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AN INVESTIGATION OF THE RELATIONSHIP OF TRAUMATIC STRESS, GENERAL HEALTH AND RESILIENCE AMONG TERRORISED PEOPLE IN ISTANBUL

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AN INVESTIGATION OF THE RELATIONSHIP OF TRAUMATIC STRESS, GENERAL HEALTH AND RESILIENCE AMONG TERRORISED PEOPLE IN ISTANBUL

İSTANBUL'DA TERÖRE MARUZ KALAN KİŞİLERDE TRAVMATİK STRES, GENEL SAĞLIK VE PSİKOLOJİK DAYANIKLILIĞIN İNCELENMESİ

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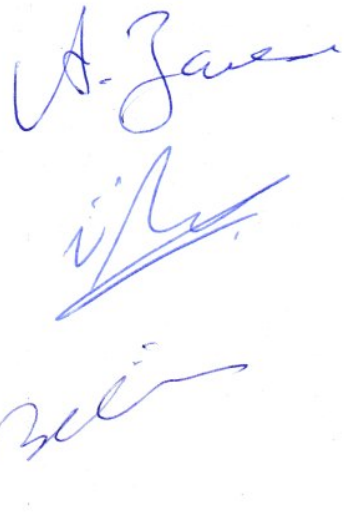

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Abstract

This study aimed to investigate the relationship between resilience, traumatic stress and psychological stress of individuals who were exposed to terror attacks directly or indirectly in Istanbul between 2015 and 2016. It sought to understand efficient resilient attitudes towards the destructiveness of terror trauma in order to plant seeds of a resilient society. Terror traumas damage individual and collective health by inducing stress and insecurity, which may form pathologies. However, it is known that resilient people tend to have greate immunity to trauma. In Istanbul alone, at least 160 people were killed and 460 people injured by a series of terror attacks. Assailants attacked the city by suicide attacks, armed assaults and / or bomb-laden vehicles in Fatih, Sultangazi, Okmeydanı, Kağıthane, and at Sabiha Gökçen Airport in 2015, and in Sultanahmet, Istiklal Street, Vezneciler, Atatürk Airport, Bosphoros / 15 July Martyrs Bridge, Yenibosna, Vodafone Park and at Reina Night Club in 2016. To identify the relationship between participants' resilience, psychological stress, traumatic stress and associated risk factors, we collected demographic information forms which were filled by terror survivors. To this data, linear multiple regressions, Spearman's correlation, Chi-square, risk ratio and Mann Whitney U Test were conducted by using the results of Resilience Scale for Adults (RSA), General Health Questionnaire-12 (GHQ-12), and Traumatic Stress Symptoms Checklist (TSSC). The results showed that resilience and its subcategories are negatively correlated with psychological stress, traumatic stress and depression. No significant difference was obtained between the direct and indirect groups in terms of PTSD and depression prevalence. Only 22 participants in the direct group (25.9%) were diagnosed with PTSD while 20 participants (23.5%) were diagnosed with depression. In addition, only 12 participants in the indirect group (13.8%) were diagnosed with PTSD with 16 (18.4%) diagnosed with depression. Planned future, family coherence, perception of self and social resources predicted traumatic stress in the negative direction, while planned future, perception of self and social resources predicted depression

in the negative direction. Only planned future, and perception of self predicted psychological stress of people, also in the negative direction. The PTSD scores of participants who were present on the scene during a terrorist attack, providing either physical or emotional aid to a terror survivor, or escaped from a terror attack by chance were significantly higher than who were not on the scene, did not provide aid or escape from a terror attack by chance. Even though no significant differences were obtained between the risk factors of people who were diagnosed with PTSD and those who were not, nor between the risk factors of people who were diagnosed with depression and those who were not, certain differences were obtained.

Keywords: resilience, psychological stress, terror trauma, terror exposure, indirect exposure, direct exposure, collective trauma

ÖZET

Bu çalışma, 2015 ve 2016 yılları arasında İstanbul'da meydana gelen terör saldırılarına dolaylı ya da doğrudan maruz kalmış bireylerin psikolojik dayanıklılık, travmatik stres ve psikolojik stres bileşenleri arasındaki ilişkiyi araştırmayı amaçlamıştır. Çalışma, dayanıklı bir toplumun tohumlarını atabilmek için, terör travmasının yıkıcılığına karşı etkili olan metanetli tutumları anlamayı çabalamaktadır. Terör travması bireylerde stres ve güvensizlik yaratarak, bireysel ve toplumsal sağlığı bozabilmekte ve patolojilere yol açabilmektedir. Fakat, dayanıklı kişilerin travmaya karşı güçlü bir bağışıklığı olduğu bilinmektedir. Sadece İstanbul' da, en az 160 kişi bir dizi terör saldırısı sonucunda öldürülmüş, 460 kişiyse yaralanmıştır. Saldırganlar İstanbul'da 2015 yılında Fatih, Sultangazi, Okmeydanı, Kağıthane ve Sabiha Gökçen Havalimanı, 2016 yılındaysa Sultanahmet, Istiklal Caddesi, Vezneciler, Atatürk Havalimanı, Boğaziçi / 15 Temmuz Şehitler Köprüsü, Yenibosna, Vodafone Park ve Reina Gece Klubü'ne intihar saldırılarının yanı sıra bomba yüklü ve / veya silahlı araçlarla saldırıda bulunmuşlardır. Örneklemin, psikolojik dayanıklılık, psikolojik stres, travmatik stres ve risk faktörleri arasındaki ilişkiyi bulabilmek için katılımcılar tarafından doldurulan demografik bilgilendirme formları kullanılmıştır. Bu örnekleme, Yetişkinler için Psikolojik Dayanıklılık Ölçeği, Genel Sağlık Anketi-12 (GHQ-12), Travmatik Semptom Belirti Ölçeği (TSSC) uygulanmıştır. Elde edilen verilere doğrusal çoklu regresyon, Spearman korelasyonu, Ki-kare, risk oranı ve Mann Whitney U Testi uygulanmıştır. Sonuçlar, psikolojik dayanıklılık ve alt kategorilerinin, psikolojik stres, travmatik stres ve depresyonla arasında negatif korelasyon olduğunu göstermiştir. TSSB ve depresyon yaygınlığı ele alındığında, dolaylı ve doğrudan gruplarda anlamlı bir farklılık gözlemlenmemiştir. Doğrudan maruz kalan grupta sadece 22 katılımcıya (25.9%) TSSB teşhisi konulurken, 20 katılımcıya depresyon teşhisi konulmuştur. Buna ek olarak, dolaylı gruptaki 12 katılımcıya (13.8%) TSSB, 16 katılımcıyaysa (18.4%) depresyon teşhisi konulmuştur. Gelecek algısı, kendilik algısı, aile uyumu ve sosyal kaynaklar travmatik stresi negatif yönde belirlerken, gelecek algısı, aile uyumu, kendilik algısı ve sosyal kaynaklar depresyonu negatif

yönde belirlemektedir. Yalnızca gelecek algısı ve kendilik algısı bireylerin psikolojik stresini yine negatif yönde belirlemiştir. Terör saldırısı sırasında olay mahallinde bulunan, bir terör saldırısından kurtulan birine fiziksel ya da ruhsal destek veren ve bir terör saldırısından şans eseri kurtulan katılımcıların TSSB puanlarının, olay mahallinde bulunmayan, her hangi bir terör mağduruna yardımda bulunmamış ve bir terör saldırısından şans eseri kurtulma durumu olmamış katılımcıların TSSB puanlarından anlamlı derecede yüksek olduğu saptanmıştır. TSSB teşhisi almış ve almamış kişilerin risk faktörlerinin arasında, tıpkı depresyon teşhisi almış ve almamış kişilerin risk faktörleri arasında olduğu gibi anlamlı bir fark saptanmamış olsa da, bir takım farklılıklar bulunmuştur.

Anahtar kelimeler: psikolojik dayanıklılık, metanet, psikolojik stres, terör travması, teröre maruziyet, dolaylı maruziyet, doğrudan maruziyet, toplumsal travma

INTRODUCTION

This study addresses the effects of political terrorism on people exposed to terrorist attacks directly and indirectly in Istanbul between 2015 and 2016. The effect of resilience on their psychological stress and traumatic stress was also investigated. Turkish Society was exposed to terrorism by experiencing and witnessing terror attacks directly and / or indirectly in different ways: hearing about sudden or vicious death, actual damage, or risk of death or harm lived by a close relative or intimate acquaintances (APA, 2000). Only in Istanbul at least 160 people were killed and 460 people were injured by a number of terror attacks between 2015 and 2016 according to the Global Terrorism Database.

There are multiple terror attacks in the background of these fatalities and casualties: 2 assailants attacked Istanbul Police Headquarters on April 1, 2015 in Fatih, where the terrorist was killed, 3 person were injured. Attackers fired on a police department on July 21, 2015 in Sultangazi district where 2 people were injured. Two attackers set fire to the police officers on 25 July 25, 2015 in Okmeydanı, where 4 people were injured. Explosives blasted on December 23, 2015 at the Sabiha Gökçen International Airport where one person was killed and one person was injured. Armed attackers exploded gendarmerie vehicle on December 12, 2015 in Kağıthane where two people were injured. A suicide attack occurred in January 12, 2015 in Sultanahmet where twelve people were killed and thirteen people were injured. Another suicide attack occurred on May 19, 2016 in Istiklal Street, where four people were killed and thirty six people were injured. An attack occurred to the police with an explosive device laden vehicle on June 7, 2016 in Vezneciler, where thirteen people were killed and thirty six were injured. Three suicide bombers exploded explosive laden armor on June 28, 2016 in Atatürk Airport where forty five people were killed and two hundred thirty five people were injured. Strike attack occurred accompanied by 20 assaults on July

15, 2016 in Bosphoros / 15 July Martyrs Bridge, where many people were killed and injured, but the number of fatalities and casualties are unknown. An explosive-laden vehicle blasted near a police department in Yenibosna, on October 6, 2016 where at least 10 people were injured. Two bomb-laden vehicle exploded during a football match in similar time and zone in Vodaphone Park on December 10, 2016, where 46 people were killed and one hundred sixty five people were injured. An offensive attacked with a rifle to a disco called Reina on December 31, 2016, where 39 people were killed and 65 people were injured. National mourning was declared for one day for each attacks occurred in Atatük Airport, Vodaphone Park and in Bosphorus / 15 July Martyrs Bridge Bridge. In addition, July 15 became official holiday, on which a coup attempt occurred. Bosphorus Bridge named as "15 July Martyrs Bridge" where martyr's memorial were built.

"Terrorism is mostly defined as a form of act committed to impose their political demands to a community which uses violence to cause anxiety in the society in an organized manner" (Demirli, 2011, p. 66). As suggested terrorism damages the social tissue by causing an insecure atmosphere and destroys people's psychological and physical integrity. The psychological outcomes of terror attacks are long-lasting and severe and has more destructive effects on general psychological well-being than other types of traumas (Demirli, 2011; Blanco, Blanco & Diaz, 2016; Santiago, Ursano & Gray, 2013).

Traumatic experiences cause a disruption of people's basic assumptions about their lives and create an unsafe and uncontrollable environment which then leads to posttraumatic stress (Ritchie, 2004; Janoff-Bulman, 1992). Terror traumas may increase the psychological stress of victims severely, causes emotion disregulation, posttraumatic stress disorder, depression, agoraphobia, panic disorder, generalized anxiety disorder, alcohol abuse and drug use (Mollica, Sarajlic & Chernoff, 2001; North, Nixon & Shariat, 1999; Somer, Ruvio & Soref, 2005). In addition, terrorism may cause somatic symptoms, functional problems, disruption in relationships, negative effects on general mood and on sense of

safety (Somer, Ruvio & Soref, 2005; Stein, Elliott & Jaycox, 2004; Grieger, Fulerton & Ursano, 2004; Eakman, Schelly & Henry, 2016).

Nonetheless, although most people encounter minimum one probable traumatic situation in their lives, a large amount of people do not show severe psychiatric symptoms (Kessler, Sonnega & Bromel, 1995). At this point, resiliency becomes a significant characteristic which protects people from the damages of traumatic events. Resiliency is defined as "the ability to maintain a relatively stable, healthy level of psychological and physical functioning in the face of highly disruptive events" (Bonanno, 2004, p. 20). It has a buffer effect towards long-term psychological difficulties (Casey, Cai & Bierer, 2011). In addition, it is conducted by intra and interpersonal factors (Garmezy, 1993).

Both collective and individual resilience carry the characteristics of psychological strength and equilibrium (Bonanno, 2004). These characteristics are necessary to form a society in which members are able to reconstruct that society and labor for prevent possible future man-made disasters, war and war-like situations such as terrorism. For the realization of this prevention, it is essential to understand the constituting factors of resilience in addition to traumatic and psychological stress of a society exposed to terror attacks. Therefore, resilience, traumatic and psychological stress form the investigation elements of this research in Istanbul, a city which has been exposed to several terror attacks.

Rehabilitation programs are the main factors which are necessary for the improvement of the psychological health of a society. The progress of a society can be possible with a healthy community. In order to create a healthy community, certain conditions including a nurturing environment and time are needed, which are possible through clinical implications. There are natural processes through which a society should maintain its health (Kaptanoğlu, 2009; Volkan, 2000). Such conditions are mentioned below and also in the "collective trauma" chapter of this study.

The content of rehabilitation programs should be prepared carefully for the sake of providing an effective psychological service. In order to heal a terrorized society's wounds, individual and collective mourning, rewriting the traumatic history and comprehending traumatic experiences so that one can constitute a cohesive memory about it are essential. Moreover, since collective traumas damages collective and individual identities, determining individual and collective identities of trauma survivors and rewriting the reality should be included in rehabilitation programs (Volkan, 2000; Kaptanoğlu 2009; Boraine, 2005). Expressing emotions in an reparative environment by showing empathy to the survivors and also perpetrators most notably anger, disappointment, guilt and helplessness which have a great probability to arise in the aftermath of a traumatic situation, processing existential concerns and other anxieties that survivors experience are necessary in order to provide an emotional abreaction. Providing individuals' safety, repairing individuals' sense of trust, the apology of the perpetrator, forgiveness of the survivor when that survivor is ready, organization of commemorative ceremonies and rituals, reparative witnessing, building reparative justice instead of the punitive type are needed in order to have a ground where the transformation of the trauma and the survivor's ability to control their life may reemerge (Botcharova, 2001; Volkan, 2000; Kaptanoğlu 2009; Herman, 1997). Breaking the trauma cycle, preventing the confusion between past and present which may arise because of the traumatic experience, empowerment of the traumatized society's members, rebuilding the sense of unity and sense of trust, building regenerative justice, reparation of the power of love can realized only in an atmosphere which contains the mentioned characteristics (Kaptanoğlu, 2009; Sedmak, 2012; Sullivan, 2011).

Reconciliation is a key concept in the reparation of trauma. It should not be forgotten that trauma and reconciliation are circular concepts, not linear. Therefore, there is a need for confrontation of both sides (Pranis, Stuart & Wedge, 2003). In addition, reconciliation may occur only in the possibility of implementing punishment to the perpetrator. The trauma survivor should forgive the perpetrator when that person is ready, which may take a long time. After the reconcilia-

tion, the trauma cycle is dissolved by the feelings of regret and lessoning of the perpetrator. As a result, the sense of justice of the traumatized community improves well and recovery starts (Botcharova, 2001; Schirch, 2002).

Moreover, censure of the violence is very important in order to cure a society and provide reconciliation. Therefore, documentation of the violent events and also their effects on people are necessary (Zembylas & Bekerman, 2008). There are only a few documentations of the collective traumatic events but there is limited documentation of their effects on human psychology (Zara, 2018). This study fills that void and reveals the destructive effects of political violence. On top of presenting the traumatic effects of this violence, this study also suggests very important factors for the empowerment of the embattled society.

To sum up, the study aims to investigate traumatic stress, psychological stress and resilience among people exposed to terror attacks directly and indirectly in Istanbul between 2015 and 2016. Turkish Society suffers from terrorist attacks in a profound way and there is a need to develop effective ways of psychological interventions so that the victims of trauma can go back to living normally free from the impact of trauma (Aker, Sorgun & Mestçioğlu, 2008).

1.1. THE DEFINITION OF PSYCHOLOGICAL TRAUMA FROM PAST TO PRESENT

The term "trauma" derives from a Greek word which corresponds to "injury" (Tummey & Turner, 2008). Trauma was first known as physical destruction of war soldiers. The psychological definition of trauma came to light through various diseases such as hysteria, child abuse, sexual and domestic violence and combat neurosis which were studied in the 19th century (Herman, 1997).

With the end of the France-Prussia War in 1870, the recognition of the emotional difficulties experienced by soldiers who participated in this war, gave rise to the first understanding of the impact of stressful life events on human psychology (Veith, 1977). After this war, psychiatrists observed that soldiers who

participated in it, were not getting any pleasure out of life anymore, their response times was slowing down and they were re-experiencing traumatic events that happened in the war. Janet (1904, 1909) and Freud (1891) further expanded Charcot's (1860s) observations about the destructive effects of catastrophic events on human psychology in the Salpetriere (as cited in van der Kolk, et al., 1996). In the 1880s, Janet's study about a disease later called hysteria, an affliction caused by overabundance of stress, would be the first psychological consideration of trauma (Herman, 1997).

Combat neurosis or shell shock was another type of psychological trauma which showed up due to psychological stress caused by World War I. It was first mentioned in a paper called "Contributions to the Study of Shell Shock" written by Charles Myers in 1915. This type of psychological trauma was identified by observing soldiers who had not experienced detonation but were suffering from similar symptoms with those who had. These soldiers were experiencing several symptoms which are today seen in people with posttraumatic stress disorder. As no organic lesion was found among soldiers who had combat neurosis, it was concluded that this disease is generated by stressful experiences caused by war. It was conjectured that combat neurosis is developed to obstruct unpleasant memories (M. A., Crocq & L., Crocq, 2000). Afterwards, the impacts of psychological trauma became much clearer with the existence of World War II and the Vietnam War. Finally, it has been included in the Diagnostic Statistical Manual of Mental Disorders (DSM) and has continued to gain attention due to the occurrence of various types of violence (Herman, 1997).

Currently, DSM-V (2013) suggests that being exposed directly to a "traumatic event involves exposure to actual or threatened death, serious injury, or sexual violence by experiencing, witnessing or hearing that a close relative or friend has been exposed to a violent or accidental event, or by being exposed to harsh features of that event repeatedly" (p. 265). First responders as well as security forced and emergency medical may suffer from the consequences of repeated exposure to these traumatic events. Indirect exposure to a possible traumatic event

includes hearing the existence of the aversive situation via external resources such as media (American Psychiatric Association [APA], 2013).

Today, traumas are considered as oppressive experiences in life that can potentially damage the individual's regulation capacity, life-quality maintenance and ability to carry oneself for some time or for an indefinite amount of time, by causing some sort of collapse in people's every day's lives (van der Kolk, 1991). In other words, they are seen as "the damage to the individual and collective psyche caused by traumatic events" (Lopez, 2011, p. 301).

To sum up, the definition of trauma is transformed into a psychological malfunction in addition to the physical one. The destructive structure of emotional trauma has presently become much clearer than in the past and it continues to attract increased attention.

1.2. INDIVIDUAL RESPONSES TO TRAUMA

Pierre Janet (1989), after observing many patients in detail at the Salpetriere, recognized that some patients were becoming agitated and subject to outbursts of anger in the presence of stressful life events. According to Janet (1904), these patients who were considered hysteric, were unable to regulate their emotions towards stimuli that reminded them of their past traumatic experiences, showing extreme and irrelevant responses when they remembered them. They were perceiving these demanding emotions as a threat to their psychological situation. Therefore, they were living dissociative problems that made it difficult or even impossible for them to remember their traumatic memories. Their minds were "discontinuous" in the sense that they were unconsciously separating their traumatic recollections from their consciousness (van der Kolk, et al., 1996). Thus, Janet (1919) disproved that human mind is always continuous and found that people with hysteria experience amnesia as a consequence of trauma, which is a disease that inhibits remembering demanding experiences.

Janet (1919) acknowledged that people with hysteria were bound to have continuous somatic symptoms and they were showing a physiological and neurological readiness to a threatening stimulus. In addition to Janet (1919), James (1902) mentioned that hysteria leads to "hallucinations, pains, convulsions, paralysis of feeling and of motion" and that other symptoms appear during the formation of the disease in the body and in the mind (as cited in Nemiah, 1998, p. 230). Consequently, it is generally accepted that traumatic experiences have a key role in psychological conflicts and symptom formation (Freud & Breuer, 1891).

In the 20th century, after the Myer's (1915) invention about combat neurosis, Abram Kardiner (1941), who contributed to the DSM-III and IV, observed war veterans and recognized physical and psychological difficulties of soldiers. In his book "The Traumatic Neuroses of War" (1941), Kardiner mentions that these soldiers were suffering from "war neuroses" and that they were living their past traumatic experiences as if they were still happening. Kardiner's invention became the closest one to today's posttraumatic stress disorder and provided a basis for the acceptance of the diagnosis (Jones, 2012).

Toward the end of World War II, it was established that traumatized people show five basic stress reactions which are: generalized anxiety states, phobic states, conversion states, psychosomatic reactions and depressive states (Grinker & Spiegel, 1945). Lately, due to public protests against violence, it became clear that many difficult experiences such as child abuse, sexual and domestic violence could create a traumatic impact on people in addition to the war trauma (Herman, 1997).

Past findings have a lot of similarities with today's evaluations about individual responses to a potentially traumatic situation. DSM IV and V state that common reactions to a traumatic situation are intense fear, helplessness, avoidance, numbness and hypervigilance accompanied by high level of anxiety (APA, 2000). Traumatic situations, which is usually described as a sudden, unmanageable and life threatening events, create a threat for people's social contacts, percep-

tion of self and of the others, sense of control and reality testing. Additionally, a traumatic situation involves subjectivity and it becomes traumatic when people perceive it as negative (Creamer, McFarlane & Burgess, 2005).

DSM-V types disorders related to traumatic events in "Trauma and Stress Related Disorders" which include reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorders" (p. 265). These disorders could not be explained with anxiety or within a fear-based context. Their most remarkable common features are the lack of getting pleasure out of life, a high level of anxiety, depression, disquietness, outbursts of anger, isolation from social activities or limited capacity of emotion regulation (APA, 2013).

