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MENTAL HEALTH AND PSYCHOSOCIAL RELIEF OF EARTHQUAKE SURVIVORS – ACTIVITIES AND INTERVENTIONS

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ABSTRACT

Earthquakes are natural calamities which are unpredictable and destructive in nature. The October 8th, 2005 quake put forth a challenge for the whole nation. The authors describe the methods of appraisal of the situation, methods of needs assessment in emergency phase of disaster, organization of mental health relief efforts and implementation strategies of these services for the survivors, keeping in line with local cultural and social needs and consensus of world authorities on trauma psychiatry and disaster management.

Needs Assessment: Three specific needs were identified, namely, need for psychosocial services for majority of the population, need for people in psychological distress requiring Psychological first aid and people with severe mental illnesses requiring long term psychiatric management.

Objectives: With the objectives of ensuring availability of Psychological first aid to maximum, early detection, intervention and establishing a chain of referral for the severely affected cases, incorporating psychosocial care and rational use of psychotropic in medical and surgical care at all tiers of health services, public mental health education, community mobilization and caring for the relief workers, the Dept of Psychiatry MH Rawalpindi launched the comprehensive plan for the earthquake survivors.

Summary: The summary describes the services rendered by the teams of the Dept during the six months in tabulated forms.

Keywords: Mental health, psychosocial relief, disasters, Pakistan earthquake

INTRODUCTION

Natural disasters are considered to be worst of the disasters, because of the suddenness, unpredictability and unmeasured force that it brings with it. Earthquakes are best examples of such a destructive force of nature. It is estimated that the world has seen around 11 extreme earthquakes which changed the structure of the earth [1]. The world is hit by 220 natural catastrophes, 70 technological disasters and three armed conflicts every year [2]. On the average there are 2-3 disasters in their emergency phase, 15-20 in their recovery phase and about 12 conflict based emergencies in progress [3]. Although human body is not physiologically designed to handle disasters, the contemporary man has to find ways to face this new challenge.

No nation can be prepared enough for facing such unpredictable force of nature. Experience with disasters has revealed that whereas destructive force of the calamity is important in determining the trauma it can produce, the vulnerability of the population it afflicts is equally important [3]. Mankind has generally proved itself to be a vulnerable species to natural calamities.

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Pakistan got its share of natural catastrophe on 8th October 2005, when a massive earthquake, measuring 7.6 on Richter scale devastated the northern parts of the country. The death toll is estimated to be around 73000 with more than 4 million rendered homeless. Entire villages and towns have been wiped from the face of the earth and almost a complete generation of children in the age group of 8-14 years has died. The epicenter of the earthquake was located at about 100km northeast of Islamabad.

The affected area is mostly mountainous terrain, where people live in makeshift houses on the hills and their primary source of livelihood is cattle and small time agriculture. Religious influence is strong due to the special geo-political scenario of Azad Jammu and Kashmir. The area has basic amenities of life, including electricity, sanitation and education. A large proportion of the population (65%) is educated, especially the women folk, 33:67 M: F ratio [4]. Majority of the people live in joint-family or extended family systems and have one or two earning hands per family [5].

Disasters open a window into the inner working of the society [3]. The people of Pakistan responded to the need of the earthquake victims promptly and efficiently and made most appropriate measures to help them in the time of crisis. A number of National, International, governmental and non-governmental relief organizations reached the affected areas on the same day and started their relief work. Along with them came a huge number of voluntary workers, people with motivation and will to help but no expertise or skills in relief work. The aftermath of disaster is full of altruistic stories of neighbours, relatives and strangers rescuing people and taking custody of orphans and other survivors. During the first few weeks major focus was on the injured survivors, burying the dead and evacuating the seriously wounded population. However in 3-4 weeks the mental health units of different International relief agencies started carrying out their psychological needs assessment of the affected population. A dire need was felt for an organized, integrated and consorted effort. The Dept of Psychiatry Military Hospital Rawalpindi carried out different measures to organize and integrate different psychosocial and mental health activities.

Dept of Psychiatry Military Hospital Rawalpindi has one of the oldest and largest tertiary psychiatric facilities, having indoor capacity of 120 beds and is a centre of excellence of the country. It was equally unprepared for the challenge that such a massive disaster put forth. The Dept is located at 125 km from the epicenter, and has a wide catchment area including that of Azad Jammu Kashmir.

