Original Article

PREVALENCE OF DEPRESSION IN AREAS OF MUZAFFARABAD CITY (AZAD KASHMIR) AFFECTED BY THE 2005 EARTHQUAKE

Shakeel Asif¹, Asif Kamal², Naveed Gani³, Fareed Aslam Minhas⁴

¹Department of Psychiatry, Mohtarma Benazir Bhutto Medical College, Mirpur AJK, Pakistan ²Department of Psychiatry, Gajju Khan Medical College Swabi, Pakistan ³Department of Psychiatry, Cantonment General Hospital, Saddar, Rawalpindi, Pakistan ⁴Institute of Psychiatry, Benazir Bhutto Hospital, Rawalpindi, Pakistan

ABSTRACT

INTRODUCTION: Long-term mental health issues are caused by natural catastrophes. Nearly 73,276 people were killed, hundreds were wounded, and millions were displaced after an earthquake hit Azad Kashmir (Pakistan) on October 8, 2005. The goals of this research were to determine how common post-earthquake depression is, how serious it is, and what effect it has on survivors' lives, and to provide recommendations for therapies and long-term psychological rehabilitation programmes for disaster victims.

METHODS: The research sample included 3,020 adults aged 18 and above from Ward 12, the city's most affected neighbourhood. There were a total of [430] participants, and the research ran from February 4 to October 4, 2012.

Clusters were selected at random to participate in the data collection process. Depression was diagnosed using the ICD-10 Criteria for Depressive Illness in all of the subjects. The Urdu version of the Beck Depression Inventory was used to evaluate the degree of depression in individuals who had already been diagnosed with a depressive disorder. The information was then analysed using SPSS 10.0.

RESULTS: Participants' average age was [36] years (n=430). There was a standard deviation of 12.44, and 61.2% of the population was male and 38.8% female. Our analysis of the BDI data revealed that 32% of the population would suffer from depression at some time.

CONCLUSION: The survivors of the 2005 earthquake had three times the rate of depression as the general population. These results provide further backing for facilitating long-term planning of psychological rehabilitation treatments and other interventions aimed at enhancing the quality of life for the afflicted population.

KEYWORDS: mental health, prevalence, BDI scale, depression.

INTRODUCTION

Many people's lives are negatively impacted by natural disasters, their social networks are disrupted, and huge amounts of money are lost. As a consequence, natural disasters are considered a severe traumatic event that may lead to psychopathology. Both survivors of natural disasters and those of disasters caused by

Correspondence:

Asif Kamal

Assistant Professor

Department of Psychiatry, Gajju Khan Medical College Swabi Cell: 0333-7886061

Email: asifkamal340@gmail.com

humans, such. Natural disasters, technology disasters, and terrorist attacks all have comparable mental health effects, including PTSD, sadness, anxiety, and physical problems. Injuries to the body are usually the first to show up following a traumatic incident, but psychological trauma may have far-reaching and delayed impacts.

Disasters such as the Bhopal gas catastrophe in 1984, the earthquakes in Uttar Kashi in 1991, Latur in 1993, Gujarat in 2001, the Tsunami in 2004, and the earthquake in Kashmir in 2005 have all struck India in recent decades.²

After 3.5 years, 22.2% of Turkish teenage sur-

vivors of the Marmara earthquake showed signs of post-traumatic stress disorder (PTSD), and 30.8% showed signs of depression.⁴ On October 29, 1999, a super-cyclone with sustained winds of 260 to 300 kilometres per hour struck Orissa on India's eastern coast and lasted for the better part of a week. Over fifteen million people were impacted; ten thousand individuals were murdered; and many homes, businesses, and ways of life were destroyed. It took more than two weeks for rescue workers to reach thousands of isolated settlements.

Three to five times as many people among low-income households and inhabitants of small rural regions saw an increase in depression symptoms as a result of the tragedy. The data provide significant evidence for the alternative hypothesis, which holds that chronic stress directly causes the long-term consequences of acute disaster stress, despite the fact that it has been hypothesised that chronic stress mediates the long-term effects of acute disaster stress on psychological distress. Despite their low power, the victim's heightened financial, marital, familial, and physical stress adequately reflected the main effects of loss. The damaging effects were significantly mediated by these regions of persistent stress.