"Reactive attachment disorder and disinhibited social engagement disorder" involve children who are at least 9 month old and are exposed to insufficient care. Children with reactive attachment disorder show an emotionally withdrawn behavior towards significant others and their positive emotions are very limited. They do not make an effort in order to seek support and care from others. On the other hand, children with disinhibited social engagement do not distinguish their caregivers from strangers and they behave towards both of them in the same way (APA, 2013). These disorders develop because of the serious neglecting behaviors of children's caregivers especially in the initial months of the infancy and they are strongly related to the environmental conditions. According to DSM V, children with this disorder have actually the capacity to develop healthy attachments, but they are not capable of displaying their bonds towards their caregivers by their behaviors (APA 2013).

Posttraumatic stress disorder (PTSD) consists of five basic symptom subcategories which are: the type of traumatic experience, distress and dissociative reactions, avoidant behavior from reminders of the catastrophe, negative cognitive and mood changes, and arousal responses towards the reminders of the traumatic event.

Category A corresponds to:

- experiencing the traumatic event directly,
- witnessing the trauma or hearing that a close acquaintance experienced a violent event.

Category B corresponds to:

- having distressing memories and dreams about the terrifying experience,
- profound and extended physical or psychological distress or dissociative behavior such as re-experiencing the traumatic event in the presence of any reminder about the demanding event.

Category C corresponds to:

- showing avoidance towards challenging internal or external reminders about the traumatic event.

Category D corresponds to:

- showing memory distortions about the demanding event,
- adverse belief systems about the world and one self,
- distortions about the explanations of the event,
- feeling isolated from other persons,
- continuous negativity in emotions or limited capacity for feeling positive emotions.

Category E corresponds to:

- having high levels of arousal,
- outbursts of anger,
- hypervigilance,
- not being able to concentrate,
- sleeping problems,

- irritation or self-destructiveness.

A person is diagnosed with PTSD if these symptoms persist for 1 month, if they cannot be explained by other physical problems and if they damage the patient's functionalities. The criteria of the disease are valid for people who are older than 6 years. On the other hand, the symptoms associated with acute stress disorder are similar to those of PTSD. However, acute stress disorder occurs minimum 3 days later the traumatic situation and continues just for 1 month (APA, 2013).

The final trauma and stress related disorder listed under DSM-V is adjustment disorder. Patients with this disorder show excessive emotional and behavioral response toward a definable challenging stimulant, the response being incompatible with the cultural background. It can be diagnosed if these symptoms occur within 3 months from the beginning of the irritating factor (APA, 2013).

As shown by many researches, dissociation, somatization and affect dysregulation are strong indicators of traumatization and PTSD (Spiegel & Cardena, 1991). Various researches indicate that people who have childhood stories of sexual trauma, psychological or physical abuse and who became witness to a domestic violence, demonstrate dissociation, somatization and PTSD without any organic reason (Saxe, van der Kolk, Berkowitz, Chinman, Hall, Lieberg & Schwartz, 1993). Somatization derives from the inability to determine emotional states (Nemiah, 1977). In somatization, unprocessed emotional materials are directly projected into the body as somatic complaints. Moreover, since somatization causes an identity, memory or consciousness malfunction, amnesia can also be seen as a consequence of somatization (APA, 2005). Affect dysregulation corresponds to experiencing problems in regulating certain emotions such as anger. Chronic overarousal, hypervigilance and attention-narrowing are seen as symptoms of affect dysregulation (Barlow, DiNardo, Vermilyca & Blanchard, 1986). Furthermore, chronic self-destruction, suicidal behaviors and difficulty in sexual involvements may occur as a result of psychological trauma and affect dysregulation (Herman, 1992).

Demirli (2001) claims that people exposed to traumatic events tend to show three types of behavior which are not being concerned, being emphatic or sympathetic about the situation, and about other people exposed to the same event and being traumatized. Additionally, these people may lose their self-confidence, isolate themselves from the society, feel depressed and ashamed (Filkukova, Hafstad & Jensen, 2016).

As it is seen, a potentially traumatic event has a great probability to damage both the psychological and the physiological health of individuals (APA, 2005). However, it should be noted that a potentially demanding situation becomes traumatic when a person perceives it as a threat (Creamer, McFarlane & Burgess, 2005).

1.3. TERRORISM

The word "terrorism" goes back to the Latin. It derives from the word "terrere", which means "to frighten". The ending of the word comes from the French "isme" which refers to "practice". Therefore "terrorism" refers to "practicing or provoking the frightening" (Burgess, 2003).

Although the world is highly familiar with terrorism, the concept of terrorism does not have a universal definition due to some theoretical difficulties (Matusitz, 2013). This is because terrorism is a social concept and every state may have a different perception of threat (Dedeoğlu, 2003). As a result, it is also not clear who should be considered as a terrorist. A first person can consider someone to be a terrorist whereas a second person may consider him or her to be a freedom fighter (Ganor, 2002).

In terms of conceptual meaning, various academics tries to explain terrorism by pointing out certain common and distinctive characteristics (Matusitz, 2013). Laqueur (1987) defines terrorism as an illegal or excessive violence utilization toward non-militants in order to achieve political goals. Schmid and Jongman (1988) argue that terrorism originates in the continuous violent attempts of semi

hidden individuals, groups or ruling government members, which create anxiety and are often targeted to some specific, illegal or political aims. Rapoport (1977) adds that terrorism is the application of violent actions in order to raise awareness, to arouse horror as well as vulnerability in the society.

On the other hand, certain scientists and institutions argue that the aim of terrorists is not important in defining terrorism. The meaning of terrorism has to do with the way that terrorists plan to achieve their goals (Garrison, 2003). The Arab Convention for the Suppression of Terrorism (1998) claims that the defining characteristics of terrorism are the excessive use of violence through which terrorists attempt to: induce fear on the society and to threaten people's lives, rights and sense of safety, or cause injury in the society and the environment, or threaten public resources.

Even if the definition and practical applications of terrorism may change over the years, the aim of spreading religious, political and ideological ideas remains stable (Sloan, 2006). Clearly, in addition to the distinctive interpretations of terrorism, the use of violence and to spread fear in order to achieve its goals are common characteristics of terrorism (Matusitz, 2013). By using violence, terrorism aims to give the message that people who organize the attacks will reach their aims as a result of these attacks (Iona, 2015). Therefore, terrorist acts are not limited to a single attack. Moreover, it uses media and speculations to dominate people's feelings, purposes, sanity, perception, cognition and behaviors (Gerwehr & Hubbard, 2007).

Terrorism cannot be considered to be a typical homicide, because it does not only affect the aimed subjects, but damages large communities. Its aims are wider than that of an ordinary crime: it does not give importance to anything, including human life, but to political changes (Hoge & Rose, 2001; Schmid, Jongman & Stohl, 1988). It is worth nothing that terrorist groups do not usually exhibit a military infrastructure (Hoge & Rose, 2001).

A terrorist group may be organized in various ways. It wages an "asymmetric warfare" usually comprising sudden violent assaults of a weak group toward a powerful group of people in order to achieve an advantage (Mansdorf & Mordechai, 2008; Hoge & Rose, 2001; Crenshaw, 1992). Since the weak group could not reach its objectives by legal means, it tries to defeat the powerful group through abrupt attacks (Hoge & Rose, 2001).

To sum up, terrorism mainly aims to endanger innocent people and terrorize the civilian populations in order to achieve political aims (De La Corte, et al., 2007). It uses violence as a tool in an illegal way (Matusitz, 2013). Lastly, terrorist groups may adopt various organizational structures and represent attempts by weak groups to gain strength (Crenshaw, 1992).

1.4. COMMUNITY RESPONSES TO TERRORISM TRAUMA

Terrorism destroys people's psychological and physical integrity by leaving a collective traumatic effect on them (Lopez, 2011; Erikson, 1976). Studies indicate that a significant part of people who are exposed to terrorism show psychological and physical complications and that terrorism carry a risk to destroy general health of terror exposures (Palmer, 2007; Neria, Wickramaratne & Olfson, 2013; Galea, Nandi & Vlahov, 2005; Bleich, Gelkopf & Melamed, 2005; Pfefferbaum, Vinekar & Trautman, 2002).

Living creatures need a compatible state of equilibrium in every component of their organisms in order to survive. This state of equilibrium, called homeostasis, is in danger of being destroyed by internal and / or external mechanisms (Cannon, 1929). Psychological stress is one of the strongest denaturalizer of homeostasis which is described by Selye (1976) as "the non-specific response of the body to any demand for change" (p. 64). Since stress derived by demanding situations damages the nervous system, it has a great tendency to cause physical diseases in addition to the psychological ones (Chrousos & Gold, 1992).

Since terrorism mainly aims to spread fear and danger in societies in order to change political constructions, it induces individual and collective stress within societies, endangers the security of the communities, makes people feel hopeless about the future, causes a state of uncertainty, breaks the sense of trust of people living in a community and replaces it with violence, silence and powerlessness (Hamaoka, Shigemura, Hall & Ursano, 2004; Rinker & Lawler, 2018; Demirli, 2011; Püsküllüoğlu, 1999; Lopez, 2011; Sonpar, 2008).

Since traumas arising from terror attacks are the results of intentional acts and have long lasting social, emotional and political effects, recovery from terror attacks becomes more difficult in comparison with traumas arising from natural disasters (Neria, DiGrande & Adams, 2011; de la Corte, Kruglanski, De Miguel, Sabucedo & Diaz, 2007; Norris, Friedman, Watson, Byrne, Diaz & Kaniasty, 2002). Another intensifier factor of terror traumas is that the numbers of stimulants which remind individuals of their past traumas are higher than in the case of individual traumas due to the complex nature of social systems. Furthermore, collective reinforcing behaviors, such as excluding potential opponents from the community, makes getting over the trauma more troublesome. Since sometimes "one's expectation about a future event actually produces the event" (a self-fulfilling prophecy) the trauma cycle may be reinforced (Rinker & Lawler, 2018, p. 154). Consequently, even if resilient people may be able to continue their life in a balanced way, certain terrorized people develop various psychological disorders in the aftermath of terror attacks (Bonanno, 2004; Bonanno & Mancini, 2012; Havenaar & Bromet, 2005).

According to Lacy and Benedek (2003, 2004), three phases can be observed after a terror trauma: immediate reaction, intermediate reaction and long-term reaction. In the first phase, people try to reach to their loved ones in order to learn about their situation or to get support from them. Immediate reactions may lead to sleep disorders, to anxiety or aggression by triggering psychological diseases such as anxiety, stress, insomnia, depression and posttraumatic stress disorder. In the intermediate reactions, the traumatic situation is recalled with an ele-

vated autonomic arousal. Stress, the development of new somatic symptoms and / or the aggravation of the actual symptoms may accompany to this phase. In the long-term reaction, reparation of one's life, disappointment or continued bereavement could be seen (Lacy & Benedeck, 2003).

Posttraumatic stress disorder (PTSD) is one of the most significant consequences of terror attacks which occurs not only among individuals, but also at the society level (Lemos, 2015). Fractious anger is a strong determinant of PTSD among individuals and societies exposed to various types of traumatic experiences (Orth & Wieland, 2006). Traumatic events create a threat to people's existence and progressively trigger a survival stage. Therefore, traumatized people continue to be perturbed even if the actual threat vanishes. Anger shows up as a significant consequence of this unbroken survival stage, since it plays a self protective role and carries a more adaptive feature than fear (Shaver, Schwartz, Kirson & O'Connor, 1986; Orth & Wieland, 2006). It is a universal emotion because of its survival role: it prompts people to detect their environment and to stay hypervigilant in order to perceive every threat around them (Rinker, Lawler, 2018; Novaco & Chemtob, 1998).

In addition to its survival role, anger may place people in a vicious cycle. Members of an angry and traumatized society desire to take revenge from the bully in order to overcome their vulnerabilities caused by their helplessness (Rinker & Lawler, 2018; Novaco & Chemtob, 1998). This desire provokes violent behaviors against the perpetrator and tends to cause an ongoing anger cycle which may also trigger violence in the family. Since members of a traumatized society see the world split into two different parts which are secure and insecure, they sometimes act as a victim and sometimes as a perpetrator: this split perception further contributes to the anger cycle. This anger cycle may be reinforced through the effect of fear generated by media organs, by dehumanizing the other and arresting people to strengthen security in the society. If such a society is not treated, empowered, supported and secured, this anger cycle persists and leads to build an "us versus them" mindset among subgroups of the society. (Rinker & Lawler, 2018).

Depression is also common among societies exposed to terror attacks (Shalev, Freedman, Peri, Branndes, Sahar, Pitman, 1998; Salguero, Fernandez-Berrocal, Iruarrizaga, Cano-Vindel, Galea, 2011). It is characterized by "depressed mood or loss of interest or pleasure during the same 2-week period and represents a change from previous functioning" (APA, 2013). Sleep distortions such as insomnia and hypersomnia, somatic complaints, distractions, suicidal thoughts and PTSD may accompany this disorder (APA, 2013). People tend to feel scared, anxious and lost in the face of terror attacks (Hobfoll, Canetti-Nisim & Johnson, 2006). Therefore, members of terrorized societies tend to develop depression in the subsequent months of the terror assaults (Salguero, Fernandez-Berrocal, Iruarrizaga, et al., 2011). For instance, a significant number of residues of the Oklahoma City bombing and of the Istanbul bombing of November 2003 experienced PTSD and depression simultaneously 6 months after the attacks (Page, Kaplan, Erdogan & Guler, 2009; North, Nixon & Shariat et al., 1999). A considerable percentage of survivors of the 2004 Madrid bombing developed PTSD and depression 1 month after the attack (Miguel-Tobal, Cano-Vindel, Gonzales-Ordi et al., 2006). These findings prove the prevalence of major depression and PTSD comorbidity in the aftermath of terror attacks and negative psychological impacts of terrorism on societies.

Another common psychological disorder experienced by survivors of terrorized societies is general anxiety disorder (Palmer, 2007). "General anxiety disorder is characterized by excessive anxiety and worry, occurring more days than not for at least 6 months and by significant distress" (APA, 2013, p. 222). The unpredictability of terror attacks, the intention of creating violence in the society, spreading terror and decreasing the safety of people create worries about life itself. These conditions cause anxiety among terror survivors, resulting in hypervigilancy and somatic complaints (Neria, Gross & Marshall, et al., 2006). It has been observed that a single person's exposure to a frightening event is different from a community's exposure to that event, because fear passes easily from one person to another and places people in a state of alarm (Robin, 2004). Be-

cause of all these reasons, general anxiety disorder draws the attention of mental health professionals in societies exposed to various terror attacks (Ghafoori, Neria, Gameroff, et al., 2009).

The prevalence of risky behaviors gets higher in period of terrorism and traumatized people tend to use alcohol, tobacco, psychotropic drugs more than during the time prior to terror attacks. The substance use stimulates the central nervous system and it has a probability to contribute to the symptom formation of psychiatric and psychological disorders by creating an ongoing symptom cycle (McFarlane, Atchison & Yehuda, 1997; Vlahov, Galea, Resnick, Ahern, et al., 2002). One example is seen as a comorbid increase in PTSD, depression, and alcohol consumption in the aftermath of terror attacks. A simultaneous increment of alcohol consumption and depression prevalence in Manhattan after the 9 / 11 attack, and an increase in the PTSD prevalence and alcohol consumption in the aftermath of Oklahoma City bombing were observed (Vlahov, Galea, Resnick, Ahern, et al., 2002; North, Nixon, Shariat, et al., 1999). The reason why substance use increased following aversive situations is explained with a nicotine dependence increase in depression states, where a substance is resorted to as a coping mechanism and as self-medication (Hughes, Hatsukami, Mitchell, et al., 1986). Researches show that a close proximity to the scene and a high automatic stimulation before the disaster increase the risk of developing substance use and PTSD as a comorbid disease. Finally, frequent risky sexual behavior and breakdown in relationship qualities develop as significant consequences of stress and substance dependence (Vlahov, Galea & Resnick, 2002).

Consequently, it is obvious that terror trauma affects the physiological and psychological health of the members of terrorized societies in a negative way, it induces stress at the individual as well as at the collective level and creates great destructive effects on people.

1.5. COLLECTIVE TRAUMA

According to Erikson (1976), "collective trauma is a blow to the basic tissues of social life that damages the bonds attaching people together and impairs the prevailing sense of communality" (p. 153-154). Natural disasters, accidents, wars, terrorism, politic, ethnic, religious or sexual abuses and violent behaviors are some examples of collective traumas which have a tendency to increase the psychological stress of individuals in a society exposed to such events both directly and indirectly (Krystal, 1968).

Volkan (2000) claims that "natural / accidental disasters" should be differentiated from "man-made disasters" as they have different structures and effects on societies. He continues that "tropical storms, floods, volcanic eruptions, forest fires or earthquakes" are primary examples of natural / accidental disasters, while war or war-like situations including terrorism and genocide are examples of man-made disasters (Volkan, 2000, p. 178). However, it should be noted that there may be complicated situations where man-made and natural or accidental disasters may be interwoven. Despite the common traumatic characteristics and effects of natural or accidental and man-made disasters such as causing anxiety and bereavement, the intentionality of the man-made disasters lead to severe ethnic, national or religious hostilities unlike natural or accidental disasters (Volkan, 1999a, 1999b). Because of the intentional fact of man-made disasters, people are inclined to perceive them as destiny, whereas they are inclined to qualify man-made disasters as hostile attitudes realized by a certain opponent group (Lifton & Olson, 1976).

A community is subject to collective trauma if the traumatic experience leaves a negative and threatening impact on peoples' memories and on basic cultural values, which is difficult to remove (Smelser, 2004). Smelser (2004) claims that collective trauma is more likely to take place within an extended and controversial framework in a socio-culture exhibiting a weak past and composition, which tends to be traumatized by the demanding situation. Especially historical

trauma is a type of collective trauma where past traumas significantly affect the members of a society, due to the fact that a trauma experienced by a society in the past transmits across several generations (SAMSHA, 2016). Neal (1998) adds that a cultural trauma appears in the presence of a disruption in the core beliefs of a group regarding the continuation and survival of their community.

Cultural traumas can be better understood by examining intergenerational transmission of collective trauma within the context of collective identity and memory. Collective trauma, collective memory and collective identity are three main elements of cultural trauma that may shake the foundation of a traumatized culture (Smelser, 2004). Individual, collective or cultural traumas require a system where they can materialize. In individual trauma, the system is an individual who can be affected by internalizing the harmful situations via memories, whereas in cultural trauma, the system is society itself (Smelser, 2004). A social system is constructed by complementary organizations which are interrelated by their functions and their places in the subgroups of a society. Since these subgroups are interdependent and collaborate with each other, an act coming from the outside or from their members may affect members of the groups and also the individual and especially the large-group identity of these members (Parsons, 1991; Volkan, 2001).

Trauma is experienced horizontally by communities and is also transmitted vertically by generations. The vertical transmission of trauma is called "intergenerational trauma" and it refers to not experiencing the traumatic event from the first hand, but to experiencing its various effects through projections of previous generations, which is a defense mechanism (Rinker & Lawler, 2018). People who share the same intergenerational trauma may not know each other, however they share the same collective identity and collective unconscious (Çeviker, 2009). The scars of a traumatic experience remain across generations and are transmitted from people to people through biological, psychological, familial and societal organisms (Weingarten, 2004). The generation unable to

mourn and thus not able to resolve the trauma as a natural healthy process, reflect unresolved traumas to the next generation (Volkan, 2001).

Organisms that carry traumas are multidimensional. In addition to biological genes and the construction of human cells, evident or mostly subtle communication patterns in a traumatic atmosphere play important roles in the transmission of trauma and on the psychodynamic development of traumatized families' children (Yehuda & Bierer, 2007; Bako & Zana, 2018). This process may be better understood by mentioning communication theory. According to communication theory, communication is inevitable. There are repeating patterns in our communication with others, which are consisted of analogic and digital codes. While digital codes include the rational characteristics of a message which are demonstrated by letters and numbers, analogic codes include body language and paralinguistic factors. In addition, human beings make contact with each other through meta-communication which is formed by gestures (Watzlawick, Beavin & Jackson, 1967). Because trauma settles into the body and it reminds itself in every occasion until it is processed, it passes from a previous generation to the next one through non-verbal and paralinguistic communication factors (Baum, 2013). Moreover, the unspoken traumas take a significant place in the family by becoming a "family myth", since parents in traumatized families usually do not tell their traumatic stories to their children: they are frightened of the possible re-emergence of their threatening emotions. Therefore, children of these families try to gather pieces of their families' traumatic stories over time through narratives and may complete these stories with their own fantasies (Rinker & Lawler, 2018; Botcharpva, 2001). Having the same nightmares as one's family members is one of the strongest indicators of the transgenerational trauma in a family (Bako & Zana, 2009).

Consistently, it is well-known in the psychoanalytic literature that a child absorbs the emotions and perceptions of his / her parents as well as the environment in which they were raised. These emotions, perceptions and atmosphere become absorbed by the psychic apparatus of the child consciously or unconsciously (Bako & Zana, 2018). This absorption may occur also between two regressed

people or between people who are attached to each other in a particular way. In the traumatic atmosphere, the existing self of a person is transmitted to another person's self, which is still in the formation process (Volkan, 2001). Volkan (1987, 1997) calls the transmission of one's self to another as "deposited image". This situation makes the individuation of the child difficult or even impossible (Bako & Zana, 2018).

Consequently, the belief systems of traumatized parents which claim that the world is an unreliable and very dangerous place and that one should always observe one's environment for possible threats, pass to their children overtly. Traumatized families project their fear of death to their children more than the life instinct (Bako & Zana, 2018). In addition, children of traumatized families can feel shame if their family has a battered national or ethnic identity which in turn makes them susceptible to traumatic experiences (Weingarten, 2004).

Furthermore, because of the "time collapse" of the traumatic situation, people perceive current threats with the gravity of past ones, and therefore perceive current threats stronger than their actual value. In these situations, past and present intermingle (Volkan, 2001; Prager, 2003). The past traumas are remembered also in anniversaries and ritual ceremonies. However, in these rituals, the past is perceived separately from the present which is a healthy process (Volkan, 2001).