Keeping up to the challenge, the Department of Psychiatry decided to send in a team of psychiatrists as part of the Pakistan Army Medical Rescue and Relief Teams. They reached the affected areas on the second day of the quake and worked in close collaboration with other national and international relief agencies that were mainly focusing on provision of goods, shelter, food and treatment of physical ailments and injuries. They provided first aid and relief measures to the affected people and carried out rapid assessment of psychological needs using WHO's Rapid needs assessment tool [4]. Their reports indicated that individuals required support in three main areas.

- Almost everybody was in need of psychosocial support and interventions.
- A large majority of people were showing gross signs of psychological distress. Literature suggests that 85% of the people suffer from some kind of mild psychological distress for many weeks to few months. These benefit from Psychological First Aid and Critical Incident Debriefing mainly. Most of these people improve with passage of time [5]. About 30-50% people develop moderate to severe

distress [5]. These people are at risk of being wrongly diagnosed as psychiatric cases. A few of these may progress to develop PTSD, a severe and disabling consequence of disasters.

- People with severe mental disorders: Severe mental disorder that tends to severely disable daily functioning (psychosis, severe depression, severely disabling anxiety, severe substance abuse, etc.) is approx. 2-3% in general populations of countries across the world (World Mental Health Survey 2000 data). People with these disorders may experience inability to undertake life-sustaining care (of self or of their children); incapacitating distress; or social unmanageability. This rate usually rises to twice during the aftermath of disasters. Trauma and loss (a) may exacerbate previous mental illness (e.g., it may turn moderate depression into severe depression), and (b) may cause a severe form of trauma-induced common mental disorder in some people.

In order to organize the efforts, the Dept of Psychiatry MH Rawalpindi spearheaded a meeting of the senior and experienced psychiatrists, psychologists, social workers, WHO Disaster Management Experts and executive administrators from Pakistan Army and Ministry of Health to undertake important policy decisions. The Department of Psychiatry presented a comprehensive National Plan of Action for the Psychosocial and Mental Health Relief of the Earthquake Survivors. The plan was approved and was put into action on 26th October 2005.

The foremost thing required was the Training of the Trainers. Since the earthquake was first of its kind in Pakistan in modern times we lacked the capacity to address the specific angles of disaster management. Looking at the Tsunami Psychosocial Measures and the literature from different disasters in neighboring countries and other parts of the world, we realized the importance of cultural context and chose to develop the methods suitable to our needs. A request was made to World Health Organization for arranging training of the trainers and very graciously it arranged a 4 day training workshop for senior psychiatrists, psychologists and social workers. Three consultant psychiatrists from Dept of Psychiatry Military Hospital Rawalpindi were trained and certified as Master Trainers. These people were trained in Trauma Counseling, Critical Incident Debriefing, Group Trauma Counseling and Psycho-social Relief Measures. The training provided us with the basic framework of infrastructure on which such a plan can be built upon.

The following priority areas were agreed upon through consensus:

OBJECTIVES OF THE PLAN

a. Ensure availability of psychological first aid by trained manpower at all health service delivery points (including patients admitted with injuries locally and those in tertiary care facilities) and in the community.

b. Early detection, intervention, referral and follow-up of acute trauma related psychosocial consequences and psychiatric disorders in the affected population.

c. Incorporate psychosocial care and rational use of psychotropic in the medical and surgical treatment plans at all tiers along with integration of mental health care at all health care levels.

d. Public mental health education about the emotional impact of earthquake and Treatability of mental disorders.

e. Mobilization of Community social support and social organizations as partners in all activities of mental health care.

f. Provision of psychosocial support for the relief workers, professionals, paraprofessionals and, volunteers

involved in the relief effort to ensure that they are able to maintain their own health.

FRAMEWORK AND WORKING OF THE PLAN

The plan was implemented by development of five offices with individual and discreet responsibility of each office holder.

Mental Health Relief Cell:

It was established under the auspices of Prime Minister's Federal Relief Commission for Earthquake Survivors. The Cell supervised the overall coordination of all mental health and psychosocial relief activities in the affected areas that were carried out by different local and international mental health agencies. The Cell functioned in close collaboration with World Health Organization in assessment of needs, training of manpower and service delivery. It functioned through six Mental Health Relief Centres, namely Dept of Psychiatry, MH Rawalpindi, Institute of Psychiatry, Rawalpindi General Hospital, Pakistan Institute of Medical Sciences, Islamabad, Ayub Medical College, Abbottabad, Lady Reading Hospital, Peshawar and POF Hospital Wah. These centres were selected because of their close vicinity to the affected areas, tertiary care facilities and presence of senior and expert mental health professionals. In addition two hospitals were selected from the Province of Punjab to provide services to the "spill over" population of affectees who were expected to migrate from the earthquake stricken area. These were Combined Military Hospital, Lahore and Punjab Institute of Mental Health, Lahore.

