

A mixed methods field based assessment to design a mental health intervention after the 2005 earthquake in Mansehra, North-West Frontier Province, Pakistan

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The capacity of the pre disaster mental health system in Pakistan was weak, and the earthquake affected areas in the North-West Frontier Province (NWFP) of Pakistan were among the most under-served areas in the country in terms of adequate mental health services. The natural disaster exposed the weaknesses in the mental health delivery system in most of these areas. This paper describes a mixed methods field based assessment to design a mental health intervention in the earthquake affected district of Mansehra of NWFP. The assessment had two objectives: 1) to get a more complete and comprehensive understanding of mental health issues and priorities in this earthquake-affected district; and 2) to help in selecting and designing mental health intervention for the earthquake affected population. Both qualitative and quantitative data were collected. Qualitative data collection methods included open-ended semi structured key informant interviews, structured focus groups, and unstructured participant observation. Quantitative data collection methods included a community survey and a multiple choice mental health knowledge test. Equal priority was given to quantitative and qualitative data collection and analysis. Both types of data were analysed separately and integrated in the final results of the assessment. The results showed that a mental health training for both primary health care staff and community volunteers was a feasible and high priority intervention to improve the mental health

of the earthquake affected population in the Mansehra District. The assessment helped in selection of topics for training interventions.

Keywords: quantitative data, qualitative data, Pakistan, North-West Frontier Province (NWFP), mental health, education, earthquake

Introduction

On October 8, 2005, a massive earthquake of 7.6 on the Richter scale struck Azad Jammu, Kashmir and parts of the North-West Frontier Province (NWFP) of Pakistan. More than 75 000 were estimated dead, and more than 100 000 severely injured. There were in excess of four million people affected by the earthquake, in one way or the other.

The capacity of the pre disaster mental health system in Pakistan

The capacity of the pre disaster mental health system in Pakistan was weak. According to the literature, there was a shortage of mental health professionals, especially in rural areas (WHO Department of Mental Health and Substance Abuse, 2005). The primary health care (PHC) system was not competent enough to provide mental health care (Mubbashar & Saeed, 2001) and

traditional healers were supplementing psychiatric services as the main mental health service providers, especially in rural areas (Shaikh & Hatcher, 2005). Mental health services were inaccessible and not affordable for a large majority of rural population (Karim et al., 2004). Additionally, there was a high percentage of depressive and anxiety problems in different rural areas of Pakistan (Mumford et al., 1997; Mumford et al., 1996) and the high cost of psychiatric treatment was a barrier to provision of mental care (Large et al., 2008).

Mental health needs/services in the earthquake affected areas

The mental health needs of the earthquake affected population was great, even before the earthquake. According to Husain et al., (2007), the population of NWFP reported more depressive symptoms (60% of women and 45% of men) than other communities in Pakistan. The earthquake affected areas in the NWFP of Pakistan were also among the most underserved areas in the country in terms of mental health services. Therefore, the natural disaster exposed the weaknesses in the existing mental health care delivery system in most of these areas. There was only one mental health hospital in the town of Mansehra staffed by a single psychiatrist (United Nations, 2005), who served an estimated 1.4 million population of the district (AsiaFront.com., 2009). Only a little bit more than 50% of Basic Health Units (BHUs), providing primary health care in that earthquake affected district, were staffed with physicians who were not practising mental health care. They only referred severe mental problems to the psychiatrist in the town of Mansehra, or to the other psychiatrists based elsewhere in the NWFP, mainly in the city of Peshawar.

Poor access to mental health services was a major problem because the majority of Mansehra population lives in mountain villages at least four to five hours away from the town of Mansehra. According to Niaz, Hassan & Hasan (2007), the mental health needs of the Mansehra population increased after the 2005 earthquake, especially the needs of destitute women. Various models of providing psychological help were applied in the aftermath of the earthquake, including psychiatrists from other areas of Pakistan and abroad, providing short term direct clinical care. They also trained lay volunteers in providing some level of psychological support, primary care physicians working with nongovernmental organizations (NGOs) and local primary care physicians (Ahmer et al., 2006).