Collective identiy and collective memory are two interwoven concepts of collective traumas. Identity is divided into individual and collective identities and it was first defined by Erikson (1956) as "ego identity" in his past psychoanalytical studies, which later transformed into only "identity". He described the "identity" as "a persistent sameness within oneself ... and a persistent sharing of some kind of essential character with others" (Erikson, 1956 p. 57). Individual identity includes an "inner working model". This model is perceived and experienced only by the person who owns that identity. Another component of the identity is the personality organization which is again a

psychoanalytic term and it is perceived by an outsider differently from the core identity (Erikson, 1956). Volkan (2001) interprets the "large-group" identity based on the individual identity defined by Erikson (1956) as "the subjective experience of thousands or millions of people who are linked by a persistent sense of sameness while also sharing numerous characteristics with others in foreign groups". On the other hand, Freud (1921) likened the group identity of regressed groups to the oedipal stage in terms of idealizing and directing their anger to the leader. The comparison between an oedipal figure and group identity was later turned to a breeding mother figure by various psychologists (Anzieu, 1971,1984; Chasseguet-Smirgel, 1984). Afterwards, regressed groups' extreme reaction to an external threat towards their group identity was discovered and it is likened to the basic object relations between a child and his / her mother (Kernberg, 1989).

Volkan (2008, 2001) claims that the integrity of large-group identities are defended by the members of that group in the presence of an external threat or demanding situations. Therefore, a large-group identity and the "we-ness" of the group become more apparent in the presence of danger, but not in comfortable time periods where people usually focus on their routine life. This protection may be provided through the relevant group's members or its leader. In order to protect their large-group identity, to struggle with their narcissistic injuries and feelings of humiliation, the members of that group externalize people who they are in conflict with and view them as "others", try to maintain their border and also their diversity, identifying with the victim who belongs to their group and dehumanizing the perpetrator who belongs to the other group which may put them in a sado-masochistic cycle. In doing so, they tend to see the world as "good" and "bad" and also to place themselves in the opponent role just as they occupy in the victim role (Volkan, 2008). In addition, Volkan (2001) argues that the large-group identity becomes stronger than a mother figure and he says that large-group identity consists of multiple components nested. As a result, every large-group differentiates itself from others.

Collective traumas create a collective memory about people's past which has a psychological impact on their current lives (Pennebaker, Paez & Rime, 1997). In collective traumas, there is a shared past shaped by the society and that past formalizes people's identities within their communities. The word "remembrance" which is combined by words "member" and "remember" makes it clear that collective trauma and collective memory are an inseparable whole (Çeviker, 2009). Robben (2005) claims that traumatic experiences are generated by the inability to remember or the inability to forget them totally. On the other hand, the effort made to remember or forget the traumatic memory makes it impossible to process and therefore resolve (Robben, 2005). Hence, the inability to interpret the past and the inability to unify various pieces of it may lead to identity distortions or it may force people to form new identities (Eyerman, 2001). A traumatized society may be exposed to numerous stimuli resulting from different sources which remind them of their traumatic collective memories in their everyday lives. Therefore, a society that is suffering from community trauma tends to keep itself away from various stimuli that have the potential to trigger its members' past traumatic experiences and from expressing their painful emotions. In this way, such people experience a fallacious sense of security. Additionally, because experiencing past traumas and repeatedly feeling ashamed are agonizing, traumatized people become forced to lapse into silence by social pressure (Rinker & Lawler, 2018).

According to Volkan (1988, 1999, 2004, 2006), people recall a specific trauma, but not all traumas that they experienced. In addition, they choose to pass this trauma to the subsequent generations in an unresolved way. Therefore, he calls these traumas as "chosen traumas". Moreover, he suggests that there are also "chosen glories", which are simpler and weaker "cultural amplifiers" than chosen traumas and are remembered by the members of a large group in order to compete with the humiliation and shame derived from their past traumas. Chosen glories create a gratification and high self-esteem for the large-group members and they become a part of these members' children's identities (Volkan 2001, 2008).

Collective and cultural traumas create various emotions such as helplessness, terror, uneasiness, anger, loneliness, numbness and alienation (Krystal, 1968). Additionally, they lead to social, economic and political deterioration in a society. A cultural trauma may also damage or strengthen identities of people and place impressive memories on them (Volkan, 2001, 2008).

In conclusion, collective trauma damages the social tissue and the psychological health of a society. Its consequences and the deteriorations that it causes are generally long lasting among the members of a traumatized society (SAMSHA, 2016).

1.6. THE RISK FACTORS IN THE DEVELOPMENT OF TRAUMA

Studies demonstrate certain risk factors determine the tendency of being traumatized and having psychological and psychiatric disorders (Brewin, Andrews & Valentine, 2000). These are gender, the amount of time that has passed after the terrorist attack, proximity, direct or indirect exposure, the socio-cultural background, the economic situation, perievent and post-event symptoms, past traumatic experiences, age, the education status, the economic situation, psychological stress and family relationships, health and community support, and history of mental health problems across the family (Marmar, Metzler, Chemtob, Delucci, et al., 2005; Wood, Salguero, Cano-Vindel & Galea, 2013; Galea, Vlahov & Resnick, et al., 2003).

Dissociations and panics that are experienced during or immediately after the attack are strong determinants of future developments of PTSD (McNally, 2003). "Peritraumatic dissociation" can be defined as "a dissociative experience that occurs at the actual time of the traumatic event and includes features of depersonalization, derealization, and altered time sense" (Yehuda, Bryant, Zohar & Marmar, 2018, p. 275) and "panic attack" as "an intense and sudden feeling of fear accompanied by four or more spontaneous symptoms that develop abruptly and reach a peak within approximately 10 minutes" (Wood, et al., 2013, p. 338). Peritraumatic panic includes the same symptoms as panic attack and occurs at the

time of the traumatic experience (Galea, Ahern, Resnick, et al., 2002). Peritraumatic dissociation is associated with peritraumatic panic and therefore they both are significant determinants in the occurrence of PTSD, depressive disorders and other anxiety disorders (Marmar, Metzler, Chemtob, Delucci, et al., 2005, Wood, et al., 2013). People who are exposed to a severe catastrophic event, had life stressors prior to the event and experienced difficult emotions, have greater tendency to suffer from perievent panic. In addition, people who lack social support and had life stressors in earlier times due to adversity, have a high probability to develop PTSD (Wood, et al., 2013). Subjective experience has been found to be a strong cognitive predictor of peritraumatic panic and dissociation. People who are scared of non-dangerous stimuli (called extended fear), such as believing the police to be terrorists, and perceive the event in a negative way by classical conditioning; which refers to "a process of learning that is induced by the repeated pairing of a neutral stimulus with a potent biological stimulus, eliciting a usually innate reaction" (Jarius & Wildemann, 2015, p. 322), and stimulus generalization; which corresponds to "an animal's behavior, established to one stimulus may be elicited by other stimuli too" (Robinson, Whitt & Jones, 2017 p. 159), tend to develop perievent panic and also psychological disorders (Filkukova, Hafstad & Jensen, 2016; Rubin, Berntsen & Bohni, 2008). It should also be noted that characteristics of people such as pessimism make them sensitive to experiencing perievent panic and dissociation (Filkukova, et al., 2016). Finally, biological factors, such as high levels of sympathetic arousal that cause a liberation of certain neurochemicals and expanded catecholamine, lead to increased panic reactions during or immediately after the traumatic event (Pitman, Shalev & Orr, 2000; Charney, Deutch, Krystal, Southwick & Davis, 1993).

In addition to the perievent symptoms, a significant number of sources in the literature emphasize the role of past traumatic history of individuals and past psychiatric histories in families on their vulnerability to being traumatized by a subsequent demanding event (Brewin, Andrews & Valentine, 2000; North, Nixon & Shariat, et al., 1999; Grieger Douglas & Waldrep, et al., 2005, Lee, Isaac &

Janca, 2002). People who had a trauma history in the past have a high probability to develop mental diseases when they are confronted with a further traumatic situation in their lives. However, being highly traumatized by an event may provide a basis for a further posttraumatic growth and render the traumatized person resilient (Brewin, et al., 2000). This is so because high stress overstrains people and the more they are stressed, the more effort do they produce to overcome the demanding situation (McMillen, Smith & Fisher, 1997). Additionally, since genetic factors are passed from person to person, having a family background with mental diseases is a susceptibility aspect for the occurrence of mental diseases in the aftermath of a traumatic situation (Lee, et al., 2002; North, et al., 1999; Breslau, Davis & Andreski, et al., 1995).

PTSD and other psychiatric disorders may occur at different times, with different durations and different time passages after the potential traumatic event. Researches show that even 2.6 years after from a terrorist attack, PTSD can be a risk factor (Verger, Dab & Lambing, et al., 2004). Additionally, a PTSD that develops in the first month after a terrorist attack may be a determiner for PTSD development at the end of the third month after the attack (Eşsizoğlu, Yaşan & Bülbül, 2009).

Individual characteristics such as gender and age are other significant factors that influence the prevalence of psychiatric disorders among people exposed to a traumatic event. Researches show that females have a greater tendency to exhibit mental disorders than males after a traumatic experience, especially PTSD (Frank, Njenga & Nicholls, et al.; 2004, Verger, Dab & Lambing, et al., 2004). On the other hand, no significant difference obtained among the PTSD prevalence of male and females in the aftermath of ongoing terror attacks (Canetti, Galea & Hall, 2010). In terms of age, there are, however, different views. Some researches consider advanced age as being a protection factor, while others consider it as being a vulnerability factor for psychiatric disorders. Some researches show that older people (e.g. 35-54 years-old) tend to develop PTSD more than younger people in the aftermath of a challenging situation (Thompson, Norris & Hanacek,

1993). However, there are also some researches which claim that older people has a lower probability of being traumatized than younger ones (Gibbs, 1989). It has been observed that different results may be caused by different economic and education status and psychological stress across the age groups since low education status, economic situation and high psychological stress form a risk factor for further psychiatric diseases after a terrorist attack (Verger, Dab & Lamping, et al., 2004; Galea, et al., 2003).

The type of terror attack experience (direct or indirect types) has a very significant role in the development of psychiatric disorders (Zimering, Gulliver & Knight, et al., 2006). Direct exposure includes being located in a near proximity to the scene, being injured, having a close friend or relative who witnessed the event and were injured or died in the scene. Indirect exposure includes exposure to the potential traumatic event through mass media and people informing other people about the event (APA, 2000). Even if exposure to the mass media is usually voluntarily, one may also involuntarily come across the media giving information about terror attacks (Ben-Zur, Gil & Shamshins, 2012). According to some studies, direct exposure that involves loss of a loved one, being injured and being a witness of the event constitutes a high risk factor in connection with the development of mental disorders (Verger, Dab & Lamping, 2004; Neria, et al., 2005). However, both direct and indirect exposures carry the risk of developing various psychiatric disorders (Zimering, et al., 2006).

To sum up, various demographical characteristics of directly or indirectly traumatized people may play a major and determining role in the development of mental disorders in the aftermath of a possible traumatic event, such as a terrorist attack.

1.7. PSYCHOLOGICAL WELL-BEING

As psychological well-being is a multidimensional concept, it lacks a precise definition. However, there are two dimensions which aim to explain what a

healthy person and society mean; hedonic view, derived from ancient Greek philosophy, and the more current eudaimonic view (Ryan & Deci, 2001).

Hedonic view asserts that psychological well-being can be measured only in the context of subjectivity. It offers the concept of subjective well-being (SWB), which stands for the totality of the ultimate pleasurable moments in life, and consists of three aspects: getting satisfaction out of life, the existence of positive mood and absence of negative mood (Diener & Lucas, 1999). However, negative and positive indicators remain ambiguous and are rife with interpretation and subjectivity (Suh, 1996). Scientific researches explain stress, defined by Selye (1976) through a systemic theory and by Lazarus (1966) through a cognitive theory. Selye (1976) mentions that stress is "nonspecifically caused changes", while Lazarus and Folkman (1986) declare "cognitive appraisal and coping abilities" determine stress (Selye, 1976, p. 64; Lazarus & Folkman, 1986, p.63.

Eudaimonic view, on the other hand, goes beyond subjective well-being and includes a search for ‘the true self’ and reaching one's true potential. It provides a good-enough functionality - a resilience which may be compromised over time- being in a harmony with one's self and surroundings, creativity, liveliness, and constructiveness rather than destructiveness. It also encompasses more challenging and developmental processes than hedonic view through personal expressiveness (PE). Moreover, eudaimonic view suggests that the fulfillment of desires does not always bring well-being. Therefore, eudaimonic well-being includes not only relaxing characteristics but also authenticity. In addition, certain researchers consider psychological well-being (PWB) distinct from subjective well-being, despite their apparent similarity. These researches define PWB as "autonomy, personal growth, self-acceptance, life purpose, mastery and positive relatedness" (Ryff & Singer, 1998, 2000). In addition, researches show that subjective well-being is based on the prevalence of pleasurable experiences rather than their magnitude (Larsen & Diener, 1987).

Researches indicate that there are numerous dimensions which determine subjective well-being. These dimensions include "health, subjective satisfaction, income, biological influences, behavior and outcomes such as social contact, demographic variables such as age, gender, race, employment, education, religion, marriage and family, life events, the type of activities, personality such as high self-esteem, internality, extraversion, intelligence, androgyny, optimism and neuroticism" (Diener, 1984). However, these dimensions usually have a bidirectional relationship with one's well-being: a low income and unhealthy lifestyle have great potential to cause unhappiness and distress, but a high income does not guarantee total well-being, as a low-income individual can certainly enjoy a pleasurable life. Still, an increase in income has the potential to improve well-being (Campbell, 1981; Fredman, 1978). On the other hand, subjective well-being increases health, just as health increases well-being (Barry & Bousfield, 1936; Larson, 1978). In addition, challenging life events and peoples' attributions to them play an important role in peoples' well-being (Suh, Diener & Fujita, 1995).

Epistemological researches usually focus on the psychopathology of individuals in order to measure their general health, especially in the aftermath of a disaster. However, taking into consideration different philosophical views on well-being, some gaps are evident in these researches. Cowen (2000) defines individual and population wellness as the nonappearance of a psychopathology, healthy attitude models, ability to function in daily life and at work, as well as getting pleasure out of life. Pfefferbaum and Wyche (2008) add that wellness is more than the absence of psychopathology and give more importance to having a pleasurable life and minimal distress. They agree with Cowen (2000) that wellness is a continuum and should always be taken into consideration, not just in the aftermath of a disaster. In addition, Quarantelli (1986), defines a disaster as "a consensus-type crisis occasion where demands exceed capabilities" (as cited in Norris, et al., 127, p. 137).

Society well-being, according to the hedonic view, is built by magnifying contentment and personal benefits. According to eudaimonic view, however, ele-

mental demands must first be fulfilled in order to create society well-being. To realize this, community leaders should provide a conducive environment. Winnicott (1953) also claims that a nurturing environment is necessary for healthy development. On the other hand, while hedonistic view searches for the definition of well-being and eudaimonic view probes what is necessary for well-being, self-determination theory (SDT) advances a more holistic view. According to SDT, building a psychologically healthy society requires both fulfilled needs and a conducive environment. A convenient environment is necessary for ensuring psychological growth just as psychological growth is necessary to cover one's needs (Ryan & Deci, 2000).

In summary, there are two basic approaches investigating individual and societal well-being, which contain distinctive and common features. However, both agree that well-being includes both subjectivity and fulfillment of needs.

1.8. RESILIENCE

Although epidemiological data demonstrate that people are victims of minimum one catastrophic situation during their lives, a significant amount of people do not experience psychological disorders (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995; Ozer, Best, Lipsey & Weiss, 2003). Also, people exposed to traumatic situations such as loss, terror and abuse do not struggle with the same amount of distress. While some of them experience intense stress and physical and / or psychological problems shortly after the adversity or after a certain passage of time, others just undergo a minor amount of stress. Certain people do not reveal any psychological disorder after a potential challenging situation in the long term and they continue their life with the same functionality as they were accustomed to (Bonanno, 2004; Bonanno & Mancini, 2012). A considerable number of researchers attribute this ability to functioning in spite of the extreme difficulties of the life to a term called "resilience".

The term "resilience" derive from the Latin verb called "resilire" which means "to rebound" or "to bounce back" (Masten, 2014; Soanes & Stevenson,

2006). The various definitions of psychological resilience by different researchers show common and well as distinctive features. According to Rutter (2006), resilience is resistance toward a circumstantial risk or accomplishment of stress and difficulty, regardless of any encounter to a challenging event. On the other hand, Bonanno and colleagues (2005) declare that resilience is having a lower degree of depression and posttraumatic stress disorder in the aftermath of a potentially traumatic event and being able to struggle with the adversity (Bonanno, Rennick & Dekel, 2005). Bonanno (2004) also claims that, resilience is the ability to keep an almost balanced and healthy degree of psychological and physical functions likewise the capability to have productive involvements and favorable feelings in adults who became a subject to an unusual and excessively troublesome situation such as a death of a close acquaintance or a destructive or a deadly circumstance about their lives. He adds that resilient people can experience a particular amount of stress and live physical and / or psychological problems for a short time such as having sleeping disruptions and invasive thoughts in the face of traumatic incidents, but they are able to maintain their functionality at an optimal stabilized level (Bonanno, 2004). On the other hand, Pfefferbaum and Wyche (2014) argue that resilience is more than the absence of psychopathology. They agree that even if people do not develop certain psychopathological symptoms, they may have high psychological distress and low life satisfaction. Therefore, the inner peace and psychodynamic components of people should also be evaluated in order to understand their resilience level. Moreover, the duration, type and severity of the catastrophe that challenge the homeostasis of the existing system also determine the psychological health of a person or a community and requires a stronger resilience level (Pfefferbaum & Wyche, 2014). According to certain personal psychologists, resilience is "ego resources" which are accessible and ready to be used by individuals in the presence of diverse demanding situations (J. H. Block & J. Block, 1980; Meyer & Handler, 1997). Besides, Rischardson's (1990) model claims that resilience is "the ability to be biopsychospiritually homeostatic" in the presence of a potential trauma and it involves a "reintegration process". Agaibi and Wilson's (2005) generic model of resilience acknowledges that resilience is a transaction

between "personality, affect, modulation, ego defenses, coping style and mobilization, and utilization of protective factors."

In addition to individual resilience, social, communal and familial resilience play important roles in society health. A community consists of individuals and therefore community resilience shares certain common characteristics with individual resilience, namely the ability to adapt and manage the stress by maintaining hope. However, Gestalt theory claims that the whole is greater than the individual parts and therefore community resilience also has discriminator factors (Perls, 1969). These factors are the ability to use socio-political and socio-cultural resources in addition to psychological and physical ones in order to maintain the adaptation, flexibility, functionality and strength of a community in the long run (Ahmed, 2004; Ganor, 2003). Kimhi (2004) claims that community resilience includes ability to cope with political violence. Moreover, Coles (2004) adds that community resilience refers also to obtaining capacities, skills and recognition about recovering from adversities. Pfefferbaum (2005) elaborates that community resilience includes significant collective and intentional operations. These operations serve to reduce problematic consequences of a demanding situation, to provide an interpretive approach towards the external environment and to continue life. Social resilience is similar to community resilience which is defined by Keck and Sakdapolrak (2013) as "the capacities to tolerate, absorb, cope with and adjust environmental and social threats of various kinds" (p. 8). It is comprised of three common characteristics which are "coping capacities, adaptive capacities and transformative capacities".

Since families are the smallest organisms which constitute a society, family resilience creates a strong and significant determinant of society resilience. Family resilience's particular structure forms an idiosyncratic resilience. However, demanding situations that occur in the family and in society such as terror attacks, especially ongoing ones, challenge the interpersonal functional adaptation of the family and therefore the family may fail to provide safety to their members (Weine, Muzorovic & Kulauzovic, 2004). One or more family members' exposure

to a traumatic situation makes the whole family witness and therefore be exposed to the relevant catastrophe (Finklestein, 2016). In addition, General System Theory claims that an alteration occurring in any components of a system affects also others (Bertalanffy, 1968). Therefore, distructive communication patterns such as avoiding emotional sharing in the family affect other family members in the system in a negative way (Bonanno, Brewin & Kaniasty, 2010). On the other hand, there are resilient families that are able to cope with the adversity and thus provide the safety of its individual members (Patterson, 2002). Family resilience is based on the ability to be homeostatic even in stressful time periods such as the presence of a traumatic situation or moving toward a new life cycle stage. These stages are based on the family members' developmental stages, their functioning, the entrance of a new member into the family and the separation of an existing member from it. Adverse situations aggravate the transition into the subsequent stages of the family by challenging family members' roles, structure and functioning (McGoldrick, 2011; Wardsworth, 2010). A family who is able to maintain its homeostasis during the transition between these stages even in demanding situations, to adapt to the next stage successfully, to make a new definition about the family and a new alliance with it on the new stage can be considered as a resilient family. Moreover, "belief systems, organizational patterns and communication or problem solving" form three basic components of family resilience that provide strength to cope with the adversity and maintain homeostasis. Belief systems are common beliefs among the family which have determinative characteristics on their perception and behavior about the demanding situation. Organizational patterns play important roles in maintaining the organization of the family and include togetherness, family members' taking requisite responsibilities for its union, and problem solving skills, which include open and coherent communication between the members of a family (Walsh, 2013).

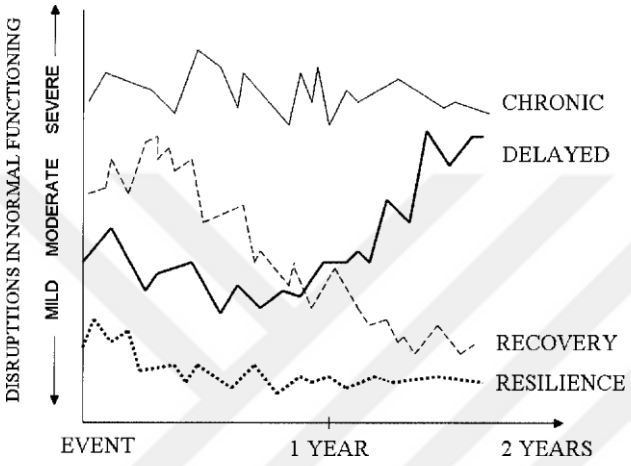
Due to the lack of sufficient resources about resilience, being able to continue to function was considered uncommon, maladjusted or being extremely healthful (Osterweis, Solomon & Green, 1984; Tucker, Pfefferbaum, Doughty,

Jones, Jordan & Nixon, 2002). However, current studies indicate that it is the most frequent answer to a possible traumatic event (Bonanno, 2004; Bonanno, 2005). Developmental psychologists were of the opinion that being able to function in the face of extremely disturbing situations is a normal reaction. A large number of children who grew up in adverse conditions such as having too low economic situations and were exposed to ongoing abuse could arrive to a normal level of functioning (Masten, 2001).