The Cell had a panel of expert advisors on disaster relief work and disaster mental health issues from WHO, Pakistan Armed Forces, Ministry of Health, Provincial Health Services and Non Governmental organizations. Through the consorted efforts of these experts the plan for the emergency phase of 6 months of relief operation was developed and put into practice by the name of "National Plan of Action for Mental Health and Psychosocial Relief for Earthquake Survivors".

Mental Health Relief Cell (established in Prime Minister's Secretariat)

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Mental Health Relief Centres (Tertiary care hospitals like Dept of Psychiatry MH, PIMS, RGH)

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Mental Health Relief Units (affected districts like Bagh, Muzaffarabad, Rawlakot, Balakot, Abbottabad)

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Mental Health Relief Teams (stationed in affected districts)

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Community Institutions (schools, mosques)

Mental Health Relief Center Military Hospital Rawalpindi (MHRC):

It was established in the Department of Psychiatry which a tertiary care hospital is located at around 165 km from the epicenter. The Department performed the following functions as MHRC:

- Training of Volunteers and Mental Health Professionals
- Provision of Mental Health and Psychosocial Relief measures at the Centre and in the affected areas
- Maintaining a referral link with the teams working in the affected areas
- Coordination and record keeping of all mental health and psychosocial activities undertaken in the affected areas
- Promotion of mental health issues for the affected population

- Providing care to the relief workers, working in the affected areas
- Designing and development of ethical and scientific research proposals

In addition the department attended and provided mental health relief work to a number of affectees during the initial 8 weeks when a large number of victims were evacuated from the affected areas. The table summarizes the services rendered in the Armed Forces MHRCs (table-1).

Mental Health Relief Units (MHRU):

Three mental Health Relief Units (MHRUs) were established to work in three of the vastly devastated districts of Azad Jammu Kashmir, namely, Bagh, Muzaffarabad and Rawlakot. These units started to function within 4 weeks of the earthquake. Each MHRU comprised of one psychiatrist, one psychologist, four trained psychiatric paramedics and one to two local volunteer workers. All of these professionals received their training in mental health and psychosocial relief work at Dept of Psychiatry MH Rawalpindi (MHRC) from the Master Trainers and International Trauma experts. The psychiatrist led the team members of MHRUs and carried out their relief work on a rotation plan of 4 weeks each. Using the Training Manuals developed in collaboration with WHO, they rendered their services to the survivors in the affected areas.

The MHRUs primarily provided the following:

Psychosocial Services:

People in affected areas usually do not approach mental health or psychosocial services, (Murthi, India 2001) mainly because of two reasons. One that they do not feel the need for it and two that they feel stigmatized going to the psychiatrist. Keeping this reality, an Outreach and Integrated Programme for addressing the psychosocial needs was adopted. Three days of the week, the psychiatrist and his team members would travel to surrounding and distant parts of the affected areas and seek out audience from the people, detect severely distressed, diseased and affected people and provide them with psychosocial support, medication where necessary.

The teams moved in collaboration and integration with different governmental and non governmental organizations, WHO vaccination teams and various other national and international relief agencies. After carrying out the survey in different areas for psychosocial needs assessment, the teams approached the area members through different opinion leaders and notables of the areas. They carried out individual and group trauma counseling, critical incident debriefing, grief counseling, linking them up with different relief agencies for provision and arrangements of different relief goods.

In this regard an Information Booklet was prepared for use of the survivors, carrying contact details of different governmental and non governmental national and international agencies involved in the relief work and the procedural details of obtaining different relief goods and compensations. The booklet was prepared in collaboration with British Council Pakistan.

Since the start of the programme the teams rendered their services to around 45 different villages in and around Bagh, Rawlakot and Muzaffarabad (table-2).

