

TELE-PSYCHIATRY: ANSWER TO PSYCHIATRIC REHABILITATION OF EARTHQUAKE AFFECTED POPULATION IN PAKISTAN

Fareed A Minhas, Asad Nizami

ABSTRACT

Telemedicine utilizes information and telecommunications technology to transfer medical information for diagnosis, therapy and education through images, live video and audio. Past experiences as well as research have provided us significant evidence that the psychological distress and trauma induced by a disaster is the predisposing factor not only for increase in the incidence of these psychiatric ailments but it also triggers the exacerbation and relapse of previously existing conditions. Considering the prevailing consequences of the earthquake disaster in Pakistan, psychiatric rehabilitation in AJK and Northern areas through specialized health services, can be conducted using Tele-psychiatry. It is a practical and feasible way of facilitating delivery of psychiatric consultation, especially to affected areas where psychiatric facilities are virtually non-existent. A project of tele-psychiatry is proposed in this article.

Key words: Telepsychiatry, Psychiatric rehabilitation, Mental health, Psychosocial relief.

INTRODUCTION

On October 8, 2005, a massive earthquake of 7.6 on the Richter scale struck Azad Jammu and Kashmir and parts of the North Western Frontier Province of Pakistan. So far, estimates are of over 87,000 dead and more than 100,000 severely injured. There are in excess of 4 million people affected by the earthquake in one way or the other. This disaster has been the worst devastation in the history of Pakistan. The immense damage has been both physical and psychological.

Past experiences as well as research have provided us significant evidence that the prevalence of psychiatric illnesses like acute stress reaction, PTSD, depression, anxiety disorders etc. markedly increase following any disaster in a community. The psychological distress and trauma induced by a disaster is the predisposing factor not only for the incidence of these psychiatric ailments but it also triggers the exacerbation and relapse of previously existing conditions (e.g. psychoses, depression and epilepsy).

Viewing the situation from the mental health perspective three groups of population can be identified whereby each required a different mental health and psychosocial response:

- **People with mild psychological distress that resolves within a few days or weeks**
A very rough estimate indicates that perhaps 20-40% of the quake-affected population falls in this group.
- **People either with moderate or severe psychological distress**
This group is estimated to be 30-50% of the earthquake affected population. This group would benefit from a range of social and basic psychological interventions that are considered helpful to reduce distress.
- **People with severe mental disorders**
Rates for severe mental disorders that tend to severely disable daily functioning (psychosis, severe depression, severely disabling anxiety, severe substance abuse, etc.) is 3-4% up from 1-2% after exposure to severe trauma and loss.

Extrapolating from these to the Pakistan earthquake situation means 120,000-160,000 persons will be in need of treatment for severe mental disorders. Between 600,000 and 800,000 persons are expected to suffer from mild and moderate mental illness. In addition 30-50% of the population is in need of psychosocial support¹.

Fareed A Minhas, Prof & Head Institute of Psychiatry, WHO Collaborating Centre, Rawalpindi General Hospital, Rawalpindi, Pakistan. E-mail: fareedminhas@hotmail.com

Asad Nizami, Consultant Psychiatrist, Institute of Psychiatry, WHO Collaborating Centre, Rawalpindi General Hospital, Rawalpindi, Pakistan

Correspondence:
Dr. Fareed A Minhas

THE CHALLENGES OF PROVIDING MENTAL HEALTH RELIEF IN EARTHQUAKE AFFECTED AREAS

The people of AJK and northern areas require urgent evaluation and treatment by mental health professionals (psychiatrists and clinical psychologists) as simple counseling skills won't be ample.

Unfortunately, like other areas of rehabilitation process, the psychiatric rehabilitation of the population is feared to face major impediments due to the following issues:

- The difficulties in prioritizing the allocation of limited resources.
- Huge scarcity of Psychiatrists and psychologists on national level.
- Serious problems with logistics for providing good quality psychological care as well as remote support.

In order to overcome these difficulties an innovative and cost effective solution could be provided by tele-psychiatry in the earthquake affected areas of AJK and northern areas of Pakistan.

TELE-PSYCHIATRY

Telemedicine means application of telecommunication technologies in public health protection, by providing effective and standard therapeutic and diagnostic assistance while being miles away from the patient^{2,3}. Thus telemedicine can be used not only for treatment but education and research level also^{4,5}. It is an integral part of health providing agencies in the western world^{6,7}.

Telemedicine utilizes information and telecommunication technology to transfer medical information for diagnosis, therapy, and education through images, live video and audio. Transfer can be in real-time or not, between caregivers with or without the patient. It results in involvement of more health professionals i.e. the psychologists, community workers etc^{8,9}. The advantages of tele-psychiatry include convenient access of patient to psychiatrists (Geographic/Time/Convenience) and better utilization of psychiatrists resources.

