FWU Journal of Social Sciences, Summer 2020, Vol.14, No.2, 25-35

Post traumatic stress disorder and resilience: an exploratory study among survivors of Bacha Khan University charsadda, Pakistan

Noshi Iram Zaman
Bahria University Islamabad

Pirzada Muhammad Munib
Abdulwali khan University Mardan

The current study is aimed to assess the prevalence of Post-Traumatic Stress Disorder (PTSD) and Resilience among survivors of Bacha Khan University Charsadda (BKUC) terrorist attack. A comparison was made based on directly exposed/indirectly exposed survivors and gender. It was hypothesized that: (1) directly expose/affected survivors by the terrorist attack will exhibit more prevalence of PTSD as compared to indirectly exposed ones (2) there will be difference on the variable of PTSD and resilience with respect to gender. Results indicate that PTSD was significantly high among directly exposed individuals as compared to the indirectly exposed survivors. Moreover, that males were found having greater prevalence of PTSD as compared to the females. It is suggested to mental health policy makers to organize mental health camps for the public and university students to enable them to deal with the traumatic situations in a healthy manner .

***Keywords**: PTSD; terrorism; resilience; directly exposed; indirectly exposed; survivors.*

Terrorism is a serious delinquent that is growing rapidly and manifesting severe consequences overall in the world. Along with immediate effects on survivors directly exposed, it has unyielding concerns for the general public in terms of unending fear, uncertainty and lot of insecurities. Deaths and injuries are the most direct consequences while long term magnitudes involve psychological harm that may encompass a range of psychiatric disorders including Post Traumatic Stress Disorder (PTSD), depression, anxiety, substance use and adjustment disorder etc.

Correspondence concerning this article should be addressed to Dr. Noshi Iram Zaman, Sr. Assistant Professor Department of Professional Psychology, Bahria Univerty, Islamabad Campus.Email: noshirum@yahoo.com

Contribution of Authors:

1. Conceived the idea, evaluation of research goals, aims, research methodology and statistical analysis to analyse the study data. Moreover, oversight and leadership responsibility for the research activity planning, execution, and mentorship.

2. Followed research goals, aim and methodology. Additionally, data collection and initial draft write up with the help of author[1]. Both Authors discussed the results and contributed to the final manuscript.

(Carver, 1998). In this regard degree of victimization, individual's perception of the event, coping styles and social support plays vital role in determining psychological distress or resilience (Grieger, 2006).

Over nine-fold increase is recorded in the number of deaths from terrorism since the beginning of 21st century. Most of the terrorist activities i.e. 78 % are noted to be occurring in five of the highlighted countries, Iraq, Nigeria, Afghanistan, Pakistan, and Syria. Terrorism is spreading to countries where there was less or no terrorism in the past few years. These countries have recorded 120% increase in terrorism presently as compared with the past year. According to Institute of economics and peace (2015) this is the largest surge in the last 15 years.

Increase in violence around the world and particularly in Pakistan began to grow after attacks of September 11, 2009. People of Pakistan are facing the problem of continuous terrorism in the form of suicide attacks, explosions and even security measures such as long curfew hours have a damaging effect on a large scale on the Pakistani society (Khalily, Fooley, Hussain, & Bano, 2011).

Researches revealed that manmade violence/disasters create more adverse and long-lasting effects in terms of psychological harm as compared to the natural disasters. Stress reactions to natural disasters decrease over time, but the rates of PTSD and stress reactions are greater following events of deliberate violence. Major implications of terrorism are targeted towards adolescents and adult populations and the purpose is to generate fear, helplessness, shock, threat of death and harm among the public (Rubonis, & Bickman 1991). Continuous threat is posed from terrorism among the people in terms of uncertainty leading to serious physical and psychological consequences. These conditions resultantly cause severe forms of public catastrophe (Raviv, Sadeh, Raviv, Silberstein, & Diver, 2000).

After a traumatic event short term fear and anxiety are productive because it helps individuals to cope with the threatening situation. But when fear and anxiety stay longer after a traumatic event, it is counter-productive and have serious maladaptive consequences in terms of health and cognitive functioning (Yehuda & Hyman, 2005).

