



## Not forgetting severe mental disorders in humanitarian emergencies: a descriptive study from the Philippines

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**Background:** Severe mental disorders are often neglected following a disaster. Based on Médecins Sans Frontières' (MSF) experience of providing mental health (MH) care after the 2013 typhoon in the Philippines, we describe the monthly volume of MH activities and beneficiaries; characteristics of people seeking MH care; profile and outcomes of people with severe mental disorders; prescription of psychotropic medication; and factors facilitating the identification and management of individuals with severe mental disorders.

**Methods:** A retrospective review of programme data was carried out.

**Results:** In total, 172 persons sought MH care. Numbers peaked three months into MSF's intervention and decreased thereafter. Of 134 (78%) people with complete data, 37 (28%) had a severe mental disorder, often characterised by psychotic symptoms (n=24, 64%) and usually unrelated to the typhoon (n=32, 86%). Four people (11%) were discharged after successful treatment, two (5%) moved out of the area, 20 (54%) were referred for follow-up on cessation of MSF activities and 10 (27%) were lost-to-follow-up. Psychotropic treatment was prescribed for 33 (75%) people with mental disorders and for 11 with non-severe mental disorders.

**Conclusions:** This study illustrates how actors can play an important role in providing MH care for people with severe mental disorders in the aftermath of a disaster.

**Keywords:** Crisis intervention, Disasters, Mental disorders, Mental health services, Philippines, Psychotic disorders

### Introduction

On 8 November 2013, category five Typhoon Haiyan (known locally as Yolanda) hit the Philippines causing considerable damage, especially in the Eastern Visayas islands.<sup>1</sup> An estimated 14.1 million people (14% of the entire population) were affected by the disaster, of which 4.1 million were displaced, 6201 died and 1785 were reported missing. More than 500 000 houses were destroyed and more than one million damaged.<sup>2</sup>

Populations affected by humanitarian emergencies generally experience significant social and psychological suffering. Among the most vulnerable, are people with pre-existing severe mental disorders.<sup>3,4</sup> A severe mental disorder is defined here as any severe psychiatric disorder, such as schizophrenia, bipolar

disorder, other psychotic disorders and severe major depression; or any condition where the individual suffers from a disturbed sense of reality and for which psychiatric medication is indicated as the first-line treatment.<sup>5</sup> Even under normal circumstances, persons suffering from severe mental disorders are often excluded from health services. In an emergency crisis, however, access to appropriate MH services is even more restricted.<sup>6,7</sup> This is compounded by the fact that during a humanitarian emergency response most agencies working in the mental health and psychosocial field focus on trying to address either the psychosocial environment (e.g. through child friendly spaces) or the immediate traumatic responses (e.g. through brief counselling). As such, the needs of people with severe mental disorders<sup>4</sup> are often neglected, despite the existence of

international guidelines on how they can be managed in emergencies.<sup>8,9</sup>

In response to the Typhoon Haiyan in the Philippines, Médecins Sans Frontières-Operational Centre Brussels (MSF-OCB) decided to concentrate its efforts in the severely affected area of Guiuan and its four surrounding municipalities. The MSF-OCB intervention included a comprehensive approach to mental health, including care for people with pre-existing and post-disaster severe mental disorders.

Based on this experience of providing MH care in the first five months after Typhoon Haiyan hit the Philippines, we report on the monthly volume of MH activities and beneficiaries; sociodemographic and care seeking characteristics of beneficiaries receiving MH counselling/care, stratified by the severity of their condition; profile and outcomes of patients with severe mental disorders; prescribing practice of psychotropic medication; and main factors facilitating the identification and management of individuals with severe mental disorders.

## Methods

### Study design

This was a retrospective descriptive study involving routine programme data.

### General setting

The Philippines is an island country in Southeast Asia with a population of about 97 million.<sup>10</sup> Poverty levels are high with half the population living on under US\$2 a day.<sup>11</sup> Health sector expenses are covered for 62% of the population by private financing, of which 84% are covered by out-of-pocket expenditures. Medicines account for 66% of out-of-pocket expenditure.<sup>12</sup> In the aftermath of Yolanda the government provided free health care for six months to communities in affected areas in order to increase access to care and prevent worsening poverty levels due to out-of-pocket expenditure.<sup>13</sup>

The Philippines has a national mental health programme which began in 2007 and which has sought to integrate MH care within the national health system to make it more accessible and equitable. Priority areas have included disaster-associated pathologies and decentralisation of MH care.<sup>14</sup> Even so, MH care in the country remains principally dependent on large psychiatric hospitals<sup>14–17</sup> and there is a serious shortage of MH specialists (0.38 psychiatrists and 0.22 psychologists per 100 000 inhabitants<sup>18</sup>). Furthermore, due to a lack of financing mechanisms for MH care, which are in almost all cases out-of-pocket expenditures, MH care is often only sought when a person has reached crisis point.