The concept of tele-psychiatry is not a new one in Pakistan but has been used, explored and experimented in child and adolescent psychiatric services¹⁰. In collaboration with University of Manchester department of child and adolescent psychiatry, a telepsychiatry clinic was established at the Institute of Psychiatry, Rawalpindi to train and supervise staff in diagnosis and management of children and adolescents. The simpler and more flexible technique of 'store and forward' was used, requiring personal computers with Internet connections at both centres and a dedicated e-mail address. These requirements were met without any extra funding and the programme has been running successfully for almost over year now².

Considering the prevailing consequences of the disaster, psychiatric rehabilitation in AJK and Northern areas through specialized health services, can be conducted using tele-psychiatry. It is a practical and feasible way of facilitating delivery of psychiatric consultation, especially to affected areas where psychiatric facilities are virtually non-existent.

Keeping in view the International standards and international health policy this initiative of introducing tele-psychiatry, backed by ministry of science and technology would be first of its kind. The Institute of Psychiatry, Rawalpindi General Hospital, Rawalpindi, a WHO collaborating centre and major hub of academic activities in the country will provide the expertise regarding diagnosis treatment and rehabilitation of those suffering from psychiatric disorders to population in the disaster struck, remote areas of AJK and Northern areas.

THE AIMS OF THE PROJECT

The aim of the project is improvement in the health of the population of AJK and northern areas of Pakistan through their psychiatric rehabilitation by using tele-psychiatry for reduction in prevalence of psychiatric illnesses.

The project will be providing cost-effective and specialized psychiatric health care by using tele-psychiatry, to the earth quake affected population, for prevention, early detection and prompt treatment of prevailing psychiatric problems. Recommendations will be made to the policy makers and health care providers, regarding utilization of this technology as an effective source of health care provision on national level implementing it to other remote areas of Pakistan too, deprived of professional psychiatric care.

METHODOLOGY

The project will be implemented by introducing the intervention of telepsychiatry in the disaster affected population of AJK and northern areas residing in remote and difficult areas, where even basic primary health care is becoming practically impossible in current scenario. It will be a useful mean for effective psychiatric rehabilitation in short duration and a cost effective manner. Links will be established between the health care providers in the peripheries and the highly qualified psychiatrists and psychologists in the hub sites directly as well as through satellite VSAT (Very Small Aperture Terminal, an earthbound station used in satellite communications of data, voice and video signals, excluding broadcast television). Using VSAT over Paksat, it is possible to link sites in AJK/NWFP to hospitals in Pakistan for Video conferencing. HEC/Virtual University TV broadcast network can be utilized for Broadcasting information, training, education, mass information. Thereby expert psychiatrists will be accessible to those in need with the assistance of local facilitators, to fulfill the objectives of the proposed project. The implementation of the project will be as following:

Setting up of Institute of Psychiatry as Tele-psychiatry hub

Institute of Psychiatry will be equipped with Telemedicine equipment. This hub will provide psychiatric Teleconsultations to remote centers.

Setting up Tele-psychiatric remote centers in NWFP and AJK

Three centers will be identified in NWFP and AJK. These centers will be equipped with telemedicine equipment.

Connecting Institute of Psychiatry and Remote telemedicine centers

Institute of Psychiatry will be connected to three remote centers in NWFP and AJK through satellite connection.

Development of Telemedicine software for tele-psychiatry

This software will be designed to facilitate doctors and paramedical staff to do teleconsultations in psychiatry. This will be user friendly software which will enable the staff at both ends to interact in an easy way.

Training of Medical staff in telemedicine application

Doctors and paramedical staff at hub and remote site will need to be trained in telemedicine applications in psychiatry. This training will be imparted at Telemedicine/E-health training center, surgical unit II, Holy Family Hospital, Rawalpindi. This training will be of two week duration. The training program will include basic computer knowledge, concept of telemedicine and its various applications with main focus on tele-psychiatry and hands on training about doing teleconsultations of psychiatric patients through the above mentioned software. The medical staff will be trained in batches.

Preparation of Electronic Content for psychiatric disorders

The data about psychiatric disorders during disaster and treatment strategies, finalized by Institute of Psychiatry will be changed into electronic form by Telemedicine/E-health training center. This data will be utilized during the awareness campaigns of the project. Moreover a website of the project will be developed which will contain information regarding the project, psychiatric disorders and treatment strategies. This will include Online courses for population about psychosocial issues, Online workshops about psychiatric ailments and Audio plus Video content for awareness campaigns

Psychiatric consultations through Telemedicine

Medical staff at remote site will identify the patients and schedule the consultation with psychiatrist at Institute of Psychiatry. The psychiatrist will have telemedicine session with the patient and remote medical staff at the given time. The psychiatrist will further guide remote doctor about management plan of the patient and will also schedule the next telemedicine session.

Data Evaluation and Recommendations

Data about prevailing psychiatric disorders will be evaluated and recommendations will be passed on to all concerned authorities for future planning and preparation.

IMPACT

The Tele-psychiatry project will have short term as well as long term benefits. In the current scenario of limited mental health manpower and previously almost non existent mental health care in the primary health care, telepsychiatry will fill in the services provision gaps. The service being cost effective and not reliant on the physical presence of the professionals can be more effective and timely economical. The telepsychiatry services can also be used for mental health education and advocacy in future.

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