According to Institute for conflict management (2016) terrorism in Pakistan is a serious issue which has caused much destruction in recent years. The death toll from terrorist attacks in Pakistan has reached 27066. The provincial capital of Kyber Pukhtunkhuwa (KPK) recorded 169 terrorism related incidents and remained the most badly affected district through 2014. In the year 2016 a group of 4 heavily armed terrorists with assault rifles and grenades attacked Bacha Khan University, Charsadda located in KPK province of Pakistan, killing over 20 people, and injuring 35 others. The attack involved brutal killings of university students and staff members. The attackers approached the university hostel and other buildings and started randomly killing the students.

A terrorist act creates distress not only at the time of its occurrence but the fear of such attacks in future create more anxiety and distress among people. So, resilience should be indorsed and can be inculcated among individuals for quick adjustment in the wake of a terrorist attack. At the same time, steps should be taken to reduce the growing level of anxiety among individuals who have the fears and doubts in their minds about occurrence of such incidents in future (Butler, Morland, & Leskin, 2007). Prospective studies suggest that majority of the individuals show remarkable resilience in the wake of a stressful event. Although they may show some changes in physical health and

emotional dis-regulation for a short period of time, but their day to day functioning is not affected to a greater extent as compared to some other individuals (De Bellis, 2001).

Research suggests that indirectly exposed individuals were found more resilient in the aftermath of terrorist attacks compared to Individuals directly exposed, as the latter affected by the terrorist attacks on front line. Residents of New York were assessed for symptoms of PTSD and psychological resilience 6 months after the attacks of September 11th. PTSD was high among individuals who had direct exposure to the attacks, 65% of the individuals scored high on resilience. Individuals who had more severe exposure to the attacks showed less resilience. The incidence of resilience was not very low in individuals who scored high on PTSD (Bonanno, Galea, Bucciarelli, & Vlahov, 2006).

Pakistan is ranked 4th among ten countries with highest number of deaths in terrorism related incidents. According to global index of terrorism, Pakistan has been featured 13 times in the top ten countries, mostly affected by terrorism from 2000-2014 (Institute for economics & peace, 2015). Educational institutions remained higher to be targeted by terrorism. 103 terrorist attacks were recorded in 2014 on educational institutions. Terrorism acts as trauma for the survivors, resulting in serious mental illness as PTSD. In Pakistan research in this area is in infancy. Very few studies have been conducted so far. The impact of terrorism on university students needs further studies and in-depth analysis.

Majority of the terrorism related incidents were reported from KPK which recorded 35% of the total deaths in Pakistan in 2014 (Institute for Conflict Management, 2016). Repeated terrorist attacks have resulted in more resilience among the people of Peshawar, the provincial capital of KPK. Saddar area of the provincial capital is one of the most vulnerable area for the terrorist attacks, yet it is always seen bustling with day to day business activities as if the people no longer feel threatened and showing resilience. The aim of this study was to assess the prevalence of PTSD and resilience among the people in the wake of terrorist attacks.

Hypotheses

1) Directly expose/affected survivors by the terrorist attack will exhibit more prevalence of PTSD as compared to indirectly exposed ones.
2) There will be difference on the variable of PTSD and resilience with respect to gender.

Method

Objectives

The current study aimed to assess the psychological impact of terrorism on survivors of Bacha Khan University Charsadda (BKU) terrorist attack. Moreover, the prevalence of PTSD and resilience among the survivors was also assessed. A comparison was made among directly and indirectly exposed survivors. Furthermore, gender difference was also found on the variables of PTSD, and resilience.

Participants

For this study, a sample of 103 was taken. 60 of the participants were males while 43 were females (M=22, SD=2.8). Data was collected from two groups of people. One group included participants who were present in university at the time of attack and directly witnessed the incident (Eye witnessed/directly exposed/affected); second group included those who were not present in the university at the time of attack, or those who had a close family member or friend affected by the

incident (indirectly exposed/affected). Data was collected using purposive sampling technique. The sample included male and female students and other university staff.

