FREQUENCY OF POST-TRAUMATIC STRESS DISORDER AND DEPRESSION IN PEOPLE OF KHYBER PUKHTOONKHTWA DUE TO TERRORISM

KHURSHAID AHMAD¹, HAMID HUSSAIN², HAYAT MUHAMMAD KHAN³, ZIA-U-REHMAN³, NAEEMULLAH⁴, IQBAL WAHID⁵, ZEESHAN KIBRIA⁶, SAEED ALI⁷

1. Medical Superintendent, Saidu Group of Teaching Hospitals, Saidu Sharif Swat.

2. Khyber Medical University, Peshawar.

3. Department of Community Medicine, Khyber Medical College, Peshawar.

4. Department of Community Medicine, Saidu Medical College, Swat.

5. College of Physicians and Surgeons, Peshawar.

6. Khyber Medical University, Peshawar.

7. Khyber Teaching Hospital, Peshawar.

ABSTRACT

OBJECTIVES: our study was to study the impact of terrorism on the people of Khyber Pukhtunkhwa and to assess the post traumatic effects of terrorism, in particular the Post Traumatic Stress Disorder and depression in the people of Khyber Pukhtoonkhwa.

METHODS: A descriptive, cross sectional study design was conducted in KPK from May 2011 to September 2011. In this study subjects were people of KPK including IDPs, shopkeepers, students. Self-administered questionnaires were filled by a sample of 450 respondents.

RESULTS: The results showed that out of 51.2% people affected, 23.6% people had Post Traumatic Stress Disorder and 6.9% were suffering from depression. 20.7% people were suffering from both Anxiety and Depression. 48.2% people were unaffected. SPSS and MS-Excel were used for the analysis of data.

CONCLUSION: The study concludes that a majority of people in KPK were suffering from Post-Traumatic Stress Disorder and depression due to constant threat of terrorism. These people have been affected in one or more ways. Some have lost their business and shelter and some have been personally exposed to terrorism. These people who are positive for anxiety and depression need to be targeted for counseling. More extensive research is needed in this area.

KEYWORDS: Post Traumatic Stress Disorder, Depression and Terrorism

INTRODUCTION

The term terrorism quoted in the UN Security Council Resolution in 1994 was;

"Criminal acts, including against civilians, committed with the intent to cause death or serious bodily injury, or taking of hostages, with the purpose to provoke a state of terror in the general public or in a group of persons or particular persons, intimidate a population or compel a government or an international organization to do or to abstain from doing any act."¹ Depression is a mental disorder characterized by an all-encompassing low mood accompanied by low self-esteem, and by loss of interest or pleasure in normally enjoyable activities.

Throughout its history, Pakistani citizens have borne the losses incurred through terrorism in many manifestations- sectarian, ethnic, secessionist, political and most recently, religious fundamentalist. Post

September 11, 2001, Pakistan has been subjected to a rise in the frequency of terrorist attacks, targeting both civilian as well as government institutions. There was a drastic increase in the number of terrorist attacks being carried out in public places, from 890 in 2007, to 1839 in 2008, with a corresponding rise in fatalities².

By November 30 2008, there were already 57 recorded suicide attacks in Pakistan, in comparison to 45 reported attacks in 2007. Although there was a decrease of 18% in worldwide terror attacks between 2007 and 2008, the number of such attacks in Pakistan increased by more than double. This is the list of major terrorist incidents in Pakistan since 2001. The War on Terrorism had a major impact on Pakistan, when terrorism inside Pakistan increased twofold³.

Terrorist attacks staged in Pakistan have killed over 35,000 people, 5,000 of which are law enforcement personnel, and caused material damage to the Pakistani

economy totaling \$67 billion.

The recent terror attacks in our country and threats of similar attacks occurring again raise important questions about the effect of the experience on the psychological health of our people. Studies similar to this have been conducted in other geographic locations such as Israel and Palestine, to assess the impact of this constant terror on the health of adolescents, since they are both particularly predisposed to develop psychosocial stress symptoms and are on the brink of becoming them responsible for maintaining peace in their state⁴.

Much of the existing research on the effects of terrorism internationally has focused on posttraumatic stress disorder (PTSD) symptomatology in those who have been actually present in the attacks.

However, there is little research on the effect of mass violence or constant fear of terrorism on those who were not present at the site, indirectly affected individuals. Different studies have defined indirect exposures in different ways. Some researchers have defined indirect exposure as viewing television news coverage of terrorist attacks and discussed the effects of media coverage on mental health⁵.

Post-traumatic stress disorder (PTSD) is a severe anxiety disorder that can develop after exposure to any event that result in psychological trauma. This event may involve the threat of death to oneself or to someone else, or to one's own or someone else's physical, sexual, or psychological integrity, overwhelming the individual's ability to cope. As an effect of psychological trauma, PTSD is less frequent and more enduring than the more commonly seen acute stress response⁶.

