is important that individuals make sense of what was experienced and take the time to mourn for the losses. Therefore, determining the characteristics of individuals who are at risk before the traumatic event is useful in planning preventive and therapeutic health services.

Nurses have an important role in defining individuals and groups at risk for PTSD, depression and anxiety, and they are among the health professionals expected to assist in traumatic events and to know how to recognize the distress and pain of individuals who have been injured, to identify psychiatric

symptoms and to help victims during and after rescue efforts and first aid activities. It is also important that nurses know the symptoms and advise patients correctly to prevent the problem from becoming chronic and to protect mental health. [26]

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

Peer-review: Externally peer-reviewed.

Authorship contributions: Concept – F.G., G.Y.; Design – F.G., G.Y.; Supervision – F.G., G.Y.; Fundings - F.G., G.Y.; Materials – F.G., G.Y.; Data collection &/or processing – F.G., G.Y.; Analysis and/or interpretation – F.G., G.Y.; Literature search – F.G., G.Y.; Writing – F.G., G.Y.; Critical review – F.G., G.Y.

References

- Demirli A. Terörizm, psikososyal etkileri ve müdahale modelleri. Türk Psikolojik Danışma ve Rehberlik Dergisi 2011;4:66–76.
- Eşsizoğlu A, Yaşan A, Bülbül İ, Önal S, Yildirim EA, AkerT. Terörist saldırı sonrasında travma sonrası stres bozukluğu gelişimini etkileyen risk faktörleri. Türk Psikiyatri Dergisi 2009;20:118–26.
- TC. Diyarbakır Valiliği. Retrieved January 17, 2018 from http:// www.diyarbakir.gov.tr/vali-aksoy-basin-mensuplarina-onemli-aciklamalarda-bulundu.
- Çopur AS, Gencer AD. Toplumsal travma nedir? Course Book for «stanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programı. İstanbul 2015. Available at https://psyma.bilgi.edu.tr/ static/docs/toplumsa-travma.pdf.
- 5. Omede J, Omede AA. Terrorismandinsecurity in nigeria: moral, valuesandreligiouseducation as panaceas. Journal of Education and Practice 2015;6:120–6.
- 6. Carmassi C, Akiskal HS, Bessonov D, Massimetti G, Calderani E, Stratta P, et al. Gender differences in DSM-5 versus DSM-IV-TR PTSD prevalence and criteria comparison among 512 survivors to the L'Aquila earthquake. J Affect Disord 2014;160:55–61.
- Ikin JF, Sim MR, McKenzie DP, Horsley KW, Wilson EJ, Moore MR, et al. Anxiety, post-traumatic stress disorder and depression in Korean War veterans 50 years after the war. Br J Psychiatry 2007;190:475–83.
- 8. Güloğlu B, Karaırmak Ö. Güneydoğu gazilerinde travma sonrası stres bozukluğu gelişimi. Anadolu Psikiyatri Derg 2013:14:237–44.
- 9. Jakšić N, Aukst-Margetić, B, Marčinko D. Comorbid depression and suicide ideation in patients with combat-related PTSD: the role of temperament, character, and traitimpulsivity. Psychiatria Danubina 2017;29,51–9.
- 10. Gabriel R, Ferrando L, Cortón ES, Mingote C, García-Camba E, Liria AF. Psychopathological Consequences After a Terrorist Attack: An Epidemiological Study Among Victims, the General Population, and Police Officers. European Psychiatry

- 2007;22:339-46.
- 11. Bolu A, Erdem M, Öznur T. Travmasonrası stres bozukluğu. Anatolian Journal of Clinical Investigation 2014;8:98–104.
- 12. Aker AT, Sorgun E, Mestçioglu Ö, Karakaya I, Kalender D, Acar G, et al. İstanbul'daki bombalama eylemlerinin erişkin ve ergenlerdeki travmatik stres etkileri. Türk Psikoloji Dergisi 2008;23:63–74.
- 13. Bryant RA, O'Donnell ML, Creamer M, McFarlane AC, Clark CR, Silove D. The psychiatric sequelae of traumatic injury. Am J Psychiatry 2010;167:312–20.
- 14. Priebe S, Bogic M, Ajdukovic D, Franciskovic T, Galeazzi GM, Kucukalic A, et al. Mental disorders following war in the Balkans: a study in 5 countries. Arch Gen Psychiatry 2010;67:518–28.
- 15. Başoğlu M, Salcioğlu E, Livanou M, Ozeren M, Aker T, Kiliç C, et al. A study of the validity of a screening instrument for traumatic stress in earthquake survivors in Turkey. J Trauma Stress 2001;14:491–509.
- 16. Hisli N. Beck Depresyon Envanterinin üniversite öğrencileri için geçerliği, güvenirliği. Psikoloji Dergisi 1989;7:3–13.
- 17. Ulusoy M. BeckAnksiyete Envanteri: Geçerlik ve güvenirlik çalışması. [Yayınlanmamış yüksek lisans tezi] İstanbul: Bakırköy Ruh ve Sinir Hastalıkları Hastanesi; 1993.
- 18. McNally RJ, Frueh BC. Why are Iraq and Afghanistan War veterans seeking PTSD disability compensation at unprecedented rates? Journal of AnxietyDisorders 2013;27,520–6.
- 19. de Jong JT, Komproe IH, Van Ommeren M. Common mental disorders in postconflict settings. Lancet 2003;361:2128–30.
- Njenga FG, Nicholls PJ, Nyamai C, Kigamwa P, Davidson JR. Post-traumatic stress after terrorist attack: psychological reactions following the US embassy bombing in Nairobi: Naturalistic study. Br J Psychiatry 2004;185:328–33.
- 21. Freeman T, Powell M, Kimbrell T. Measuring symptom exaggeration in veterans with chronic posttraumatic stress disorder. Psychiatry Res 2008;158:374–80.
- 22. Grieger TA, Cozza SJ, Ursano RJ, Hoge C, Martinez PE, Engel CC, et al. Posttraumatic stress disorder and depression in battle-injured soldiers. Am J Psychiatry 2006;163:1777–83.
- 23. Pham PN, Weinstein HM, Longman T. Trauma and PTSD symptoms in Rwanda: implications for attitudes toward justice and reconciliation. JAMA 2004;292:602–12.
- 24. Karam EG, Mneimneh ZN, Karam AN, Fayyad JA, Nasser SC, Chatterji S, et al. Prevalence and treatment of mental disorders in Lebanon: a national epidemiological survey. Lancet 2006;367:1000–6.
- Ginzburg K, Ein-Dor T, Solomon Z. Comorbidity of posttraumatic stress disorder, anxiety and depression: a 20-year longitudinal study of war veterans. J Affect Disord 2010;123:249–57.
- 26. Oflaz F, Özcan CT, Taştan S, Çiçek H, Aslan Ö, Vural H. Hemşirelerin travma sonrası stres bozukluğu belirtilerini tanıma durumları. Psikiyatri Hemşireliği Dergisi 2010; 1:1–6.