Inclusion criteria

Individuals ranging from 18 to 40 years and education level of matric and higher were selected. Those who were present at the time of attack were selected in the directly exposed/affected group while those who were not present at the time of attack were selected in the indirectly exposed/affected group.

Description of Measures

Demographic Information sheet

Demographic information sheet was used which included questions about age, gender, marital status, education, socioeconomic status, present at the time of terrorism attack at university or not and profession.

PCL-5 Posttraumatic Stress Disorder Checklist-5 (Weathers et al., 2013)

The PTSD Checklist PCL-5 was used to assess symptoms of PTSD. The PCL-5 includes 20 items assessing the 20 symptoms of PTSD according to DSM-5. It is a self-report rating scale from 0-4. The lowest possible score is 0 while the highest score is 80 indicating highest PTSD symptoms. Cut off scores for the current study was set at 33 for assessing civilian population for a traumatic event. The alpha reliability of PCL-5 is quite high ranging from .75 to .95 (Wortmann et al., 2016).

Ego Resilience Scale (Block & Kremen, 1996)

The ego resilience scale is a 14 items scale. It is a self-report ratings scale from 1-4. The lowest possible score is 0 indicating lowest resiliency traits, while the highest possible score is 56 indicating highest resiliency traits. Score of 0-10 indicates very low resiliency trait, score of 11-22 indicates low resiliency trait, 23-34 indicates undetermined resiliency trait, 35-46 indicates high resiliency trait and 47-56 indicates very high resiliency trait (Block & Kremen, 1996).

Ethical considerations

Participants of the research were informed about the purpose of the research. They were requested to read and sign the inform consent form. Furthermore, they were ensured about the confidentiality of their responses. They were informed about their right of withdrawal at any stage of the study, they feel like.

Procedure

With the permission of the University authorities the students were approached in classroom settings. Information about the purpose of the research was explained to the participants. Queries were cleared and written inform consent was taken from the participants. Then they were requested to fill demographic information sheet, PCL-5, and Ego resilience scale. They were facilitated to freely ask questions for any difficulty regarding any item or instructions of the measures. At the end thanks were paid to the university authorities and participants for their cooperation.

Results

The results were analyzed using statistical package for social sciences (IBM SPSS, Version 23). For parametric data, an independent sample t-test was used to compare the mean difference between groups.

Table 1

Demographic Characteristics of Participants (N=103)

Variables	***f***	**%**
Gender		
Male	60	58.3
Female	43	41.7
Marital Status		
Single	94	91.3
Married	9	8.7
Occupation		
Students	97	94.2
Other staff	6	5.8
Socioeconomic Status		
Lower socioeconomic class	9	8.7
Middle socioeconomic class	83	80.6
Missing	11	10.7
Education		
Matric	2	1.9
HSSC	2	1.9
Bachelor	58	56.3
Master	40	38.8
M Phil, PhD	1	1
Exposure		
Direct	52	50.5
Indirect	51	49.5
PTSD		
Present	67	65
Absent	36	35

Note. Mean Age 22 (SD=2.8) Min 18, Max 34

Table 2

Psychometric Properties of Posttraumatic Stress Disorder Checklist-5 and Ego Resilience Scale *(N=103)*

Measures	No. of items	A	Range Min	Range Max	M	SD	Skew.	Kurt.
PCL-5	20	.86	1	68	38.37	15.43	-.42	-.41
ERS	14	.72	26	50	38.35	6.11	-.07	-.61

Note. PCL-5 = Posttraumatic Stress Disorder Checklist-5; ERS = Ego Resilience Scale; Skew = Skewness; Kurt = Kurtosis.

Table 3

t-test Analysis between Direct Exposure and Indirect Exposure on PTSD (N=103)

	Direct		Indirect				95% CI		
Variable	*M*	*SD*	*M*	*SD*	*t(101)*	*p*	LL	UL	Cohen's *d*
PTSD	43.31	12.29	33.12	16.03	3.63	.00	4.62	15.77	.71

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit.