International Medical Corps field based assessment

In response to the earthquake in Pakistan, international nongovernmental organizations (INGO) International Medical Corps (IMC), in cooperation with local health authorities (Executive District Officer-EDO) and the World Health Organization (WHO), decided to deliver a mental health intervention in Mansehra in tune with the *Inter-Agency Standing Committee (IASC) guidelines* being developed at that time (Inter-Agency Standing Committee, 2007). The assessment was conducted to analyse threats to mental health wellbeing of the affected population and to determine content and priorities for mental health intervention. It specifically focused on the following topics from Action sheet 2.1. of the IASC guidelines; structure, location, staffing and resources for mental health in the health sector, relevant contextual information related to attitudes towards mental disorder and recommendations by different stakeholders on how to close a gap between mental health needs and

resources in Mansehra (IASC, 2007). The assessment started five months after the disaster during the rehabilitation stage of disaster response (Ventevogel, 2005), and it lasted for two weeks. During the assessment, equal emphasis was given to quantitative and qualitative data collection and analysis. Both types of data were gathered concurrently and integrated in the final results of the assessment.

Method

Setting and participants

A purposeful sample was selected by the IMC mental health team, and it consisted of different stakeholders responsible for the organisation and utilisation of mental health care services in the NWFP, including Mansehra district.

The role of government officials and health workers within the existing health system, and their technical and practical relevance to the organisation and development of mental health services in NWFP (including Mansehra) were the main criteria for inclusion of participants in interviews and focus groups. The international representative of WHO was included because of the important role the international community was playing in supporting mental health in the earthquake affected areas after the disaster. A sample of IMC's hired primary care staff was selected, with the purpose to observe patient encounters in the field. The main inclusion criterion for their selection was that they were engaged in providing primary care to the earthquake affected population. A sample of community members was selected among people attending primary health care (PHC) clinics in three camps for internally displaced people (IDPs), with the purpose of assessing attitudes of population towards mentally ill which could affect their utilisation of mental health services. The main inclusion criterion

for the selection of community members was that they belonged to Mansehra communities recently affected by the earthquake. Namely, we assumed that the population affected by the earthquake would be more in need of mental health assistance than the general Mansehra population, and our intention was to improve their utilisation of mental health services by addressing their attitudes towards mentally ill through mental health community awareness campaign. Local community members who might seek treatment were interviewed in the survey only, and not included in the qualitative study, which was instead limited to service providers.

The whole assessment was done in tune with IASC (2007) guidelines as a participatory and collaborative process with all relevant stakeholders. Interviews with local psychiatrists were conducted at their work places in the towns of Mansehra and Peshawar (capital of North-West Frontier Province). Interviews with the WHO representative for Mansehra and the representative of local health authorities (Executive District Officer) were conducted in their premises, i.e. WHO and EDO offices in the town of Mansehra. Focus groups with PHC physicians were conducted at WHO and IMC premises in Mansehra, and in one transit hotel in Peshawar. Focus groups with PHC mid-level staff were conducted in the Gahri-Habibullah IDP camp. Community survey of the earthquake affected population, and the observation of patient encounters in primary health care, were conducted in three camps for IDPs in Mansehra: Gahri-Habibullah, Bassian and Turkish camp. Testing of mental health knowledge of PHC physicians was conducted at WHO premises in Mansehra. IMC's multi disciplinary mental health team, which consisted of an international psychiatrist, local general

practitioner, psychologist and social worker, completed the assessment in two weeks.

Qualitative Data Collection

Qualitative data collection methods included semi structured interviews, structured focus groups and unstructured participant observation in the field. Interviews were conducted with 10 key informants, including three local psychiatrists (two public and one private), five general practitioners, one WHO local representative, and one representative of local health authorities (EDO), to better understand their perception of mental health needs and services in Mansehra communities. Voluntary participation, anonymity and confidentiality were ensured. The interviews were open ended and a semi structured interview schedule was used to aid the researcher. The interview topic guide began with the exploration of current mental health issues in the Mansehra communities, then priorities in the mental health sector, and finally the need for a mental health intervention for PHC workers and community volunteers. Altogether, six focus group discussions were conducted; four with PHC physicians (two men's and two women's groups) and two with PHC mid-level staff (one with *lady health visitors* and *lady health workers* and one with midwives), to get their perspective on mental health issues and priorities in Mansehra. Lady Health Visitors, Lady Health Workers and midwives are accredited female health staff who are at the frontline of efforts to improve health in rural communities in Pakistan, and also enhance access to health care by women. Group size for focus group discussions varied with a minimum of six, to a maximum of 10, people in each group. A majority of the participants, in both the men's and women's groups were of Hindkowan ethno-linguistic background,

with a few Pashtuns in some groups. Women's ages ranged from 25 to 50 years, and men's from 26 to 55 years. The topic guide used in focus groups began with general questions about mental health problems in the Mansehra communities. It then explored the issue of access to mental health services, and finally the possible areas of improvement. Both interviews and focus groups were stopped after informational redundancy or saturation has been achieved; the point at which no new information or themes emerged from the data.