### Study setting

Eastern Samar was among the provinces most affected by Typhoon Haiyan. The province has a population of 4 288 777<sup>19</sup> and consists of 22 municipalities subdivided into barangay (community-based administrative areas). MSF-OCB's emergency response following Typhoon Haiyan targeted five municipalities: Guiuan, Mercedes, Salcedo, General Mac Arthur and Hernani, where most health facilities were completely or partially destroyed.<sup>20</sup> Some of

those municipalities have islands as well, one of which is more than three hours by boat from the main island.

Prior to the typhoon, a 50-bed district hospital (Felipe Abrigo Memorial Hospital) in Guiuan provided inpatient care for all patients from Guiuan and the surrounding municipalities. Most medical emergencies, including MH problems, were referred to tertiary hospitals in Tacloban city (about three and a half hours drive from Guiuan). In each municipality, there is a Rural Health Unit (RHU) that provides primary health care. The RHUs are connected to a network of Barangay Health Stations (BHS), small community-based facilities, each serving a barangay.

### MSF's emergency response

MSF intervened by erecting a tented hospital to replace Guiuan's damaged district hospital, rehabilitating five RHUs, and reconstructing water and sanitation facilities. The intervention also included the distribution of relief items, such as tents, as well as house and boat repair materials. Health care was provided in the tented hospital, in the five RHUs, in two evacuation centres (one in Guiuan and the other on one of the surrounding islands), and in the barangays of the islands. As the referral hospital in Tacloban had been severely damaged, the tented district hospital of Guiuan was upgraded in collaboration with Department of Health (DoH) staff to provide clinical and surgical care, as well as MH support, which, prior to the Typhoon, had been lacking.

### Emergency mental health care

MH activities were part of a comprehensive medical care package implemented nine days after the typhoon hit in collaboration with the DoH. Three types of MH activities were provided: psychoeducation activities, group discussion sessions and individual counselling/MH care (Table 1). These activities included counselling, psychoeducation and group activities in mobile clinics in the island barangays and in other hard to reach communities; counselling, psychoeducation and group activities in the Outpatient Department (OPD) of the five RHUs and the district hospital; and hospitalisation, medication and counselling in the inpatient department of the district hospital. Over time, mobile activities in the communities were progressively ended as a sense of normality was re-established, whilst MH care was developed further (on-call and scheduled counselling sessions) in Guiuan's RHU.

People with severe mental disorders were identified either by referral from medical teams or during group and individual counselling sessions. The need for psychotropic medication (initiation or continuity) was assessed by MSF doctors and psychologists. Psychotropic medications prescribed included antipsychotics, antidepressants, anxiolytics, anticholinergics and anticonvulsants, all part of MSF's standard list of drugs and in accordance with the WHO mental health gap action programme (mhGAP)<sup>21</sup> as well. All care and treatment was provided free of charge.

For all MH cases, no attempts were made to reach a 'final diagnosis'; the team worked towards reducing the severity of the patient's symptoms, increasing their psychological well-being and providing comprehensive treatment to optimise the patient's capacity to function as fully as possible.

**Table 1.** Description of the different types of mental health care activities provided following the typhoon in Eastern Samar Island, Philippines (November 2013–March 2014)

Type of MH activity	Description of the activity	Target population	Type of personnel delivering the care
Psycho-education	<ul style="list-style-type: none"> <li>• Periodic awareness-raising about the normal reactions of sadness and stress in response to an emergency such as a natural disaster</li> <li>• Information sharing and education about positive coping mechanisms</li> <li>• Referral of individuals when necessary for confidential and professional support</li> </ul>	<ul style="list-style-type: none"> <li>• Affected communities</li> <li>• Evacuation centres</li> <li>• Waiting areas in health centres</li> </ul>	<ul style="list-style-type: none"> <li>• MSF national lay-counsellors trained by an expatriate psychologist. All sessions delivered in the local languages (Waray or Tagalog)</li> </ul>
Group discussion sessions	<ul style="list-style-type: none"> <li>• Group discussions addressing specific themes and concerns raised by the group (e.g. how to cope with the fear of a new typhoon, when to refer someone for mental health care)</li> </ul>	<ul style="list-style-type: none"> <li>• Provided on request for all types of groups (for example community groups, schools (e.g. teachers), universities)</li> </ul>	<ul style="list-style-type: none"> <li>• Expatriate psychologists. Sessions translated directly into Waray or Tagalog</li> </ul>
Individual counselling/mental health care	<ul style="list-style-type: none"> <li>• Therapeutic sessions based on applying the principles underlying mental health care delivery in crises (IASC, 2007)</li> <li>• On-call and scheduled return visits</li> <li>• Patient referrals to inpatient care in the Regional Hospital</li> </ul>	<ul style="list-style-type: none"> <li>• Provided on spontaneous demand (self-referrals) and for anyone referred from either the health centres or by hospital doctors, nurses or midwives</li> </ul>	<ul style="list-style-type: none"> <li>• Expatriate psychologists.</li> <li>• Sessions translated directly into Waray or Tagalog</li> <li>• Local or expatriate GPs prescribed medication if needed</li> </ul>