Table 4

t-test Analysis between Male & Female, on Variable of PCL-5 & ERS (N= 103)

	Male (n=60)		Female (n=43)				95% CI		
Variable	*M*	*SD*	*M*	*SD*	*t(101)*	*p*	LL	UL	Cohen's *d*
PTSD	40.98	12.43	34.47	17.62	2.19	.03	.64	12.38	.42
ER	39.20	5.80	37.15	6.39	1.64	.10	-.43	4.52	.33

Note. M= Mean; SD= Standard Deviation; Cl = confidence interval; LL = lower limit, UL = upper limit, PTSD= Post Traumatic Stress Disorder, ERS = Ego Resilience.

Table 5

Difference in Levels of Resiliency across Genders (N =103).

Variables	Males (n=60)	Females (n=43)	X^2	*p*
Very Low resiliency	3	2		
Undetermined resiliency	10	12	2.34	.51
High resiliency	40	25		
Very high resiliency	7	3		

Table 6

Difference in Levels of Resiliency between Directly & Indirectly Exposed Individuals (N = 103).

Variables	Directly exposed	Indirectly exposed	X^2	*P*
Very Low resiliency	4	1		
Undetermined resiliency	9	13	6.51	.09
High resiliency	30	35		
Very high resiliency	8	2		

The sample comprised of 103 participants, 60 (58.3%) participants were male and 43 (41.7%) were female. 94 (91.3%) of the participants were single while 9 (8.7%) were married. The sample included 97 (94.2%) students and 6 (5.8%) other staff members. Participants from middle socioeconomic class comprised of 83 (80.6%), lower socioeconomic class participants were 9 (8.7%) while 11 (10.7%) participants did not answer this question. 58 (56.3%) of the participants were doing bachelor's degree while 40 (38.8%) were studying masters. 52 (50.5%) of the participants had direct exposure while 51 (49.5%) had indirect exposure to the attack. 67 (65%) of the participants were found having PTSD, while 36 (35%) did not had PTSD symptoms. (See Table 1)

An independent samples t-test indicated that prevalence of PTSD was significantly higher in those who had direct exposure to the traumatic event (M = 43.31, SD = 12.29) than those who had indirect exposure to the traumatic event (M =33.12, SD = 16.03), t (103) = 3.63, p <.01. (See Table 3). PTSD scores were significantly higher for male i.e. (M = 40.98, SD = 12.43) than female (M =34.47, SD = 17.62), t = 2.19, p <.05 but no significant difference between males and females, t = 1.64, p >.05, on the variable of resilience. (See Table 3)

Results in the table 4 indicate that level of resiliency trait was slightly higher among male survivors as compared to female survivor's male (M = 39.20, SD = 5.80) and female (M =37.15, SD = 6.39). Results in the table 3 indicate that level of resiliency trait was slightly higher in the indirectly exposed survivors as compared to directly exposed survivors but there was no significant difference.

Discussion

Current study aimed to assess the prevalence of PTSD and resilience among survivors of Bacha Khan University Charsadda (BKU) terrorist attack. A comparison was made among the survivors based on exposure i.e. direct/indirect exposure and gender.

PTSD symptoms were assessed by using PCL-5 (Weathers et al., 2013). PCL-5 is widely used for assessing symptoms of PTSD. The alpha reliability of PCL-5 is quite high ranging from .75 to .95. Ego resilience scale (Block & Kremen, 1996) was used to assess resilience. Alpha reliability of PCL-5 and resilience scale in current data is 0.86 and 0 .72 respectively (see Table 2).

It was hypothesized that directly exposed individuals to the terrorist attack will show higher prevalence of PTSD as compared to indirectly exposed individuals. The results were consistent with the hypothesis. Among 52 participants directly exposed 40 (76.9%) were found having PTSD. The results were congruent with area wise past findings on the said subject. Grieger (2006) stated that individuals who were directly exposed to shocking experiences were at increased risk for PTSD and other serious psychological disorders. A similar study, examining PTSD symptoms among student

population of KPK revealed that majority of the participants directly exposed to terrorist attacks had symptoms of PTSD (Ahmad et al., 2013). Another study of adolescents by Braun-Lewensohn et al., (2009) revealed similar findings stating that individuals who had more severe exposure to terrorist incidents had higher levels of PTSD symptoms.

