

Full Length Research Paper

Up scaling mental health and psychosocial services in a disaster context: Lessons learnt from the Philippine Region hardest hit by typhoon Haiyan

Boris Budosan^{1*}, Katherine P. O'Hanlon², John Mahoney³, Sabah Aziz⁴, Ratnasabapathipillai Kesavan⁵ and Kathryn Beluso⁶

¹Vocarsko Naselje 22, 10000 Zagreb, Croatia.

²Finger Lakes Health, Geneva, NY, USA.

³Centre for Global and Cultural Mental Health Melbourne School of Population and Global Health 207 Bouverie Street
The University of Melbourne Parkville 3010 VIC Australia.

⁴490 Mansehra Road, 22010 Abbottabad, KPK, Pakistan.

⁵WHO office. Avenue Mamba, P.O. Box 316, Monrovia, Liberia.

⁶Capiz Emmanuel Hospital Inc., Roxas Avenue, Roxas City, Capiz, Philippines.

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In the aftermath of typhoon Haiyan which struck Philippines in 2013, the World Health Organization Philippines in collaboration with the Philippine government acted to improve access to mental healthcare in affected regions. Eastern Visayas with population 4, 3 million had merely four psychiatrists and seven generalists providing mental health care. It was selected as a model region for integration of mental health care into primary and secondary care. This study was carried out to evaluate the intervention's success in strengthening mental health services in Eastern Visayas with particular regard to availability, accessibility and affordability of these services. Between June 2014 and March 2015, 1038 community workers were trained in psychosocial care and support and 290 non-specialized healthcare providers received training on assessment and management of mental health conditions including on-the-job supervision. By the end of the March 2015, 155 of 159 or 97.5% of primary healthcare units, 21 of 24 District Hospitals (87, 5%) and all eight provincial hospitals had a doctor and a nurse trained in assessment and management of mental health conditions. The supervised sessions in each locale benefited 50 to 200 patients per location. Regional Medical Centre added a 10 bed inpatient unit for the mentally ill. All provincial hospitals developed the capacity to admit 2 to 4 patients for acute psychiatric care and additional capacity was established in at least 6 district hospitals. In addition, services were enhanced to include access to and use of psychotropic medicines, cross-sectoral collaboration and a clinical referral pathway from the community to the tertiary level. This study demonstrates the feasibility of an intervention in a resource poor context, post-disaster, to improve access to mental healthcare care services over a relatively short period of time.

Key words: Mental health; Philippines, typhoon Haiyan (Yolanda), WHO, Eastern Visayas.

INTRODUCTION

The mental health effects of disaster are best addressed through existing services and capacity building initiatives

to enhance these services; rather than the development of parallel systems (Perez-Salez et al., 2011). Countries

have improved their mental health services following major manmade or natural disasters (World Health Organization, 2013a). In Sri Lanka after the 2004 tsunami, 500 community-level workers were recruited, trained and appointed by the WHO to 14 tsunami-affected districts (Mahoney et al., 2006) and in two districts, non-specialized healthcare providers were trained (Budosan et al., 2007; Budosan and Jones, 2009). In Aceh, an area in Indonesia hardest hit by 2004 Tsunami, 483 people received mental health services in the first year after the disaster thanks to the joint effort of INGO International Medical Corps (IMC) and the Ministry of Health (MoH) to build local capacity at the primary healthcare (PHC) level (Jones et al., 2007). In Haiti, after the 2010 earthquake, 190 community-level workers and 115 non-specialized healthcare providers were trained and 616 mental health consultations were provided by INGO Cordaid in cooperation with local NGO partners (Budosan et al., 2014).

The Philippines has a natural vulnerability to disasters, and resources are scarce for disaster preparedness and response (Landoy et al., 2015). Although Philippine research demonstrated the feasibility of mental health (MH) care at the primary level; prior to typhoon Haiyan its integration was predominantly within a demonstration project (Conde, 2004). After typhoon Haiyan struck the Philippines, mental health services including psychological first aid to typhoon survivors and referral services for post-traumatic stress disorder, were identified by the WHO as one of priority interventions (World Health Organization, 2013b). In addition to addressing the immediate mental health needs of affected communities, WHO Philippines and the Philippine government collaborated to strengthen mental health services in regions affected by typhoon Haiyan. Eastern Visayas (Region VIII) was selected as the model region for the intervention. The main objectives of the intervention were to increase availability, accessibility and affordability of mental health services.

