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Full Length Research Paper

Gender differences in anxiety among Pakistani survivors of suicide bomb blast

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This research investigated gender differences in anxiety among Pakistani survivors of suicide bomb blast. The sample was composed of 150 adult residents of Islamabad. 75 participants were live-witnesses of the Marriott hotel suicide bomb blast and 75 participants did not witness it. Burns Anxiety Inventory (BAI, 1999) was individually administered to all the research participants after getting written permission from the author for its use in the current research project. The female survivors reported greater anxiety than male survivors of this bomb blast (t = -2.45, df = 148, *p < 0.05). All the participants who directly witnessed the traumatic event of suicide bomb blast reported greater anxiety than those who did not witness it (t = 7.90, df = 148, **p < 0.01). Furthermore, the female survivors of suicide bombing reported more physical symptoms of anxiety as compared to their male counterparts (t = -2.94, df = 148, **p < 0.01). However, no gender differences were found in anxious thoughts and feelings of the survivors; probably because in Pakistani society the women often manifest their emotional distress in somatic form rather than in thoughts and feelings. The findings of this research have implications for promoting our knowledge and understanding of gender related issues of the survivors of traumatic events; such as suicide bomb blasts so that gender-sensitive counseling and therapeutic interventions could be introduced for the management and treatment of such survivors of terrorist attacks.

Key words: Survivors, suicide bomb blast, anxiety, live-witnesses, non-witnesses.

INTRODUCTION

Since 9/11 the world has been haunted by worries, dangers and insecurity as a result of never-ending terrorist attacks and continuous war against terrorism across the globe. Most people around the world fear terrorist attacks and are stressed out as a result of current series of suicide bomb blasts especially in Pakistan. The terrorist attacks leave their marks on our psyche because there is shock, trauma and pain of loss among the masses as a result of these terrorist attacks. Consequently, we lose trust in the safety of our surroundings and are continuously haunted by the terrorist attacks.

Common feelings and reactions in the aftermath of a traumatic event like suicide bomb blast include panic, sadness, anger, rage, fear, numbness, stress, feeling of helplessness, fright, moodiness or irritability, change in appetite, difficulty sleeping, experiencing nightmares, avoidance of situations that are reminders of the trauma, problems in concentration and guilt because of survival or lack of harm during the event (Durand and Barlow, 2005).

According to US Department of Health and Human Services (2004 as cited in Gammonley and Dziegielewski, 2006), signs of grief seen in disaster sites include fierce rage, crying and immobile body postures. Myers (2001) refers to the four elements of terrorist acts associated with trauma: (a) scope of destruction (b)

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exposure by citizens, survivors and responders to horrible situations (c) emotional anger caused by intentional human causalities and (d) exposure to a high degree of uncertainty, lack of control and social disruption within society.

According to Alexander and Klein (2005) the objectives of terrorists are: (i) creation of mass anxiety, fear and panic (ii) fostering a sense of helplessness and hopelessness (iii) demonstrating the incompetence of the authorities and (iv) destroying the sense of security and safety. Alexander and Klein (2005) further argue that though reactions to terrorist incidents have not been well documented; there is extensive literature and research work on how individuals and communities typically react to major traumas. Generally speaking, reactions to terrorist attacks often include: (i) emotional shock, numbness, denial, fear, anxiety, helplessness and hopelessness (ii) cognitive disorientation, confusion, intrusive thoughts, images, hyper-vigilance (increased sense of risk), impaired concentration and memory (iii) social withdrawal, irritability, loss of trust and faith, avoidant behavior (such as, of any reminders of the event); and (iv) physical autonomic hyper-arousal, insomnia, loss of energy.

In fact, anxiety includes thoughts, feelings and behaviors that take place when a person has the perception of severe danger in situations, such as terrorist attacks or threats. Anxiety is a negative mood state characterized by bodily symptoms of physical tension and apprehension about the future (American Psychiatric Association, 1994). Sternberg (2001, p. 611) states that “Anxiety is a generalized, diffused feeling of being threatened; despite the inability to pinpoint the source of threat, tends to be more pervasive and long lasting than fear; characterized by tension, nervousness, distress, or uncomfortable arousal”. Hall (1963, pp. 63 - 64) refers to Freud’s statement about anxiety as “reality anxiety is a painful emotional experience resulting from a perception of danger in the external world; a danger is any condition of the environment which threatens to harm the person”.

Pridemore et al. (2008) pointed out that there is significant evidence that catastrophic events, including terrorist attacks, leads to increased levels of post-traumatic stress, especially in communities directly exposed to the incident. Consequently, such traumatic events disrupt social organization and violence may increase in the wake of terrible events due to heightened levels of individual stress. Solomon et al. (2005) examined gender differences in post-traumatic vulnerability in the face of the terrorist attacks that occurred during the Al-Aqsa Itifada. The findings indicate that women reported post-traumatic and depressive symptoms more than men and that, their odds of developing post-traumatic stress symptoms are six times higher than men. Solomon (2009) explored differences between boys' and girls' exposure to terror and posttraumatic symptoms in a sample of 2,999 Israeli adolescents. The findings of this research suggested that the females reported more posttraumatic symptoms than their male counterparts, although males reported twice the rate of very severe symptoms.