Resilience has certain distinctive characteristics. Bonanno (2004) remarks that resilience and recovery are two different things not to be confused. He argues that while recovery requires a course of impairment prior to a gradual return to the basic line, resilience requires an ongoing state of equilibrium which does not include a deterioration for a long time and is more than a lack of psychopathology (Bonanno, 2004). In addition to resilience and recovery, Bonanno (2004) explains the differential properties of "chronic and delayed disruptions in functioning" (p. 21). Chronic disruption requires a permanent deterioration in the healthy functioning and long lasting pathological symptoms. On the other hand, a delayed disruption necessitates a moderate level of functioning at the time of demanding situation and a severe level of functioning with a gradual retrogression in a traumatized individual's capacity to function across time (Bonanno, 2004). Moreover, Pfefferbaum and colleagues (2008) claim that resilience is better understood by focusing on the process and the ability but not on the consequence. This is because resilience connotates the time requisite in order to reinstate the equilibrium (Bodin, Wiman, 2004). In addition, resilience is not mere stability but ability to adapt to new situations which may require changes to maintain homeostasis (Handmer & Dovers, 1996; Waller, 2001). Therefore, despite certain omissions, some scientists argue that resilience is not similar with resistance (Rutter, 2006; Bodin, Wiman, 2004).

Figure 1.1.

Prototypical Patterns of Disruption in Normal Functioning Across Time Following Interpersonal Loss or Potentially Traumatic Events



Reference: Bonanno, G. A., Papa, A. & O'Neill, K. (2001). Loss and human resilience. *Applied and Preventive Psychology, 10*(3), 193-206.

Resilient people have certain characteristics which are; sense of coherence, identity continuity, self-enhancing biases, self-efficacy, hardiness and certain attachment dynamics such as securely attached and dismissive one (Antonovsky, 1987; Mancini & Bonanno, 2009; Bandura, 1982; Kobasa, 1979; Bonanno, 2004). In addition to certain personal characteristics which determine resilience, there are also efficient coping mechanisms in the face of a demanding situation. These coping mechanisms are repressive coping, positive emotions, social support and emotion focused vs. problem focused coping. Resilient people tend to avoid a fearful provocation by repressive coping (Bonanno & Singer, 1990; Bowlby, 1980; Bonanno & Field, 2001). They decrease their pain by focusing on positive attitudes and emotions (Friedrickson & Levenson, 1998; Keltner & Bonanno, 1997; Bonanno 2004; Mancini & Bonanno, 2009). They receive and give social aid by

participating in social communities such as religious ones (Cohen & Wills, 1985; Brewin, Andrews & Valentine, 2000; Meichenbaum, 2005). They use emotion focused coping by regulating emotions, and problem focused coping by approaching the existing problem or demanding situation in a dynamic way (Adlwin, 1999; Compas, Connor- Smith, Saltzman & Thomsen, 2001). Additionally, problem focused coping is considered more efficient than emotion focused coping since it reduces vulnerable feelings (Holahan & Moos, 1985).

In conclusion, resilient people's ability to function instead of demanding situations has the effect of decreasing the number of physical and psychological diseases among trauma survivors.

1.8.1. Resilience and General Health in the Aftermath of Terror Traumas

Resilience has a very significant role in ability to function in people exposed to terror traumas (Bonanno, Rennicke & Dekel, 2005). Many studies show that only a limited number of terror survivors experience mental illnesses. These studies are mentioned below.

According to a study conducted by North and colleagues (2002), just a few of terror survivors developed mental diseases, particularly diseases which arose after the attacks (North, Tivis & McMillen, 2002b). Additionally, there are researches which demonstrate that approximately 85% of the rescue workers were able to cope with a disaster that they experienced, recuperated and unchanged in the aftermath of a disaster (Duckworth, 1986; Alexander & Wells, 1991). Furthermore, although participants of another study were exposed to the September 11th attack in an extreme way, the majority of them did not experience any psychiatric diseases as well (Bonanno, Rennicke & Dekel, 2005).

Moreover, epidemiological data show that even though more than a half of the United States society experienced terror traumas, just between 5 and 10 percent of them developed PTSD (Ozer, Best, Lipsey & Weiss, 2003). Similarly, another research data indicate that only 7.5% of the Manhattan citizens developed

PTSD in the aftermath of the September 11th attack (Galea, Ahern & Resnick, et al., 2002). One segment of the population who are exposed to terror attacks at a high level are first responders such as firefighters, first-aid crew and rescue workers. However, studies indicate that after the Oklahoma City bombing, just 13% of the firefighters developed PTSD (North, Tivis & Mcmillen, 2002a).

In addition to the Western countries, Non-Western countries' continuous exposure to the terror attacks carry great importance since their population has similar exposure with the sample of this study. The research of Zara and colleagues (2009) on posttraumatic stress and depression touching on the terrorist attack occurred in November 2003 in Turkey suggests that only 35.6% of survivors declared PTSD symptoms and 23.5% of that declared depression symptoms in the aftermath of this disaster. Even if this study underlines the destructive effect of terror attacks on the general health, people without depression and without PTSD may be indicators of resilience. In addition, Israel is one of the few countries which experience an ongoing political violence for a long time like Turkey. Social workers in Israel who were exposed to terror attacks during 2004 as citizens and also as personnel stated minor degree of personal stress, minor degree of burnout and moderate degree of invasive thoughts (Ron & Shamai, 2011). Another investigation shows that posttraumatic symptomatology of the population increased during the ongoing terror attacks that occurred in Israel (Gelkopf, Solomon & Bleich, 2013). In addition, the difference between general health of people exposed to continuous terror attacks and those exposed to only a single attack is obvious: posttraumatic symptomatology of people exposed to just one attack decreased over time. However, a recovery was observed in the aftermath of several terror attacks among the Israeli population (Silver, Holman, McIntosh, Poulin & Rivas, 2002; Galea, Vlahov, Resnick, Ahern, Susser, Gold, Bucavulas & Kilpatrick, 2003). Sousa and colleagues (2013) also agreed that societies tend to show a great resilience and well-being despite exposure to political violence. Moreover, studies demonstrate that low resilience leads to higher prevalence of disfunctioning, emotional distress and acute stress reactions (Amital, Amital,

Shohat, Soffer & Dayan, 2012). Another study indicates that only 10% of its sample developed PTSD like symptoms, 15% exposed to a terror attack directly, while 36% had a close person exposed to a terror attack (Gidron, Kaplan, Velt & Shalem, 2004). This result is similar with another research in which 9.4% of its sample developed PTSD (Bleich, Gelkopf & Solomon, 2003).

As seen in numerous studies, the destructive effects of terror attacks on the general health is inevitable. In addition, the effects of ongoing terror attacks differ from the effects of just a single one. While the effect of multiple terror attacks can continue for a long time period, people of these communities may become accustomed to being exposed to several terror attacks after some time. This habituation may provide resilience in countries such as Israel and may sustain people power to fight with political violence.

Consequently, resilience is not rare in both Western and non-Western countries and it provides a very important progress after terror exposure. Therefore, psychiatric diseases are not common in the aftermath of terror attacks and many people are able to continue to function as they did before the attacks (Bonanno, et al., 2005).

1.8.2. Individual Differences And Characteristics Of Resilient People

1.8.2.1. Sense of Coherence

Studies suggest that "resilient people have a sense of coherence" (Antonovsky, 1987). Antonovsky (1987) defined sense of coherence as a universal orientation which corresponds to individuals who feel confident in an extensive, continuous and active way such that interior and exterior stimulants become constructed, foreseeable and accountable. People with sense of coherence believe that the experiences that they have, are understandable, significant and controllable. In other words, they are able to find meanings in even challenging events, to comprehend and explain what happens to themselves, to confront themselves with the accident, to make sense of the events to which they are confronted and finally

they have enough coping ability to overcome the consequences of a possible traumatic event (Tedesci & Calhoun, 1995).

Since these characteristics originate from the conditions that a potentially traumatic event may force, people with these features tend to struggle with the adversity in an efficient way and to adapt to difficult circumstances (Tedesci & Calhoun, 1995). Furthermore, researches indicate that people who do not consider their self as valuable and who do not see the world in an optimistic way have a huge difficulty to adapt to adversity (Janoff-Bulman, 1992).

1.8.2.2. Identity Continuity

"Identity continuity" is another factor that accompanies the sense of coherence among resilient people (Mancini & Bonanno, 2009). When a potentially damaging incident occurs, people's ordinary activities and habits are interrupted. It is also observed that people who lost a significant other, feel that a part of them is lacking (Shuchter & Zisook, 1993). As a result, they do not have the feeling of a continuous and complete identity. People who are led to a traumatic situation, usually consider their self as deteriorated or poor (Brewin, 2003). On the other hand, resilient people get over the traumatic situation with a little alteration in their view of identity and they feel that their identity is complete and endless (Bonanno, Papa & O'Neill, 2001). In this way, they tend to adapt to the demanding situation and to cope with the disaster (Mancini & Bonanno, 2006).

1.8.2.3. Self-enhancing Biases

Researches suggest that people who perceive their own self positive even in an unrealistic way, are able to cope with demanding situations efficiently (Taylor & Brown, 1994). Possible demanding circumstances challenge the potency of the self and the sense of hope about the future (Taylor, Wood & Lichtman, 1983). The positive view of the self plays a significant role in increasing favorable feelings about the future (Helgeson & Taylor, 1993). Even if unrealistic self-enhancing may cause social falsity, it may also turn people to gain social support

as a coping resource. These people become open to share their emotions with others and they tend to think that others have an ability and desire to listen to their apprehensions. In this way, their adaptability to the challenging situation increases (Mancini & Bonanno, 2009).

1.8.2.4. Self-efficacy

"Self-efficacy" is another significant factor that promotes resilience. It is an element of Bandura's (1982) Social Cognitive Theory. According to Bandura (1982), self-efficacy is the ability to feel that one can manage his / her surrounding situation and is convinced to have the capability to withstand demanding aversive happenings by showing an adjustment to that situation (Bandura, 1997). Apart from Bandura (1997), various researchers define self-efficacy as a feeling of having a certain capacity and positiveness about the future (Meichenbaum, 1985; Scheier, Weintraub & Carver, 1986).

Studies indicate that when a person believes in his / her skills, the possibility to overcome a challenging situation improves significantly (Benight & Bandura, 2004). Additionally, a limited amount of studies show that especially in the case of high prevalence of terrorism, self-efficacy is affected by a person’s favorable or distressing feelings coming from the past and anticipates future emotional states of that person (Fisher, Greitemeyer, Kastenmueller, jonas & Frey, 2006).

According to Bandura (1994), there are four fundamental sources which identify people's faith about their efficacy. They are: to be involved in successful experiences, to attend social interactions and to become convinced through their social environment about their capacity to achieve their aims. On the other hand, having negative feelings and somatic complaints diminishes people's efficacy toward their selves. First, breakdowns decrease one's belief in his / her efficacy, while success in the face of adversity increases it. Second, by having social interactions, people get a chance to observe and learn that other people similar to themselves cope with the adversity and are able to succeed in various domains. Third, people who are confronted with demanding situations, make an extreme ef-

fort to get over them. Fourth, there is a tendency to attribute somatic ailments and diseases to personal failure. Finally, cognitive, motivational, affective and selection processes play active roles in activating people's self-efficacy. Self-efficacy may influence a person's psychological health directly or indirectly by inhibiting some of their coping skills. Being goal-oriented, setting challenging goals, imagining to succeed in certain domains, positive attributions to certain tasks, perceiving the environment as a safe place, the character of actions and atmosphere that people choose, all these factors increase self-efficacy. In this way, people spend more energy to achieve their goals and their functionality heightens (Bandura, 1994).

1.8.2.5. Hardiness

Another important common characteristic of resilient people is "hardiness". Hardy people share common characteristics with self-efficient people. These people believe that they have an effect on accidents, and they consider a potentially traumatic event as a challenge, but not as a destruction. They take the responsibility of their lives and they interconnect with the difficulties of potentially dreadful conditions (Kobasa, 1979; Funk, 1992). Moreover, they are certain about their aims, capacity, and benefits and they are in a lively connection with their environment. They use their inner sources in an active and efficient way and tend to find an indestructible meaning beyond their experiences, even if those are potentially traumatic. They are aware of their inner power and their ability to direct their lives. In addition, they take the responsibility of their lives. They try to cope with demanding situations and avoid being devastated. Therefore, they are active arbiters, rather than passive subjects in their lives (Kobasa, 1979).

Maddi (2005) countered that instead of dramatizing an adversity, hardy people show brave behaviors and they are inspired to when facing aggravations. In this way they become ready to cope with difficult situations efficiently and they also motivate others to confront difficulties instead of moving away from the ad-

versity or enduring it effects in an exaggerated way. Hence, hardy people get a chance to achieve psychological growth (Maddi, 2005; Maddi & Kobasa, 1984).

In a study investigated by Bartone (1999) among military personnel, it is seen that hardier individuals have a smaller tendency to develop PTSD or depressive diseases. They are able to control stress, long term psychological, psychiatric and physiological diseases (Contrada, 1989; Topf, 1989). Bartone (1999) adds that hardy people are less vulnerable than non-hardy people. They show goal-oriented attitudes. They attribute positive meaning to demanding events and perceive the world in a more optimistic way. Therefore, they have the ability to convert a demanding situation into a psychological development opportunity (Bartone, 1999; Funk, 1992).

1.8.2.6. Attachment Dynamics

Bonanno (2004) asserts that different attachment dynamics with significant others determines resilience. People exhibiting avoidant attachment have a tendency to avert intimacy in their relationships, whereas people who are attached to significant others in an anxious way, tend to keep their closeness to them. On the other hand, people who are not attached in an anxious and avoidant way, are considered to be securely attached (Mikulincer & Shaver, 2007).

Investigations indicate that avoidant people show a low noticeable mourning and sadness following a loss and a possibly traumatic event. However, they tend to have a postponed mourning, even if there is not sufficient studies which show this finding with strong evidence (Middleton, Moylan, Raphael, Burnett & Martinek, 1993). Moreover, dismissing people have a low level of anxiety and a high level of avoidance. They are autonomous and have a considerable capability to show a more resilient attitude towards the bereavement of a loved one compared to people with other attachment dynamics. On the other hand, fearfully avoidant people have a high level of anxiety and avoidance. They are likely to have cooping insufficiency (Fraley, Davis & Shaver, 1998). Furthermore, the value and characteristics of the relationship with the decedent are also a determinant

of the distress level. For instance, anxious people who have a conflicting relationship with their partner, have a great risk to show high distress in the course of bereavement. However they have also a possibility to individuate by separating from their partners and to show a psychological development. Somewhat differently, securely attached and dismissive people display a more resilient attitude in the case of loss of a loved one (Fraley & Bonanno, 2004; Mancini & Bonanno, 2009).

1.9. HYPOTHESES AND PURPOSE

Despite the growing literature on posttraumatic stress in Western studies, the long-term effects of terrorism on individuals and on communities such as what occurred in Istanbul has not been documented by any means. Studying it will certainly provide important implications for delivery of mental health services for not only people in Turkey but also all over world as terrorism is becoming a global concern. Addressing this growing concern, this study aims to examine traumatic stress, depression and the resilient factors that are associated with psychological health among survivors of a trauma exposure.

This study was mainly designed to examine the prevalence of posttraumatic stress, psychological stress and depression among survivors who were directly and indirectly exposed to these attacks. Due to the limited availability of related data in Turkey, it remains unclear what the role of resilient and traumatic stress plays in the development of psychological health among people who exposed terrorist attacks. The study also examined the risk factors including demographic variables, resilient, posttraumatic factors for PTSD and depression.

The hypotheses of the study are:

1) People exposed to terror attacks directly will show a high level of traumatic stress and depression.
2) People exposed to terror attacks indirectly will also show high level of traumatic stress and depression.

3) Psychological health could be related to the resilience of the participants and further posits that resilience could be related to decreased traumatic stress and increased psychological health.

METHOD

2.1. PARTICIPANTS

The sample consisted of 172 Istanbul residents who were exposed to terrorist attacks directly or indirectly between 2015 and 2016. The data was collected through convenience sampling and snowballing method.

Of 172 participants, 85 (49.4%) belonged to the group that was directly exposed to a terror attack in Istanbul between 2015 and 2016 (direct group) and 87 participants (50.6%) belonged to the group exposed indirectly (indirect group). The ages of the indirect group ranged between 17 and 67 with a mean age of 35.55 years (*SD*=12.39), while those of the direct group ranged from 19 to 68 with a mean age of 34.05 years (*SD*=10.45). Frequency of participants' other demographical properties are summarized in Table 2.1.

Table 2.1.

The Frequency of Demographical Characteristics of Participants

	Direct Group		Indirect Group	
	N	% of Total	*N*	% of Total
Gender				
woman	36	20.9%	59	34.3%
man	47	27.3%	27	15.7%
missing	2	1.2%	1	0.6%

Table 2.1. (continued)

The Frequency of Demographical Characteristics of Participants

	Direct Group		Indirect Group	
	N	% of Total	*N*	% of Total
Marital status				
single	43	25.0%	45	26.2%
married	33	19.2%	33	19.2%
living separate	0	0.0%	1	0.6%
divorced	4	2.3%	6	3.5%
widowed	1	0.6%	0	0.0%
living together	4	2.3%	2	1.2%
Living with				
family (couple / children / parents)	60	34.9%	64	37.2%
friends / other relatives	10	5.8%	6	3.5%
single	15	8.7%	17	9.9%

Table 2.1. (continued)

The Frequency of Demographical Characteristics of Participants

	Direct Group		Indirect Group	
	N	% of Total	*N*	% of Total
Education status				
primary school	2	1.2%	0	0.0%
secondary school	4	2.3%	1	0.6%
high school	17	9.9%	8	4.7%
university	62	36.0%	78	45.3%
Occupation				
voluntary worker	2	1.2%	1	0.6%
paid worker	47	27.3%	42	24.4%
self-employed	18	10.5%	10	5.8%
student	13	7.6%	17	9.9%
retired	0	0.0%	8	4.7%
unemployed	5	2.9%	7	4.1%
Economic situation				
low	13	7.6%	14	8.1%
middle	55	32.0%	50	29.1%
high	17	9.9%	23	13.4%

Table 2.1. (continued)

The Frequency of Demographical Characteristics of Participants

	Direct Group		Indirect Group	
	N	% of Total	*N*	% of Total
Support resources				
psychotherapy	21	24.7%	26	29.9%
psychiatry	14	16.47%	12	13.8%
social support	6	3.5%	2	1.2%
none	45	26.2%	48	27.9%
Duration of the support				
btw 0-6 month	11	6.4%	10	5.8%
7 month-1 year	8	4.7%	5	2.9%
1-3 year	5	2.9%	13	7.6%
more than 3 years	3	1.7%	2	1.2%
none	58	33.7%	57	33.1%
Past traumas				
human made	18	21.2%	26	29.8%
natural/ accident/ illness	27	31.7%	23	26.4%
loss	22	25.8%	38	43.7%
none	42	24.6%	26	15.2%

2.2. INSTRUMENTS

The survey booklet contained Demographic Information Form, Resilience Scale for Adults (RSA), General Health Questionnaire-12 (GHQ-12), and Traumatic Stress Symptoms Checklist (TSSC).

2.2.1. Demographic Information Form

Participants were asked to report their age, gender (male, female, other), marital status (single, married, living alone, divorced, widowed, living together), economic situation (monthly income of 1900 tl and under defined as low class, between 2000-8000 tl defined as middle class, over 8000 tl defined as high class), current employment status (voluntary worker, paid worker, self-employed, student, retired, unemployed), educational status (primary school, secondary school, high school, university / graduate), home city and who participant lives with (family as couple / children / parents, friends / other relatives / single). Participants were also asked whether they were exposed to a terrorist attack directly and / or indirectly between 2015 and 2016. Additionally, the form includes questions about time and proximity of the traumatic event, previous trauma experiences (human made, natural disasters / accident / illness, loss, none) whether the participants have received professional help or not (psychotherapy, psychiatry, social support) and the duration of the professional help (between 0-6 month, between 6 month-1 year, between 1-3 year), if they received it. The scale is presented in Appendix B.

2.2.2. Resilience Scale for Adults (RSA)

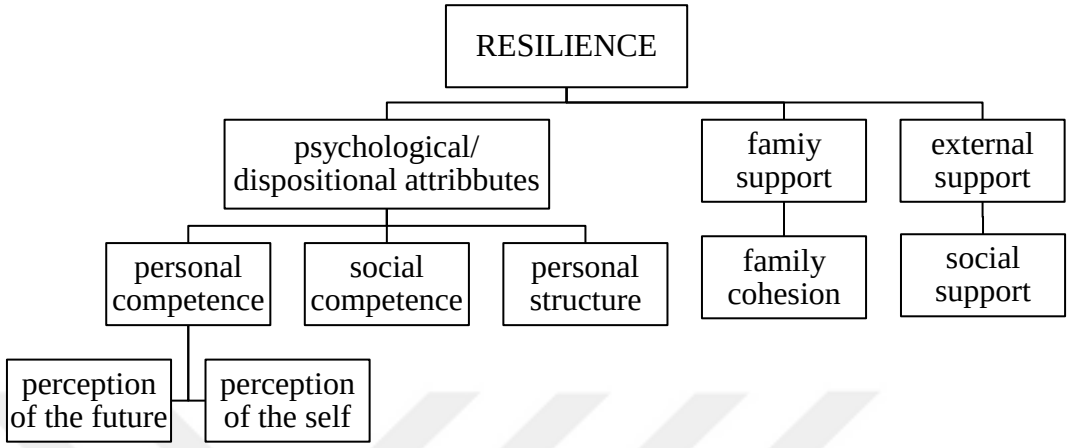
RSA was designed to measure "the presence of protective resources that promote adult resilience" (Friborg, Hjemdal, Rosenvinge, Martinussen, 2003). It is a self-report measure with 33 items which are comprised of 6 dimensions and the items are rated on a 5-point semantic differential scale (Morote, Hjemdal, Uribe, &Corveleyn, 2017). The six dimensions of the RSA are currently "perception of self" (questions 1, 7, 13, 19, 28, 31), "perception of future/ planned

future" (questions 2, 8, 14, 20), "social competence" (questions 4, 10, 16, 22, 25, 29) and "structured style / personal structure" (questions 3, 9, 15, 21) which constitute the intrapersonal structures of the scale, "family cohesion / coherence" (questions 5, 11, 17, 23, 26, 32) and "social resource / support" (questions 6, 12, 18, 24, 27, 30, 33) which form the interpersonal structure of it (Hjemdal, Friborg, Stiles, Rosenvinge, &Martinussen, 2006). Higher scores indicate high resilience (Hjemdal, et al., 2006).