Pre-typhoon epidemiological data on prevalence of mental health problems were unavailable for Eastern Visayas. The WHO Disability Assessment Schedule (WHODAS) survey was undertaken in Eastern Visayas during the period from May to July 2014. It was based on WHODAS 2.0, a 36-items disability assessment tool that examines individuals' functional capabilities in the previous month as affected by a health condition. Survey results (World Health Organization - Department of Emergency Risk Management and Humanitarian Response, 2015) indicated that 40% of the people living in the affected communities had severe disability, physical or mental- that resulted in difficulty with mobility,

understanding and communicating, and participating in society. While mobility issues likely resulted from physical disability post-typhoon, the high scores in the other two domains more likely resulted from mental and psychosocial problems. The community based rehabilitation intervention in Eastern Visayas has already been described elsewhere in the literature (Benigno et al., 2015).

This study's rationale was to determine the success of the intervention in strengthening mental health services in Region VIII as measured by availability, accessibility and affordability of mental health care for the general population. The primary assumption of the study is that the intervention resulted in greater availability and accessibility of mental health services in Region VIII and that these services were affordable at the level of the general population.

MATERIALS AND METHODS

Study area, provider and population

WHO's Philippines' mental health/psychosocial support (MHPSS) program was conducted in the second half of 2014 and first quarter of 2015. Eastern Visayas with a population of 4.3 million people was selected as a model region for integration of mental health care into primary and secondary care. The effects of the typhoon were variable throughout Eastern Visayas, but all six provinces were selected for the intervention (Figure 1).

Primary healthcare units consisting of rural health units (RHUs) and city health units (CHUs) and government hospitals were involved in the intervention to increase access to mental health care for 4,292,522 beneficiaries (Table 1). WHO selected a multi-disciplinary MHPSS team including: a team leader with extensive experience in post-disaster settings, an international health systems expert, an international mental health expert, an international consultant for psychosocial support, five local psychiatrists and one psychiatric nurse. All were selected based on keen interest in assisting the affected population, broad knowledge of primary healthcare and MHPSS issues, and devotion to the integration of mental health care with primary care. Personal characteristics and professional qualifications were also considered. The program was later assisted by one international pharmacist and one international expert on alcohol problems. The areas of responsibility (AORs) were divided among MHPSS team members.

In most cases, international and local staff worked in a close cooperation, especially during delivery of training activities. The full implementation of the MHPSS program in Eastern Visayas was performed in close coordination with the INGO International Medical Corps (IMC). IMC took responsibility for training in 18 municipalities and two cities and took the supervisory role in all 43 municipalities in Leyte. Six international and two local psychiatrists supported IMC's MHPSS activities at various stages of the project. Community workers received training on psychosocial care and support. Non-specialized healthcare providers received mhGAP training on assessment and management of common mental health conditions and conditions specifically related to stress. These providers also

*Corresponding author. E-mail: bbudosan@yahoo.com.

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Table 1. Health facilities in Eastern Visayas targeted by MHPSS intervention (by province / city).

Province / city	RHUs and CHUs	District hospitals	Provincial hospitals	Population (PSA, 2010)
Biliran	7	0	1	161,760
Leyte	43	5	2	1,567, 984
Southern Leyte	21	4	1	399,137
Samar	26	3	1	733, 377
Eastern Samar	24	5	1	428,877
Northern Samar	24	6	1	589,013
Tacloban City	8	0	1	221,174
Ormoc City	6	1	0	191,200
Total	159	24	8	4,292,522

Table 2. Objectives and activities at each level of healthcare system.

Level	Specific objective	Activities
Community	To increase capacity of various categories of community workers in provision of psychosocial care and support	Training in psychosocial care and support
Primary health care	To increase capacity of non-specialized healthcare providers	mhGAP training of non-specialized healthcare providers On-the-job supervision Provision of essential psychotropic medications Training on alcohol use disorders
Secondary healthcare	To increase secondary/hospital inpatient care capacity for severe cases and emergency treatment	Establishment of units for acute psychiatric care in provincial and district hospitals

received on-the- job training (supervision) in their health facilities

Design

The training intervention plus supervision lasted 10 months. In all areas, theoretical trainings were provided separately to community workers and non-specialized healthcare providers. Training group size varied from seven to more than 50 trainees. Supervision sessions were provided to non-specialized healthcare providers after the theoretical training. The intervention aimed to strengthen mental health services at three levels: (1) Community; (2) Primary healthcare, and (3) Secondary healthcare level (Table 2). During the initial phase, the existing training module for community workers was reviewed and training materials were piloted. At project end, the modules were modified as appropriate for training of midwives and barangay health workers. The mhGAP Intervention Guide (World Health Organization, 2010) and mhGAP presentations developed previously by WHO were used for training of non-specialized healthcare providers. The mhGAP module on assessment and management of conditions specifically related to stress (WHO and UNHCR, 2013), was used in training both community workers and non-specialized healthcare providers.