Unstructured participant observation of patient encounters in primary health care was conducted in weekly out-patient primary health care clinics established by International Medical Corps in three IDP camps in Mansehra, to observe common mental problems in Mansehra communities, and to see how primary health care practitioners were dealing with mental health issues in the field. Services in out-patient clinics were provided by local general practitioners and PHC mid-level staff, with IMC's International Mental Health Coordinator acting as an observer.

Quantitative Data Collection

Quantitative data collection methods included a community survey and a multiple choice mental health knowledge test. The community survey was conducted with altogether 150 earthquake affected IDPs, 50 in each of three IDP camps: Gahri-Habibullah, Bassian and Turkish Camp (Table 1) in order to better understand the community's attitudes towards mentally ill people. Approximately the same number of men and women completed a short 12-item questionnaire created for the purpose of this survey. The questionnaire was created by the IMC's mental health team in collaboration with local primary health care professionals.

Table 1. Breakdown of surveyed IDPs by age, sex and mother tongue

Variable	Gahri Habibullah IDP camp (N=50)	Bassian IDP camp (N=50)	Turkish IDP camp (N=50)
Age (years): mean (SD)	34,5 (4,18)	30,5 (6,1)	39,5 (5,7)
Age category (%)			
<30	10	15	10
31-40	20	25	25
>40	10	10	15
Sex			
% female	65	57	55
Mother tongue (%)			
Hindko	70	60	75
Urdu	10	15	5
Pashto	20	25	20

It was translated into Urdu, which is an official language of the country. According to World Mission Atlas Project (2009), Urdu is understood by over 75% of Pakistani population. Although Pashto is a mother tongue for majority of the population in the NWFP (Statistics Division – Government of Pakistan, 2009), Manshara has a mixture of Hindko and Pashto languages. There is also a considerable bilingualism and multilingualism in the district, and due to the similarities between Hindko and Urdu language, the great majority of the population understands and speaks both languages. The committee approach of collaborative based work was used in the questionnaire translation; two bilingual members of mental health team and two bilingual local PHC professionals completed the translation together, using the iterative back-translation method.

The face validity of the questionnaire was determined by five members of IMC administrative staff in Manshara. They were also affected by the earthquake and in this case they represented the earthquake affected Manshara population, which was our popu-

lation of interest for the community survey. On suggestion by the local WHO representative, the questionnaire was also rated by three local psychiatrists (panel of experts) before the administration. They agreed that all selected questions were strongly relevant, represented domain of interest and that the questionnaire showed a good content validity. This was done in the absence of literature on the use of similar questionnaires in post emergency settings, and in the absence of published studies on attitudes of community members towards mental illness in Pakistan (Dr. Mohammad Irfan, Consultant Psychiatrist, Lady Reading hospital, Peshawar-personal communication). The construct validity of the questionnaire was supported by the available evidence from the study conducted among the population similar to ours in terms of culture (Muslim) and socio-economic status (low social class and poorly educated) (Oye, Lasebikan, Olosula, Olley, & Koka, 2005). It was assumed that the considerable number of surveyed community members would be illiterate because they were coming from the earthquake affected rural areas where

there was a high illiteracy rate, especially among women (Karim et al., 2004). Therefore, it was decided that questionnaire should be administered through interviews. Local IMC mental health team received half a day training by ex-pat IMC's Mental Health Coordinator on how to administer the questionnaire properly in a community setting. All members of the survey team had previous experience of collecting demographic and health data in the field using questionnaires. All local members of the team were both Urdu and Hindko speakers, and two members of the team were familiar with Pashto language as well.

The test used for accessing the mental health knowledge of PHC doctors was previously used in IMC's post tsunami projects in Sri Lanka (Budosan et al., 2007; Budosan & Jones, 2009). It contained 30 multiple choice questions on identification and treatment of stress and common and severe mental disorders. On suggestion by the local WHO representative, the content validity of the test was also determined by three local Pakistani psychiatrists, and it was satisfactory. The English version of the test was given to 14 general practitioners, locally employed by the IMC, to better identify eventual specific gaps in their mental health knowledge. All of them had a good working knowledge of the English language, which was a basic requirement for them to get a position with the INGO.

Results

Qualitative data analysis

Formal analysis of interview and focus groups data began after the transcription process was completed. The data were analysed thematically, that is, common issues and ideas were identified and then summarised into the categories discussed below.