Resilience has a multidimensional construction which is classified by Garmezy (1993) into "psychological / dispositional attributes, family support and cohesion and external support systems". All these subcategories process interdependently. RSA is developed by six subcategories based on this multidimensionality: perception of self, perception of future, family cohesion, social resources, social competence and structured style. Garmezy's first resilience category called psychological / dispositional attributes, include three main elements which are personal competence, social competence and personal structure. Personal competence is divided into two subcategories called perception of self and perception of future. Perception of self determines how much a person likes her / himself and how much she / he considers him / herself efficacious. On the other hand, perception of future measures how much a person is hopeful, purposeful and realistically aligned to life. Social competence estimates how much a person is extraverted, adept to social life, has a cheerful mood, able to set up activities, able to communicate with others efficiently and flexible in social issues. Personal structure evaluates how much a person is able to maintain regular activities, arrange and scheme. Second resilience category is called family cohesion and it is consisted of family coherence which assesses how much a family carries conflict within it, cooperate with each other, have supportive attitudes towards their members and how stable and loyal toward each other. The last resilience category is external support and it includes social support which is consisted of the ability to receive and give extrinsic support and intimacy (Werner, 1989, 1993; Rutter, 1990; Garmezy, 1993).

Figure 2.1.

The Subcategories of Resilience



The internal consistency was 0.88 for the whole scale. The test-retest correlation of the total RSA was 0.88 with a four month interval. The internal consistency of subscales were calculated as α=.74 for perception of self, α=.73 for planned future, α=.83 for social competence, α=.80 for structured style, α=80 for family cohesion and α=.74 for social resources (Hjemdal, et. al, 2006).

The adaptation and standardization into Turkish was realized by Şahin and Şahin (1992). The Turkish sample indicated high internal consistency for the whole scale (α=0.86). The internal consistency of the dimensions ranged between 0.66 and 0.81. The test-retest reliability of the determinants were obtained as α=0.72 (p<0.01) for perception of self, α=0.75 (p<0.01) for perception of future, α=0.68 (p<0.01) for structured style, α=0.78 (p<0.01) for social competence, α=0.81 (p<0.01) for family cohesion and α=0.77 (p<0.01) for social resources with a 23 day interval. The variance was calculated as 0.57. In the current study, the internal consistency of the scale was calculates as 0.91. The scale is presented in Appendix C.

2.2.3. General Health Questionnaire-12 (GHQ-12)

GHQ-12 was developed by Goldberg (1970). It is a self-report measure. The GHQ-12 is composed of 12 items rated on a 4-point Likert scale with responses; "not at all", "no more than usual", "rather more than usual" and "much more than usual". Goldberg (1970) developed the GHQ in order to determine common acute psychological diseases among societies. The questionnaire was originally composed of 60 items divided into 30, 28 and 12 items (Goldberg, Gater, Sartotius, et al., 1977). GHQ-12 was designed to measure depression, anxiety, psychological stress and social dysfunction. Likert-type scoring was used, yielding a total score ranging from 0 to 36. High scores indicate more intense psychological stress (Montazeri, Shariati &Garmaroudi, 2003).

The various versions of GHQ have been translated into 38 languages and used in many countries with a specificity and sensitivity ranging from 0.70 to 0.80 (Özdemir & Rezaki, 2007). The internal consistency of the whole scale was measured as 0.90 for the Likert method (Hankins, 2008).

The adaptation and standardization into Turkish was performed by Kılıç (1996). The Turkish Sample indicated high internal consistency for the whole scale (α =0.78). The specificity was determined at 0.84 and sensitivity 0.74 by Kılıç (1996). In the current study, the internal consistency was calculated as 0.89. The scale is presented in Appendix D.

2.2.4. Traumatic Stress Symptoms Checklist (TSSC)

TSSC was developed by Başoğlu and colleagues (2001). It is a self-report measure with 23 items rated on a 4-point Likert scale. It also has a "disability form" consisting of three items with two items rated on a 4-point Likert scale and one item rated on a 3-point Likert scale. TSSC is comprised of 2 dimensions: 17 items measure posttraumatic stress disorder and 6 items measure depression symptoms. The whole scale is designed to measure traumatic stress (Başoğlu, Şalcıoğlu, & Livanou, 2001). High scores indicate higher traumatic stress. The

Turkish Sample indicated high internal consistency for the whole scale (α=.94) and for 2 dimensions of the checklist (PTSD, α=.92 and depression, α=.84) (Başoğlu, Şalcıoğlu, & Livanou, 2001). In the current study, the internal consistency was calculated as 0.96. The scale is presented in Appendix E.

In order to find out the posttraumatic stress disorder and major depressive disorder rates of the sample, two cutoff points were used which are considered by Başoğlu and colleagues (2001). The cutoff point for PTSD diagnosis was 25 for the sum of the first 17 items. The specificity and sensitivity of the cutoff point for PTSD was determined as 81. The internal consistency was found as .92. The cutoff point for depression diagnosis was 8 for the sum of the 6 depression items. The specificity was .81 and the sensitivity was .61. Internal consistency was .84 (Başoğlu, Şalcıoğlu, & Livanou, 2001).

2.3. PROCEDURE

Data collection began after obtaining the approval from the Ethics Committee Board of Istanbul Bilgi University. Later, an online survey was created on www.tr.surveymonkey.com which includes an informed consent form (Appendix A), demographic information form (Appendix B) and relevant instruments (Appendix C, D, E). Rigid confidentiality was implemented. Participation to the study was on voluntary basis.

The inventories were given to the participants in computer format. An informed consent form was filled by participants before they began the study which evaluates brief information about the study and voluntary participation in the research. The participants were also informed that they could consult with the researcher if they had any questions about the study or if they had any negative feelings during or after the study. Respondents who accepted voluntary participation in the study were asked to fill three inventories which are "Resilience Scale for Adults" (RSA), "General Health Questionnaire-12" (GHQ-12) and "Traumatic Stress Symptoms Checklist for Psychological Trauma" (TSSC), and a demographic information form.

The first terror attack included in this study occurred on April 2015 and the last attack occurred in December 2016. The data was collected between January 1, 2018 and May 1, 2018. Convenience sampling was used and participants were contacted through online platforms, social media, airports, institutions and shops in the neighborhoods exposed to terrorism, and personal contacts through snowballing method.

Direct and indirect exposure data were collected through common and different methods. For all data, convenience sampling was used. In order to reach a wider sample, snowballing method was used after establishing contact with the sample. Online platforms and social media were also used for both direct and indirect data collection. In order to collect the direct data, the researcher reached out to people in places exposed to terrorism at Atatürk Airport and in Vezneciler. A close acquaintance of the researcher who is familiar with the artisans in Vezneciler area, made face to face interviews with these people. She informed artisans about the research and asked them to fill the surveys if they approved to participate in this research. She also asked them to communicate with family members or other acquaintances exposed to the terror attacks directly. Once they accepted to participate in the research, the researcher sent them the online link of the surveys to fill. In addition, an airport agency was contacted, again through the personal contacts of the researcher. The department manager sent to employees an e-mail where the research was explained with the online link of the surveys. People were asked to fill the surveys especially if they were directly exposed to the terror attack and if they agreed to participate in the research. Moreover, again through the personal contacts of the researcher, an e-mail was sent to professional e-mail groups of psychologists and tour guides including an explanation about the research with the link to the survey. In addition, people who were present at Vodafone Park and the Bosphorus / 15 July Martyrs Bridge during the attacks were contacted and asked to promote the research to friends or acquaintances who were exposed to those attacks.

When data collection concluded, data was saved on the password-protected personal computers of the researcher. Finally, demographic variables and study variables were analyzed through Statistical Package for the Social Sciences (SPSS). If a person was exposed to a terror attack both directly and indirectly, just the direct exposure was coded for that participant. In addition, people exposed to terror attacks directly and indirectly were separated from people exposed to terror attacks indirectly. Chi-square tests (with continuity correction for 2x2 and 3x2 tables) were used to examine for possible differences in the categorical variables, and Mann-Whitney U test for independent groups were used to evaluate differences in the continuous variables. In addition, risk ratios are calculated in order to find risk factors associated with PTSD and depression. Multiple regression analysis was used to examine the risk factors for psychological health, traumatic stress and depression.

RESULT

3.1. DESCRIPTIVE STATISTICS

The results show that, in this study, the minority of the direct group were exposed to the terror attacks in Fatih, Sultangazi, Sabiha Gökçen Airport, Kağıthane, Sultanahmet and Yenibosna, which includes only one participant for each. The majority of the direct group were exposed to the terror attack at Vodafone Park. The terror attacks to which the direct group was exposed are summarized below.

Table 3.1.

The Date and Place of the Direct Exposure

Terror Attack	*N*	% of Direct Group
April 2015, Fatih	1	1.2
July 2015, Sultangazi	1	1.2
July 2015, Okmeydanı	2	2.3
December 2015, S. Gökçen A.	1	1.2
December 2015, Kağıthane	1	1.2
January 2016, Sultanahmet	1	1.2
March 2016, Istiklal Street	6	7.1
June 2016, Vezneciler	16	18.8
June 2016, Atatürk Airport	11	12.9

Table 3.1. (continued)

The Date and Place of the Direct Exposure

Terror Attack	*N*	% of Direct Group
July 2016, 15 July Martyrs B.	18	21.2
October 2016, Yenibosna	1	1.2
December 2016, Vodafone P.	19	22.3
December 2016, Reina	7	8.2

The independent variable, which is the nature of the terror attack experience (direct / indirect), is comprised of nine subtitles. "Being present on the scene during a terrorist attack", "being physically injured by a terrorist attack", "being present on the site as a first responder", "providing either physical or emotional aid to a terrorism victim", "close relative / having a loved one" who had a risk of death or harm experienced by a terror attack", "being exposed to the damaged site shortly after a terrorist attack", and "escaping from the terrorist attack by chance" constitute direct exposure. On the other hand, "being present on the city of the terror attack" and "hearing about the terrorist attack from an external resource" constitute indirect exposure. The most persistent response given by the indirect group about the type of terror attack experience was "hearing about the terrorist attack from an external resource" (37.2%), while the least persistent response of the indirect group about the relevant question was "being present in the city of terror attack" (%30.8). Moreover, the most frequent response of the direct group was "being present on the scene during a terrorist attack" (31.4%), while the least common response was "being physically injured by a terrorist attack" (1.2%). Terror traumas of participants are summarized below.

Table 3.2.

Terror Trauma Prevalence among the Direct Group

Terror trauma	*N*	% of Total
Being present on the scene during a terrorist attack	54	31.4
Being physically injured by a terrorist attack	2	1.2
Being present on the site as a first responder	8	4.7
Providing either physical or emotional aid to a terror survivor	24	14.0
Being exposed to the damaged site shortly after a terrorist attack	33	19.2
Escaping from the terrorist attack by chance	34	19.8
Having a close relative or loved one who had the risk of death or harm experienced by a terror attack	20	11.6

Table 3.3.

Terror Trauma Prevalence among the Indirect Group

Terror trauma	*N*	% of Total
Being present on the city of the terror attack	53	30.8
Hearing about the terrorist attack from an external resource (media)	64	37.2

3.2. CORRELATIONS AND REGRESSIONS BETWEEN VARIABLES OF THE STUDY

In order to understand the relationship between the variables of this study, Spearman's Rank-Order Correlation (2-tailed), which is proper for non-parametric tests, was conducted for the total scores of the GHQ-12, TSSC, RSA, the subscales of RSA (perception of the self, perception of future, personal structure, social competence, social resource) and the subscales of TSSC (PTSD, depression). Before conducting Spearman's Rank-Order Correlation, normality tests were employed through Kolmogorov-Smirnov Test to choose the appropriate correlation analysis. According to these normality analyses, total scores of TSSC, GHQ-12 and RSA scores were found on a non-normal distribution since their significance values were less than $p = .05$.

The results show that there is a positive correlation between GHQ-12 (psychological stress), TSSC (traumatic stress), PTSD and depression level ($p < .01$). In addition, there is a positive correlation between RSA (resilience) and its subscales, which are; perception of the self, perception of future, social competence, social resource and family coherence ($p < .01$). This means that when one augments, the other does so too and when one decreases, the other one decreases too. On the other hand, there is a negative correlation between GHQ-12 and RSA including its subscales, between TSSC and RSA including its subscales, between PTSD and RSA including its subscales, and between depression level and RSA again including its subscales ($p < .01$). It means that when one increases, the other one decreases and vice versa. The correlation coefficients for the scales and subscales of the study are shown in Table 3.4.

Table 3.4.

Correlation Coefficients (Spearman's r) for the Variables of the Study

	1	2	3	4	5	6	7	8	9	10	11
1. GHQ-12	-										
2. TSSC	.70**	-									
3. PTSD	.65**	.98**	-								
4. Depression	.72**	.87**	.79**	-							
5. RSA	-.60**	-.50**	-.45**	-.56**	-						
6. Structured style	-.38**	-.35**	-.31**	-.38**	.64**	-					
7. Perception of future	-.59**	-.49**	-.45**	-.54**	.78**	.48**	-				

Table 3.4. (continued)

	1	2	3	4	5	6	7	8	9	10	11
8. Family cohesion	-.35**	-.16*	-.13	-.26**	.67**	.27**	.43**	-			
9. Perception of self	-.64**	-.54**	-.50**	-.58**	.82**	.52**	.65**	.47**	-		
10. Social competence	-.32**	-.31**	-.30**	-.33**	.72**	.38**	.51**	.32**	.50**	-	
11. Social resources	-.45**	-.39**	-.35**	-.41**	.79**	.36**	.53**	.48**	.56**	.54**	-

*Note:**. $p < .05$. **. $p < .01$. GHQ-12:General Health Questionnaire-12. TSSC: Traumatic Stress Symptoms Check List. PTSD: Posttraumatic stress disorder.

3.3. DEPRESSION AND POSTTRAUMATIC STRESS DISORDER DIAGNOSIS OF PARTICIPANTS AND THEIR PREVALENCE IN DEMOGRAPHIC, PERITRAUMATIC AND POSTTRAUMATIC FACTORS AMONG THE GROUPS

In order to understand the prevalence and the risk factors of posttraumatic stress disorder (PTSD) and depression, the frequency of PTSD and depression were calculated through the cutoff point of the TSSC subscales among the direct and indirect group. The mean and standard deviations of the TSSC and its subscales were also calculated (TSSC: *M* = 24.05, *SD* = 15.87, PTSD subscale of TSSC: *M* = 15.51, *SD* = 10.49, depression subscale of TSSC: *M* = 4.73, *SD* = 4.02). PTSD and depression prevalence in demographic, peritraumatic and postraumatic factors and their significant difference were examined through 2x2 and 3x2 Chi-square analyses.

According to the results, the majority of the participants did not meet the cutoff point for the subscales of TSSC that measure posttraumatic stress and depression. Only 22 participants in the direct group (25.9%) were diagnosed with PTSD and 20 participants (23.5%) were diagnosed with depression. In addition, only 12 participants in the indirect (13.8%) group were diagnosed with PTSD and 16 (18.4%) were diagnosed with depression.

In the direct group, the mean age of participants with PTSD was 32.29 (*SD* = 10.51) and ranged between 20 and 52 while the mean age of participants without PTSD was 34.68 (*SD* = 10.51) and ranged between 19 and 68. In addition, the mean age of participants with depression was 31.45 (*SD* = 10.05) and ranged between 19 and 52 while the mean age of participants without depression was 34.91 (*SD* = 10.63) and ranged between 20 and 68. No significant difference was found between each group in terms of age.

In the indirect group, on the other hand, the mean age of participants with PTSD was 33.64 (*SD* = 8.63) and ranged between 22 and 52 and the mean age of participants without PTSD was 35.92 (*SD* = 12.95) and ranged between 17 and

67. In addition, the mean age of participants with depression was 32.47 (*SD* = 10.45) and ranged between 22 and 56 and the mean age of participants without depression was 36.60 (*SD* = 12.81) and ranged between 17 and 67. No significant age difference was found between the groups.

In addition, the results of the independent samples Kruskal-Wallis Test showed that there was a significant difference between the direct and indirect group in terms of PTSD prevalence. Chi-square test shows that PTSD prevalence is higher in the direct group than the indirect group. However, no significant difference was obtained between the direct and indirect group in terms of depression prevalence. The prevalence of depression and posttraumatic stress disorder diagnosis of the direct and indirect groups are shown in the Table 3.5 and 3.6.

Table 3.5.

Depression and PTSD Prevalence in the Direct Group

	Direct Group			
PTSD				
	Yes		No	
	N	*%*	*N*	*%*
	22	25.9	63	74.1
DEPRESSION				
	Yes		No	
	N	*%*	*N*	*%*
	20	23.5	65	76.5

Note: PTSD: Post traumatic stress disorder.

Table 3.6.

Depression and PTSD Prevalence in the Indirect Group

	Indirect Group			
PTSD				
	Yes		No	
	N	*%*	*N*	*%*
	12	13.8	75	86.2
DEPRESSION				
	Yes		No	
	N	*%*	*N*	*%*
	16	18.4	71	81.6

Note: PTSD: Posttraumatic stress disorder.

The results of Chi-square analyses show that, in terms of the prevalence of demographic, peritraumatic and posttraumatic factors in PTSD among the direct group, there was no significant difference between the participants who met the cutoff point for PTSD and those who did not, nor between the participants who met the cutoff point for depression and those who did not among the direct and indirect group.

Moreover, the odds and risk ratios of the variables are calculated in order to evaluate the difference between the variables. Risk ratios are calculated by dividing the percentage of the first row by the second one. In addition, risk ratios higher than 1.00 are considered a potential risk factor, while risk ratios less than 1.00 are considered a potential protective factor. Results show that, in the direct

group; being single, living alone, employment, receiving psychological support for more than one year of psychological support and being exposed to past traumas are more likely to be risk factors for the development of both PTSD and depression. On the other hand; being married, living with others, unemployment, receiving psychological support for up to one year, and not being exposed to a past trauma are likely to be protective factors against the development of both PTSD and depression. Among these variables, past trauma exposure and the duration of psychological support have the greatest disparity between participants with PTSD and those without, and those with or without depression. In the direct group, on the other hand, gender and receiving psychological support have the minimum disparity between participants with PTSD and those without. In terms of depression; gender and employment status have the minimum disparity between participants with depression and those without. In addition, economic situation is measured by dividing its subcategories into two different groups: low / middle and middle / high income. The results show that middle income class carries a higher risk than the high income class and high income class carries a higher risk than the low income class. However, the sample size could be a misleading factor in this result. Education status is not measured since there are not enough people in its subcategories to measure the risk ratio.

In the indirect group, gender, marital status, economic situation, employment status, receiving support, duration of support and past trauma exposure ratios for PTSD development were close to 1.00 and therefore varied minimally. On the other hand, having a past trauma and receiving psychological support more than one year are more likely to be risk factors for depression development, whereas receiving up to one year of psychological support and not having a past trauma tend to be protective factors. In the indirect group, the risk ratios of living alone/ with others and education status subcategories could not be measured due to an insufficient number of participants.

The PTSD and depression prevalence of direct and indirect groups in demographic, peritraumatic, and posttraumatic factors as well as their risk ratios are shown in Tables 3.7, 3.8, 3.9 and 3.10.

Table 3.7.

PTSD Prevalence of Direct Group in Demographic, Peritraumatic and Posttraumatic Factors

	with PTSD		without PTSD						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Gender									
woman	9	10.8	27	32.5	1	.96	1.03	.98	1.01
man	12	14.5	35	42.2					
Marital status									
single	14	16.5	29	34.1	1	.15	.49	1.71	.83
married /living with partner	8	9.4	34	40.0					
Living									
alone	3	3.5	7	8.2	1	.71	1.26	.84	1.07
with someone	19	22.4	56	65.9					

Table 3.7. (continued)

	with PTSD		without PTSD						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Education status									
not university graduate	0	0.0	2	2.4	1	1.00	-	-	1.32
university/ graduate	22	25.9	61	71.8					
Employment status									
employee	16	18.8	33	38.8	1	.11	.41	1.96	.81
unemployment	6	7.1	30	35.3					
Economic situation									
low	1	1.2	12	14.1	2	.21	-	-	-
middle	19	22.4	36	42.4					
high	2	2.4	15	17.6					
low/middle							6.33	.22	1.41
middle/high							.25	2.94	.74

Table 3.7. (continued)

	with PTSD		without PTSD						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Support									
received	8	9.4	19	22.4	1	.59	.76	1.23	.93
none	14	16.5	44	51.8					
Duration of the support within people received psychological / psychiatric support									
up to 1 year	5	20.8	3	12.5	1	.39	2.78	.60	1.67
more than 1 year	6	25.0	10	41.7					
Past traumas									
none	8	9.4	34	40.0	1	.15	2.05	.58	1.20
exposed	14	16.5	29	34.1					

Note: PTSD: Posttraumatic stress disorder. RR_1*:* Risk ratio for "with PTSD". RR_2*:* Risk ratio for "without PTSD".

Table 3.8.

Depression Prevalence of Direct Group in Demographic, Peritraumatic and Postraumatic Factors

	with Depression		without Depression						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Gender									
woman	9	10.8	27	32.5	1	.69	.81	1.17	.95
man	10	12.0	37	44.6					
Marital status									
single	13	15.3	30	35.3	1	.14	.46	1.81	.84
married/ living with partner	7	8.2	35	41.2					
Living									
with someone	17	20.0	58	68.2	1	.69	1.46	.76	1.10
alone	3	3.5	7	8.2					

Table 3.8. (continued)

	with Depression		without Depression						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Education status									
university graduate	20	23.5	63	74.1	1	1.00	-	-	1.32
not university graduate	0	0.0	2	2.4					
Employment status									
employee	12	14.1	37	43.5	1	.81	.88	1.10	.97
unemployed	8	9.4	28	32.9					
Economic situation									
low	1	1.2	12	14.1	2	.21			
middle	16	18.8	39	45.9					
high	3	3.5	14	16.5					
low/middle							4.92	.26	1.30
middle/high							.52	1.65	.86

Table 3.8. (continued)

	with Depression		without Depression						
	N	% of Direct	*N*	% of Direct	df	x^2	*OR*	RR_1	RR_2
Support									
received	9	10.6	18	21.2	1	.15	.47	1.76	.82
not received	11	12.9	47	55.3					
Duration of the support within people received psychological / psychiatric support									
up to 1 year	5	20.8	11	45.8	1	.20	3.67	.50	1.83
more than 1 year	5	20.8	3	12.5					
Past traumas									
none	7	8.2	35	41.2	1	.14	2.17	.55	1.19
exposed	13	15.3	30	35.3					

Note: PTSD: Posttraumatic stress disorder. RR_1*:* Risk ratio for "with depression". RR_2*:* Risk ratio for "without depression".