WHO's MHPSS team held training sessions for community workers and non-specialized healthcare providers in rented spaces of hotels and also at the WHO facility. Local consultants assisted with some of the trainings. Learning methods employed during the training were: Guided study with print-based modules, video materials, relevant Web resources, role playing, field demo/practice,

case studies, games, group discussions and interactive lectures. Operationalization of mental health services was discussed at completion of the theoretical training. Topics included: (1) Anticipated challenges for provision of mental health services at RHU, CHU and district hospital levels; (2) Mode of post-training supervision; (3) Functional indicators for mental health services at RHU/CHU and hospital level; (4) Resource mapping, and (5) Setting up in-patient and out-patient mental health services.

Data collection and analysis

The intervention was evaluated by the following parameters: (1) Availability and access of mental healthcare services with indicator of government health units in targeted areas with mhGAP trained health staff; (2) Affordability of mental health services with indicator of affordability of psychiatric medications and (3) Improved mental health competencies of trained staff. The number of government health facilities with mhGAP trained staff was monitored by each member of WHO's and IMC's MHPSS team in assigned AOR, as reported on a monthly basis. Each primary healthcare unit prepared monthly medicine consumption reports as medicine requests sent to the National Centre for Mental Health (NCMH) and National Centre for Pharmaceutical Access Management (NCPAM). Additional evaluative measures included satisfaction with various aspects of training by 3-point Likert scale survey, including: (1) Overall quality of training; (2) Length of training; (3) Lectures/instructions of trainer; (4) Participatory nature of training; (5) Acquired confidence to assess mental conditions, and (6)



Figure 1. Map of Eastern Visayas and its provinces.

Acquired confidence to manage mental conditions. All aspects of training were evaluated as very good, moderate or in need of improvement. Observation and evaluation occurred during supervision visits to government health facilities which were conducted by WHO's and IMC's MHPSS team in their AORs. Evaluated categories included: (1) History taking of presenting problem; (2) Thoroughness of mental status examination; (3) Demonstration of communication skills/empathy; (4) Knowledge of pharmacologic treatment options; (5) Knowledge of applicable psychosocial interventions; (6) Education of patient on diagnosis, treatment, side effects; and (7) Documentation of patient encounter. All results from all AORs were analysed by the WHO office in Manila and summarized in the final report (World Health Organization - Department of Emergency Risk Management and Humanitarian Response, 2015).

Ethical considerations

A close cooperation with the Philippine government and its Department of Health (DOH) occurred to ensure approval of MHPSS activities and their alignment with the national objectives for mental health. Informed consent was sought from patients during on-the-job supervision after the purpose of the intervention was explained. Confidentiality of the information was ensured by absence of patient identifying data on the study documents. There was no monetary compensation for this study.

RESULTS

Availability, accessibility and affordability of mental health services

In one year, the intervention increased the likelihood that

1038 trained personnel would properly provide community based MHPSS services. Those trained were 609 community health workers, 126 teachers and school guidance counsellors, 87 social workers, 127 first responders (firefighters and police personnel) and 89 others (local government unit, NGO, community first responders). The intervention increased the likelihood that 290 non-specialized healthcare providers, [130 medical doctors (MD) and 160 public health nurses (PHN)] would properly manage MH problems in general healthcare. At project end, 155 of 159 or 97.5% primary healthcare units [rural health units (RHUs) and city health units (CHUs)] in Region VIII had at least one healthcare provider (doctor or nurse) trained in mhGAP. Of 24 District Hospitals (DH), 21 or 87.5% had a doctor and a nurse trained in mhGAP. All eight provincial hospitals had at least one doctor and one nurse who could provide early assessment, treatment and management of common mental health problems (Table 3). Consequently, mental health care became more available and more accessible for the population of Eastern Visayas. Mental health medicines were included in the medicine supply packs that the NCPAM regularly delivered to the RHUs and CHUs. Thus, mental health medicines were also made more affordable for the general population in Region VIII. The Regional Mental Health Committee composed of representatives from: DOH, Department of Education, Department of Social Welfare and Development (DSWD), Philippine National Police (PNP), local government units (LGUs), PhilHealth and NGOs; was established for

Table 3. Number of health facilities in Region VIII with trained non-specialized healthcare providers (% in brackets).

