PSYCHOLOGICAL MORBIDITY AMONG PRIMARY CARE ATTENDEES IN EARTHQUAKE AFFECTED AREAS OF NORTHERN PAKISTAN AND AZAD KASHMIR

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ABSTRACT

Objective: The aim of this study was to determine the prevalence of psychiatric morbidity in patients presenting to Primary Healthcare Centers in the affected regions of Pakistan and Azad Kashmir, in the aftermath of the October 8, 2005 earthquake. Another objective was to carry out a need-assessment survey from patients' and health care providers' perspective.

Design: Observational study.

Place & duration of study: The study was carried out in Arja and Muzaffarabad in Azad Kashmir, and Garhi Habibullah in North West Frontier Province in Pakistan, over a period of three weeks.

Subjects & Methods: A sample of patients visiting primary care centers in the above mentioned areas was enrolled by convenient method of sampling. Data was collected on a specially designed data collection form. Psychiatric diagnoses were based on ICD-10 diagnostic criteria.

Results: 140 patients participated in this study. The median age of the patients seen in the study was 32 years (Age range; 1-73 years), and an inter-quartile range of 21-40 years. Males and females were represented almost equally (51% and 49% respectively). More were married (67%) than single (31 %). In our sample 30 % patients were diagnosed with Depressive disorder and 16% with Generalized Anxiety Disorder. Eighty one percent reported having suffered loss of property, 48% had suffered an injury during the earthquake and 21% reported loss of a family member. Treatment and shelter were identified as the most important needs both by the patients themselves and their primary care physicians.

Conclusion: Five months after the earth quake most common psychiatric morbidity was Depression followed by Generalized Anxiety Disorder in primary care attendees in earthquake affected areas. PTSD was conspicuously absent despite the fact that all the participants had suffered significant losses. This needs to be taken into consideration when the plans for physical, psychological and social rehabilitation for this population are made.

Key words: Primary care, Depression, Anxiety, PTSD.

INTRODUCTION

The October 8, 2005 earthquake was one of the worst natural disasters ever to hit Pakistan with 5.8 million people affected by it.[1] Almost 100,000 died, about half of them being children. Many survivors sustained spinal injuries and amputations[2]. About 3.3 million were left homeless[3]. The World Health Organization (WHO) warned that "the number made homeless, the destruction of roads and infrastructure, and the terrain over which the catastrophe has struck make this a bigger disaster than the tsunami"[4].

The long-term effects of such disasters are never solely physical[5]. In a study on psychological distress among Bam earthquake survivors in Iran, 58% were found to be suffering from severe mental health problems, three times higher than reported psychological distress in the general population[6]. Other studies have reported rates of depression and Post Traumatic Stress Disorder (PTSD) as high as 42% and 63% respectively[7]. One of the priorities set by the WHO in the immediate

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aftermath of the Pakistan earthquake was to address the mental health needs of a population struggling to come to terms with the loss of family and friends, possessions and livelihoods[2].

In the aftermath of the earthquake, due to the collapse of the healthcare system in affected areas, the Governments of Pakistan and Azad Kashmir temporarily handed over the day-to-day running of 5 primary healthcare centres in North West Frontier Province (NWFP) and Azad Kashmir to Aga Khan Health Services, Pakistan (AKHS, P). These centres were based at Arja, Langar Purah and Muzaffarabad in Azad Kashmir, and Garhi Habibullah and Shinkiari in NWFP. In March 2006, two teams of 2 consultant psychiatrists each, from the Aga Khan University (AKU) Karachi, traveled to these primary healthcare centres to provide training to the primary care physicians working there in diagnosing and treating common mental disorders. SA and HN conducted training at Rural Health centre Arja, from the 13th to the 16th of March 2006, and MMK and NS conducted training from the 20th to the 24th of March 2006 at the healthcare centre in Shinkiari.

An observational study was conducted as a part of the training programme to determine the types of psychiatric illnesses patients were presenting with in the Primary Healthcare Centres in the earthquake affected regions, in order to assess the mental health needs of the affected population and to help us focus our present and future training accordingly.

SUBJECTS AND METHODS

SA and HN, consultant psychiatrists at Aga Khan University, Karachi, attended primary care physicians' clinics at Arja and Muzaffarabad , in order to collect data on patients being seen by the primary care physicians and to provide hands on training in diagnosing and treating common mental disorders to these physicians. In data collection they were assisted by MKK, a primary care physician working at another center (Garhi Habibullah), who attended the first wave of the training at Arja.