Gap between mental health needs and services

All psychiatrists, and many PHC doctors, said that a significant proportion of people in Mansehra were suffering from depression, anxiety, sleep problems and various somatic symptoms, including headache and generalized body pain. Epilepsy was mentioned as common, and substance abuse as often an undisclosed problem. Some midwives mentioned problems of post natal depression. All psychiatrists, EDO and WHO representatives, talked about the shortage of mental health professionals, especially in big cities; compounding this problem was the low level of interest of primary care practitioners in mental health issues, and their relatively poor knowledge of mental health. A lot of PHC physicians and PHC mid level staff mentioned a lack of general mental health awareness, and stigmatised attitudes towards the mentally ill among Mansehra's population. This was an important factor responsible for the poor utilisation of existing mental health services. They also mentioned poor access to mental health services because of a distance, lack of transportation, weather conditions (especially in winter), and poor affordability of mental health services due to widespread poverty.

Factors generating poor mental health

Socio-economic factors, such as poverty, were mentioned in all interviews and at each focus group site as important elements contributing to poor mental health in the Mansehra communities. All psychiatrists, and many PHC health workers, emphasised a stigma attached to mental health problems, especially in rural areas. According to the psychiatrists, families carry a disproportionate burden of care for mental health patients, even paying for their medications.

Dealing with mental health problems through traditional healing system

Most of the psychiatrists and PHC workers agreed that the traditional medicine sector has become an important source of health care, especially in rural areas of Mansehra. Self-care or home remedies, and consultation with traditional healers, were the first choice for problems such as epilepsy, psychosomatic troubles, depression and many other ailments. They thought that the main reason for consulting traditional healers was the proximity, affordable fees, availability, and family pressure to use their services. Most of them believed that spiritual healers were the most commonly consulted category of traditional healers, followed by homeopaths and even charlatans.

The impact of the recent earthquake

According to all of the psychiatrists, and a great number of PHC workers, there was an increase in stress related problems and common mental disorders after the earthquake, as well as an increase in family, marital and interpersonal problems, especially among the earthquake survivors living in IDP camps. Most of them concluded that the loss of family members and property in the earthquake was a factor contributing to poor mental health of the earthquake affected communities.

Improving mental health

In all of the interviews, and at each focus group site, raising communities' mental health awareness and improving the availability, accessibility and affordability of mental health services, were mentioned as imperatives if mental health in Mansehra was to be improved. According to mental health professionals there, many general practitioners and the majority of PHC mid-level staff, the mental health training of all

categories of health professionals and community lay volunteers was a feasible and high priority mental health intervention. Many of the primary care mid-level workers thought they should receive mental health training to be able to support PHC doctors in providing mental health care.

Barriers to mental health care

Poor availability, accessibility and affordability of mental health services, stigmatisation of people with mental health problems and poor mental health awareness among Mansehra communities were mentioned in all of the interviews, and at each focus group site, as important barriers affecting community members' utilisation of mental health services. All of the psychiatrists agreed that the cost of psychiatric medication, and its erratic supply in some areas, was an issue which required attention, and that the public mental health sector was not easily accessible for a majority of the rural population. Most of the PHC workers said that the services of private psychiatrists were more expensive and not affordable for many people. Almost all PHC mid-level staff agreed they were hardly involved in providing mental health care to the population.

Observation of patient encounters

Patient encounters were observed to identify physicians' assessment/intake, communication and practical skills in recognition and treatment of mental health problems, involvement of PHC mid-level staff in mental care, and to see most common mental problems encountered in primary care. Fourteen general practitioners were contacted, and all of them agreed to participate. An incomplete taking of patients' medical histories was present in the majority of patient/physician encounters. Lack of mental health knowledge was apparent when it

was necessary to take appropriate psychiatric history, and to determine the mental health status of patients. All physicians demonstrated core conditions of genuineness, unconditional positive regard and empathy. They also demonstrated active listening, basic attending skills and the ability to communicate competence.

In most patient encounters, physicians were able to detect severe and common mental disorders, but they were generally not able to provide clear instructions and explanations to the patient about his/her problem. Physicians were also not confident in prescribing psychiatric medications, except for some typical antipsychotics and benzodiazepines. If prescribing, they were not able to give sufficient advice and information about the drug to a patient. A psychological component was not sufficiently included in patient encounters, except for some brief supportive counselling. During patient encounters, the involvement of PHC mid-level staff was minimal, or completely absent, except for the registration of patients.