Province / City	No. of RHUs and CHUs		No. of district hospitals		No. of provincial hospitals	
	Total	With at least one health practitioner trained on mhGAP	Total	With a doctor and nurse trained on mhGAP	Total	With a doctor and nurse trained on mhGAP
Eastern Samar	24	22 (92%)	5	5 (100%)	1	1 (100%)
Samar (Western Samar)	26	24 (92%)	3	2 (67%)	1	1 (100%)
Northern Samar	24	24 (100%)	6	4 (67%)	1	1 (100%)
Biliran	7	7 (100%)	0	0	1	1 (100%)
Leyte	43	41 (95%)	5	5 (100%)	2	2 (100%)
Southern Leyte	21	21 (100%)	4	4 (100%)	1	1 (100%)
Ormoc city	6	6 (100%)	1	1 (100%)	0	0
Tacloban	8	8 (100%)	0	0	1	1 (100%)
Total	159	155 (97%)	24	21 (88%)	8	8 (100%)

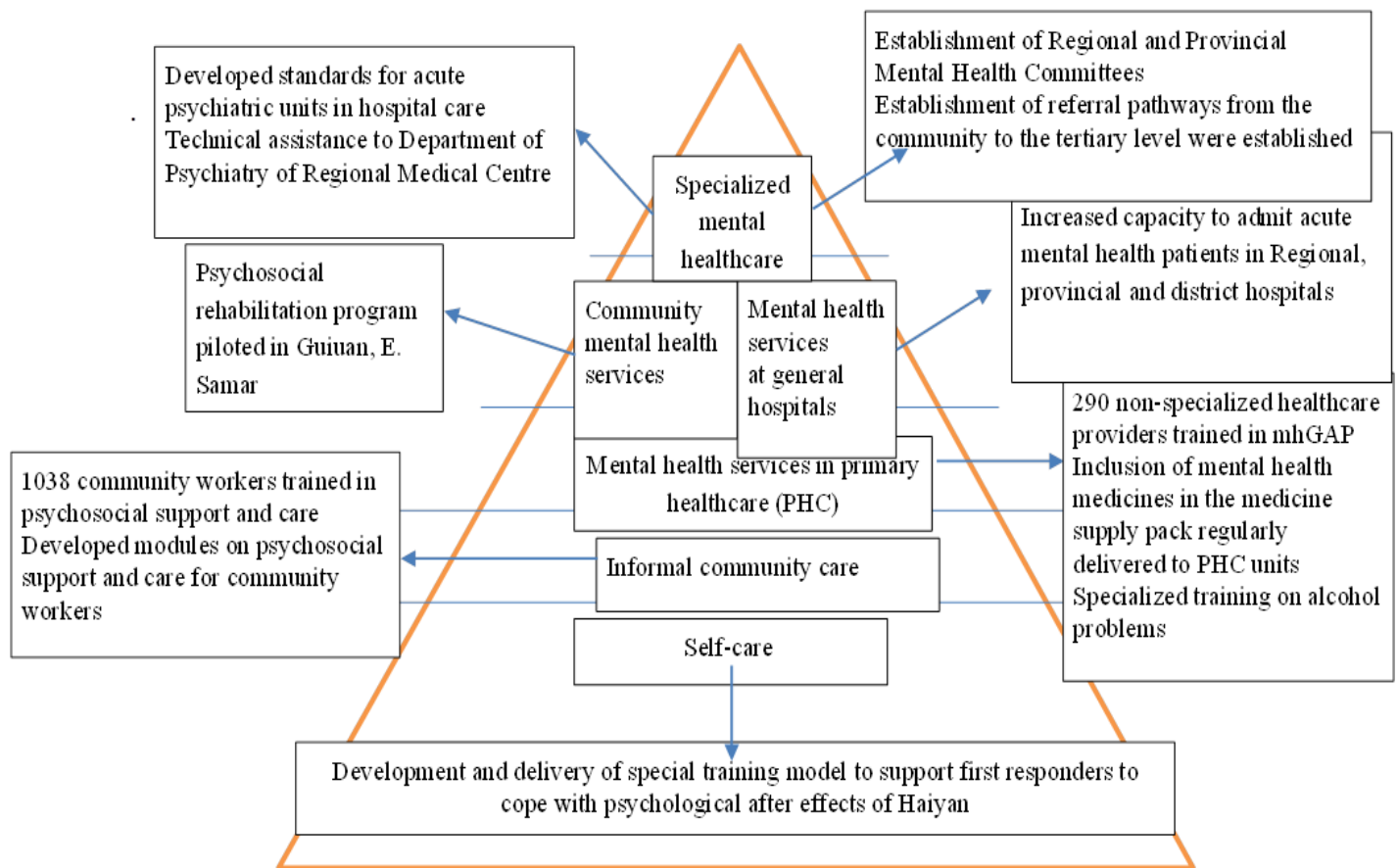


Figure 2. Summary of main achievements of MHPSS intervention in Eastern Visayas.

oversight. Provincial and City MHPSS committees were established as well. Use of the Two-Way Referral Form was encouraged for patient consultation to the psychiatrist or back to the referring institution. Figure 2 summarizes the main achievements of the intervention.

Mental health competencies of trained staff

The majority of non-specialized healthcare providers agreed that the most important knowledge / skills learnt in their training were: (1) Assessment and management of

- Mental health system of disaster-affected area can be significantly strengthened within a relatively short period of time, post-emergency
- Mental health system can be simultaneously strengthened at community, primary healthcare and secondary healthcare level, post-disaster
- Medicine Access Program for Mental Health, cross-sectoral collaboration and establishment of referral pathways from the community to tertiary level are important components of mental health system strengthening

Figure 3. Summary of main lessons learnt.

various mental health conditions; (2) Psychoeducation and (3) Pharmacotherapy. The majority of community workers noted most important training elements to be: Mental health conditions, communication with mental health patients, and referral system/organization of services in the community. Almost half of non-specialized healthcare providers noted that after theoretical training they were only somewhat confident in assessing and managing mental health conditions as described in mhGAP-IG; and a significant number of them said they were not confident. Most community workers said they were very or somewhat confident in providing psychosocial care and support services after their theoretical training, but a significant number of them said they were not confident. There were 50 to 200+ patients per site (province/city) who benefited from mental health services provided during supervision sessions. Although the majority of supervised non-specialized healthcare providers demonstrated good communication skills/empathy in patient