GP: General Practitioner.

Once the RHUs and the district hospital in Guiuan were functioning at a level similar to their pre-typhoon level, a strategy was developed with the DoH and with the participation of WHO Country Office to sustain MH care after the emergency, even though MH care was lacking prior to the typhoon in this region. The strategy was two-fold: first, due to DoH staff having minimal knowledge and skill in the area of MH, a MH training programme was developed and implemented. A total of 30 staff were trained (general doctors, nurses and other cadres of health workers) on MH in primary care settings, including assessment, treatment and management of cases with common MH problems. The training was delivered by a psychologist, a psychiatrist and a doctor from MSF, the DoH and WHO Country Office in the Philippines, based on the mhGAP intervention guide.<sup>21</sup> The main purpose of this training was to scale up and institutionalise MH services as part of the recovery process after the disaster (Box 1). The WHO provided support and supervision to those trained through the mhGAP for the next six months. The second part of the strategy involved integrating MH care into the primary health care strategy and referring stable severe cases to the corresponding RHUs. Patient handovers were done through joint sessions with MSF psychologists and doctors in association with their closest RHUs. Follow-up of severe cases was assured at the RHUs and the district hospital, and psychotropic drugs were donated by MSF to the DoH.

**Box 1.** Main topics covered during the three-day mental health care training of 30 local healthcare staff in Eastern Samar, Philippines (March 2014)

- For nursing staff: training on basic counselling principles and skills including person-centred communication and interview structure, how to identify mental health needs, knowing when and where to refer individuals with such needs and how to provide basic emotional support to individuals and families accordingly to their needs;
- For both doctors and nurses: presentation of a clinical guideline based on the mhGAP 2010 Intervention Guide (WHO, 2010) addressing depression, anxiety, stress-related disorders, self-harm/suicide, psychosis, bipolar disorder and epilepsy;
- For doctors: specific use of psychotropic drugs recorded in the essential list for the most common mental disorders in the area (indications, dosages for different situations (e.g. such as a patient in crisis, treatment in the hospital, treatment at home, follow up treatment, decreasing of the dosages, etc.).

mhGAP: Mental Health Gap Action Program.<sup>21</sup>

## Study population

The study included all patients who sought MSF-supported MH care between 17 November 2013 and 7 March 2014, with a specific focus on those with a severe mental disorder.

## Data collection and analyses

Programme data were collected from November 2013 until March 2014 using standardised forms and encoded into an Excel database. Data pertaining to this study were sourced from this database and included the following variables: patient sex, age, origin, type of referral, type of MH session, reason for seeking MH care, MH symptoms, history of psychotropic medication, psychotropic medication prescribed and outcomes of care provided (single consultation only required, multiple consultations until clinical improvement reached, cessation of care due to patient moving out of the area, patient referral for further care or lost to follow-up). These data were cross-checked with information held in patients' individual files.

Data were analysed in Microsoft Excel software (Microsoft Corp., Redmond, WA, USA) using frequencies and proportions.

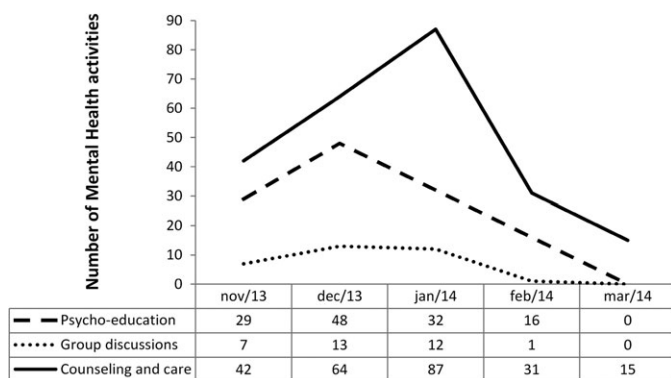
## Results

### Monthly volume of MH activities and beneficiaries

Figures 1 and 2 show monthly trends in the type and volume of MH activities provided and number of beneficiaries. The volume of psychoeducation and group discussion sessions peaked in December, was scaled down in January and February, and finally stopped in March. The number of new cases presenting for individual counselling sessions/ MH care increased gradually from December until January, dropping from February onwards. In total, 172 new cases received counselling/MH care.