Loss and grief, stress related personal and family problems, signs of depression and anxiety, aggressive psychotic behaviour, chronic psychosis, disability due to various mental disorders, different somatisations, developmental delay and drug misuse were the most commonly observed mental health issues. Many patients, including children and adolescents, attended clinics to get their regular supply of medications for epilepsy.

Quantitative Data Analysis

The analysis of the community survey of attitudes of community members towards the mentally ill is presented in Table 2. There was a significant difference in some responses as to whether the respondents were men or women. For example, only 35% of interviewed men thought that mental patients

should be allowed to get married, while 66% of women answered positively to that statement. Also, only 20% of men thought that mental patients should be employed, while 62% of women thought they should be part of a workforce. Again, only 32% of men would eat at the same table with a mental patient, while 62% of women would do so.

Answers to 30 multiple choice questions on the knowledge test for general practitioners were clustered into eight topical areas, or categories, to identify specific gaps in their mental health knowledge (Table 3). Mean total percentage of correct answers on the test was 50,2%. General practitioners showed better theoretical knowledge on some common mental disorders, such as depression (73, 4% correct answers), but poor knowledge on stress (33, 3% correct answers) and child mental health (37, 5% correct answers).

Integrating qualitative and quantitative findings

Both qualitative and quantitative data were integrated in the final results of the assessment.

Example 1. Mental health problems in Mansehra

All of the interviewed psychiatrists, and many PHC doctors at each focus group site, mentioned that a significant proportion of people in Mansehra were suffering from various mental health problems. They also stated there was an increase in stress related problems and common mental disorders after the earthquake. These data were integrated with the data from the observation of patient encounters in the field, where loss/grief, stress related personal and family problems, depression and anxiety were commonly observed mental health problems. The outcome of integration was that both types of data converged, which lent credence to the conclusion that there was a significant

Table 2. The analysis of community members' attitudes towards mentally ill

No.	Statement	Percentages (%) of <i>yes</i> answers	Percentages (%) of <i>no</i> answers
1.	We should be afraid of mental patients	49	51
2.	Mental patients may be allowed to get married	50	50
3.	Mental patients may have children	49	51
4.	Mental patients should be employed	40	60
5.	Mental patients may participate in family discussions	50	50
6.	Mentally ill may eat at the same table with other family members	44	56
7.	Mental patients are dangerous	35	65
8.	Mentally ill could benefit from medical assistance	50	50
9.	Mentally ill have the same rights as other people	30	70
10.	Patients suffering from Epilepsy are under influence of bad spirits and/or demons	26	74
11.	People suffering from Epilepsy are contagious	53	47
12.	People should remove the person while fitting to a safe place	75	25

Table 3 The analysis of answers on mental health knowledge test for general practitioners

No.	Topical area (category)	Number of questions in each category	Mean percentages (%) of correct answers
1.	General mental health ¹	10	54,1
2.	Stress	4	33,3
3.	Depression and suicide	5	73,4
4.	Anxiety	2	50
5.	Child mental health	2	37,5
6.	Substance misuse	1	58
7.	Psychiatric emergencies	1	50
8.	Psychiatric medications	5	45

¹General mental health category included questions on communication skills, mental status examination, sleep problems, loss and grief, unexplained physical symptoms and community mental health.

number of mental health problems in the Mansehra district, which most probably increased after the disaster.

Example 2. Insufficient mental health knowledge/skills of PHC workers

During the interviews, all psychiatrists, EDO and WHO local representative, mentioned poor mental health knowledge of general practitioners and their lack of interest to practice mental health care. The focus groups with PHC mid-level staff provided the information on their poor involvement in mental health care. The information from the observation of patient encounters in the field confirmed that practical skills of PHC doctors were not sufficient to provide good quality mental health services, and that the involvement of PHC mid-level staff in providing mental care was minimal, or completely absent.

The mental health testing of general practitioners complemented and quantified qualitative findings from patient encounters by providing specific data on theoretical mental health knowledge of general practitioners. The outcome of integration of data was

that data from interviews, focus groups and observation of patient encounters converged, and they were supplemented and quantified by the tests results. This led credence to the conclusion that general mental health knowledge/skills of PHC doctors and involvement of PHC mid-level staff in providing mental care was not sufficient to provide good quality mental health care to the Mansehra population.

