

An integrated program to train local health care providers to meet post-disaster mental health needs

Stan Kutcher,¹ Sonia Chehil,¹ and Thorne Roberts²

Suggested citation

Kutcher S, Chehil S, Roberts T. An integrated program to train local health care providers to meet post-disaster mental health needs. *Rev Panam Salud Publica*. 2005;18(4/5):338–45.

ABSTRACT

This paper describes a post-disaster mental health training program developed by the International Section of the Department of Psychiatry at Dalhousie University (Halifax, Canada) and delivered in Grenada after Hurricane Ivan struck the country in September 2004. This train-the-trainer program used an integrated community health model to help local health care providers develop the necessary skills for the identification and evidenced-based treatment of mental disorders occurring after a natural disaster. The approach also provided for ongoing, sustainable mental health care delivered in the community setting, as advocated by the World Health Organization and the Pan American Health Organization. This approach is in contrast to the largely ineffective and costly vertical whole-population psychosocial counseling activities that have often been used in the Caribbean following natural disasters.

Key words

Disasters; mental health services; emergency services, psychiatric; stress disorders, post-traumatic; education, professional; Caribbean region.

The Indian Ocean tsunami disaster of December 2004 as well as the increasing frequency of severe hurricanes and flooding in the Caribbean have helped focus critical attention on post-disaster mental health interventions in the Caribbean (1). Critical evaluation of these

and other similar experiences has led to a more sophisticated understanding of the relationship between disaster-related traumatic events and the resulting psychological responses and mental health needs of affected populations (2–6). To date, most mental health interventions following disasters in the Caribbean have been vertically delivered psychosocial programs provided to the entire population affected by the disaster. In these programs, external intervenors usually provide or mobilize a variety of mental health interventions that are of uncertain effectiveness and that are not embedded in local communities

or health systems, ostensibly to address presumed significant mental disturbances in the population affected by the disaster. One example of that type of post-disaster vertical intervention is critical incident stress debriefing (CISD). A similar model is advanced in the Stress Management in Disasters program (7), which is often used in the Region of the Americas. However, recent appraisals have concluded that these well-meaning interventions may be of doubtful utility and may at times be counterproductive or even harmful (2, 8–12). Such interventions are not recommended by the World Health Organization (WHO) (8).

¹ Dalhousie University, Department of Psychiatry, International Section, World Health Organization Collaborating Centre for Mental Health Training and Policy Development, Halifax, Nova Scotia, Canada. Send correspondence to: Stan Kutcher, Dalhousie University, Department of Psychiatry, 5909 Veterans Memorial Lane, 8th Floor, AJLB, Halifax, Nova Scotia B3H 2E2, Canada; telephone: (902) 473-6214; fax: (902) 473-4887; e-mail: stan.kutcher@dal.ca.

² Mount Gay Hospital, St. George's, Grenada.

Despite this knowledge and understanding, recent events in the Caribbean (such as the aftermath of Hurricane Ivan hitting Grenada in September 2004 and the flooding following heavy rains in Guyana in January 2005) have highlighted the fact that this newer information has not been translated into practice. For example, CISD-based interventions continue to be supported by some governments and enthusiastically promoted by non-governmental organizations. Although well-meaning, these practices lack substantive evidence of their value. In addition, they are costly, diverting scarce resources away from more substantial needs. Further, these vertical programs generally provide little if any sustainable impact and do not serve to develop local community-based capacity to meet ongoing and future mental health needs. This lack of congruence between new knowledge and existing practice illustrates the need to develop rational, effective, sustainable, integrated interventions that address clearly-defined mental health problems in disaster-affected populations and that concurrently make the best possible use of scarce resources (1–3). This is necessary to ensure both that effective and useful mental health interventions are provided as needed after disasters and that sparse resources do not support activities that may be unnecessary or potentially counterproductive.

Sufficient information now exists to allow for the development of a rational mental health intervention strategy that is not based on the vertical CISD methodologies or other similar mental health interventions applied to entire populations following a disaster. An appropriate post-disaster intervention should address the mental health needs of the population. This should be done not by providing “treatments” to individuals or groups who are experiencing normal, adaptive stress responses, (mental distress) but rather by addressing significant mental disorders that may arise from the event, be present but not identified prior to the event, or be exacerbated by the event. Such interventions should be embedded in the health care system at the community

level, be integrated into health system response capacity, and inform disaster preparedness plans (8, 13).

The aftermath of Hurricane Ivan striking Grenada in September 2004 provides the setting for this case report of the development and pilot of an integrated, community-based mental health response delivered through an existing mental health system, as is recommended by WHO (2, 3, 5, 6). This project was developed and delivered in participation with the Ministry of Health of Grenada and in collaboration with the Pan American Health Organization’s Office of Caribbean Program Coordination (PAHO CPC). The project was funded by the Canadian International Development Agency and the Department of Health of the province of Nova Scotia, Canada, and it was created by members of the Division of International Psychiatry in the Department of Psychiatry of Dalhousie University, which is located in the city of Halifax, Nova Scotia. The project was administered through the International Health Office of the Faculty of Medicine of Dalhousie University. This report describes the model, the application of the model, and the preliminary results of the intervention.