Although, PTSD was also found among indirectly exposed participants. Some of the participants, who were not present in the university premises at the time of attack, were also found having PTSD. Among 51 people who were not present at the time of attack, 27 (52.9%) were found having PTSD. This lies in the category of vicarious traumatization, which refers to experiencing or feeling of the trauma by watching, hearing, or knowing through social and/or print media like reading about someone else's traumatic experience. For example, having the same experience or traumatic feelings when someone watches incidence of an attack on television or listens from a loved one, or reads about the trauma (Lerias & Byrne, 2003). Past researches have explained this phenomenon that people get traumatized and may have symptoms of PTSD by learning about the traumatic experiences of loved ones and those with significant relationship. Adults who are not directly exposed to potential threatening events can be markedly affected by calamities. Having a family member or friend injured or threatened may greatly increase the stress. Threat of future attacks and personalizing the event may also increase stress symptoms (Dixon, Rehling, & Shiwach, 1993). Stress reactions survey of people across the United States of America, few days after attack of September 11th revealed that 44 % of people had 1 major stress symptom out of 5 significant symptoms. 90 % were found having low levels of stress (Schuster et al., 2001). Current findings comply with past researches stating that the negative consequences of terrorist attacks are not only limited to individuals directly exposed, but those individuals may also suffer from traumatic reactions who were indirectly exposed.

Secondly, it was hypothesized that there will be difference on the prevalence of PTSD and resilience with respect to gender (See Table-4). On measure of PTSD, males were found having higher rates of PTSD as compared to females. Out of 60 males, 43 (75%) had PTSD, while out of 43 females, 22 (51.2%) had PTSD. The reason for males scoring high on measure of PTSD might be that they had more severe exposure to the attack. The attackers entered first the male hostel and started random killing of students. After this they approached other buildings in the university premises. Rate of chronic PTSD is found to be high when the exposure is severe (Galea et al., 2003). The results are consistent with a study in the same field stating that males are frequently found having more PTSD as compared to females. A possible reason is greater exposure to potentially threatening events and insecurity (Shah et al., 2014). Another study assessing percentages of PTSD among males and females reported that 19.7 % of males had PTSD by witnessing a murder or event causing serious injury to some individual. While only 1.4 % of females were found having PTSD from this type of trauma. Increased number of males were found having PTSD among those witnessing violence as compared to females (Breslau, Chilcoat, Kessler, Peterson, & Lucia, 1999).

On the variable of resilience, no significant difference was found either among males and females or directly exposed and indirectly exposed individuals (See Table-3 & 4). Most of the individuals were found exhibiting high resilience. Slight difference was noted on the levels of resilience among males and females, as males exhibited slightly high level of resilience (M = 39.20, SD = 5.80) and female (M =37.15, SD = 6.39). The reason might be that females engage in more emotion focused coping strategies following stressful experiences in that they focus more on the emotional aspects of the stressful situation. While males engage in more problem focused coping strategies as they strive to solve the problematic situation (Jensen, Thoresen, & Dyb, 2015). Another study

reported that all consequences of shocking experiences are not negative, there is also an opportunity for growth following stressful experiences (Westphal & Bonanno, 2007). This positive growth is called resilience. The results of resilience show that both male and female are highly resilient. Out of 97 participants who responded on measure of resilience, 75 were found highly resilient. Evidence suggests that demographic factors contributing to difference between resilient and non-resilient individuals include male gender, older age, and greater education (Bonanno, Galea, Bucciarelli, & Vlahov, 2006). Past researches suggest that males were more resilient as compared to the females (Mujeeb & Zubair, 2012).

Researches support that traumatic experiences may augment individual's resilience (De Bellis, 2001). Terrorism impacts resilience, high scores on measure of resilience was recorded six months after September 11th in residents of New York (Bonanno, Galea, Bucciarelli, & Vlahov, 2007).