Table 3.9.

PTSD Prevalence of Indirect Group in Demographic, Peritraumatic and Postraumatic Factors

	with PTSD		without PTSD						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Gender									
woman	8	9.3	51	59.3	1	1.00	1.12	.91	1.01
man	4	4.7	23	26.7					
Marital status									
single	7	8.0	39	44.8	1	.68	.77	1.25	.97
married / living with partner	5	5.7	36	41.4					
Living									
with someone	12	13.8	69	79.3	1	.59	-	-	.85
alone	0	0.0	6	6.9					

Table 3.9. (continued)

	with PTSD		without PTSD						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Education status									
university graduate	12	13.8	75	86.2	-	-	-	-	-
not universi-ty graduate	0	0.0	0	0.0					
Employment status									
employee	6	7.0	37	43.0	1	.75	.81	1.20	.97
unemployed	5	5.8	38	44.2					
Economic situation									
low	3	3.4	11	12.6	2	.66	-	-	-
middle	6	6.9	44	50.6					
high	3	3.4	20	23.0					
low/middle							.50	1.79	.89
middle/high							1.10	.92	1.01

Table 3.9. (continued)

	with PTSD		without PTSD						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Support									
received	4	4.7	24	27.9	1	1.00	.96	1.04	.99
not received	8	9.3	50	58.1					
Duration of the support within people received psychological / psychiatric support									
up to 1 year	6	21.4	17	60.7	1	1.00	.71	1.30	.92
more than 1 year	1	3.6	4	14.3					
Past traumas									
none	3	3.4	23	26.4	1	1.00	1.33	.78	1.04
exposed	9	10.3	52	59.8					

Note: PTSD: Posttraumatic stress disorder. RR_1*:* Risk ratio for "with PTSD". RR_2*:* Risk ratio for "without PTSD".

Table 3.10.

Depression Prevalence of Indirect Group in Demographic, Peritraumatic and Posttraumatic Factors

	with Depression		without Depression						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Gender									
woman	11	12.8	48	55.8	1	.99	.99	1.01	1.00
man	5	5.8	22	25.6					
Marital status									
single	10	11.5	36	41.4	1	.39	.62	1.49	.92
married / living with partner	6	6.9	35	40.2					
Living									
with someone	16	18.4	65	74.7	1	.59	-	-	.81
alone	0	0.0	6	6.9					

Table 3.10. (continued)

	with Depression		without Depression						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Education status									
university graduate	16	18.4	71	81.6	-	-	-	-	-
not university graduate	0	0.0	0	0.0					
Employment status									
employee	8	9.3	35	40.7	1	.78	.85	1.14	.97
unemployed	7	8.1	36	41.9					

Table 3.10. (continued)

	with Depression		without Depression						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Economic situation									
low	3	3.4	11	12.6	2	.95	-	-	-
middle	9	10.3	41	47.1					
high	4	4.6	19	21.8					
low/middle							.81	1.19	.96
middle/high							.96	1.03	.99
Support									
received	6	7.0	22	25.6	1	.64	.76	1.24	.95
not received	10	11.6	48	55.8					
Duration of the support within people received psychological/ psychiatric support									
up to 1 year	6	21.4	17	60.7	1	.60	1.89	.65	1.23
more than 1 year	2	7.1	3	10.7					

Table 3.10. (continued)

	with Depression		without Depression						
	N	% of Indirect	*N*	% of Indirect	df	x^2	*OR*	RR_1	RR_2
Past traumas									
exposed to a trauma	12	13.8	49	56.3	1	.77	1.35	.78	1.05
none	4	4.6	22	25.3					

Note: PTSD: Posttraumatic stress disorder. RR_1*:* Risk ratio for "with depression". RR_2*:* Risk ratio for "without depression".

3.4. TERROR TRAUMA AMONG THE DIRECT AND INDIRECT GROUPS

In order to understand which terror trauma among the categories affects individuals the most, independent-samples Mann-Whitney U test was conducted, which is proper for nonparametric values. In addition, effect size of each value $\left(n^2 = \frac{Z^2}{N-1}\right)$ was calculated in order to evaluate the strength of the values' significance.

According to the results, PTSD scores of participants were distributed significantly different across the groups which are "being present on the scene during a terrorist attack", "providing either physical or emotional aid to a terror survivor", and "escaping from the terrorist attack by chance". These results show that PTSD scores of participants who were present on the scene during a terrorist attack were significantly higher than people who were not (Md_{yes} = 19.50, 11.75-25.00 percentile, Md_{no} = 13, 6.00-21.00 percentile). PTSD scores of participants who provided either physical or emotional aid to a terror survivor were significantly higher than

people who did not (Md_{yes} = 19, 13.00-27.25 percentile, Md_{no} = 14, 6.00-21.75 percentile). PTSD scores of participants who escaped from the terrorist attack by chance were significantly higher than people who did not (Md_{yes} = 20.50, 13.00-26.25 percentile, Md_{no} = 14, 6.00-21.00 percentile). The effect sizes of these analyses show that the most devastating trauma was " being present on the scene during a terrorist attack" (p = .01, r =|-.20|, p < .05) which was followed by "providing either physical or emotional aid to a terror survivor" (p = .03, r =|-.17|, p < .05) and "escaping from the terrorist attack by chance" (p = .01, r =|-.02|, p < .05), respectively. On the other hand, the distribution of depression scores were the same across the categories of all terror traumas (p < .05). The results are shown in Table 3.11 and Table 3.12.

Table 3.11.

An Independent-Samples Mann-Whitney U Test with PTSD Values

Terror trauma	*P*	*r*
Being present on the scene during a terrorist attack	.01*	-.20
Being physically injured by a terrorist attack	.27	-.09
Being present on the site as a first responder	.63	-.04
Providing either physical or emotional aid to a terror survivor	.03*	-.17

Table 3.11. (continued)

Terror trauma	*P*	*r*
Being exposed to the damaged site shortly after a terrorist attack	.08	-.13
Escaping from the terrorist attack by chance	.01*	-.02
Having a close relative or loved one who had the risk of death or harm experienced by a terror attack	.33	-.07
Being present on the city of the terror attack	.48	-.05
Hearing about the terrorist attack from an external resource (media)	.27	-.08

Note:. $p < .05$.

Table 3.12.

An Independent-Samples Mann-Whitney U Test with Depression Values

Terror trauma	*P*	*r*
Being present on the scene during a terrorist attack	.06	-.14
Being physically injured by a terrorist attack	.75	-.03
Being present on the site as a first responder	.26	-.09

Table 3.12. (continued)

Terror trauma	*P*	*r*
Providing either physical or emotional aid to a terror survivor	.13	-.11
Being exposed to the damaged site shortly after a terrorist attack	.38	-.07
Escaping from the terrorist attack by chance	.13	-.11
Having a close relative or loved one who had the risk of death or harm experienced by a terror attack	.36	-.07
Being present on the city of the terror attack while it was occurring	.11	-.12
Hearing about the terrorist attack from an external resource (media)	.09	-.01

Note:. $p < .05$.

3.5. MULTIPLE REGRESSION ANALYSIS WITH THE VARIABLES OF THE STUDY

Standard multiple regression analyses with enter method were conducted to better understand the causal relationship between the variables of the study.

First of all, a multiple regression analysis was conducted in order to evaluate the relationship between resilience subcategories and psychological stress. Therefore, GHQ-12 scores were entered as the dependent variable and the sub-

scale scores of RSA were entered as the independent variables. Secondly, another multiple regression analysis was enforced in order to evaluate the relationship between the resilience subcategories and PTSD. For this reason, PTSD scores were entered into the regression as the dependent variable and the subscale scores of RSA were entered as the independent variables. The last multiple regression analysis was applied to evaluate the risk factors of depression wherein depression scores were entered as the dependent variable and subscale scores of RSA were entered as the independent variables, once again.

The results show that planned future, family coherence, perception of self and social resources predicted PTSD in the negative direction. In terms of depression, planned future, perception of self and social resources predicted depression in the negative direction. The results with regard to psychological stress (GHQ-12 scores) show that planned future and perception of self predicted psychological stress in the negative direction. This means that planned future and psychological stress have a causal relationship with one another and while one increases, as does the other and vice versa.

All of the regression analyses are indicated in tables 3.13, 3.14 and 3.15.

Table 3.13.

A Multiple Regression Analysis for Variables Predicting PTSD Prevalence between the Subscale Scores of the RSA

Predictor variables	*B*	*SE (B)*	*β*	*t*	*P*	R^2	Overall *F*
personal structure	-.08	.21	-.03	-.38	.70	.36	15.56
planned future	-.54	.22	-.22	-2.45	.01*		
family coherence	.30	.14	.16	2.19	.03*		
perception of self	-.65	.17	-.34	-3.74	.00*		

Table 3.13. (continued)

Predictor variables	*B*	*SE (B)*	*β*	*t*	*P*	R^2	Overall *F*
social competence	.07	.15	.04	.45	.65		
social resources	-.43	.16	.22	-2.68	.01*		

Note:. $p < .05$.

Table 3.14.

A Multiple Regression Analysis for Variables Predicting Depression Prevalence between the Subscale Scores of the RSA

Predictor variables	*B*	*SE (B)*	*β*	*t*	*P*	R^2	Overall *F*
personal structure	-.06	.08	-.06	-.79	.43	.42	20.43
planned future	-.26	.08	-.27	-3.24	.00*		
family coherence	.02	.05	.03	.41	.68		
perception of self	-.23	.06	-.32	-3.66	.00*		
social competence	.06	.06	.08	1.11	.27		
social resources	-.15	.06	-.21	-2.59	.01*		

Note:. $p < .05$.

Table 3.15.

A Multiple Regression Analysis for Variables Predicting Psychological Stress (GHQ-12) between the Subscale Scores of the RSA

Predictor variables	*B*	*SE (B)*	*β*	*t*	*P*	R^2	Overall *F*
personal structure	-.03	.12	-.01	-.23	.82	.47	27.95
planned future	-.52	.13	-.32	-4.11	.00*		
family coherence	-.01	.08	-.01	-.12	.91		
perception of self	-.55	.10	-.45	-5.52	.00*		
social competence	.13	.09	.10	1.42	.16		
social resources	-.11	.09	-.11	-1.07	.28		

Note:. $p < .05$.

3.6. SUMMARY OF THE RESULTS

First of all, preliminary analyses show that regression is negatively correlated with psychological stress, traumatic stress and depression. This means that when regression augments, psychological stress, traumatic stress and depression decrease, and vice versa. This result is also valid for the subcategories of resilience. In addition, depression, psychological stress and traumatic stress are positively correlated, which means when one of them increases the other also increases, and when one of them decreases the other decreases too.

The first hypothesis of this study suggests that people exposed to a terror trauma directly will show a high level of psychological stress, traumatic stress, and depression and the second hypothesis of the study proposes that people exposed to a terror trauma indirectly will also show a high level of psychological stress, traumatic stress (PTSD), and depression. Since this study is not a longitu-

dinal study, in this case, the comparison of traumatic stress (PTSD) and depression levels were made according to a previous research conducted by Zara and colleagues (2009) among people exposed to the terrorist attack in Istanbul on November 15, 2003. In the current study, PTSD and depression prevalence were less than PTSD and depression prevalence, as also seen in of Zara and colleagues' research (2009). In addition, there was no significant difference between the direct and indirect groups in terms of PTSD and depression prevalence. Therefore, we have to reject the first and second hypotheses. Nevertheless, we are able to see that some of the people exposed to terrorism developed PTSD and depression.

The third hypothesis of this study declares that resilience minimizes traumatic stress, psychological stress and depression. The results show that planned future, family coherence, perception of self and social resources predicted PTSD in the negative direction. In addition, planned future, perception of self and social resources predicted depression, again in the negative direction. Lastly, planned future and perception of self predicted psychological stress, also in the negative direction. Therefore, we can accept the validity of third hypothesis.

DISCUSSION

This study aims to investigate resilience, traumatic and psychological stress level of participants who were exposed to terror attacks in Istanbul between 2015 and 2016, and the relationships between them. The study hypothesized that (a) people exposed to terror attacks directly will show a high level of traumatic stress and depression, (b) people exposed to terror attacks indirectly will also show high level of traumatic stress and depression and (c) psychological health could be related to the resilience of the participants and further posits that resilience could be related to decreased traumatic stress and increased psychological health.

To our knowledge, this is the first and only study which collected empirical data on posttraumatic stress, depression and resilience regarding the mentioned terror attacks. Therefore, it offers many significant suggestions on the general psychology of terror survivors and clinical implications that may be restorative in the aftermath of ongoing terror attacks.

The results of this study relevant to the first and second hypotheses show that, in the direct group, only 22 of 85 participants (25.9%) reported PTSD and similarly, 20 (23.5%) reported depression. Of the indirect group, only 12 of 87 participants (%13.8) reported PTSD while 16 (%18.4) reported depression. The PTSD and depression prevalence among the participants of this study were less pronounced than the PTSD and depression prevalence seen among the sample of Zara and colleagues' research (2009).

In terms of the prevalence of PTSD, the results indicated that the frequency of PTSD was significantly higher in participants who were present on the scene during a terrorist attack, provided either physical or emotional aid to a terror survivor or escaped from a terror attack by chance. The risk ratio analyses show that there were certain differences between the demographic, peritraumatic and postraumatic factors with regards to the prevalence of depression or PTSD. Some of these factors can be considered as risk factors while others can be considered as

protective factors for the development of PTSD and depression. Previous studies show various results and interpretations of these results which are discussed below.

In this study, the PTSD scores of participants were distributed significantly across the categories of "being present on the scene during a terrorist attack", "providing either physical or emotional aid to a terror survivor" and "escaping from a terror attack by chance". The median of PTSD scores of people who were present on the scene, provided either physical or emotional aid to a terror survivor and escaped from a terror attack by chance had a significantly higher value than participants who were not on the scene, did not provide an aid or escape from a terror attack by chance. Moreover, the efficiency of "being present on the scene during a terrorist attack" was higher than "providing either physical or emotional aid to a terror survivor" which is followed by "escaping from a terror attack by chance". However, PTSD scores did not show a significant distribution across the other categories of trauma exposure which are "being physically injured by a terrorist attack", "being present on the site as a first responder", "being exposed to the damaged site shortly after a terrorist attack", "having a close relative or loved one who had the risk of death or harm experienced by a terror attack", "being present on the city of the terror attack" and "hearing about the terrorist attack from an external resource (media)".

The risk ratio of being married, living with someone, unemployment, receiving psychological support up to one year, and not being exposed to a past trauma were greater than 1 and are thus risk factors for the development of PTSD and the development of depression. On the other hand, the risk ratio of being single, living alone, employment, receiving psychotherapy more than one year and exposure to a past trauma were less than 1 and therefore tend to be protective factors against the development of PTSD and the development of depression. Especially receiving psychological support up to one year and not being exposed to a past trauma were stronger risk factors for the development of PTSD and also depression in the direct group compared to the other possible risk factors.

The results of this study show that planned future, family coherence, perception of self and social resources predicted PTSD in the negative direction. Moreover, planned future, perception of self and social resources predicted depression in the negative direction. In addition, planned future and perception of self predicted psychological stress in the negative direction. This means that they also have a causal relationship with each other and when one increases, the other also increases, and one decreases when the other decreases. Lastly, correlation analyses show that resilience increases when psychological stress, traumatic stress and depression decreases, and vice versa. These findings are similar to the previous studies (Bonanno, et al., 2005).

4.1. DISCUSSION OF TERROR TRAUMA

Studies indicate that terror trauma has the most destructive effects among traumatic events (Everly & Mitchell, 2001). This is because terrorism uses violence in order to spread terror in a society, and includes sudden and unpredictable attacks (Laqueur, 1987). In addition, it is a man-made and intentional disaster which leads to loss of meaning about life, anger and increased vulnerability towards the attackers (Krystal, 1968). On the other hand, attackers are usually unknown and uncontrollable which causes anxiety in the society (Hobfoll, Canetti-Nisim & Johnson, 2006). Therefore, terrorism damages community well-being (Lopez, 2011; Erikson, 1976).

The intentionality of terror trauma, intergenerational transmission of collective trauma and collective memory make the terrorism trauma difficult to overcome (Smelser, 2004; Volkan, 2001). Therefore, the diffusion of the terror trauma is uncontrollable. Hence, the results of terror trauma must be considered by clinicians in developing intervention models.

It is well-known that catastrophic events have broad destructive effects on the human psychology (Chrousos & Gold, 1992). Studies conducted previous to this research indicate that both direct and indirect exposure to a terror attack have the potential to damage the psychological health of individuals (Palmer, 2007;

Neria, Wickramaratne & Olfson, 2013; Galea, Nandi & Vlahov, 2005; Bleich, Gelkopf & Melamed, 2005; Pfefferbaum, Vinekar & Trautman, 2002). A number of studies suggest that direct exposure to a traumatic event - such as the loss of a loved one, being a first responder at the site, bearing witness to the event, or getting wounded at the site- pose an especially high risk for the development of PTSD and depression. Other studies declare that indirect exposure to the event can also be significant threat to psychological health (Verger, Dab & Lamping, 2004; Neria, et al., 2005; Zimering, et al., 2006). Previous studies further indicate that resilience has an important role on the impact of terror traumas, suggesting that resilient individuals tend to be spared trauma (Bonanno, 2004; Bonanno & Mancini, 2012).

4.2. PREVALENCE OF PTSD IN DEMOGRAPHIC, PERI-TRAUMATIC AND POSTTRAUMATIC FACTORS FOR DIRECT GROUP

Traumatic stress is a stress reaction given to a possible demanding situation. When traumatic stress lasts more than a month and the subject develops serious symptoms, posttraumatic stress disorder (PTSD) may result. According to the criteria of DSM-V, PTSD is characterized by exposure to a possible traumatic event directly or indirectly, distress, dissociative reactions, avoidant behavior from reminders of the catastrophe, negative cognitive and mood changes, and arousal responses towards the reminders of the traumatic event (APA, 2013).

Investigations show that an increase in psychological stress level and PTSD prevalence may occur in the aftermath of a traumatic event such as a terror attack (Lemos, 2015; Hamaoka, et al., 2004; Shalev, et al., 1998; Salguero, et al., 2011; Palmer, 2007; Summerfield, 2000; Ryan C. W, et al., 2006; Rinker, et al., 2018; Sonpar, 2008; Lopez, 2011). According to Gidron (2002), PTSD prevalence in the aftermath of terror attacks in most countries is roughly 28%. Similarly, our study shows that 25.9% of participants exposed to a terror attack directly exhibit PTSD. The results confirm that terror traumas pose considerable risk to the development of PTSD among terror survivors.

In consideration of the results of this study, being married and living with someone can be protective factors since partners provide social support for terror survivors. This finding is compatible with the literature (Cohen & Wills, 1985). In addition, it is known that stress causes loss of concentration (Van Der Linden, Keihsers, Eling & Van Schaijk, 2005). Having trouble concentrating may cause many difficulties in business life and may increase stress level. Therefore, employed people may carry a risk of being afflicted with PTSD. Moreover, it can be seen that early psychological support carries great importance on the healing process following a trauma. In terms of past traumatic experiences, although researchers have identified situations in which a person is empowered after a trauma (i.e. posttraumatic growth), it is also known that past traumatic experiences -especially more recent ones- have the potential to trigger traumatic stress in subsequent traumatic situations (Brewin, Andrews & Valentine, 2000). In terms of gender, it is recorded that women tends to be traumatized more readily than men. However, especially in non-Western countries men and women show a similar prevalence of PTSD and depression due to the intense and ongoing terror exposure (Canetti, Galea & Hall, 2010). In addition, some researches indicate that low education and low income tend to be risk factors for PTSD and depression development. However, in our study education status and income level showed neither a protective nor a risk factor for the development of PTSD among terrorized people much like gender. This can be due to the intensity and ongoing structures of terror attacks in these countries which create a national sadness on the overall society (Somer, Ruvio, Soref & Sever, 2005).

In the current study, PTSD scores distributed significantly only across the categories of "being present on the scene during a terrorist attack", "providing either physical or emotional aid to a terror survivor" and "escaping from a terror attack by chance". People who were present on the scene, provided either physical or emotional aid to a terror survivor and escaped from a terror attack by chance had a higher PTSD prevalence than others. Literature claims that direct exposure to the trauma tends to cause higher PTSD prevalence than indirect exposure

(Green, Grace & Lindy, 1990; North, Nixon & Tivis, 1999). Therefore, it is surprising that some categories of direct exposure such as "being physically injured by a terrorist attack", "being present on the site as a first responder", "being exposed to the damaged site shortly after a terrorist attack" and "having a close relative or loved one who had the risk of death or harm experienced by a terror attack" did not have a significant result. The set of "being physically injured by a terror attack" is included within the set of "being on the site during a terror attack". In addition, the set of "being present on the site as a first responder" falls within the set of "providing also physical or emotional aid to a terror survivor". However, these categories lacked a sufficient sample size for meaningful interpretation. Therefore, it can be estimated that, if these sets had sufficient sample size for meaningful interpretation, PTSD scores would be distributed significantly across the categories. For the other terror trauma categories, it can be said that people who were present on the scene saw the moment of occurrence of the attacks differently than other people who were exposed to the damaged site shortly after an attack or who had a loved one under the risk of death or harm. Being exposed to the occurrence of an attack may have caused an intense panic (Pfefferbaum, Nixon & Tivis, 2001). In providing either physical or emotional aid to a terror survivor, there is also an exposure to the occurrence of the event through second hand accounts. Moreover, terror survivors who escaped from the terror attacks by chance may constantly evoke incident-related images and be plagued by the question, "What would have happened had I not escaped?". Therefore, it is reasonable that these categories have a high prevalence of PTSD.

4.3. PREVALENCE OF DEPRESSION IN DEMOGRAPHIC, PERITRAUMATIC AND POSTTRAUMATIC FACTORS FOR DIRECT GROUP

The insecure and fear inducing structure of the terrorism leads to hopelessness, helplessness and sense of loss. Therefore, terrorism is likely to develop depression (Hobfoll, Canetti-Nisim & Johnson, 2006; Salguero, Fernandez-Berrocal & Iruarrizaga, 2011). Depression is characterized by "depressed mood or

loss of interest or pleasure during the same 2-week period and represent a change from previous functioning" (APA, 2013, p. 155). Studies indicate that terror survivors develop depression solely or simultaneously with PTSD. In addition, depression may occur subsequent to PTSD, if the symptoms of PTSD are not cured (Cano-Vindel, Miguel-Tobal, Gonzalez-Ordi, Iruarrizaga, 2004; Hobfoll, Canetta-Nisim, Johnson, 2006).