### Sociodemographic and care seeking characteristics of MH patients

Among the 172 new cases who sought counselling/ MH care, data were only available for 134 (78%) of them. Table 2 shows the sociodemographic and care seeking characteristics of these individuals stratified by the severity of their condition. Over



**Figure 1.** Monthly trends in the volume and type of MSF-supported mental health activities provided after the typhoon in Eastern Samar, Philippines (November 2013–March 2014).

two-thirds were female, nearly half between 19 and 45 years old, and all except one from India were Filipino. Very few children or adolescents presented for care. Most often, patients were referred by health staff; sensitisation and psychoeducation sessions held in the surrounding communities and at MSF-supported facilities accounted for 16% of the referrals. Just over a quarter of cases were considered to have a severe mental disorder (diagnosed at the first consultation or during follow-up).

### Individuals with severe mental disorders

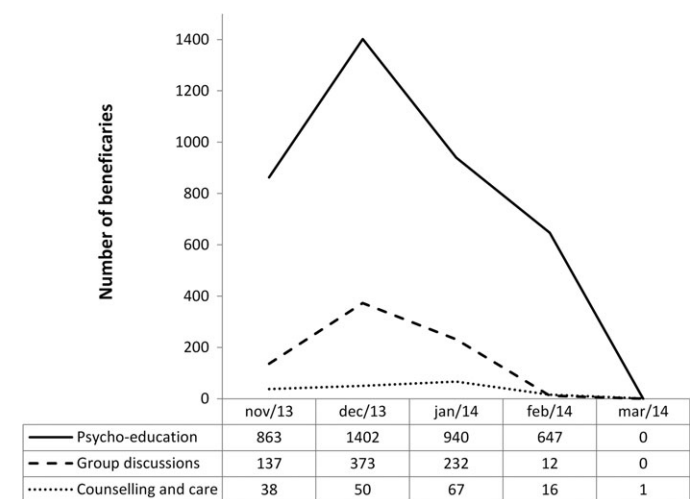
Table 3 shows the profile, clinical characteristics and treatment outcomes of the 37 individuals diagnosed with a severe mental disorder, according to whether their condition was triggered by the typhoon or not. Gender distribution for all cases was relatively even (54% females), and most were between 19 and 45 years of age. The typhoon itself was considered to be the trigger factor in only five (14%) cases; in the majority of cases, factors unrelated to the typhoon were deemed to be the precipitators. Two-thirds of the severe cases presented with psychotic symptoms. There were no epileptic related cases. Psychotropic medication was prescribed for most but not all of those 37 patients.

In terms of treatment outcomes, four patients (11%) either only required a single consultation or were discharged after clinical improvement, just over half were seen by MSF up until MSF activities ended and were then referred for treatment continuation at their nearest RHU, 10 (27%) patients were lost to follow-up and the remaining two (5%) moved out of the area to places where no referral care could be organised.

Two case examples of patients with severe MH disorders are presented in Boxes 2 and 3.

### Psychotropic medication

Of the 134 cases who sought MH care and for whom data were available, 44 (33%) were prescribed psychotropic medication. Table 4 shows the profile and treatment outcomes of these patients. Half



**Figure 2.** Monthly trends in the number of individuals benefitting from MSF-supported mental health activities following the typhoon in Eastern Samar, Philippines (November 2013–March 2014).

**Table 2.** Sociodemographic and care seeking characteristics of patients presenting for MSF-supported mental health care following the typhoon in Eastern Samar, Philippines (November 2013–March 2014)

Variable	Non-severe MH cases n (%)	Severe MH cases n (%)	Total n (%)
TOTAL	97 (72)	37 (28)	134 (100)
Gender			
Male	25 (26)	17 (46)	42 (31)
Female	72 (74)	20 (54)	92 (69)
Age (years)			
0–5	4 (4)	0 (0)	4 (3)
6–12	3 (3)	1 (3)	4 (3)
13–18	9 (9)	1 (3)	10 (7)
19–45	36 (37)	29 (78)	65 (49)
>45	44 (46)	6 (16)	50 (37)
Unknown	1 (1)	0	1 (1)
Type of referral*			
Health staff (NGO, DoH)	59 (61)	23 (62)	82 (62)
Referred after psycho-education or group	21 (22)	1 (3)	22 (16)
Referred by the community	12 (12)	10 (27)	22 (16)
Self-referral	5 (5)	3 (8)	8 (6)
Type of MH consultation			
Individual	71 (73)	13 (35)	84 (63)
Couple	3 (3)	1 (3)	4 (3)
Family	23 (24)	23 (62)	46 (34)
Type of consulting facility			
OPD of RHU or Regional Hospital	63 (65)	14 (38)	77 (57)
Mobile Clinic	21 (22)	16 (43)	37 (28)
IPD of Regional Hospital	13 (13)	7 (19)	20 (15)
Precipitating event (related by the patient)			
Disaster (typhoon or tsunami that followed)	49 (51)	8 (22)	57 (43)
Property destroyed	13 (13)	1 (3)	14 (10)
Death of family member	10 (10)	2 (5)	12 (9)
No major event	3 (3)	3 (8)	6 (4)
Other reasons	22 (23)	23 (62)	45 (34)