Huddy et al. (2008) investigated public reactions to terrorism and found that women reported higher levels of threat, personal vulnerability, and anxiety in response to terrorist acts. Farooqi (1981) found that majority of the female students reported more anxiety than the male students.

Shah and Iqbal (2008) reported that on September 20, 2008 (at about 7:58 P.M., Pakistan’s standard time) a suicide bomb attack took place on Marriott hotel located in a high security zone in Pakistan’s capital, Islamabad. Considering the huge scale of human loss and material destruction, the Pakistani media and government officials described this terrorist attack as Pakistan’s 9/11.

The main goal of this research is to explore gender differences in anxiety reported by the survivors of Marriott hotel suicide bomb blast in Islamabad city of Pakistan. It further compares anxiety level of the survivors who were live-witnesses and those who did not experience Marriott hotel suicide bomb blast in Islamabad city. Thus, it may be argued that the findings of this research may promote our understanding of gender differences in anxiety and the emotional aftermath for the survivors of suicide bomb blasts so that gender-sensitive counseling and therapeutic interventions could be introduced for the survivors of terrorist attacks.

METHOD

Research design and sampling strategy

Survey design (employing non-probability purposive sampling technique) was used in this research. The following inclusion criteria were used:

1. The participants who were live-witnesses of the Marriott hotel suicide bomb blast.
2. The participants from the general population living in the vicinity of Marriot Hotel who did not witness this suicide bomb blast.
3. Availability and willingness of the participants.
4. No past history of any psychiatric disorder.

Sample

The sample of 150 adults comprised 75 participants who were live-witnesses of the Marriott hotel suicide bomb blast (37 males and 38

Table 1. Demographic characteristics of the sample (n = 150).

Characteristics	Sample (n = 150)		Male (n = 75)		Female (n = 75)	
	Frequency	%	Frequency	%	Frequency	%
Age						
18 – 35	110	73	55	73	55	73
36 – 53	31	21	15	20	16	21
54 – above	09	06	05	07	04	06
Marital status						
Unmarried	88	59	45	60	43	57
Married	60	40	30	40	30	40
Divorced	02	01	0	0	02	03
Number of live-witnesses of bomb blast: 75 (Males: 37 and Females: 38)						
Number of those who did not witness bomb blast: 75 Males: 38 and Females: 37)						

females) and 75 participants who did not witness this bomb blast (38 males and 37 females). Further demographic characteristics of the sample are given in Table 1.

Instruments

The instruments used were demographic information form and *The Burns Anxiety Inventory (BAI, 1999).

Demographic information form

Demographic information form was used to gather information about age, education, gender, marital status and psychiatric history of the research participants.

The Burns Anxiety Inventory

The Burns Anxiety Inventory (Burns, 1999) is a copyrighted instrument to measure the level of anxiety of an individual. It was developed by Dr. David Burns, M.D. Therefore, written permission was sought from the author for the use of this inventory in the current research project. Burns (2009) proposed few changes in the instructions section of this inventory for the current research project which were adapted by the researchers and approved by Burns. *The Burns Anxiety Inventory (BAI; Burns, 1999) is a self-reported inventory that measures 33 symptoms of anxiety categorized oas: anxious feelings and thoughts as well as somatic manifestations of anxiety. An internal consistency of the Burns Anxiety Inventory has been established (α = 0.95) and it is highly correlated with other commonly used anxiety measures. Therefore, it may be argued that BAI is a reliable instrument for assessing anxiety in Pakistani population, as well.

Procedure

This research project was approved by all the members of the Board of Studies in Psychology and Applied Psychology, University of the Punjab Lahore, Pakistan. The participants were briefed about the nature and purpose of the current research. Informed consent form was administered to each of the participant individually to obtain their written consent for participation in this research project prior to administering BAI. Rapport was established by assuring them of the confidentiality of their personal information to elicit their true responses. The sub-sample of the survivors (n = 75) who were live-witnesses of Marriott hotel suicide bomb blast was drawn from Attock Oil Refinery (Rawalpindi) and Aga Khan Road near the Marriott hotel; and the sub-sample of the general population (n = 75) who did not witness Marriott hotel suicide bomb blast was drawn from the Gulistan Colony Rawalpindi. Purposive sampling technique was used. All the participants were individually administered BAI to determine the level of their anxiety after Marriot hotel suicide bomb blast.

Statistics

The Statistical Package for Social Sciences (SPSS, version 14) was used to perform independent sample t-test in order to determine gender differences in anxiety level of the survivors of bomb blast and for comparison between those who were live-witnesses of bomb blast and those who were not.

RESULTS

Results given in Table 2 indicate significant gender differences in level of anxiety of all the research participants ($t = -2.45$, $df = 148$, $^*p < 0.05$). The female participants reported higher level of anxiety as compared to their male counterparts (Mean = 39.32 and 30.44, respectively).