According to researches, many people develop depression after a terror attack: 6 months after both the 1995 Oklahoma City bombing and the Istanbul bombing of November 2003, a considerable number of terror survivors reported PTSD and depression simultaneously (Zara Page, Kaplan, Erdogan & Guler, 2009; North, Nixon & Shariat et al., 1999). In the current study, the depression prevalence among our participants (of 85 participants, 25.9% depression diagnosis) is similar to North and colleagues' (1991) study (of 182 participants, 22.5% depression diagnosis). In addition, studies conducted with war veterans and survivors of the 9 / 11 attacks in New York, M-11 terror attacks in Madrid and Al Aqsa Intifada in Israel proves the development of depression after a terror attack or war (e.g. North, Nixon & Shariat 1999; Miguel-Tobal, Cano-Vindel & Gonzales-Ordi, 2006; Iruarrizaga, et al., 2004; Gabriel, Ferrando & Corton 2007). On the other hand, in Israel where ongoing terror attacks have occurred much like Turkey, longitudinal studies show that while some terror survivors developed mental health problems including depression during the ongoing terror attacks, others demonstrated a recuperation which may be due to an immunization (Tanskanen, Hintitka & Honkalampi, 2004). Our study was not conducted immediately after the terror attacks, and therefore we should take into the consideration probable recuperation of our participants after the onset of the terror attacks.

It is seen that in this study and in others, depression prevalence among the terror survivors are less than PTSD prevalence. These mental disorders have certain differential and common characteristics. DSM-V (2013) categorize PTSD in "Trauma and Stress-Related Disorders", whereas it constitutes another category called "Depressive Disorders" for the diseases that includes depressive episodes.

PTSD occurs after a unique traumatic event and it includes symptoms such as dissociations, hypervigilance, heightened startle response, flashbacks and distressing memories relevant to the traumatic event, and avoidance from its reminders. Both disorders are characterized by the inability to have pleasant emotions. However, PTSD is characterized by emotions such as panic, fear, horror and anger, whereas depression is characterized by intense sadness, emptiness, worthlessness and hopelessness. On the other hand, both of them tend to cause anger, guilt, shame and uneasiness, as stated by DSM-V (2013, p. 155-265). Depression does not have to include preoccupation. In addition, both disorders have potential to develop symptoms such as fatigue, loss of concentration and interest, indecisiveness, somatic complaints, thoughts of death, sleep disturbances such as insomnia or hipersomnia, isolation, dissociative reactions such as depersonalization and derealization, distress, increased desensitization and amnesia (APA, 2013). Considering these common and distinctive factors of PTSD and depression, it can be seen that fear, horror, anger, guilt, hypervigilance, flashbacks about the traumatic event and avoidance from the stimulants reminding that event are seen more than emotions relevant to sadness. This is quite reasonable since terror attacks are sudden, incontrollable and violent events. However, it should be noted that depressed moods, sadness, hopelessness and discouragement are accompanying a significant number of terror survivors and increase after the terror attacks due to the unpredictable, irrational and devastator nature of terrorism and its ensuing destructive effects on socio-cultural and economical situations. Therefore, depression is one of the disorders that should be taken into consideration by mental health professionals especially in the aftermath of terror attacks.

In terms of risk factors, various studies indicate an array of results. In this study, only receiving psychological support up to one year was a stronger risk factor compared to other potential risk factors of depression. This result shows the curative effect of early clinical interventions on depression after the terror attacks and it is consistent with other studies (Demirli, A., 2001). Therefore, early clinical interventions should be taken into consideration for the benefit of both individual

and societal metal health (Kaptanoğlu, 2009). However, in terms of depression, other variables did not carry a potential to be a risk or protective factor.

In terms of terror traumas, depression scores did not show a significant distribution across the categories of terror traumas. At this point, it can be again underlined that the structure of depression is different from the structures of other mental diseases such as PTSD. Depression prevalence is not relevant to the degree of exposure, since it is not characterized by panic reactions but by depressive emotions (see APA, 2013). Consistently, studies show that the means of exposure to a terror attack is not a determinant for the depression development among people exposed to terror attacks, especially ongoing ones (Bleich, Gelkopf & Solomon, 2003; Somer, Ruvio, Soref & Sever, 2005).

4.4. PREVALENCE OF PTSD IN DEMOGRAPHIC, PERI-TRAUMATIC AND POSTTRAUMATIC FACTORS FOR INDIRECT GROUP

DSM-V (2013) suggests that a person can be considered as exposed to a traumatic situation either by seeing threatened death or experiencing serious injury or sexual violence first hand, but not by witnessing or hearing that event from external resources (e.g. media, other people). In the literature, while some researches indicate that the prevalence of PTSD is higher among people exposed to terror attacks directly, others declare that the level of exposure to a traumatic event does not affect PTSD prevalence among the terror survivors exposed to ongoing terrorism, such as Israeli people (Bleich, Gelkopf & Solomon, 2003; Bleich, Gelkopf, Melamed & Solomon, 2006; Shalev & Freedman, 2005; Shakev, Tuval, Freenkiel-Fishman & Hadar, 2006).

Since the symptomatic diagnosis of PTSD in DSM-V carries the risk of limiting the variety of traumatic stress outcomes and underestimating the diagnosis, certain studies embark to widen symptom clusters of PTSD. Widened symptom clusters of PTSD which are used by different researches diversely, indicate the existence of mild traumatic stress after an indirect exposure to terrorism (e.g. Silver, Holman, McIntosh, Poulin & Gil-Rivas, 2002; Suvak, Maguen, Litz, Silver

& Holman, 2008). However, these studies indicate a lower stress level among people exposed to terror attacks indirectly than the stress level of people exposed directly (Suvak, Maguen, Litz, Silver & Holman, 2008). Therefore, according to these studies traumatic stress of those exposed to terror attacks indirectly is not high enough to cause a malfunction on the ability to continue routine life. These results are consistent with our study, which submits a traumatic stress less severe among the people exposed to terror attacks indirectly than those exposed directly.

People who are exposed to terror attacks indirectly are also under the risk of developing mild symptoms of posttraumatic stress disorder. It is reasonable that since these people were not exposed to the traumatic event by seeing or hearing it from the first hand, their PTSD prevalence is lower than that of the direct group. However, the reason why there is still some evidence of PTSD among people exposed to the attacks indirectly may be the national sense of threat, social influence and exposure to the mass media. It is well known in the literature that a collective trauma impacts all people's mental health in the traumatized society, not only people exposed to the trauma directly (Zimering, et al., 2006). In addition, emotions tend to pass from one person to another by narratives. Moreover, literature claims that mass media has a great impact on people in the case of collective traumas. Media exposure to the traumatic event can be either voluntary or accidental (Ben-Zur, Gil & Shamshins, 2012). There are researches which indicate that time spent watching television is associated with high prevalence of PTSD. Therefore, the attitudes of mass media carry great importance for the society well-being. In addition, it can be said that mass media in Turkey has a different attitude: restricting the content of information or on the contrary, exposing people to detailed information about the attacks. In our opinion, media should take the responsibility to offer a balanced content about the traumatic events for the good of national health. In addition, media personnel should be aware of their role on human psychology. Since the aim of terrorism is spreading terror among the society, mass media is at risk of serving the aims of terrorists if it does not pay attention to the psychological values of citizens and society as a whole.

The results of this study show that being married is a protective factor against both PTSD and depression in direct and indirect exposure. The protective quality of marriage is usually associated with social support by various studies (Brewin, Andrews & Valentine, 2000). Therefore, it can be said that people feel the need of a social aid in order to recuperate.

Moreover, the importance of past traumatic experiences is well known in the literature both in positive and negative ways. Studies show that while some people become immunized by their past trauma through posttraumatic growth, some of them may become more vulnerable towards subsequent events compared to the past, due to the destructive effects of their past traumatic experiences (Brewin, Andrews & Valentine, 2000; North, Nixon & Shariat, et al., 1999; Grieger Douglas & Waldrep, et al., 2005, Lee, Isaac & Janca, 2002). In this study, the destructive effects of past traumatic effects were significant and they constituted a potential risk factor for PTSD development among indirect terror survivors. In Turkey many traumatic events have occurred at both societal and individual levels from past to present, therefore processing traumatic events may be difficult for some. For this reason, the harm caused by past traumatic events may be much significant than their benefits.

The only category which did not require early clinical intervention is PTSD prevalence among the indirect terror survivors. The visual and / or audial exposure to the traumatic event first hand or exposure to the traumatic histories of terror survivors have a great potential to trigger panic. This panic may later result in PTSD. Therefore, people need an early support for their psychological health. However, since the panic caused by indirect exposure may be less than that of direct exposure, the time of the intervention loses its significance on the psychological health of indirect terror survivors.

Employment status, living alone or with someone and support resources did not show a potential to be either risk or protective factors for the development of depression among the indirect group. This may be due to the fact that people

exposed to terror attacks indirectly are likely to develop mild posttraumatic symptoms which do not affect their functionality (Silver, Holman & McIntosh, 2002; Suvak, Maguen & Litz, 2008).

In terms of exposure to the terror attack, PTSD scores were not distributed across the categories of indirect exposure which are "being present in the city of the terror attack" and "hearing about the terrorist attack from an external resource such as media". This result seems reasonable since every person is exposed to a terror attack indirectly.

4.5. PREVALENCE OF DEPRESSION IN DEMOGRAPHIC, PERITRAUMATIC AND POSTTRAUMATIC FACTORS FOR INDIRECT GROUP

Indirect exposure to the terror attacks may result in depressive emotions due to the national sense of loss, ambiguity, helplessness and hopelessness. The unprocessed losses and elongated ambiguity caused by terror attacks may later lead to depressive emotions which can transmit across the generations (Volkan 2001).

Even though there are certain studies that mentions higher risk of PTSD and depression development in the presence of direct exposure to a terror attack, there are only a few studies which investigate the mental health of terror survivors exposed to ongoing terrorism. Studies conducted in Israel show that especially in high exposed cities, mild emotional stress, sadness and depressive feelings have been reported among the general society (Somer, Ruvio, Soref & Sever, 2005; Bleich, 2003). These studies declare that the level of exposure to the terror attacks did not have any significant role on the destruction of society well-being. In our study, the results show that neither direct nor indirect exposure carry the risk of developing depression. However, depression prevalence among the indirect group is less than direct group's depression prevalence.

Early clinical intervention is a protective factor against depression among the people terrorized indirectly. People exposed to terrorist attacks are less likely to show panic reactions compared to people exposed indirectly. However, indirect exposure leads to unpleasant emotions, since terrorism destroys people's ability to give meaning to life. Therefore, these people tend to feel depressed, and they feel a need to have support as early as possible. Being married also carries a potential to be a protective factor against depression among the indirect terror survivors, again because of their support need (Brewin, Andrews & Valentine, 2000). In addition, consistent with the literature and with other results of this study concerning other disorders, being exposed to an early traumatic event is also a risk factor for the development of depression among people exposed to the attacks indirectly. In addition, employment status, living alone or with someone and support resources were not protective or risk factors in terms of depression among the indirect subjects, since indirect group tend to carry only mild symptoms of depression and therefore are able to continue their life without any distortion on their functionality.

The results also show that depression scores were distributed similarly across the categories of indirect exposure which are "being present in the city of the terror attack" and "hearing about the terrorist attack from an external resource such as media". This result is also reasonable since every person is exposed to a terror attack second hand.

4.6. RESILIENCE IN PREDICTING PTSD, DEPRESSION AND PSYCHOLOGICAL STRESS

Even though a traumatic event has the potential to inflict mental disorders - especially PTSD and depression - studies demonstrate that less than the half of the trauma survivors develop these disorders (Kessler, Sonnega, Bromet, Hughes & Nelson, 1995; Ozer, Best, Lipsey & Weiss, 2003). However, the reason why the majority of trauma survivors do not develop any mental disorders is unclear. One explanation is the effectiveness of resilience towards the demanding situation

(Bonanno, 2004; Bonanno & Mancini, 2012; Hjemdal, Friborg, Martinussen, & Rosenvinge, 2001). The ongoing structure of the terror traumas may have caused immunization and increased resilience among the terror survivors, which may have helped them to adapt to subsequent terror attacks. Israel is a country exposed to continuous terror attacks, much like Turkey. Even though double exposures were not evaluated in this study, it can be assumed that Turkish residents learned about all terror attacks indirectly, and therefore were exposed to them continuously. A 2004 study conducted with social workers in Israel demonstrates that both citizens and personnel reported a mild level of intrusive thoughts, and low level of personal stress and burnout (Ron & Shamai, 2011). Moreover, an improvement in the psychological health occurred after the permanent terror attacks in Israel (Gelkopf, Solomon & Bleich, 2013).

Certain researches indicate the existence of resilience: according to research conducted by Ozer and colleagues (2003), more than 50% of American society experienced a terror attack, but only five to ten percent of them developed PTSD following the attack (Ozer, et al., 2003). The 7.5% of Manhattan citizens who had PTSD following the September 11th attack corroborate Ozer and colleagues' finding (Galea, Ahern & Resnick, et al., 2002). Moreover, although firefighters are usually heavily exposed to a traumatic event, only 13% of them had PTSD after the Oklahoma City bombing due to the high probability of fire departments actively recruiting strong and resilient individuals (North, Tivis & Mcmillen, 2002a). Furthermore, even though rescue workers are commonly exposed to a casualty in an intense way, nearly 85% of them are able to continue to their life with minimal symptoms following a life-threatening event (Duckworth, 1986; Alexander & Wells, 1991). In addition, although thousands of people were profoundly impacted by the events of September 11th, only a minority developed mental disorders (Bonanno, Rennicke & Dekel, 2005). Israeli citizens also exhibited balanced psychological health in spite of ongoing exposure to terror attacks (Ron & Shamai, 2011).

Current studies accept that resilience is common in the aftermath of a traumatic event (Bonanno, 2004; North, Tivis & McMillen, 2002b; Duckworth, 1986; Alexander & Wells, 1991). Resilient people are able to keep their homeostasis stable and in balance through different characteristics, such as: sense of coherence, identity continuity, self-enhancing bias, self-efficacy, hardiness and secure attachment dynamics (Antonovsky, 1987; Mancini & Bonanno, 2009; Taylor & Brown, 1994; Benight & Bandura, 2004; Funk, 1992; Fraley, et al., 1998). Therefore, resilient individuals are less likely to develop any clinical or subclinical diseases than non-resilient people.

Garmezy (1993) classify resilience into six categories, which are; perception of self, perception of future, family cohesion, social resources, social competence and structured style. Personal competence, social competence and personal structure form a category called psychological / dispositional attributes. In addition, personal competence is divided into two subcategories which are perception of self and perception of future/planned future. In addition to psychological/dispositional attributes, there are two subcategories; family cohesion and external support systems. External support systems include social support.

Basically, perception of self determines one's consideration of oneself in terms of efficacy (Garmezy, 1993). In the literature, it can be seen that self-enhancing biases and self-efficacy constitute fundamental elements of perception of self. According to the researches which measured resilience and self-enhancing biases, perceiving one's own self positively contribute to resilience (Taylor & Brown, 1994). In regard to self-efficacy, Bandura (2004) claims that if a person believes that he / she is able to cope with an adversity, that person tends to be resilient. In this study, perception of self predicted all independent variables of the regression analyses in the negative direction, namely PTSD, depression and psychological stress. Therefore, it can be assumed that perception of self constitutes one of the most significant factors in resilience in the aftermath of a collective trauma.

The second significant resilience category was perception of future/planned future, which predicted all of the independent variables - PTSD, depression and psychological stress - in the negative direction. Since perception of self and perception of future, the subcategories of personal competence, predicted all of the independent variables in the regression analyses in the negative direction, it can be said that personal competence has a very important role in the development of resilience in the aftermath of a collective traumatic event. Perception of future evaluates a person's hope, purposefulness and veridicality level (Garmezy, 1993). Literature claims that terrorism leads to uncertainty and decreases hope about the future. Therefore, having a future plan may be a decreasing factor for PTSD and depression prevalence, and is compatible with the literature (Aldwin, 1999; Rinker & Lawler, 2018).

The social resource component of resilience predicted depression and PTSD, but not psychological stress. This refers to the ability of receiving and giving authentic support (Garmezy, 1993; Werner, 1989, 1993; Rutter, 1990). It is also compatible with the literature that social support is a highly efficient coping mechanism. In addition, receiving social help is just as important as giving help, and both improve social interaction. People feel understood by having social supports and feel efficient when they help others (Cohen & Wills, 1985). Therefore, consistent with the literature, having social resources and developing social support systems are valuable for improving resilience and decreasing the prevalence of PTSD and depression. On the other hand, the human body reacts to demanding external stimuli (Selye, 1976). Therefore, it can be said that even resilient people may be incapable of avoiding stress entirely, especially in certain demanding situations such as terror attacks.

Family coherence, social competence and personal structure did not predict resilience in this study. Family coherence evaluates conflictive and supportive attitudes, cooperation, stability and loyalty in a family. Even though family can be considered as a social resource, family members of traumatized people may also carry the effects of trauma by being witnesses (Palmer, 2007).

Therefore, traumatized members' families may struggle to give support to one another. Social competence measures the adaptation capacity of a person into social life, having a cheerful mood, engaging in activities and aptly communicating with one's environment. Personal structure estimates one's ability to resume usual activities, to make plans and to organize one's environment (Werner, 1989, 1993; Rutter, 1990; Garmezy, 1993). In this study, it is seen that abilities such as continuing to function at an optimal level, adaptation to regular life, and having a cheerful and extraverted structure do not predict resilience. Therefore, it can be suggested that resilience is more than merely adaptation to life. It may require different characteristics than adaptability to demanding situations, including; receiving and giving social support, perceiving oneself efficient and maintaining hope, purposes and realism.

In summary, all the subcategories of resilience have a negative correlation with depression, PTSD and psychological stress. Moreover, in this study, perception of future and perception of self predicted depression, PTSD and psychological stress in the negative direction. Social support predicted only depression and PTSD in the negative direction but did not predict psychological stress. Personal structure, family coherence and social competence did not predict any of the independent variables.

4.7. LIMITATION AND IMPLICATIONS FOR FUTURE STUDIES

Despite the significant results of the study, some results are still restricted and questionable. A number of limitations may explain these constraints which would be advisable to correct in future studies.

First, it should be noted that the instruments of the study were filled as self-report online surveys by participants. There may be errors due to the misinterpretation of survey questions by study participants (Wyatt, 2000). In addition, the sample size should be larger in future studies to increase the validity and generalizability of the results to a broader population. The current study does not include the whole country as a sample, even though there were numerous instance

of terror exposure in other cities in Turkey, such as in the Southeastern Anatolia Region of Turkey and especially in Ankara. The Southeastern Anatolia Region of Turkey was not included in this study because of many different socio-economical variables which may affect the results of the study excessively, especially the result for the traumatic stress (Global Terrorism Database, 2015-2016). Moreover, the sample is not representative because of choosing a convenient sample rather than a random one. The place, size of the sample and the sampling method were restricted due to the access problems. Additionally, while traumatic experiences have a wide range of subcategories, this study considered only terrorist attacks but no other types of traumatic experiences (SAMSHA, 2016).

Furthermore, the study was conducted as a "within and between" subject design among people exposed to a traumatic event directly and / or indirectly. The lack of control group made impossible the comparison of people who were exposed to a terror attack directly and / or indirectly versus people who were not exposed to a terror attack. Since every person exposed to at least a terror attack indirectly, the existence of a control group is not possible. The comparison was made only between participants who exposed to the terror attacks in Istanbul between 2015 and 2016 directly and indirectly.

Besides, the terror attack exposure of participants was spread out over two years so the time of exposure varies for each participant. The difference of time passage after the terror exposure among participants may impact the results. In addition, time passage may distort participants' traumatic memory and diminish the effects of traumatic experiences on participants. However, it should also be noted that trauma is based on a subjective perception and experience (Creamer, McFarlane & Burgess, 2005).

Another important factor which may affect the results of the study is participants' past traumatic experiences beyond the terror attacks which occurred in Istanbul between 2015 and 2016. Since the study examined the traumatic stress of participants, past traumatic experiences are a potential adjuvant of traumatic stress

as shown in the results of this study. However, studies demonstrate that every person experiences at least one possible traumatic event during their life and it is not possible to control past traumatic experiences strictly (Kessler, et al., 1995). In addition, Turkey is a country which has a wide traumatic history. Therefore, assuming that every person was exposed to a past traumatic experience, traumatic history was not a significant distinguishing characteristic among the sample. Moreover, the pre-disaster psychiatric history of participants were not included in the study which may also affect the results.

Besides, doing the survey on a voluntary basis may influence the results of surveys, since highly traumatized people may tend to not participate in such a study in order to avoid reliving past traumatic experiences. The psychological stress, PTSD and depression scores of people who did not volunteer for this study may be different from those who participated in it.

All of these limitations might affect the generalizability and validity of the study. However, attention was paid to eliminate and control the inhibitive factors of the study as much as possible. For future studies, it would be useful to take into consideration these limitations in order to have a more valid result.

As mentioned in the introduction chapter of this study in detailed, terror trauma damages individual and collective psyche in a profound way. Terrorism is one of the most destructive actions in the world today. Therefore, more studies should be conducted which aim to hinder traumatic attempts and build resilient individuals which later creates resilient communities. At this point, clinical interventions are very significant. The effects of terror traumas are multidimensional: terror trauma places in the physiological, psychological and cognitive structure of human beings. Therefore, individual and collective intermodal interventions should be conducted, integrating cognitive-behavioral, systemic, psychodynamic and somatic approaches (i.e. movement based expressive art therapy). In addition, reconciliation, mourning, unconditioned witnessing, support, respect, are strongly needed in the rehabilitation of trauma. COR (1989) Theory claims that resource

loss leads to increased stress, while resource gain increase resiliency. Therefore, we should offer a holding environment to trauma survivors in order to give them corrective experiences and effective resources.