Posttraumatic stress disorder is classified as an anxiety disorder, characterized by aversive anxiety-related experiences, behaviors, and physiological responses that develop after exposure to a psychologically traumatic event (sometimes months after). Its features persist for longer than 30 days, which distinguishes it from the briefer acute stress disorder. These persisting posttraumatic stress symptoms cause significant disruptions of one or more important areas of life function. It has three sub-forms: acute, chronic, and delayed-onset⁷.

Although most people (50-90%) encounter trauma over a lifetime, only about 8% develop full PTSD. Vulnerability to PTSD presumably stems from an interaction of biological diathesis, early childhood

developmental experiences, and trauma severity⁸.

Proximity to, duration of, and severity of the trauma also make an impact; and interpersonal traumas cause more problems than impersonal ones. Military experience is also a risk factor⁹.

The diagnostic criteria for PTSD, stipulated in the Diagnostic and Statistical Manual of Mental Disorders IV (*Text Revision*) (DSM-IV-TR), may be summarized as:

DSM-IV-TR criteria for PTSD

In 2000, the American Psychiatric Association revised the PTSD diagnostic criteria in the fourth edition of its Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)(1). The diagnostic criteria (A-F) are specified below.

Diagnostic criteria for PTSD include a history of exposure to a traumatic event meeting two criteria and symptoms from each of three symptom clusters: intrusive recollections, avoidant/numbing symptoms, and hyper-arousal symptoms. A fifth criterion concerns duration of symptoms and a sixth assesses functioning.

Criterion A: Stressor

Criterion B: Intrusive recollection

Criterion C: Avoidant/numbing

Criterion D: Hyper-arousal

Criterion E: Duration

Criterion F: Functional significance

MATERIAL AND METHOD

It was descriptive cross sectional study conducted in Khyber PukhtoonKhwa. The apparatus used was Questionnaire based on Diagnostic and Statistical Manual of Mental Disorders (DSM-TR-IV). Out of Adult population of KPK a sample of 450 was selected by Non Probability Convenience Sampling. People belonging from Ares suffering/suffered from an act of terrorism were Included; whereas those suffering from anxiety and depression because of personal life, political situation or reasons other than terrorism were excluded.

The type of data collected was Qualitative nominal (discrete) data.

Data collection was done with the help of questionnaire and in-person interviews from people belonging to different fields of life after taking an informed consent and maintaining the confidentiality of the individual concerned.

A random sample of 450 people belonging to those major parts of the province which have been involved in terrorist attacks was selected. Sample has been collected as follows:

Peshawar 100	DI Khan 10
Bajour 40	Waziristan 40
Swat 40	Khyber Agency 20
Mohmand Agency 20	Bannu 10
Kurram Agency 10	Charsadda 10
Nowshera 10	Badhber 10
Swabi 10	Dir 10
Mardan 10	Kohat 10
Bara Agency 60	Karak 10
Laki Marwat 10	Malakand 10

RESULTS

Out of 450 adults of KPK; 230 (51.2%) people are affected of which 106 (23.6%) are suffering from PTSD; 31 (6.9%) from depression; 93 (20.7%) from both PTSD and depression; While 220 (48.2%) remain unaffected.

Observed data showing the total number of affected people due to terrorism on the basis of occupation

		Total	PTSD only	Depression only	Both
IDPs	Males	82	04	10	68
	Females	06	00	00	06
Policemen	Males	28	08	00	00
	Females	38	16	02	05
Shopkeepers	Males	12	08	02	00
	Females	44	13	00	00
Students	Males	68	08	05	02
	Females	20	06	00	00
Gov. servants	Males	12	04	02	00
	Females	32	08	02	00
Teachers	Males	08	04	02	00
	Females	44	13	02	04
Workers	Males	20	08	02	02
	Females	06	00	00	02
Others	Males	30	06	02	04
	Females				
			106	31	93
	Total	450	230 (affected)		

Frequency table showing the no of affected and unaffected people

X	Frequency F	Relative F	Cumulative F	Cumulative Rel. f
Anxiety patients	106	0.236	106	0.236
Depressed patients	31	0.069	137	0.304
Patients suffering from both	93	0.207	230	0.511
unaffected	220	0.482	450	1.00
	n=450			

Out of 230 people affected psychologically due to

terrorism; 88 (38.26) individuals are IDP's; 33 (14.37%) are shopkeepers; 31 (13.48%) are workers; 28 (12.17) are students; 16 (6.95) are teachers; 14 (6.09%) are house wives and workless people; 12 (5.2%) are govt officers; 8 (3.47%) are policemen.