Conclusion

From the current findings, it is found that an alarmingly high number of student population is suffering from psychological consequences of terrorism in the form of PTSD which needs attention. It can be generalized from the current findings that the effects of terrorism are widespread amongst university students. Because not only those students are suffering who had direct exposure but, more than half of those students also exhibited PTSD symptoms who were not present at the time of the attack. The PTSD prevalence is particularly high among males due to the severe degree of exposure they had to the attack. But worth mentioning aspect is resilience i.e. the ability to overcome obstacles while maintaining personal well-being and persistent attitude to proceed further. The stress raised by stressful situations may be short term for resilient individuals and does not impair their functioning (Bonanno, Galea, Bucciarelli, & Vlahov, 2007). Thus, it is concluded that besides having difficulty and law and order issues, Pakistani university students are stronger, buoyant, and resilient.

Limitations

Researches in the field of social sciences have certain limitations, besides carefully planned, and designed. Due to which the findings are not applicable to be generalized on the diverse populations. The sample of 103 is relatively a small which limits the generalizability of the results. Studies in future should also focus on the type of traumatic responses frequently reported by the survivors of such terror attacks so that interventions could be designed to deal the mostly reported symptoms. It is suggested to mental health policy makers to organize mental health camps for the public and university students to prepare them to deal with traumatic situations in a healthy manner.

References

Ahmad, K., Hussain, H., Khan, H. M., Rehman, Z. U., Naeemullah, Wahid, I., & Ali, S. (2013). Frequency of Post-Traumatic Stress Disorder And Depression in People of Khyber Pukhtoonkhwa due to Terrorism. *Journal of Saidu Medical College; 3*(2), 373-378.

Block, J., & Kremen, A. M. (1996). IQ and ego-resiliency: conceptual and empirical connections and separateness. *Journal of personality and social psychology*, *70*(2), 349-361.

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2006). Psychological resilience after disaster New York City in the aftermath of the September 11th Terrorist Attack. *Psychological Science*, *17*(3), 181-186.

Bonanno, G. A., Galea, S., Bucciarelli, A., & Vlahov, D. (2007). What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. *Journal of consulting and clinical psychology*, *75*(5), 671-682.

Braun-Lewensohn, O., Celestin-Westreich, S., Celestin, L. P., Verleye, G., Verté, D., & Ponjaert-Kristoffersen, I. (2009). Coping styles as moderating the relationships between terrorist attacks and well-being outcomes. *Journal ofAdolescence*, *32*(3), 585-599.

Breslau, N., Chilcoat, H. D., Kessler, R. C., Peterson, E. L., & Lucia, V. C. (1999). Vulnerability to assaultive violence: further specification of the sex difference in post-traumatic stress disorder. *Psychological Medicine*, *29*(04), 813-821.

Butler, L., Morland, L., & Leskin, G. (2007). Psychological resilience in the face of terrorism. *Psychology of Terrorism*, 400-417.

Carver, C. S. (1998). Resilience and thriving: Issues, models, and linkages. *Journal of Social Issues*, *54*(2), 245-266.

Dalgleish, T., Joseph, S., Thrasher, S., Tranah, T., & Yule, W. (1996). Crisis support following the Herald of Free-Enterprise disaster: A longitudinal perspective. *Journal of Traumatic Stress, 9*(4), 833-845.

De Bellis, M. D. (2001). Developmental traumatology: The psychobiological development of maltreated children and its implications for research, treatment, and policy. *Development and Psychopathology*, *13*(03), 539-564.

Dixon, P., Rehling, G., & Shiwach, R. (1993). Peripheral victims of the Herald of Free Enterprise disaster. *British Journal of Medical Psychology*, *66*(2), 193-202.

Galea, S., Vlahov, D., Resnick, H., Ahern, J., Susser, E., Gold, J., & Kilpatrick, D. (2003). Trends of probable post-traumatic stress disorder in New York City after the September 11 terrorist attacks. *American Journal of Epidemiology*, *158*(6), 514-524.