Example 3. Mental health training intervention

The mental health training intervention for PHC workers was identified by all the interviewed psychiatrists, many PHC doctors and the majority of PHC workers, as a feasible and high priority mental health intervention to improve mental health in the district. Many of the PHC mid-level staff expressed their wish to attend one such training to be able to support PHC doctors in providing mental health care. The outcome of integration of qualitative data from the interviews and focus groups on the need for a mental health training intervention, qualitative data from the observation of patient encounters in the field which showed insuffi-

cient mental skills of PHC workers, and quantitative data from testing which showed insufficient mental health knowledge of PHC general practitioners, was that the data converged and supplemented each other. This also resulted in a selection of training intervention for PHC workers as a high priority mental health intervention to improve mental health in the district.

The outcome of integration of data from interviews, focus groups, observation of patient encounters and testing knowledge on certain specific mental problems was that in most of the cases the data converged, supplemented each other and lent credence to the selection of specific topics for the training intervention (Box 1).

Example 4. Selection of depression as a topic for training intervention

Depression was mentioned by all the interviewed psychiatrists, and many PHC

doctors in focus groups, as a significant mental health problem in Mansehra. It was also a commonly observed mental problem during patient encounters in the field. The tested knowledge of PHC doctors on depression was relatively good, and this data diverged from the data from the observation of patient encounters where practical skills of general practitioners in recognising and treating some common manifestations of depression and prescribing antidepressant medications were perceived as insufficient. The final outcome of the integration of qualitative and quantitative data on depression was that depression was selected as a training topic, but with an emphasis on improving the practical skills of PHC workers in recognition of some common manifestations of the disease, i.e. somatisations, and their knowledge on prescribing antidepressant medications.

Box 1: Selected topics for the mental health training of PHC workers

Topics for PHC physicians

Burden of mental disease
 Child mental health
 Anxiety and depression
 Counselling
 Psychosis spectrum disorder
 Screening in psychiatry
 Sociological approach to mental health problems
 Disability by mental disorders
 Unexplained physical symptoms
 Psychiatric emergencies
 Women issues in psychiatry
 Regional mental health issues
 Stress related disorders
 Drug dependence
 Epilepsy

Topics for PHC mid-level staff

Listening and communication skills
 Stress and stress management
 Behaviours that cause concern
 Stigma of mental health patients
 Mental problems in childhood and adolescence
 Psychiatric symptoms
 Side effects of psychotropic drugs
 Important syndromes in psychiatry

Example 5. Stigmatised attitudes towards the mentally ill

Stigmatised attitudes towards the mentally ill were mentioned by different participants in all interviews, and at each focus group site, as an important barrier to utilisation of mental health services by local communities. The data from the community survey converged with these data, and supplemented them. The integration of both types of data lent credence to the conclusion that stigma towards mentally ill was present in Mansehra as an important barrier to the utilisation of mental health services by local communities.

The topics for the training of community volunteers to address attitudes of stigmatisation and raise mental health awareness in the Mansehra communities were selected according to the results of the community survey (Box 2). For example, topics on what is mental illness, minor psychiatric symptoms, signs of mental illness and stigma or mark of shame by mental patients, were

introduced in order to address certain attitudes of stigmatisation towards the mentally ill (e.g. 49% percent thought they should be afraid of mentally ill; 50% were convinced that mentally ill should be allowed to get married; only 40% thought that mentally ill should be employed, and again 50% thought the mentally ill may participate in family discussions, etc).

During this assessment, some interesting practices on how community members deal with a person having fits were recorded:

- a) hitting head of the person in fit with his/her shoes and making him/her smell them can make the person recover faster;
- b) slapping the person a number of times could help; and
- c) eating the fur of a cat or the feathers of a crow could cause epilepsy.

Community members' perception of certain mental problems was recorded as well: "the person is crazy, talks to himself and often laughs with himself" (psychotic patient); "the person is sad, his/her sleeping habits are not good, and his/her appetite is poor as well" (depressed patient).

Discussion

Both qualitative and quantitative assessment methods worked complementary to get a more complete understanding of mental health issues and priorities in the Mansehra district.

For example, data gathered during the observation of patient encounters, testing of general practitioners and the survey of community members complemented information from interviews and focus groups, in getting a more complete understanding of common mental issues and priorities in the Mansehra communities. For example, high prevalence of common mental

Box 2: Selected topics for the training of community volunteers

Topics for community volunteers

- 1) What is good mental health
- 2) What is mental illness
- 3) What are some of the signs of mental illness
- 4) Minor psychiatric symptoms
- 5) How can we stay in good mental health
- 6) The causes of mental illness
- 7) Know about epilepsy
- 8) Unwanted effects of drugs
- 9) Why does mark of shame by mental health patients still exist

problems, poor availability of mental health services, stigmatised attitudes of the population, mental health training intervention as a feasible, high priority intervention to improve mental health, were all present.