Frequency Table based on occupation of individuals.

X	F	Relative f	Cumulative f	Cum. Rel. f
IDPs	88	0.3826	88	0.3826
policemen	8	0.0347	96	0.4174
shopkeepers	33	0.1435	129	0.5609
Students	28	0.1217	157	0.6826
Gov. officers	12	0.0522	169	0.7348
Teachers	16	0.0695	185	0.8043
Workers	31	0.1348	216	0.9391
others	14	0.0609	230	1.0000
	N=230			

100% of the IDP's (88/88); 64% of workers (41/64); 25% of students (28/112); 40% of teachers (16/40); 33.3% of workless people and house wives (12/36); 37.5% of govt officers (12/32); 42.9% of policemen (12/28); 66% of shopkeepers (33/50); have been affected among 450 adults of KPK.

163 out of 274 males and 67 out of 176 females have been affected psychologically due to terrorism. Out of 274 adult males; 68 (24.8%) are suffering from PTSD; 16 (5.8%) from depression; 79 (28.83%) from both; While 111 (40.5%) remain unaffected.

Out of 176 adult females; 38 (21.59%) are suffering from anxiety; 15 (8.5%) from depression; 14 (7.95%) from both; 109 (61.93%) remain unaffected.

Frequency Table of affected and non affected people based on sex

	X	F	
MALE	Males affected	163	
	males unaffected	111	
	Total	274	
FEMALES	affected females	67	
	Unaffected females	109	
	total	176	

Frequency Table (showing proportion of affected males)

X	f	Relative f	Cumulative f	Cum. Rel. f
Anxiety	68	0.2481	68	0.2481
Depression	16	0.0584	84	0.3066
Both	79	0.2883	163	0.5949
unaffected	111	0.4051	274	1
	N=274			

Frequency Table showing proportion of affected females:

X	f	Relative f	Cumulative f	Cum. Rel. F
Anxiety	38	0.2159	38	0.2159
Depression	15	0.0852	53	0.3011
Both	14	0.0795	67	0.3807
unaffected	109	0.6193	176	1
	N=176			

DISCUSSION

Our work demonstrates the frequency of PTSD and depression disorders in general population of KPK following exposure to terrorism. Although other psychological effects may be present but we limited our study to the outcomes based on diagnostic criteria for PTSD and depression.

The principal finding of our study was that 23.6% of the people of KPK suffer from PTSD alone, whereas 6.9% suffer from depression alone and 20.7% had both PTSD and depression due to the constant threat of terrorism making a total of 51.8% people affected psychologically due to terrorism, while 48.2% of the people had no effect. This study shows that depression is not as prevalent as PTSD as result of terrorism.

Our sample of 450 adults includes IDP's, Policemen, shopkeepers, students, govt servants, teachers, workers and other people of KPK belonging to those different parts of province which have been involved in terrorist attack. The people who developed high rates of psychiatric morbidity are either primary victims, first responders or who had significant attachment with primary victims.

We found that there was variation in prevalence of PTSD and depression among different groups. Our

finding shows the highest ratio (100%) of PTSD and depression among IDP's with 4.8% PTSD, 12.19 % depression and 82.9 % both PTSD and depression.

Policemen are also high risk group vulnerable to PTSD and depression. Among policemen PTSD is more prevalent as compared to depression. About 28% of the policemen developed PTSD due to constant threat of terrorism. This is supported by the fact that factors such as fear of death or viewing of mutilated bodies are associated with PTSD and depression. This suggests that Police and first responders who assist the injured are likely the group to develop high rates of PTSD and need counseling. However our study failed to show any positive finding of depression among policemen.

Our findings show that shopkeepers are also a high risk group vulnerable to PTSD and depression. The ratio of PTSD among shopkeepers is more as compared to depression suggesting that they have constant fear of loss of business. Our result also indicates the high risk of PTSD among female shopkeepers as compared to males.

When compared the PTSD and depression among the students affected psychologically, the majority developed PTSD while some developed depression and a few had both PTSD and depression. Our results show high prevalence of PTSD among male students. Possible reason could be prolong duration of being exposed to terrorism. This suggests that students should be targeted for mental health programs.

Among government servants our findings show high prevalence of PTSD as compared to depression. There was no positive finding regarding depression among males while female government servants suffered from both anxiety and depression. The possible reason of anxiety among the government servants is the fear of insecurity. These people should be counseled properly.

We found high ratio of anxiety as compared to depression among teachers. The possible reason for anxiety and depression among teachers may be

insecurity.

Among workers we concluded that majority of the workers developed anxiety, in relation to the constant threat of terrorism; few developed both anxiety and depression while a small minority reported depression. This may be because workers are concerned that the workplace could be a target of terrorist attack.