\*For first mental health consultation.

DoH: Department of Health; IPD: Inpatient Department; MH: Mental Health; NGO: Non-governmental Organisation; OPD: Outpatient Department; RHU: Rural Health Unit.

were already receiving or had already received psychotropic treatment before the typhoon, which was then either continued or altered by MSF. The majority of psychotropic prescriptions by MSF were for severe MH cases, but one-quarter were for non-severe cases.

Among the 44 persons prescribed medication, almost half were referred to DoH for continuation and follow-up of their medication once MSF activities ceased. One-fifth of these patients were lost-to-follow-up.

**Table 3.** Characteristics and outcomes of people diagnosed as having a severe mental disorder in MSF facilities following the typhoon in Eastern Samar, Philippines (November 2013–March 2014)

Variable	Precipitating event related to the typhoon		Total n (%)
	No n (%)	Yes n (%)	
TOTAL	32 (86)	5 (14)	37 (100)
Gender			
Male	14 (44)	3 (60)	17 (46)
Female	18 (56)	2 (40)	20 (54)
Age (years)			
0–5	0 (0)	0 (0)	0 (0)
6–12	0 (0)	1 (20)	1 (3)
13–18	0 (0)	1 (20)	1 (3)
19–45	27 (84)	2 (40)	29 (78)
>45	5 (16)	1 (20)	6 (16)
Time of diagnosis			
At first consultation	23 (72)	1 (20)	24 (65)
During follow-up	9 (28)	4 (80)	13 (35)
Main MH symptoms			
Non-specific symptoms	3 (9)	1 (20)	4 (11)
Anxiety disorders	1 (3)	0 (0)	1 (3)
Post traumatic reactions	0 (0)	1 (20)	1 (3)
Depressive disorders	4 (13)	2 (40)	6 (16)
Psychotic disorders	23 (72)	1 (20)	24 (64)
Other behavioural problems	1 (3)	0 (0)	1 (3)
Psychotropic medication prescribed			
No	2 (6)	2 (40)	4 (11)
Yes, for the first time	11 (34)	3 (60)	14 (38)
Yes, existing prescription continued/ altered	19 (60)	0 (0)	19 (51)
Outcomes			
Single consultation	1 (3)	1 (20)	2 (5)
Multiple visits until clinical improvement	2 (6)	1 (20)	3 (8)
Patient moved out of area	2 (6)	0 (0)	2 (5)
Patient referred	19 (60)	1 (20)	20 (55)
Lost to follow-up/ No follow-up information	8 (25)	2 (40)	10 (27)

MH: Mental Health.

### Key measures for identifying and managing individuals with a severe MH disorder

Box 4 shows the main components of the MSF strategy that were considered to be key in facilitating the identification and management of individuals with a severe MH disorder. Establishing partnerships by working together with local and other international agencies (in this case, the DoH and WHO) was one of the main factors, together with adopting a case-by-case approach in which

**Box 2.** Case presentation of a patient with a severe mental disorder triggered by the typhoon

Two months after the typhoon, a 30-year-old woman came to the hospital following a motorcycle accident. Aside from the physical pain caused by the accident, she presented with symptoms of a psychotic nature including confusion, hallucinations and delusion. According to her family, this was the first time she had displayed such symptoms. At the time, she was working with a humanitarian organisation in a job with considerable responsibility and was highly stressed due to the losses she had suffered as a result of the typhoon. She had however, needed to continue working. On presenting at the hospital, she was put on medication and was admitted to the hospital where she stayed for three days. Her medication dosage had to be adjusted as her symptoms remained relatively unchanged. Upon improving, she was discharged and went back to work. However, she was soon dismissed from work reportedly due to the stigma related to her hospitalisation. This created even more stress for her. She attended counselling sessions, during which the focus was on helping her to accept what had happened to her and on helping her to manage her reactions. Her symptoms disappeared after a few weeks and the counselling sessions were stopped. She continued on medical treatment and follow-up of her medication was assured by the DoH doctor from the hospital.