Disasters that civilisations encounter include volcanic eruptions, hurricanes, tornadoes, landslides, earthquakes, engineering structural failures, social unrest, national and international economic downturns, localised power outages, infections, and epidemics.⁸

Consequently, there is an urgent need to understanding the episodic dynamics of disasters in order to fully appreciate the costs that these occurrences entail. The present research aimed to investigate the prevalence of depression in Earthquake 2005 afflicted regions of Muzaffarabad Azad Kashmir, seven years after the earthquake, in order to assess the long-term psychological impact on the affected population.

MATERIAL AND METHODS

During the 8-month research period, which spanned from 4 February 2012 to 4 September 2012, a total of 3020 adults in the most affected part of Muzaffarabad city were surveyed in a descriptive, cross-sectional study. The overall number of participants was [430]. sampling technique called cluster sampling, with the formula K=N/n where N=total

population and n=sample size rounded down to 7.

Subjects aged 18-70 who were able to provide informed permission were included; those with significant cognitive impairment or who did not survive the 2005 earthquake were not.

The Deputy Commissioner's Office in Muzaffarabad city provided written approval. The regions in Muzaffarabad city with the worst damage were the ones where data was collected. To gather data for the study, a team of researchers from Muzaffarabad, comprising myself, a psychologist, a nursing assistant, a social worker, and a member of an NGO, received training in advance.

All eligible individuals provided written informed permission before being included. Participants (n=[430]) were given a proforma to fill out, and their basic demographic information including age, gender, and level of education was recorded. Participants were diagnosed with depression using the International Classification of Diseases, Tenth Revision (ICD-10) criteria. The severity of depression in depressed patients was then evaluated using the Urdu version of the Beck Depression Inventory. A significance threshold of 9 was used. All information provided by participants, including their identities, remained confidential. Using the social science software tool SPSS, version 10.0, all data was input into the computer, analysed, and interpreted.

RESULTS

The participants' ages ranged from 18 to 69, with a mean of [36] years (S.D. [12.44]). There were 263 men (61.2% of the total) and 167 females (38.8%), according to the gender breakdown.

Among the sample, 137 (32%), or 48 (11.2%), had some degree of depression, with 50 (11.6%) having moderate depression and 38 (8.8%) having severe depression.

Table 1 shows how often depression occurs, and Figure 1 shows how often depression occurs at various severity levels.

Table 1: The frequency of depression amongst the participants

Presence of depression	Frequency	Percentage
Depression	136	31%
No depression	294	69%

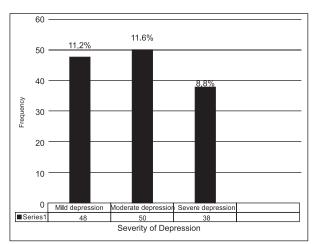


Figure 1: showing the different grades of severity of depression

DISCUSSION

Among the overall sample size of [430], 32% of participants were depressed, whereas 68% were not depressed. This equates to 137 depressed persons and 293 nondepressed participants. Similarly, 48 people (11.2%) were classified as having mild depression, 50 participants (11.6%) as having moderate depression, and 38 participants (8.8%) as having a severe type of depression.

The results of this study agree well with those of previous domestic and international research. Rakesh Kumar Chadda² conducted an investigation in occupied Kashmir in which patients were assessed 5-6 weeks after the incident. Depressive disorders were far more common than PTSD, which was diagnosed in just 10 (3.5% of patients). Twenty-one percent of patients at the free clinics set up by the community said they had experienced a serious depressive episode because of the tragedy. Arranging for requirements, relief material, and planning rehabilitation are historically male responsibilities in patriarchal societies; this may explain why men have greater rates of depression.

According to research done after the Armenian earthquake of 1988,9 depression and other forms of mental illness, such as post-traumatic stress disorder, are serious public health problems in such situations. In the two years after the accident, researchers found that 50% of the adults who participated in the study met the diagnostic criteria for severe depression. An essential finding that must be integrated into any efficient preventative plan is the correlation between the amount of loss a person has suffered and their

vulnerability to depression. The correlation between depression and loss was larger the more serious the disorder was or the more rigors the diagnostic criteria were. Remedial and preventative measures should be directed primarily towards those who have suffered the greatest losses. The study's results, which showed that a greater likelihood of depression was associated with harm to family members as well as significant material loss, highlight the importance of considering the possibility that a summary measure of loss may be as predictive of depression as individual categories of loss.