Grieger, T. A. (2006). Psychiatric and Societal Impacts of Terrorism. *Psychiatric Times*, *23*(7), 24-24.

Institute for Conflict Management. (2016). *Khyber Pakhtunkhwa Assessment - 2015*. Retrieved from South Asia Terrorism Portal: http://www.satp.org/satporgtp/countries/pakistan/nwfp/index.html

Institute for Conflict Management. (2016, May 23). *Pakistan Timeline 2016*. Retrieved from South Asian Terrorism Portal: http://www.satp.org/satporgtp/countries/pakistan/timeline/index.html

Institute for economics & peace. (2015). *Global terrorism index.* Sydney : Institue for economics & peace.

Jensen, T. K., Thoresen, S., & Dyb, G. (2015). Coping responses in the midst of terror: The July 22 terror attack at Utøya Island in Norway. *Scandinavian Journal of Psychology*, *56*(1), 45-52.

Khalily, T. M., Fooley, S., Hussain, I., & Bano, M. (2011). Violence, psychological trauma and possible acute post-traumatic interventions in Pakistani society. *Australasian Journal of Disaster and Trauma Studies*, *1*, 1-9.

Lerias, D., & Byrne, M. K. (2003). Vicarious traumatization: Symptoms and predictors. *Stress and Health*, *19*(3), 129-138.

Mujeeb, A., & Zubair, A. (2012). Resilience, Stress, Anxiety and Depression among Internally Displaced Persons Affected by Armed Conflict. *Pakistan Journal of Social and Clinical Psychology*, *9,* 20-26.

North, C. S., Nixon, S. J., Shariat, S., Mallonee, S., McMillen, J. C., Spitznagel, E. L., & Smith, E. M. (1999). Psychiatric disorders among survivors of the Oklahoma City bombing. *Journal of the American Medical Association*, *282*(8), 755-762.

Raviv, A., Sadeh, A., Raviv, A., Silberstein, O., & Diver, O. (2000). Young Israelis' Reactions to National Trauma: The Rabin Assassination and Terror Attacks. *Political Psychology*, *21*(2), 299-322.

Rubonis, A. V., & Bickman, L. (1991). Psychological impairment in the wake of disaster: The disaster–psychopathology relationship. *Psychological Bulletin*, *109*(3), 384-399.

Schlenger, W. E., Caddell, J. M., Ebert, L., Jordan, B. K., Rourke, K. M., Wilson, D., & Kulka, R. A. (2002). Psychological reactions to terrorist attacks: findings from the National Study of Americans' Reactions to September 11. *Journal of the American Medical Association*, *288*(5), 581-588.

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., & Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, *345*(20), 1507-1512.

Shah, S., Van den Bergh, R., Van Bellinghen, B., Severy, N., Sadiq, S., Afridi, S. A., ... & van Griensven, J. (2014). Offering mental health services in a conflict affected region of Pakistan: who comes, and why?. *PLoS One*, *9*(6), e97939.

Weathers, F. W., Litz, B. T., Keane, T. M., Palmieri, P. A., Marx, B. P., & Schnurr, P. P. (2013). The ptsd checklist for dsm-5 (pcl-5). *Scale available from the National Center for PTSD at www. ptsd. va. gov*, *10*.

Westphal, M., & Bonanno, G. A. (2007). Posttraumatic growth and resilience to trauma: Different sides of the same coin or different coins? *Applied Psychology*, *56*(3), 417-427.

Wortmann, J. H., Jordan, A. H., Weathers, F. W., Resick, P. A., Dondanville, K. A., Hall-Clark, B, & Mintz, J. (2016). Psychometric Analysis of the PTSD Checklist-5 (PCL-5) Among Treatment-Seeking Military Service Members.

Yehuda, R., & Hyman, S. E. (2005). The impact of terrorism on brain, and behavior: what we know and what we need to know. *Neuropsychopharmacology*, *30*(10), 1773-1780.

Received: March 25, 2019
Revisions Received: Oct 20, 2019