DoH: Department of Health.

the management strategy for each patient was tailored to their MH needs.

## Discussion

This is one of the few studies presenting data on individuals with severe mental disorders in the aftermath of a humanitarian disaster. In the first five months following the 2013 typhoon in the Philippines, severe mental disorders comprised over a quarter of MSF's MH caseload and most of these were pre-existing, i.e. not instigated by the typhoon itself. Just over a quarter of patients with a severe disorder were lost to follow-up and over half were able to be referred for follow-up care once MSF activities ceased. Psychotropic medication was prescribed for most of the severe cases and also for a small number of non-severe cases.

Despite international guidelines recommending that MH care in humanitarian emergency settings be integrated into primary health care services,<sup>5</sup> there is a scarcity of studies reporting on how to put this into practice, especially in the field of severe mental disorders. However, similar studies in Sudan<sup>22</sup> and the Philippines<sup>23</sup> also evaluate the integration of MH care, including care for severe disorders, into primary health care during emergencies. Those studies also attest that it is feasible, there is a demand, the follow-up of care is a challenge, and that the way forward normally relies on training and support to local teams composed of doctors, nurses and community workers.

Besides the fact that the above mentioned studies were conducted in conflict settings, the differences in findings between

**Box 3.** Case presentation of a patient with a severe mental disorder unrelated to the typhoon

A 40-year-old woman was brought to the hospital by her husband as a result of severe religious delusions and being in a manic state. She was admitted to the hospital. Initially the team believed this to be her first psychotic episode, starting after Yolanda (although the woman's family seemed familiar with her 'strange' behaviour). Initially, the woman refused any medication, considering it to be a poison. Later however, she agreed to take it following a prayer ritual. A few days later, she was still having hallucinations but began to be more collaborative and agreed to continue her medication at home under the supervision of her husband. One day after being at home, she was readmitted to hospital after refusing to take her medication. Upon re-admission, she absconded from the hospital. She however voluntarily attended a scheduled OPD consultation and resumed her medication. She was more oriented and also managed to talk about her delusions and hallucinations. A comprehensive community strategy was devised for her and subsequent follow-up consultations were carried out in partnership with the DoH doctor from the RHU nearest to where she lived. During these consultations, a previous history of another psychotic episode after delivering her youngest child (now about 8 months old) was realised. This previous crisis had started with sleep problems, followed by delusions about being pregnant with Jesus, hallucinations in which she heard God, disorganised speech and thoughts, and bizarre behaviour. These symptoms closely mirrored the symptoms of her most recent acute episode. Following two months of medication and counselling for her current disorder, she stabilised and continued with the same medication under the responsibility of the RHU doctor.

DoH: department of Health; OPD: Outpatient Department; RHU: Rural Health Unit.

these and our study are generally in relation to the profile of MH cases seen. First, children and adolescents made up nearly one-third of the caseload in Sudan, but only 13% in our setting. The fact that so few children presented for MH care in our project is potentially concerning. While we can only speculate, the situation in our setting likely reflects lack of community awareness about children's MH problems, lack of skills amongst health professionals to detect and treat these conditions, and lack of services and guidelines in the country about this group.

Second, while a high proportion of epileptic cases were seen in Sudan (50% of cases), we did not see any epileptic cases in our setting. The reasons for this may be similar to the ones presented above together with the possibility that such cases sought care elsewhere, for example from general practitioners.

Finally, the proportion of patients with a severe MH disorder was much higher in our setting than in Mindanao. This may be a result of several factors including contextual differences between the two settings together with the fact that active detection approach used in Mindanao might have led to the detection of a disproportionately high number of severe mental disorders.<sup>23</sup>

Linked to there being a relatively high proportion of severe disorders in our study, most of these disorders were pre-

**Table 4.** Profile and outcomes of patients prescribed psychotropic medication at MSF facilities following the typhoon in Eastern Samar, Philippines (November 2013 – March 2014)