The complementary use of different methods provided a greater range of insights and perspectives on mental health in Mansehra than either method alone. Each set of methods used in this assessment enhanced both the usefulness and validity of the other set of methods, minimising bias through comparing and correlating several sources of information. For example, poor availability of mental health services in Mansehra was mentioned in all the interviews and at each focus group site as an important barrier to community members' utilisation of mental health services. The same issue was also mentioned by different participants in all of the interviews and at each focus group site as a specific issue in need of improvement, if mental health in the district were to be improved. The quantitative data from the knowledge test for general practitioners, and the qualitative data from the observation of patient encounters in the field, both showed inadequate mental health knowledge/skills of primary care practitioners, and minimised eventual bias from the interviews and focus groups. This was in regard to the information on poor mental health delivery system within primary care. The data from all the interviews on shortage of mental health professionals in Mansehra converged with the data on poor mental health delivery system within primary care, thereby confirming poor availability of mental health services in Mansehra district.

Limitations

The major limitations of this assessment included possible reporting bias and non-representative sampling of both PHC workers

and community members. Therefore, the results of the assessment cannot be generalised to apply to the whole population of PHC workers and/or the community members in Mansehra. The other limitations included time constraints and pressure for the INGO to start the intervention as soon as possible. For example, because of time constraints, traditional healers were not interviewed regarding their perspectives on major mental health problems affecting people, although respondents in the qualitative study felt that they were the important source of mental health care for Mansehra population.

The assessment was also biased by the objective of INGO to implement mental health interventions. Consequently, although socio-economic factors were identified during this assessment as important contributors to poor mental health, priority was given to mental health interventions. A more detailed complementary psychosocial assessment would have been useful to fill in the remaining gaps in information, especially with regard to documenting how local communities perceive mental health, and where it sits on their list of priorities compared to other socio-economic and/or health concerns. According to the information from the literature, the essential financial, moral and manpower support to mentally ill in Pakistan is normally provided by community and family members directly, or via the zakat supported social welfare system (Karim et al., 2004). This is basically an Islamic welfare system, where money is deducted from annual incomes of more prosperous community members, and distributed to poor and deprived people. However, it would be interesting to know if this system is still effective in case of emergencies. According to IASC (2007), it is important to know what is people's experience of an emergency and how they respond to it. Testing mental health knowledge of PHC mid-level staff

was missing in this assessment, and it would help quantify their mental health knowledge prior to a training intervention. Also, qualitative methods were used only among professionals and health service providers who were actually the real target population of this study.

Strengths

To the best of our knowledge, this was the most comprehensive field based assessment of mental health needs and services in the Mansehra district after the 2005 earthquake. We are also not aware of any published literature of a similar assessment in this district before the earthquake. The whole assessment was relatively comprehensive and provided enough details, for a short period of time, to design long term measures to improve mental health care in the Mansehra district. In our opinion, all assessment techniques were useful and feasible, and we can recommend them during the rehabilitation phase of the disaster.

We would specifically recommend observation of patient encounters in the field as a very useful assessment technique because it can provide a direct insight into the mental health care. The final result of this assessment to implement a mental health training intervention to close the existing gap between mental health needs and services in Mansehra was supported by the available literature (World Health Organization, 2008). IASC guidelines also recommend developing the availability of mental health care for a broad range of emergency related and pre-existing disorders through general health care and community based services as a part of a comprehensive response during the rehabilitation stage of disaster response (IASC, 2007).

Additionally, the selection of a mental health training intervention was supported by the

fact that there was a general lack of mental health training interventions for primary care workers in Pakistan, and especially in the NWFP (Dr. Mohammad Irfan, Consultant Psychiatrist, Lady Reading hospital, Peshawar, personal communication).

The way forward

In summary, this field based assessment was useful in deciding on the character and content of a mental health intervention in the Mansehra district. The assessment could also provide important information to future efforts of international and/or Pakistani mental health players with the objective of closing the gap between mental health needs and services in the NWFP, and perhaps also other areas of Pakistan. Some other topics listed in Action Sheet 2.1. of IASC guidelines (IASC, 2007) are recommended for future assessment in Mansehra to complement the results presented in this paper:

- a) existing sources of psychosocial and mental health well-being, i.e. ways people help themselves and others (coping and healing);
- b) types of social support, i.e. skilled and trusted helpers in a community and sources of community solidarity; and
- c) functionality of referral systems between and within health, social, education, community and religious sectors.