Some Greek research The current research found that young individuals (17-25 years old) were the most at risk for developing mental illness 50 years after the earthquake. This might be because the earthquake came at a time when they were striving to make changes in their lives, both personally and professionally. Furthermore, in most cases, they had not been exposed to other traumatic events, a condition putatively enabling the development of a posttraumatic reaction, as demonstrated by the results achieved in this study, in which the most vulnerable population was younger people exhibiting high rates of depression, and in which female gender, lower education, and lower socioeconomic status were found to be related to higher PTSD and depression among earthquake survivors. Twenty-one percent of the teenagers in this research had some kind of death want, self-harm, or suicidal ideation, which is on pace with previous reports. About a third of PTSD patients (34.5% overall) also had a diagnosable case of depression.

The current investigation provides the ground-work for future studies of traumatised populations. It will also aid in bringing attention to the needs of traumatised people, some of whom may have long-lasting effects from their traumatic experiences. Since PTSD, depression, stress, and anxiety are all incapacitating conditions, it stands to reason that societies should consider policies, plans, and strategies to improve their mental health care in light of findings like the one presented here. Intervention and rehabilitation efforts for people who have suffered trauma as a consequence of a natural catastrophe, loss, or violence are greatly aided by scientific studies like the one being presented here.

LIMITATIONS

One, the sample size (N=[430]) is rather small and representative only of one district in a city with a total population of (103,487), which limits the generalizability of the study's results. Larger samples and stronger designs are needed in future research.

Two, this research only considers the experiences of people who stayed in earthquake-stricken regions, rather than those who left following the event.

Two, we didn't go deep enough into the individuals' histories of mental health problems.

We were unable to investigate the role of pre-disaster preparation, pre-disaster experiences, post-disaster events, and social support.

It's been around four to seven years after the earthquake. It's possible that certain details of the incident were twisted, and that other significant traumatic life experiences led to psychopathology.

CONCLUSION

The results of this research show that earthquake survivors in 2005 had much greater rates of psychological distress and depression than the general population. Long-term psychological effects of disasters like the one in Muzaffarabad city, AJK, are especially noticeable in survivors who have experienced significant trauma. These results provide further backing for the improvement of the afflicted population's quality of life by aiding in the development of long-term psychological rehabilitation services, post-disaster mental health care, and other treatments.

REFERENCES

- Norris FH, Friedman MJ, Watson PJ. 60,000 disaster victims speak: Part II. Summary and implications of the disaster mental health research. Psychiatry. 2002; 65:240-60.
- 2- Chadda RK, Malhotra A, Kaw N, Singh J, Sethi H. Mental Health Problems following the 2005 Earthquake in Kashmir: Findings of Community-Run Clinics. PrehospitalDisast Med 2007;22:541–5.
- 3- Karakaya I, Agaoglu B, Coskun A, Sismanlar SG, YildizOc O: The symptoms of PTSD, depression and anxiety in adolescent students three and a half years after the Marmara earthquake. Turk PsikiyatriDerg 2004;15:257-63.
- 4- Kar N, Bastia BK. Post-traumatic stress disorder, depression and generalised anxiety disorder in adolescents after a natural disaster: a study of comorbidity. ClinPractEpidemiolMent Health. 2006;2:17.
- 5- Kar N, Jagadisha, Sharma P, Murali N, Mehrotra S. Mental health consequences of the trauma of super-cyclone 1999 in orissa. Indian J Psychiatry. 2004;46:228-37.
- 6- Ginexi EM, Weihs K, Simmens SJ, Hoyt DR. Natural disaster and depression: a prospective investigation of reactions to the 1993 midwest floods. AmJ Community Psychol. 2000;28:495-518.
- 7- Grant SM, Hardin SB, Pesut DJ, Hardin T. Psychological evaluations, referrals, and follow-up of adolescents after their exposure to Hurricane Hugo. J Child AdolescPsychiatrNurs. 1997;10:7-16.
- 8- Sornette D. Predictability of catastrophic events: material rupture, earthquakes, turbulence, financial crashes, and human birth. ProcNatlAcadSci U S A.2002;99:2522–9.
- 9- rmenian HK, Morikawa M, Melkonian AK, Hovanesian A, Akiskal K, Akiskal HS. Risk Factors for Depression in the Survivors of the 1988 Earthquake in Armenia. J Urban Health.2002;79:373-82
- 10. Lazaratou H, Paparrigopoulos T, Galanos G, Psarros C, Dikeos D, Soldatos C. The psychological impact of a catastrophic earthquake: a retrospective study 50 years after the event. J NervMent Dis. 2008;196:340-4.