Variable	Non-severe cases n(%)	Severe cases n (%)	Total n (%)
TOTAL	11 (25)	33 (75)	44 (100)
Gender			
Male	4 (36)	16 (48)	20 (45)
Female	7 (64)	17 (52)	24 (55)
Age (years)			
0–5	0 (0)	0 (0)	0 (0)
6–12	0 (0)	0 (0)	0 (0)
13–18	1 (9)	1 (3)	2 (4)
19–45	7 (64)	28 (85)	35 (80)
>45	3 (27)	4 (12)	7 (16)
First prescription done by MSF			
Yes	8 (73)	14 (42)	22 (50)
No	3 (27)	19 (58)	22 (50)
Main MH symptoms			
Non-specific symptoms	5 (46)	3 (9)	8 (19)
Anxiety disorders	4 (36)	1 (3)	5 (11)
Post traumatic reactions	1 (9)	0 (0)	1 (2)
Depressive disorders	1 (9)	4 (12)	5 (11)
Psychotic disorder	0 (0)	24 (73)	24 (55)
Other behavioural problems	0 (0)	1 (3)	1 (2)
Outcomes			
Single consultation	5 (46)	1 (3)	6 (14)
Multiple visits until clinical improvement	3 (27)	3 (9)	6 (14)
Patient moved out of area	0 (0)	2 (6)	2 (4)
Patient referred	1 (9)	20 (61)	21 (48)
Lost to follow-up/ No follow-up information	2 (19)	7 (21)	9 (20)

MH: Mental Health.

existing. We consider this an important finding that mirrors the findings from other studies,<sup>4,5,23</sup> i.e. that most conditions related to a humanitarian emergency event are non-severe and most severe conditions are pre-existing. What is not clear from our study, however, is what proportion of those severe cases presented because of the fact that our intervention removed previous barriers to MH care access (i.e. out of pocket fees and a lack of staff trained in MH care), therefore, making it possible for persons with pre-existing conditions to access care, and what proportion presented due to the worsening of their condition after the disaster. In relation to the latter, it is known that those emergencies can severely disrupt social structures and ongoing formal and informal care of persons with pre-existing disorders<sup>8</sup> not only due to physical and psychological impacts but also due to (new) socioeconomic problems caused by the disaster;<sup>24,25</sup> all of these factors have the potential to trigger a new crisis. In this way, we suspect that the high demand for MH care for

**Box 4.** Measures considered by MSF to be key for facilitating the identification and management of individuals with a severe mental disorder

- Community awareness raising about the provision and availability of effective services and resources to manage severe MH cases (irrespective of whether the MH symptoms were or were not related to the typhoon);
- Adoption of a case-by-case strategy;
- Ensuring the capability and resources to offer psychotropic medication;
- Ensuring access to an IPD for the most severe cases or persons under crisis;
- Collaboration with DoH and WHO in the implementation and running of a training programme for local health staff about how to manage severe mental health cases (mhGAP);
- Collaboration with local and expatriate medical and nursing staff both from RHUs and Felipe Abrigo Hospital;
- Comprehensive handover process between international staff and local doctors and nurses at the time of patient referral.

DoH: Department of Health; IPD: Inpatient Department; mhGAP: Mental Health Gap Action Program; RUH: Rural health Unit.

severe disorders in the immediate aftermath of this typhoon was a reflection of these disaster-related factors superimposed on a high prevalence of unmet pre-disaster MH needs and on the offer of free care. Nevertheless, further research from humanitarian emergency settings is needed to better understand how much of the demand for MH care for pre-existing severe disorders is due to the actual emergency itself and how much is due to external organisations entering an emergency context, identifying and addressing key systemic and structural problems and necessarily increasing the offer of care. In our opinion, this is what happened in our intervention and, as such, it could be reasoned that emergency humanitarian interventions for severe MH conditions are not so different than capacity building non-emergency interventions.

Another pertinent finding in our study, which corroborates what is reported in the literature,<sup>5,23,26</sup> was that the majority of MH symptoms displayed by the persons affected by the disaster were non-severe. In practice, this means that in most cases, such individuals can be managed with simple, short-term interventions and that non-specialised health staff can be trained to deliver these interventions.

Finally, over one-quarter of all patients presenting with a severe mental disorder were lost to follow-up and this is concerning given that many of these patients had chronic MH conditions that may have deteriorated without follow-up care and support. Programmes offering care for people with severe mental disorders in humanitarian emergencies have also reported high rates of loss-to-follow-up.<sup>22</sup> Possible reasons for this may have included: distance and transport costs; a patient moving out of the area unbeknownst to the MH team; clinical improvement leading to the patient deciding that no further support

and treatment was needed; and stigma. Qualitative research would help to better understand these reasons.

There are some useful reflections from our experience of providing MH in a humanitarian emergency. First, we feel that integration of MH care into general health care seems to be the most important aspect of any mental health intervention in a humanitarian emergency context. Unlike a vertical based approach, we believe that this type of approach ensures better access to services and provides opportunity for the MH needs of the community to be met and are also more likely to be sustained once MSF services are handed over after the acute emergency.