Psychiatric Services:

Pakistan has a ratio of 1 psychiatrist for 500000 people and in Kashmir the proportions are even poorer. Before the earthquake there were only 4 psychiatrists for a population of 3 million. Earthquake destroyed the whole psychiatric services network in Kashmir and one of the four psychiatrists available in the affected areas had also died in the disaster. This led to complete non existence of any mental health or psychiatric facility for the affected population. In addition many people reported with fresh onset of major and minor

psychiatric disorders and required not only medication but hospitalization as well.

Psychotropics were made available in all the MHRUs. A referral link was established with three tertiary care psychiatric facilities in Rawalpindi and Islamabad and patients in need of long term indoor treatment were hospitalized in these centers. During the 25 week period the three teams provided psychiatric services to almost 3300 patients, used mainly antidepressants and some antipsychotics for different patients, referred 29 patients to tertiary facility. The diagnostic breakdown of different disorders treated at these MHRUs 1980 cases of Depression and other types of Mood Disorders including Bipolar Affective Disorder, 586 cases of Anxiety Disorders including Phobias, Generalized Anxiety Disorders, OCD and Somatization Disorder, 327 cases of Chronic Psychosis including Schizophrenia, 11 cases of Mental Retardation, 112 cases of Epilepsy, 219 cases of Conversion Disorder, 9 cases of PTSD and 56 cases of Acute Delirium (table-3).

The teams started working in close link with local psychiatrists in Muzaffarabad and Rawlakot and tried to reinforce the services. Valuable information was provided by these local experts on developing culture specific and relevant plans and treatment modalities.

Public Mental Health Services:

Many myths and misconceptions become rampant in post disaster period which can hinder daily lives of people and can have long lasting consequences as well [7,9]. These misconceptions can range from ideas about the cause of earthquake to chances of further quakes to possibility of complete wiping of the population to loss of trust in relief agencies and governments to altered political explanations of the disaster. Also the affected areas become a fertile place for many rumors which are exploited by the opportunists. We considered that addressing these misconceptions was an important part of the Mental Health Promotion Programme and therefore integrated it with other mental health issues [7,9].

For this programme we identified three major groups of audience. One was the general affected population, second was the opinion makers and leaders and third was of professionals like teachers, primary health care physicians and lady health visitors.

Three different means were adopted for promotion of mental health, namely, Face to face interactive sessions, use of print material, posters and handbills depicting mental health issues and using local FM radio service.

The psychiatrist and / or his team would approach these target groups in the tent villages and other places of residence and carry out interactive educational programme on mental health issues. A typical interactive session would last around 45 min to 1 hour and would cover the following subjects (table-4):

- Historical and scientific facts about disasters especially earthquakes (the material was obtained through kind courtesy of Dept of Earth Sciences, Quaid-e-Azam University, Islamabad)
- Normal human responses to disaster situations
- Coping mechanisms for disasters
- The way towards becoming a survivor from a victim
- Self reliance
- Using religious concepts for coping with a situation like this.
- Rafael's graph – responses after the disaster

The hand bills and posters were developed in a unique way, not done in other areas of disaster of the world. Each poster and handbill would have a photograph of an earthquake survivor or his / her family depicting a mental health message through their expression or action and it would carry a mental health message as caption in local

Table-1: Victims attended at armed forces MHRCS in first 8 weeks

Centre	Victims attended	Interventions given
MHRC Rawalpindi	682	Psychological 1st Aid & Grief Counseling
MHRC Lahore	177	-- do --
MHRC Wah	344	-- do --
MHRC Abbottabad	118	-- do --

Table-2: Psychosocial interventions (Bagh, Rawlakot, Muzaffarabad)

Non pharmacological interventions (NPIS)	Individuals	Groups	Bedside	Hospital liaison visits
Trauma Counseling	3770	256	322	690
Critical Incident Debriefing	3665			
Grief Work	1987		469	
Psychosocial Interventions	12467		377	

Table-3: Diagnostic breakdown

Diagnosis	Bagh	Rawlakot	Muzaffarabad	Total
Depression (Incl mood disorders)	891	710	381	1980
Anxiety disorders (phobias, GAD, OCD, somatization disorder)	293	140	153	586
Chronic psychosis (Incl schizophrenia)	163	78	84	327
Mental retardation	4	5	2	11
Epilepsy	56	32	26	112
Conversion disorder	110	86	23	219
PTSD	6	1	2	9
Delerium	31	19	6	56

Table-4: **Public mental health promotion**

Target group	No of people in the group	Interactive session	Use of print material	Using media
General Affected Population	10124	+ + + +	+ + + +	+ + + +
Opinion Makers And Leaders	311	+ +	+ +	
Professionals	1997	+ + + +	+ +	

Urdu language. Each message was tailored to address a myth or misconception or a general mental health issue. These prints were displayed at the prominent and public places like hospitals, tent schools, mosques and tea stalls and restaurants. On visits to different villages this print material was distributed amongst the people.