All this information would help provide additional and valuable insight into the mental health in the Mansehra District.

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References

Asia Front.com (2009). Asia news-Hazara Pakistan. Available online: <http://asiafront.com/news/251/hazara-pakistan.html>

Ahmer, S., Naqvi, H., Kamran Khan, M., Siddiqui, N., & Moosa Khan, M. (2006). Psychological morbidity among primary care attendees in earthquake affected areas of Pakistan. *Journal of Pakistani Psychiatric Society*, Vol. 3, No. 2.

Budosan, B., Jones, L., Wickramasinghe, W. A. L., Farook, A. L., Edirisooriya, V., Abeywardena, G., & Nowfel, M. J. (2007). After the Wave: A Pilot Project to Develop Mental Health Services in Ampara District, Sri Lanka Post-Tsunami. *Journal of Humanitarian Assistance*, published on September 16, 2007. Available online: <http://jha.ac>.

Budosan, B. & Jones, L. (2009). Evaluation of effectiveness of mental health training program for primary health care staff in Hambantota district, Sri Lanka, post-tsunami. *Journal of Humanitarian Assistance*, pub-

lished May 1st, 2009. Available online: <http://jha.ac>.

Husain, N., Chaudry, I. B., Afridi, M. A., Tomenson, B., & Creed, F. (2007). Life stress and depression in a tribal area of Pakistan. *The British Journal of Psychiatry*, 190, 36-41.

Inter-Agency Standing Committee-IASC (2007). IASC Guidelines on mental health and psychosocial support in emergency settings. Geneva: IASC.

Karim, S., Saeed, K., Rana, M. H., Mubashar, M. H., & Jenkins, R. (2004). Pakistan mental health country profile. *International Review of Psychiatry*, 16(1), 83-92.

Large, M., Farooq, S., Nielsen, O., & Slade, T. (2008). Relationship between gross domestic product and duration of untreated psychosis in low and middle-income countries. *The British Journal of Psychiatry*, 193, 272-278.

Mubbashar, M. H. & Saeed, K. (2001). Development of mental health services in Pakistan. *Eastern Mediterranean Health Journal*, Vol. 7, No. 3, 392-396.

Mumford, D. B., Nazir, M., Jilani, F. U., & Baig, I.Y. (1996). Stress and psychiatric disorder in the Hindu Kush: a community survey of mountain villages in Chitral, Pakistan. *The British Journal of Psychiatry*, 168, 299-307.

Mumford, D. B., Saeed, K., Ahmad, I., Latif, S., & Mubbashar, M. H. (1997). Stress and psychiatric disorder in rural Punjab. A community survey. *The British Journal of Psychiatry*, 170, 473-478.

Niaz, U., Hassan, S., & Hasan, M. (2007). Post-traumatic disorder (PTSD), depression, fear and avoidance in destitute women, earthquake

- survivors of NWFP, Pakistan. *Journal of Pakistani Psychiatric Society*, 4(1), 44-49.
- Oye, G., Lasebikan, V. O., Olosula, E. O., Olley, O. B., & Koka, L. (2005). Community study of knowledge of and attitude to mental illness in Nigeria. *British journal of Psychiatry* 186 (436-441).
- Shaikh, B.T. & Hatcher, J. (2005). Complementary and alternative medicine in Pakistan: Prospects and Limitations. *eCAM* 2005; 2(2),139-142.
- Statistics Division – Government of Pakistan (2009). Population by mother tongue. Available online: <http://www.statpak.gov.pk/depts/pco/statistics/other.tables/pop.by.mother.tongue.pdf>
- United Nations (2005). Pakistan 2005 Earthquake Early Recovery Framework. United Nations System, Islamabad, Pakistan.
- Ventevogel, P. (2005). From disaster to opportunity. *Journal of Pakistani Psychiatric Society*, 2(2), 59-61.
- WHO Department of Mental Health and Substance Abuse (2005). Mental Health Atlas 2005-Pakistan. WHO, Geneva, Switzerland, Available: <http://www.who.int/globalatlas/predefinedReports/default.asp>.
- World Health Organization (2008). Integrating mental health into primary care: A global perspective. WHO publication, ISBN 978 92 4 156368 0. 1211 Geneva, Switzerland.
- World Mission Atlas Project (2009). Country profile-Pakistan. Available online: <http://www.worldmap.org/maps/other/profiles/pakistan/Pakistan%20Profile.pdf>.

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