Our study includes housewives and workless people apart from above mentioned specific groups of people. We found that anxiety was more prevalent than depression.

Our finding shows that 48.2 % of the adult general population remains unaffected due to terrorism. This shows that most of the people in general population can be expected to recover spontaneously. This also indicates basic resilience and powerful adjustment capacities in people. Our result suggests that most people cope their feeling of vulnerability and future threat by increasing their faith in religion, accepting situation and venting their emotions about attacks.

Similar study was conducted by Khalid A mufti et al¹ to measure psychiatric morbidity among a group of Afghan refugees attending a psychiatric clinic in Peshawar, Pakistan. Information was collected from Afghan refugees, attending a psychiatric service, between November, 2003 and February 2004. They gathered data from the 1035 patients who attended the service between the specified periods. Nearly 80% of patients had a diagnosis of Post Traumatic Stress Disorder.

In November 2008, 164 people were killed and at least 308 were physically injured in terror attacks on Mumbai, India. Out of 74 victims admitted to a public hospital, 70 were assessed by a senior psychiatrist (V.P.B.)² for the presence of acute stress disorder using DSM-IV-TR criteria. There were 52 males and 18 females. Acute stress disorder was found in 21 (30%) of the 70 victims assessed.

In Unites States a longitudinal study³ was done soon after September 11th, 2001, to asses

psychological responses to September 11th attacks in adults. 17% of the US population outside of New York City reported symptoms of September 11-related posttraumatic stress 2 months after the attacks.

A descriptive, cross sectional study⁴ was conducted in late 2010 by MBBS Class of 2010, Aga Khan University, Karachi, on undergraduate students from four universities of Karachi To assess the levels of stress in the face of terrorism. They end up with the following results; total of 65.8% of the students had mild stress levels, 91.5% of university students were exposed to terrorism through television, while only 26.5% students reported personal exposure to terrorism.

A cross-sectional study⁵ was started in U.S on October 12, 2001 to asses Psychological Reactions to Terrorist Attacks. They came up with the Results that the prevalence of probable PTSD was significantly higher in the New York City metropolitan area (11.2%) than in Washington, DC (2.7%), other major metropolitan areas (3.6%), and the rest of the country (4.0%).

A longitudinal study⁶ was conducted in 1999, to asses Psychiatric Symptoms, Disability, Mortality, and Emigration among Bosnian Refugees. They obtained the following Results that, in 1999, 45% of the original respondents who met the DSM-IV criteria for depression, PTSD, or both continued to have these disorders and 16% of respondents who were asymptomatic in 1996 developed 1 or both disorders. Forty-six percent of those who initially met disability criteria remained disabled.

A population-based assessment of women's mental health and attitudes toward women's human rights in Afghanistan⁷ done by Amowitz LL, Heisler M, Iacopino V showed that Major depression was far more prevalent among women exposed to Taliban policies (73%-78%) than among women living in a non-Taliban controlled area (28%).

A cross-sectional study⁸ was done between August and December 1995, to asses Psychiatric Disorders among Survivors of the Oklahoma City Bombing. Of 255 eligible adult survivors selected from a

confidential registry, 182 (71%) were assessed systematically by interviews approximately 6 months after the disaster, between August and December 1995, subjects were interviewed using Diagnostic and Statistical Manual of Mental Disorders. Results they obtained were such that, Forty-five percent of the subjects had a post disaster psychiatric disorder and 34.3% had PTSD. A wave of bombings struck France in 1995 and 1996, killing 12 people and injuring more than 200. The authors conducted follow-up evaluations⁹ with the victims in 1998 to determine the prevalence of and factors associated with posttraumatic stress disorder (PTSD). Interviews were conducted to evaluate PTSD, per DSM-IV criteria. Of the total of 196 respondents, 86% participated in the study. Problems reported at the follow-up evaluation included attack-related hearing problems (51%), cosmetic impairment (33%), and PTSD (31%).

Thus Terrorism is one of the most powerful and pervasive generator of the psychiatric illness, distress and disrupted community functioning.

CONCLUSION

A majority of our sample, i.e. adult population of KPK experienced Post Traumatic Stress Disorder in relation to the constant threat of terrorism; moderate developed both anxiety and depression while a small minority reported depression alone. Terrorism will continue to be primary causes of mental health disorders in our province. Need those most directly exposed, those most vulnerable, require individual care population level health interventions. Community leadership is critical to fostering recovery, providing treatment, and maximizing restoration.

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FOR CORRESPONDENCE:

Dr. Khurshid,
Medical Superintendent,
Saidu Group of Teaching Hospitals,
Saidu Sharif Swat.