CONCLUSION

To our knowledge, this is the first and only study conducted in Turkey and in non-Western populations that investigates the relationship between traumatic stress, psychological stress and resilience among participants exposed to ongoing terror attacks directly and / or indirectly. Even though Turkey is a country which has experienced a lot of terror attacks over the years in various forms, no study was conducted on this topic. However, this study shows that there is a significant relationship between traumatic stress, psychological stress and resilience. In the light of these results, this study will fill the gap about understanding the effects of terror attacks on people and empowering societies.

The study has very important findings: negative correlations of resilience and its subscales with psychological stress, traumatic stress and depression were obtained ($p < 0.01$). Moreover, the results show that planned future, perception of self and social resources predicted depression negatively. Planned future and perception of self also predicted psychological stress negatively ($p < 0.05$). Additionally, only the minority of the sample met the cutoff point for PTSD and depression in both the direct and indirect groups. No significant difference was obtained between the PTSD and depression scores of the direct and indirect groups. In terms of risk factors associated with terror traumas, PTSD scores of the participants who were present on the scene during a terrorist attack, those who provided either physical or emotional aid to a terror survivor and those who escaped from a terror attack by chance were significantly higher than people who were not present on the scene and people who did not provide an aid to a terror survivor. However, in terms of risk factors, there were little difference between people with PTSD and without PTSD nor between people with depression and without depression. There are contrasting views on this issue in the literature which are discussed in this study.

Even though the impact of terror attacks are well known, discussed and easy to predict according to the literature, the protective factors have been insuffi-

ciently examined (Antonovsky, 1987; Mancini & Bonanno, 2009; Taylor & Brown, 1994; Bandura, 1982; Kobasa, 1979; Funk, 1992; Bonanno, 2004, 2014). However, epidemiological data indicates that every person experiences at least one traumatic event in their life (Kessler, et al., 1995). Therefore, understanding how people stay in balance is critical, in order to render unhealthy people homeostatic. This study demonstrates that resilience is a valuable positive factor in people's psychological and traumatic stress level. In addition, results show that some components of resilience are more significant than others. For instance; planned future, family coherence, perception of self and social resources play an important role in the prevention of traumatic stress. In addition, planned future, perception of self and social resources are significant protective factors for the development of depression. Planned future and perception of self predict psychological stress of people. Moreover, even though both direct and indirect exposure have the potential to damage the psychological well-being of individuals, people exposed directly may require intense attention in order to maintain their homeostasis. Early psychological interventions have a potential to provide healing opportunities in the aftermath of terror traumas. This information should be used in clinical interventions and especially the components of resilience which contribute to the psychological health of terrorized people should be supported by mental health professionals.

In accordance with the results of this study, there can be some suggestions for future studies. There is a need for the elimination of the limitations in order to enhance the validity of the study, such as past traumatic experiences. Therefore, a longitudinal study is strongly recommended. Besides, it should be noted that resilience is essential to building the psychological well-being of a society. Therefore, the results of this study should be taken into consideration especially for future clinical implications.

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APPENDICES

Appendix A

Informed Consent Form

(In Turkish)

Onam Formu

Terör Travmasının Toplumdaki Psikolojik Etkileri Araştırması Bilgilendirilmiş Onay Formu

İstanbul Bilgi Üniversitesi Klinik Psikoloji Yüksek Lisans Programına bağlı olarak terör travmasının toplumdaki psikolojik etkileriyle ilgili bir tez çalışması yürütülmektedir. Bu çalışmanın sonuçlarının psikoterapi ve sosyal destek çalışmalarına katkı sağlayacağı düşünülmektedir.

Bu araştırma kapsamında katılımcılara belirli ölçekler verilecek ve kendileri tarafından cevaplamaları istenecektir. Araştırma verileri, araştırma süresi boyunca güvenli bir şekilde saklanacaktır. Araştırmada elde edilen tüm veriler ve kimlik bilgileriniz gizli tutulacaktır. Veriler yalnızca bilimsel amaçlarla kullanılacaktır. Bilimsel yayınlar kişisel bilgiler saklı tutularak yapılacaktır.

Bu araştırmaya katılımınızın size herhangi bir zarar vereceği öngörülmemektedir. Araştırmaya katılım gönüllülük esasına dayanmaktadır. Araştırmaya katıldığınız için size herhangi bir ödeme yapılmayacak veya tazminat talebi kabul edilmeyecektir. Araştırmadan herhangi bir nedenden ötürü herhangi bir aşamasında çekilebilirsiniz.

Bu araştırmaya katılarak klinik uygulamalara katkı sağlayacak terör travmasının psikolojik etkilerine dair farklı bilgiler edinmeye katkıda bulunduğunuz için teşekkür ederiz.

Araştırmayla ilgili sorularınız ve/veya araştırma süresince ya da sonrasında duygusal olarak kendinizi kötü hissettiğiniz bir durum olursa araştırmacı Psk. Funda Sancar'a 05322844010 nolu telefon numarası ya da fundasancar91@gmail.com mail adresinden ulaşabilirsiniz. Ayrıca, ruhsal desteğe ihtiyaç duyduğunuzda gerekli yönlendirme yapılacaktır.

 Yukarıda belirtilen bilgiler ve koşullar dâhilinde bu araştırmaya katılmayı kabul ediyorum.

Tarih:

İmza:

Appendix B

Demographic Information Form

(In Turkish)

Demografik Bilgilendirme Formu

Aşağıda sizinle ilgili bazı kişisel bilgileri edinmek için sorular yazılmıştır. Lütfen kendinize en uygun olan cevabı veriniz.

A. SOSYODEMOGRAFİK BİLGİLER

1. Tarih : ……

2. Uygulama şekli (online/elden) ve yeri:.....

5. Yaşı ve doğum tarihi: .....

6. Cinsiyeti:

1. Erkek *2. Kadın* *3. Diğer (belirtiniz).....*

7. Medeni Durumu:

1. Bekar *3. Ayrı yaşıyor* *5. Dul*

2. *Evli* *4. Boşanmış* *6. Birlikte yaşıyor*

8. Kiminle Yaşadığı:

1. Eş ve çocuklar *3. Anne-baba* *5. Arkadaş / akraba*

2. *Eş* *4. Yalnız* *6. Diğer (belirtiniz)*

.....

9. Öğrenimi:

1. Okuma-yazma bilmiyor *3. İlkokul* *5. Lise*

2. Okuma-yazma biliyor *4. Ortaokul* *6. Üniversite / Yüksekokul*

10. Mesleği;

1. Ücretli çalışıyor *4. Öğrenci* *7. İşsiz (sağlık nedenleriyle)*

2. Kendi işi *5. Ev Kadını* *8. İşsiz (diğer nedenlerle)*

3. Ücret almadan çalışıyor (gönüllü) 6. Emekli 9. Diğer (belirtiniz) .....

11. Yaşadığınız haneye giren aylık ortalama gelir nedir?

1. 1500 ve altı

2. 1500-1900 arası

3. 1900-4900 arası

4. 4900-8000 arası

5. 8000 üstü

12. Daha önce ruhsal sorunlarıyla ilgili destek almış mı?

1. Psikoterapi hizmeti aldı (lütfen ne zaman ve ne kadar süreyle olduğunu belirtiniz).....

2. Psikiyatrik hizmet aldı

3. Sosyal destek aldı (yakınlarından)

4. Diğer sağlık uzmanlarından (belirtiniz).....

5. *Diğer (belirtiniz).....*

6. *Hiçbir yerden*

13. Yaşadığı il:.....

B. Son bir aydır kendinizi ruhsal olarak nasıl hissediyorsunuz?

(AŞAĞIDAKİ SEÇENEKLERİ OKUYUN)

ÇOK KÖTÜ	KÖTÜ	NORMAL	İYİ	ÇOK İYİ

C. Lütfen hayatınızın bir döneminde aşağıda belirtilmiş olan bir durum yaşayıp yaşamadığınızı belirtiniz. Yaşadıysanız ne zaman yaşadığınızı ve olayın çeşidini (tanık olunan ve maruz kalınan doğal afetler, kazalar, aile içi/dışı şiddete tanık olma ya da maruz kalma, taciz/tecavüz, işkence, savaş, terör, sevilen/yakın olunan birinin kaybı, ait hissedilen bir yerin kaybı) **kısaca** belirtiniz.

.....
.....

D. Lütfen herhangi bir terör saldırısıyla ilgili yaşamış olduğunuz durumu aşağıdaki seçenekleri okuyarak, size en uygun olanı belirtiniz.

1. Bir terör saldırısı sırasında olay yerinde bulunmak
2. Bir terör saldırı sırasında ilk müdahale ekibinde bulunmak
3. Bir terör saldırısından fiziksel olarak yara almış olmak
4. Terör saldırısına maruz kalmış birine duygusal ya da fiziksel yardımda bulunmuş olmak
5. Terör saldırısının hasar verdiği bölgede olaydan kısa bir süre sonra bulunmak
6. Terör saldırısı sırasında olay mahallinde bulunan birini tanımak
7. Bir terör saldırısından şans eseri kurtulmak
8. Saldırının varlığından bir başkası ya da bir haber kanalı aracılığıyla haberdar olmak
9. Saldırının gerçekleştiği sırada olayın gerçekleştiği semtte bulunmak
10. Saldırının gerçekleştiği sırada olayın gerçekleştiği şehirde bulunmak
11. Bir yakınının ve/veya tanıdığının olay yerinde yaralanmış ve/veya ölmüş olması

E. Aşağıda İstanbul'da son 3 yılda gerçekleşmiş olan terör olaylarının listesi verilmiştir. Lütfen bizzat yaşamış olduğunuz veya bir başka merciden duyduğunuz terör olayını/olaylarını işaretleyiniz ve **"olay yerinde bizzat bulunduysanız, bir yakınınız olay yerinde bulunmuşsa, olay yerinde bulunan birine fiziksel ya da duygusal yardımda bulundaysanız, ilk yardım ekiplerinde yer aldıysanız"** yanına **"BULUNDUM"** yazınız.

1. Ocak 2015, Sultanahmet .....
2. Şubat 2015, Çekmeköy .....
3. Nisan 2015, Fatih (İst. Emniyet Müdürlüğü).....
4. Nisan 2015, Armutlu (MHP Sarıyer Seçim Bürosu).....
5. Temmuz 2015, Sultangazi (Gazi Polis Merkezi).....
6. Temmuz 2015, Okmeydanı .....
7. Ağustos 2015, Bayrampaşa (İlçe Emniyet Müdürlüğü).....
8. Ağustos 2015, Beyoğlu (AK Parti İstanbul İl Başkanlığı).....
9. Ağustoos 2015, Sarıyer (Amerikan Konsolosluğu).....
10. Ağustos 2015, Sultanbeyli (Karakol).....
11. Ağutos 2015, Dolmabahçe Sarayı .....

Appendix C

Resilience Scale for Adults (RSA)

(In Turkish)

Yetişkinler için Psikolojik Dayanıklılık Ölçeği

Lütfen aşağıdaki cümleleri okuyarak size en yakın gelen aralıktaki kutucuğu işaretleyiniz.

1. Beklenmedik bir olay olduğunda…						
Her zaman bir çözüm bulurum						Çoğu kez ne yapacağımı kestiremem
2. Gelecek için yaptığım planların…						
Başarılması zordur						Başarılması mümkündür
3. En iyi olduğum durumlar şu durumlardır…						
Ulaşmak istediğim açık bir hedefim olduğunda						Tam bir günlük boş bir vaktim olduğunda
4. …olmaktan hoşlanıyorum						
Diğer kişilerle birlikte						Kendi başıma
5. Ailemin, hayatta neyin önemli olduğu konusundaki anlayışı…						
Benimkinden farklıdır						Benimkiyle aynıdır
6. Kişisel konuları …						
Hiç kimseyle tartışmam						Arkadaşlarımla/Aile-üyeleriyle tartışabilirim
7. Kişisel problemlerimi…						
Çözemem						Nasıl çözebileceğimi bilirim
8. Gelecekteki hedeflerimi…						
Nasıl başaracağımı bilirim						Nasıl başaracağımdan emin değilim
9. Yeni bir işe/projeye başladığımda …						
İleriye dönük planlama yapmam, derhal işe başlarım						Ayrıntılı bir plan yapmayı tercih ederim
10. Benim için sosyal ortamlarda rahat/esnek olmak						
Önemli değildir						Çok önemlidir

11. Ailemle birlikteyken kendimi … hissederim						
Çok mutlu						Çok mutsuz
12. Beni …						
Bazı yakın arkadaşlarım/aile üyelerim cesaret-lendirebilir						Hiç kimse cesaretlendiremez
13. Yeteneklerim…						
Olduğuna çok inanırım						Konusunda emin değilim
14. Geleceğimin … olduğunu hissediyorum						
Ümit verici						Belirsiz
15. Şu konuda iyiyimdir…						
Zamanımı planlama						Zamanımı harcama
16. Yeni arkadaşlık konusu … bir şeydir						
Kolayca yapabildiğim						Yapmakta zorlandığım
17. Ailem şöyle tanımlanabilir …						
Birbirinden bağımsız						Birbirine sıkı biçimde kenetlenmiş
18. Arkadaşlarımın arasındaki ilişkiler …						
Zayıftır						Güçlüdür
19. Yargılarıma ve kararlarıma …						
Çok fazla güvenmem						Tamamen güvenirim
20. Geleceğe dönük amaçlarım …						
Belirsizdir						İyi düşünülmüştür
21. Kurallar ve düzenli alışkanlıklar …						
Günlük yaşamımda yoktur						Günlük yaşamımı kolaylaştırır
22. Yeni insanlarla tanışmak …						
Benim için zordur						Benim iyi olduğum bir konudur
23. Zor zamanlarda, ailem...						
Geleceğe pozitif bakar						Geleceği umutsuz görür
24. Ailemden birisi acil bir durumla karşılaştığında…						
Bana hemen haber verilir						Bana söylenmesi bir hayli zaman alır
25. Diğerleriyle beraberken						
Kolayca gülerim						Nadiren gülerim

26. Başka kişiler söz konusu olduğunda, ailem şöyle davranır:						
Birbirlerini desteklemez biçimde						Birbirlerine bağlı biçimde
27. Destek alırım						
Arkadaşlarımdan/aile üyelerinden						Hiç kimseden
28. Zor zamanlarda … eğilimim vardır						
Her şeyi umutsuzca gören bir						Beni başarıya götürebilecek iyi bir şey bulma
29. Karşılıklı konuşma için güzel konuların düşünülmesi, benim için …						
Zordur						Kolaydır
30. İhtiyacım olduğunda …						
Bana yardım edebilecek kimse yoktur						Her zaman bana yardım edebilen birisi vardır
31. Hayatımdaki kontrol edemediğim olaylar (ile) …						
Başa çıkmaya çalışırım						Sürekli bir endişe/kaygı kaynağıdır
32. Ailemde şunu severiz …						
İşleri bağımsız olarak yapmayı						İşleri hep beraber yapmayı
33. Yakın arkadaşlarım/aile üyeleri …						
Yeteneklerimi beğenirler						Yeteneklerimi beğenmezler

Appendix D

General Health Questionnaire- 12 (GHQ-12)

(in Turkish)

Genel Sağlık Anketi (GSA)-12

SON ZAMANLARDA...

Endişeleriniz nedeniyle uykusuzluk çekiyor musunuz?	□ hayır, hiç çekmiyorum	□ her zamanki kadar	□ her zamankin-den sık	□ çok sık
Kendinizi sürekli zor altında hissediyor musunuz?	□ hayır, hissetmiyorum	□ her zamanki kadar	□ her zamankin-den sık	□ çok sık
Yaptığınız işe dikkatinizi verebiliyor musunuz ?	□ hayır, hissetmiyorum	□ her zamanki kadar	□ her zamankin-den az	□ her zamankin-den çok daha az
İşe yaradığınızı düşünüyor musunuz?	□ her zamankin-den çok	□ her zamanki kadar	□ her zamankin -den az	□ her zamankin-den çok daha az
Sorunlarınızla uğraşabiliyor musunuz ?	□ her zamankin-den çok	□ her zamanki kadar	□ her zamankin-den az	□ her zamankin-den çok daha az
Karar vermekte güçlük çekiyor musunuz?	□ hayır, hiç çekmiyorum	□ her zamanki kadar	□ her zamankin-den sık	□ çok sık
Zorlukları halledemeyecek gibi hissediyor musunuz?	□ hayır, hiç hissetmiyorum	□ her zamanki kadar	□ her zamankin-den sık	□ çok sık hissediyorum
Değişik yönlerden baktığınızda kendinizi mutlu hissediyor musunuz	□ her zamankin-den çok	□ her zamanki kadar	□ her zamankin-den az	□ her zamankin-den çok daha az
Günlük işlerinizden zevk alabiliyor musunuz?	□ her zamankin-den çok	□ her zamanki kadar	□ her zamankin-den az	□ her zamankin-den çok daha az
Kendinizi keyifsiz ve durgun hissediyor musunuz?	□ hayır, hiç hissetmiyorum	□ her zamanki kadar	□ her zamankin-den çok	□ çok sık
Kendinize güveninizi kaybediyor musunuz?	□ hayır, hiç kaybetmiyorum	□ her zamanki kadar	□ her zamankin-d fazla	□ çok fazla

Kendinizi değersiz biri olarak görüyor musunuz ?	□ hayır, hiç görmüyorum	□ her zamanki kadar	□ her zamankin-den sık	□ çok sık

Appendix E

Traumatic Stress Symptoms Checklist (TSSC)

(In Turkish)

Travmatik Semptom Belirti Ölçeği (TSSB)

Aşağıda, insanların hayatını ciddi olarak etkileyen olaylardan sonra ortaya çıkabilecek bazı sorunlar sıralanmıştır. Lütfen **SON BİR AY İÇİNDE** bu sorunların sizde olup olmadığını, varsa sizi ne derecede rahatsız ettiğini belirtiniz (uygun sütunun altına X koyunuz).

	HİÇ RAHATSIZ ETMİYOR	**BİRAZ**	**OLDUKÇA**	**ÇOK RAHATSIZ EDİYOR**
1. (Olayla) ilgili bazı anıları /görüntüleri aklımdan atamıyorum.				
2. Bazen yaşadıklarım birdenbire gözlerimin önünden bir film şeridi gibi geçiyor ve sanki her şeyi yeniden yaşıyorum.				
3. Sık sık korkulu rüyalar görüyorum.				
4. (Olay) yeniden olacak korkusu ile bazı şeyleri kolaylıkla yapamıyorum (Örneğin: olayı hatırlatan yer, kişi ve durumlardan uzak durmak,olayla ilgili konuşamamak).				
5. Hayata ve sevdiğim şeylere karşı ilgim azaldı.				
6. İnsanlardan uzaklaştığımı, onlara karşı yabancılaştığımı hissediyorum.				
7. Sanki duygularım ölmüş, taşlaşmışım gibi geliyor.				
8. Uyumakta güçlük çekiyorum.				
9. Daha çabuk sinirleniyor ya da öfkeleniyorum.				

	HİÇ RAHATSIZ ETMİYOR	BİRAZ	OLDUKÇA	ÇOK RAHATSIZ EDİYOR
10. Unutkanlık veya dikkatimi yaptığım işe vermekte güçlük çekiyorum.				
11. Her an (olay) olacak kaygısıyla tetikte duruyorum.				
12. Ani bir ses ya da hareket olduğunda irkiliyorum.				
13. Herhangi bir şey bana (olayla) ilgili yaşadıklarımı hatırlatınca rahatsızlık ve sıkıntı duyuyorum.				
14. (Olayda) yaşadığım şeylerle ilgili düşünceleri, duyguları ve anıları aklımdan atmaya çalışıyorum.				
15. (Olayda) yaşadığım olayların bazı bölümlerini hatırlamakta güçlük çekiyorum.				
16. (Olay) bana her an ölebileceğimi farkettirdiği için uzun vadeli planlar yapmak bana anlamsız geliyor.				
17. Herhangi bir şey bana (olayla) ilgili yaşadıklarımı hatırlatınca çarpıntı, terleme, baş dönmesi, bedenimde gerginlik gibi fiziksel şikayetler oluyor.				
18. Kendimi suçlu hissediyorum.				
19. Kendimi üzüntülü ve kederli hissediyorum.				
20. Hayattan eskisi gibi zevk alamıyorum.				
21. Gelecekten umutsuzum.				
22. Zaman zaman aklımdan kendimi öldürme düşünceleri geçiyor.				

	HİÇ RAHATSIZ ETMİYOR	BİRAZ	OLDUKÇA	ÇOK RAHATSIZ EDİYOR
23. Gündelik işlerimi yapacak gücüm azaldı.				
24. Sanki bu olay hiç olmamış ya da gerçek değilmiş gibi hissettim.				

Lütfen aşağıdaki soruları cevaplayınız.

1. Yukarıdaki sorular sizin için ne derecede rahatsızlık/sıkıntı/sorun yaratıyor?

0=Hiç *1=Hafif derecede* *2=Oldukça* *3=Şiddetli*

2. Yukarıdaki sorunlar kendinize bakımınızı, işinizi, aile yaşamınızı ve insanlarla ilişkilerinizi ne derecede aksatıyor?

0=Sorun yok/ Hiç aksatmıyor. Her zamanki normal yaşamımı sürdürebiliyorum.
1=Biraz aksatıyor. Biraz çabayla normal yaşamımı sürdürebiliyorum.
2=Oldukça aksatıyor. Normal yaşamımda önemli ölçüde aksamalar var.
3=Şiddetle aksatıyor. Gündelik yaşamımda yapmam gereken birçok şeyi yapamıyorum.

3. Ruhsal durumunuzla ilgili olarak bir doktorun/psikoloğun yardımını istiyor musunuz?

0= Hayır *1= Evet* *2= Emin değilim, bilmiyoru*

ETİK KURUL DEĞERLENDİRME SONUCU/RESULT OF EVALUATION BY THE ETHICS COMMITTEE

(Bu bölüm İstanbul Bilgi Üniversitesi İnsan Araştırmaları Etik Kurul tarafından doldurulacaktır /This section to be completed by the Committee on Ethics in research on Humans)

Başvuru Sahibi / Applicant: Furda Sancar

Proje Başlığı / Project Title: Terrorism, Traumatic Stress, General Health and Resilience in a Convenient Sample in Istanbul

Proje No. / Project Number: 2018-20024-09

1.	Herhangi bir değişikliğe gerek yoktur / There is no need for revision	XX
2.	Red/ Application Rejected Reddin gerekçesi / Reason for Rejection	

Değerlendirme Tarihi / Date of Evaluation: 19 Ocak 2018

Kurul Başkanı / Committee Chair

Doç. Dr. Itır Erhart

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