Data were collected on a specially devised form which recorded basic socio-demographic details, presenting complaints, details and types of losses suffered by patients during the earthquake, details of medical and psychiatric history, diagnostic conclusion of the index consultation, and three most important needs of patients as assessed by the patients themselves and the primary care physician seeing them. The data were collected during routine consultations of patients with their physician, to keep discomfort to the patients and disruption to the services at a minimum. The psychiatric diagnoses were based on ICD-10 diagnostic criteria.

RESULTS

A total of 140 patients were seen by SA, HN and MKK between 13th March and 3rd April 2006. This constituted about 5 % of patients seen by all the primary care physicians at these primary healthcare centres during this period. About 26% of the cases included in the study were seen by psychiatrists while sitting as observers in the primary care physicians' clinics. The rest of the cases were seen by MKK while working as a primary care physician in Garhi Habibullah over the subsequent two weeks.

The median age of the patients seen in the study was 32 years, with age range of 1-73 years, and an inter-quartile range of 21-40 years. 51% of the patients were males and 49% were females. 67% were married, 31 % were single and 2 % were widowed.

Eighty one percent (114/140) of patients reported having suffered loss of property, 48% (67) had suffered an injury during the earthquake, 21% (29) reported loss of a family member and 6% (8) said that they had suffered professionally as a result of the earthquake.

Of all the patients seen during the study 30% (42) were diagnosed as suffering from a Depressive Episode and 16% (23) from Generalized Anxiety Disorder. One person each was diagnosed as suffering from Abnormal Grief Reaction, Specific Phobia, Agoraphobia, and Opioid Dependence Syndrome.

The local primary care physicians reported that that they were aware of people abusing drugs in the community but as they did not attend the primary healthcare centres for help, they do not appear in the numbers above. Similarly when we visited schools in the local areas we were introduced to children who were experiencing significant psychological problems but again they had not been taken to the primary healthcare centres to get help for those symptoms.

The most common physical illnesses among the primary care attendees were Gastritis (21%), Acute Respiratory Infections (12%), and Hypertension and Scabies (9% each). 39% of patients presented with the complaint of generalised body aches symptoms which appeared to be medically unexplained.

Treatment (96[68%]) and Shelter (95[67%]) were identified by the participants as their primary needs, followed by money in 10% (14) of cases, when explicit questions were asked regarding their most important needs after the earthquake. The same two needs were also identified as the most important by the primary care physicians for their patients though relative percentages were different (treatment 75% [105], shelter 29% [40]). The doctors also identified clean water supplies as an important need for about 6% (8) of their patients. When patients were asked what services they needed Treatment and Shelter again topped the list (66% each [93 & 92 respectively]), followed by food in 8% (11) of cases.

DISCUSSION

To our knowledge this study is one of the first to report rates of psychological morbidity amongst primary care attendees in recent earthquake affected areas of Pakistan. Our study reports 30 % point prevalence for depression in primary care attendees in Earth Quake affected areas of Northern Pakistan. This estimate is not too dissimilar to previous studies assessing psychological morbidity in victims of natural disaster in other countries. In two studies on earthquake survivors in Turkey the estimated rate of depression was 18% in non-treatment seekers[8] and 42% in treatment seekers[7]. Another study reported a rate of 31% for major depression in earthquake survivors in Turkey[9]. None of these studies have reported rates for generalised anxiety disorder which was 16% in our study.

In our study we did not identify a single case presenting as classical PTSD, even though we saw several people who refused to sleep under a hard roof for fear of another earthquake. Some psychiatrists have expressed doubts whether PTSD is a 'disease' or merely a sociopolitical construct[10], though others have refuted this point of view[11]. A study from Indian Gujarat reported that even though PTSD was marked 3-6 months after the earthquake, it was minimal 2 years after the event, while sadness about the event was the only residual PTSD symptom[12]. Other authors have reported significantly higher rates of PTSD in the aftermath of earthquakes ranging from 4.5%(13) to 63%[7, 14, 15].