encounters, lack of time often prevented them from taking a proper history for the presenting problem and performing a thorough mental status examination. In the majority of cases, they were able to properly diagnose the mental health condition; but they had difficulty with diagnosing more than one mental health condition in the same patient (co-morbidity). A challenge for the providers noted during supervision was proper prescribing of psychotropic medicines, especially when changing psychotropic medicines from the ones previously prescribed by private psychiatrist to the ones recommended by mhGAP. Most of the providers were able to educate the patient on diagnosis, treatment and side effects. A lack of standardized forms created difficulty with documentation of the patient encounter and patient records. Although most of the non-specialized healthcare providers were familiar with applicable psychosocial interventions; lack of time prevented them from actually delivering the complete care. Knowledge of the basic alcohol intervention was strengthened during a separate training program on alcohol use disorders in Tacloban city. At outreach clinics, trained health-care

workers were able to identify people with alcohol problems and provide them with treatment plans (Czaicki et al., 2015).

DISCUSSION

The study results confirmed the main assumption that MHPSS intervention would result in more available, accessible mental health services in Region VIII and that these services would be more affordable to the general population. At one year, the intervention strengthened the mental health system in Region VIII at the community level by training more than 1000 community workers in psychosocial care. At the primary level, 95% of government facilities had at least one MD or PHN trained in mhGAP-IG. At the secondary level; the Regional Medical Centre, provincial and district hospitals increased capacity to admit acute mental health patients. The Medicine Access Program (MAP) for Mental Health improved access and use for psychotropic medicines according to WHO recommendations (World Health Organization, 2005a). By project end, the NCPAM - a Department of Health administrative unit for the Medicine Access Program; coordinated the supply chain for psychotropic medications in conjunction with other medicines under their administration. This led to the inclusion of mental health medicines in the medicine supply packs that the NCPAM regularly delivered to the RHUs and CHUs. Cross-sectoral collaboration and clinical referral pathways from the community to the tertiary level were established (Figure 3). Collaboration within the health sector and with agencies outside the health sector is essential if outcomes related to mental illness are to be improved (World Health Organization, 2003).