Local FM Radio service was used for reaching out to the masses as it was the only electronic media available in the area. This medium was particularly used for creating awareness of psychological distress and mental health issues that arise after disasters and focused on the following themes: A hotline was established in Bagh, Rawlakot and Muzaffarabad through which live interviews were carried out, suggestion were given based on mental health issues and different queries were addressed. The hotline was accessible three days a week from 6pm to 9pm and live interaction with the psychiatrist in charge MHRU from the local FM Radio station was done twice a week during the evening prime time.

- Psychological impact of earthquake
- Past disasters and pattern of human responses
- Identification of vulnerable groups
- Myths and misconceptions about earthquakes
- Treatability of psychological distress and psychiatric disorders
- Self care and self reliance.
- When medical help becomes necessary

- How to help children who refuse to go to schools after the earthquake
- Children's responses to disasters
- Grief

In addition similar messages were communicated to the local daily papers who continued printing mental health messages for many days.

Realizing the strong influence that local religious leaders, Mullahs and political parties have on the opinion making of the common man we made these as target groups and ensured one meeting per week with one or more of these influential figures of the areas. Consequently an encouraging response and acceptance of the mental health programme by majority was seen.

Capacity Building of Local Professionals:

The impact of the disaster being humongous, it was not possible to rely only on qualified mental health professionals for coping up with the psychosocial needs of the survivors. Keeping in line with WHO's guidelines we decided to recruit and train local people in matters of psychosocial care [8]. Primary health care physicians, teachers and a group of volunteer workers were trained in the following areas [9]. The training was in the form 1-2 day workshops aimed at providing basic knowledge about psychological distress following disasters and priority psychiatric disorders most commonly encountered in disaster situations (e.g. Depression, anxiety, phobias, panic disorder and acute psychosis), basic counseling skills and important indications and side effect profile of different psychotropics. In total 83 doctors, 220 teachers, 101 paramedics and 54 Voluntary workers were trained in the three affected areas.

Community Mobilization:

Without the participation of the community, all efforts get minimized and the tendency to rely on external resource for help is known to promote mental health problems [10]. Through regular cluster meetings, visits to notables, integrating psychosocial services amongst different relief agencies, visits to schools and places of religious gatherings, the MHRUs were able mobilize the community resources and social support towards partial self reliance in the affected areas. A psychosocial center was established in containers, at Bagh. A child safe place was created in Bagh [11]. Many teachers, school students, political party leaders were approached and schools were opened and started. Most of the community population provided their support to the Mental Health and Psychosocial Relief Programme.

Caring for the Careers:

Disasters as large as earthquakes are fertile grounds for many sequelae including secondary traumatization of relief workers [13]. There are many factors contributing towards it but keeping sensitivity towards this consequence is part of all relief operation worldwide. The Dept of Psychiatry MH Rawalpindi also catered for this secondary traumatization [13-15]. Regular sessions were arranged with different relief workers, doctors and administrators in informal ways, usually in the form of nightly meetings. In these meetings the psychiatrist would encourage the ventilation of emotions of the workers and reinforce focused and problem oriented approach. International trauma experts visiting the affected areas were also asked to do such sessions with the relief workers and three such sessions were delivered at Muzaffarabad, Bagh and Rawlakot. In total 196 relief workers were provided support and counseling on self care tips in disaster situations.

Pilot Project of Epidemiological Survey for Measuring Prevalence of Psychiatric Morbidity in Earthquake Affected Areas:

A pilot project of Epidemiology of psychiatric morbidity in earthquake affected areas was planned keeping in foresight the futuristic need for development of mental

health infrastructure in AJK. The project was completed in three districts of AJK, namely, Rawlakot, Bagh and Muzaffarabad. Ten cases were interviewed from the non affected population of Mir Pur and Bhimber.

Using Composite International Diagnostic Interview (CIDI), a random sample of 120 interviews was completed. Cluster sampling technique was used in affected areas and under the supervision of three CIDI-trained psychiatrists, a team of Voluntary workers were trained on CIDI and project was completed in 10 days time.

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