There could be several possible explanations for this difference in PTSD rates. We did not use a specific PTSD rating scale in contrast to many of the other studies. Considering the ethical issues and sensitivities of post-disaster research we decided not to use any rating scales. We intended to keep the study as close to routine clinical practice as possible. Also, as our study shows, focusing too narrowly on PTSD in the aftermath of disasters may make researchers miss other common mental health presentations like depressive and anxiety disorders. The other possibility could be that 74% of the patients in our study were assessed by Mohammad Kamran Khan who is not a psychiatrist. However, the two psychiatrists SA and HN who assessed the rest of the patients also did not see any patient as presenting with the full syndrome of PTSD.

Various models of providing psychological help were applied in the aftermath of the October 8 earthquake, including psychiatrists from other areas of Pakistan and abroad providing short-term direct clinical care, training lay volunteers in providing some level of psychological support, training primary care physicians working with Non-Government Organisations (NGOs) and training local primary care physicians. The first model, while very well-intentioned, is unlikely to be sustainable in the long run. In the second model, the role of psychological debriefing immediately after a disaster is uncertain any way[16]. There would also be issues about the fidelity of method and of evaluation of services provided by these volunteers. The third model would provide long-term benefit only if the NGOs stayed long-term, something that does not always happen once the acute post-disaster phase is over. From our observation and experience it seems to us that that the only viable and sustainable way to address the mental health needs of this affected population is mental health professionals from other areas training the local primary care physicians in diagnosing and treating common mental disorders in the short term, and in increasing local capacity and training more local mental health professionals in the long term.

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REFERENCES

1. Asian Development Bank and World Bank report. Earthquake, Pakistan. Preliminary damage and needs assessment. Islamabad: Asian Development Bank and World Bank Pakistan, November 12, 2005.
2. Anonymous. A forecast of disaster for Pakistan. Lancet 2005;366:1674.
3. Cohen D. Rebuilding from the rubble. BMJ 2006;332:10.
4. Moszynski P. Kashmir crisis is worse than the Asian tsunami, says WHO. BMJ 2005;331:926.
5. Woersching JC, Snyder AE. Earthquakes in El Salvador: a descriptive study of health concerns in a rural community and the clinical implications: Part III—Mental health and psychosocial effects. Disaster Manag Response 2004;2:40-5.
6. Montazeri A, Baradaran H, Omidvari S, Azin SA, Ebadi M, Garmaroudi G, et al. Psychological distress among Bam earthquake survivors in Iran: a population-based study. BMC Public Health 2005;5:4.
7. Livanou M, Basoglu M, Salcioglu E, Kalendar D. Traumatic stress responses in treatment-seeking earthquake survivors in Turkey. J Nerv Ment Dis 2002;190:816-23.
8. Salcioglu E, Basoglu M, Livanou M. Long-term psychological outcome for non-treatment-seeking earthquake survivors in Turkey. J Nerv Ment Dis 2003;191:154-60.
9. Basoglu M, Salcioglu E, Livanou M. Traumatic stress responses in earthquake survivors in Turkey. J Trauma Stress 2002;15:269-76.

10. Summerfield D. The invention of post-traumatic stress disorder and the social usefulness of a psychiatric category. BMJ 2001;322:95-8.

11. Mehta K, Vankar G, Patel V. Validity of the construct of post-traumatic stress disorder in a low-income country: Interview study of women in Gujarat, India. Br J Psychiatry 2005;187:585-6.

12. Roy N, Shah VH, Patel V, Bagalkote H. Surgical and psychosocial outcomes in the rural injured- a follow-up study of the 2001 earthquake victims. Injury 2005;36: 927-34.

13. Roussos A, Goenjian AK, Steinberg AM, Sotiropoulou C, Kakaki M, Kabakos C, et al. Posttraumatic stress and depressive reactions among children and adolescents after the 1999 earthquake in Ano Liosia, Greece. Am J Psychiatry 2005; 162:530-7.

14. Goenjian AK, Walling D, Steinberg AM, Karayan I, Najarian LM, Pynoos R. A prospective study of post-traumatic stress and depressive reactions among treated and untreated adolescents 5 years after a catastrophic disaster. Am J Psychiatry 2005; 162: 2302-8.

15. Goenjian AK, Steinberg AM, Najarian LM, Fairbanks LA, Tashjian M, Pynoos RS. Prospective study of post-traumatic stress, anxiety, and depressive reactions after earthquake and political violence. Am J Psychiatry 2000;157:911-6.

16. Rose S, Bisson J, Churchill R SW. Psychological debriefing for preventing post traumatic stress disorder (PTSD). Cochrane Database Syst Rev 2002.