The local environment was quite accepting of the intervention, because the main stakeholders of government and health authorities, health care providers and workers; were highly motivated to improve mental health services in their locales. All of them expressed

satisfaction with the results of the intervention. The high level of engagement in this intervention is best evidenced by the participation of almost 1300 non-specialized healthcare providers and community workers from 184 (95%) health facilities in all administrative areas of Eastern Visayas. This level of local support is important because community stakeholders can play a critical role in achieving better outcomes for MH care and psychosocial well-being (Ventevogel et al., 2012).

The project developed a critical mass of mhGAP-trained staff at the local level who can sustain and continue to develop the ongoing mental health care. The Eastern Visayas intervention considerably strengthened the local system of MHPSS services, especially in terms of human resources for mental health. Human resources are the most valuable asset of a mental health system (World Health Organization, 2005b). Because healthcare in the Philippines is managed at the local level, trained staff in local health facilities will play a major role in cementing the progress of the project. Another strategy that will promote sustainability is the strengthening of inter-sectoral collaboration at the local level.

The great majority of patients seen during supervision sessions were those with chronic psychosis who had not received treatment for some time. Patients with bipolar disorder and epilepsy were also seen with disproportionate frequency. The trend of increased utilization of mental health services in Eastern Visayas has been noticed during supervisory visits, but requires ongoing documentation with quantitative means. Supervisions in the field confirmed that it was more difficult for non-specialized healthcare providers to implement newly acquired methods than to understand them. Challenges in training non-specialized healthcare providers to modify their clinical practice have been documented in other disaster settings. For example, in Lebanon, a significant number of doctors continued to maintain their old prescribing habits in spite of the intervention for change (Hijazi et al., 2011).

Interventions in other countries post-disasters (Mahoney et al., 2006; Jones et al., 2007; Budosan et al., 2008; Ventevogel et al., 2012; Budosan et al., 2014) improved somewhat the systems of mental health services quickly after the disaster, those interventions were less comprehensive than the Philippine program in the first year after disaster. Prior efforts have established such components as a sustainable system of distribution, prescription and use of psychotropic medications; and an increase in local hospital capacity for admission of acute psychiatric patients only later after disaster. One possible explanation is that the WHO is better positioned than INGOs to implement comprehensive mental health interventions post-disaster because of its positive image and reputation among beneficiaries and humanitarian actors. Moreover, the WHO's apolitical status helps facilitate rapid collaboration with varied actors post-disaster. An incorporated goal of this intervention was a

strong and resilient system of MHPSS services across the region which would be prepared for future disasters. Functional resilience of the mental health system in Eastern Visayas was strengthened by augmenting the number of personnel trained in mental health and number of facilities capable of providing mental health services. This better prepares the system to cope with disasters that increase rates of distress and mental health problems.

According to the WHO (World Health Organization - Western Pacific Region, 2015), all routine health services, including routine mental health services should be capable of performing effectively under impact of a new hazard, and handling the workload originating from an emergency.

Limitations

The intervention and deliverables described in this study were not without limitations. The program lacked a formal needs assessment but baseline data were collected during field visits by WHO's MHPSS team to Eastern Visayas health facilities at inception of the intervention. Initial field visits identified areas of concern for improvement as: Absence of mental health programs, shortages of psychiatric medications and lack of mental health care knowledge/skills of non-specialized healthcare providers; but these concerns were not quantified. Formal predetermined metrics for evaluation were missing, although success was measurable as described previously. A comprehensive mental health education campaign and mental health advocacy with consumer groups were absent from the intervention.

Conclusion

The Philippine project, as evaluated in this study, supplied a critical mass of mhGAP-trained staff at the local level to develop and sustain mental health activities. Because health care in the Philippines is managed at the local level, trained staff at local facilities plays a major role in cementing and furthering the achieved advances. Up scaling of mental health care services after emergencies has been accomplished in diverse areas worldwide, and is best followed by sustainable efforts for health system development.

Future research might focus on routine clinical outcome data and quality of life indicators for beneficiaries, e.g. well-being, resilience and ability to function in daily life (Williamson and Robinson, 2006; Rajkumar et al., 2008; Ayazi et al., 2015).

Conflict of Interests

The authors have not declared any conflict of interests.

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