Moreover, results given in Table 3 indicated that the female survivors of suicide bomb blast reported more physical symptoms of anxiety as compared to their male counterparts; probably because Pakistani women tend to somatize their psychological problems ($t = -2.94$, $df = 148$, $^{**}p < 0.01$). It may be further argued that the somatic symptoms attract more attention and sympathy from

Table 2. Gender differences in level of anxiety of the total sample (n = 150).

	M	SD	t
Male participants (n = 75)	30.44	19.56	
			* -2.45
Female participants (n = 75)	39.32	24.56	

t = -2.45, df = 148, *p < 0.05.

Table 3. Gender differences in physical symptoms of anxiety among the survivors of suicide bomb blast (n = 150).

	M	SD	t
Male survivors (n = 75)	12.44	9.83	
			** - 2.94
Female survivors (n = 75)	18.12	13.56	

t = -2.94, df = 148, **p < 0.01.

Table 4. Gender differences in anxiety level of survivors who were live-witnesses of the suicide bomb blast (n = 75).

	M	SD	t
Male live-witnesses (n = 37)	42.32	16.91	
			* - 1.98
Female live-witnesses (n = 38)	51.81	23.85	

t = -1.98, df = 73, *p < 0.05.

Table 5. Differences in anxiety level of live-witnesses and those who did not witness the suicide bomb blast (N = 150).

	M	SD	t
Live-witnesses (n = 75)	47.13	21.13	
			** 7.90
Did not witness (n = 75)	22.63	16.57	

t = 7.90, df = 148, **p < 0.01.

others in Pakistani society; probably due to the shame, embarrassment, stigma and taboos attached to psychological problems and disorders in Pakistani society. As a result, the Pakistani women often manifest their emotional distress more in somatic form rather than in thoughts and feelings.

However, no gender differences were found in anxious thoughts and feelings of the survivors of the suicide bomb blast.

The results given in Table 4 suggest significant gender differences in level of anxiety of all survivors who were live-witnesses of the bomb blast (t = -1.98, df = 73, *p < 0.05). The female survivors who directly witnessed Marriott hotel bomb blast reported greater anxiety as compared to their male counterparts (Mean = 51.81 and 42.32, respectively).

Results in Table 5 suggest significant differences in the level of anxiety of those who were live-witnesses and those who did not witness the suicide bomb blast (t = 7.90, df = 148, **p < 0.01). All the participants who directly witnessed Marriott hotel suicide bomb blast reported greater anxiety as compared to those who did not witness it (Mean = 47.13 and 22.63, respectively).

Discussion

The findings of the current research suggest that all the survivors who were live-witnesses of the suicide bomb blast reported greater anxiety as compared to all those participants who did not witness this bomb blast. These results are consistent with the previous research findings of Shalev et al. (2006) who explored psychological responses to continuous terror. They found that the directly exposed group reported greater PTSD as compared to those who were not exposed.

Furthermore, in the current research project the female survivors who were live-witnesses of the bomb blast reported greater anxiety as compared to all those participants who did not witness the bomb blast (both men and women). These findings are consistent with the previous research findings of Farooqi (1981), Huddy et al. (2008) and Solomon et al. (2005). Furthermore, it may be argued that the female survivors reported more physical symptoms of anxiety as compared to their male counterparts; probably because Pakistani women tend to somatize their psychological problems. It may be argued that due to the shame, embarrassment, stigma and taboos attached to psychological problems/symptoms in Pakistani society, the female survivors seem to manifest more of the physical symptoms of anxiety rather than expressing anxiety in terms of feelings and thoughts which often do not attract any attention nor sympathy from the general public in Pakistani community.

It is worth-mentioning here that it was somewhat difficult for the researchers to get consent from some of the survivors who directly experienced suicide bomb blast (1%). Thus, one of the limitations of this research is that due to the security reasons the authorities of Marriott hotel did not allow the researchers to collect data from their hotel personnel who were directly exposed and

injured in this blast; therefore the researchers had no other option but to collect data from the survivors of this suicide bomb blast who lived in the proximity of Marriott hotel and were live-witnesses of this suicide bomb blast but, remained un-injured. Therefore, it is recommended that future research should be carried out in diverse localities of Pakistan which are episodically hit by the terrorist attacks so that generalizations could be made for diverse set of population. Moreover, cross-cultural research on the psychological problems of the survivors of the bomb blast with physical injuries and without injuries suicide is also recommended to understand the psychological aftermath of suicide bombing across the globe.

Conclusions

The findings of the current research suggest that there are significant gender differences in level of anxiety reported by the Pakistani survivors of the Marriott hotel suicide bomb blast. All the survivors who directly witnessed the suicide bomb blast reported greater anxiety than those who did not witness it. The findings of this research have implications for promoting our knowledge and understanding of gender related issues of the survivors of traumatic events like suicide bomb blasts so that gender-sensitive counseling and therapeutic interventions could be introduced for the management and treatment of such survivors of terrorist attacks across the globe.

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