Second, the intervention needs to be tailored to the local context, needs and resources. In Guiuan and the surrounding area, MSF identified that provision of MH care for people with severe disorders was severely hampered because of damage to the public health system, lack of human resources, limited supplies of psychotropic medication and the high cost of treatment.<sup>13</sup> As such, MSF helped to fill these gaps by ensuring a sufficient pool of appropriately skilled staff comprising a balanced mix of international staff, locally-hired MSF staff and DoH staff; ensuring the capacity to offer psychotropic medication; and providing all care and treatment free of charge.

Third, collaboration with other agencies formed a key part of our strategy, both in terms of integrating MH care into primary care services and capacity building through staff training. Capacity building was deemed to be important based on the underlying principle that even though MH needs are likely to be greatest during or immediately after an acute emergency, the population is best helped when there is a focus on the medium and long-term development of services.<sup>8</sup> Capacity building was aimed at ultimately supporting ongoing MH care provision and also trying to instil the will and motivation among local health actors to better prioritise MH care. Unfortunately, although we have been unable to assess the success of our capacity building efforts, we believe that this is an area that would benefit from further study.

Fourth, outreach and awareness raising activities seemed to be a key element for trying to ensure that MH needs (disaster related and pre-existing) within the population were identified and met.

Finally, although no treatment was offered without assessment, MSF was not specifically focused on making formal MH diagnoses in Guiuan for several reasons: staff trained to provide MH care often did not have the skill to make an accurate MH diagnosis; many MH clinical signs in a humanitarian emergency can reflect normal reactions to an abnormal situation and, therefore, cannot be necessary labelled with a specific diagnosis; and we are never sure if a patient would be able to return for follow-up. As such, MH care tends to be focused on managing a patient's signs and symptoms and improving his/her functionality. The advantages of this symptom-based approach were that we were able to alleviate a considerable part of the suffering of patients and, at the same time, equip national medical staff with the necessary skills to independently manage these patients. The potential disadvantage of not implementing a more formal diagnostic approach was that optimal treatment options may not have been utilised in the medium to long term. In the context of a humanitarian emergency however, MSF has felt that the advantages of a symptom-focused approach out-weigh the advantages of a diagnostic-focused approach.

Our study findings have several important policy and practice implications. First, emergency response teams (national and

international) need to place far greater focus on people with severe mental disorders in emergency settings. Whereas the acute and mild/moderate symptoms of people affected by an emergency can often be managed with simple short-term psychological intervention, individuals presenting with severe mental health conditions, linked or not to the event, often require more lengthy and complex interventions. Irrespective of the underlying cause, we believe that the MH needs of those affected by an emergency event should by no means be deprioritised or neglected, but the needs of people with pre-existing severe conditions should be given greater priority than they currently are. Second, as holistic an approach as possible should be adopted to manage these individuals. This means trying to implement a comprehensive package of treatment that is not based solely on medication, and that attempts to take into consideration cultural and community factors as well as psychosocial factors, such as a history of mental disorder and eventual need for long term follow-up.<sup>4,5,24,27</sup> Third, comprehensive data collection systems need to be implemented right from the start of any intervention so that reliable data can be collected, analysed and shared for lessons learned. Finally, in parallel to the immediate emergency response, local capacity building measures should be undertaken to try to ensure sustainability of care, given that many of these patients require long-term follow-up of their conditions.

There were a number of study limitations. First, data pertaining to this study were based on programme data collected by the team on the ground to orient MH activities, rather than with specific research objectives in mind. Thus, the depth of information that can be elicited from certain variables was sometimes limited. Second, data were not available for one fifth of cases presenting for counselling/ MH care because those were cases seen before the team had implemented a comprehensive data collection system. Third, although MSF took measures to try to ensure the sustainability of care and follow-up for people with severe mental disorders, the longer-term outcomes of these actions could not be formally assessed. Finally, our data do not allow us to estimate the coverage of our intervention for severe mental cases as no baseline information was available.

In conclusion, this study demonstrates the need for provision of MH care for people with severe mental disorders during emergencies, particularly those with pre-existing conditions. We propose that integration of full-package MH care into general health care is perhaps the most important aspect of any MH care in a humanitarian emergency context, together with collaboration between other actors, particularly local and established organisations in a country. More qualitative research is needed to guide MH intervention strategies, especially for children and patients with pre-existing severe conditions.

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**Authors' contributions:** ACAMW, MGG, EB, NS, KTS and EA conceived the study; ACAMW, MGG, KTS, NS and EB designed the study protocol; ACAMW and MGG carried out the retrospective clinical assessment and analysis and interpretation of these data. ACAMW, MGG and KTS drafted



the manuscript; MCF, EB, NS, EA, DPN and MVO critically revised the manuscript for intellectual content. All authors read and approved the final manuscript. ACAMW, MGG and KTS are guarantors of the paper.

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