THE COUNTRY OF GRENADA AND HURRICANE IVAN

The country of Grenada consists of a group of islands in the Caribbean Sea located just north of the country of Trinidad and Tobago. The country has an area of some 345 km² and a total population of approximately 100 000 people, the vast majority of whom live on the largest island, which is also called Grenada. The second-largest island is Carriacou. The country’s annual gross domestic product per capita is about US\$ 5 000, and the poverty rate is estimated to be 32%. Economic activity is primarily based on tourism and agriculture. In the agriculture sector the most important crops are bananas, cocoa, nutmeg, and mace. A tropical volcanic island, Grenada is the location of the largest city in the country, St. George’s, which is capital of the

nation and the center of the country’s economic activity.

On 7 September 2004 the island of Grenada was struck by Hurricane Ivan, a Category 4 hurricane (Saffir-Simpson Scale), with winds of 220 km/hr. The island sustained substantial destruction, with reports that up to 50% of the homes were demolished and an additional 40% damaged, most with the roof blown off. About 90% of the rain forest sustained significant damage, and the agricultural and tourism industries were also hit hard (14, 15). Assistance for Grenada came from other countries of the Caribbean and other world regions. This assistance was coordinated by Grenada’s National Council for Reconstruction and Development.

THE INITIAL MENTAL HEALTH PROGRAM RESPONSE TO HURRICANE IVAN

Following the hurricane, Grenadian national leaders indicated that mental health issues needed to be addressed immediately. The mental health issues identified as needing intervention were those that were largely the expected, adaptive emotional responses to a significant stressor, that is, the acute stress response (ASR). However, these expected, adaptive responses were characterized as being pathological. For example, in a November 2004 speech, Grenada Prime Minister Keith C. Mitchell said, “Our people need counseling. . . there will be a cost for the services of counselors who need to help address this widespread socio-psychological damage if we are to secure the recovery of our people.” In a speech in December 2004 Mitchell said, “All [Government of Grenada] ministries have identified the need to address the psychological trauma being expressed throughout the country. It is clear that psychological trauma is negatively affecting productivity.”

A variety of agencies and psychosocial counseling “experts” provided advice on how to develop and deliver post-disaster mental health interventions. Most of the suggestions were for

vertically delivered posttraumatic psychosocial counseling directed at the entire population.

Accordingly, a vertical, whole-population psychosocial counseling model, the "National Wellness Program," was developed and implemented by the Grenada Ministry of Social Development. Delivered in parallel to existing health care services, the National Wellness Program was created with input from various international assistance organizations and local groups. It relied on hastily trained volunteers for whom no effectiveness, reliability, or safety data had been established. The intervention was described as a "psychosocial recovery program that renders critical incident stress debriefing, psychoanalysis, psychotherapy, medical prescription, and counseling services to Grenadians to assist them in dealing with the psychosocial effects of Hurricane Ivan."

During this general period, some media reports stressed the psychopathologies that could be expected from the impact of the hurricane. A news piece by the British Broadcasting Corporation quoted a Grenadian physician as saying that Hurricane Ivan "resulted in increased depression, anxiety, and post-traumatic stress disorder," even though no data were available to support such an assertion. There were even some sensational misrepresentations of the effect of post-traumatic stress disorder (PTSD). For example, one publication reported in mid-October that PTSD caused people to die.

A DIFFERENT MODEL

After consultations with the mental health coordinator at PAHO CPC, the Ministry of Health of Grenada chose to try to address PTSD and other significant mental health dysfunctions through a different model. This model used a train-the-trainers approach in order to embed sustainable clinical capacity needed to identify and appropriately treat individuals suffering from mental disorders in the post-hurricane period within the health

care system at the community level. This capacity also had the added value of building continued mental health expertise within the health care system that could be used to address mental health problems on an ongoing basis.

A mental health trainers group for Grenada, made up of a multidisciplinary group of four Grenadian mental health professionals, was selected by the Ministry of Health of Grenada. The trainers group included two psychiatric general physicians, a mental health nurse, and a mental health social worker. All four were employed in the mental health services of Grenada and were attached to the Mount Gay Hospital, which is the national psychiatric hospital of Grenada and is located in St. George's.

A training team of two members of the International Psychiatry Section of the Dalhousie University Department of Psychiatry (SK and SC) created and developed the initial training program. The program was designed to teach community health workers how to identify and treat PTSD and other common mental disorders, including depression and anxiety. Following their training in this program, the four-person Grenadian training team was in turn to train up to 70 nurses and primary care physicians working in the Mount Gay Hospital and community health clinics throughout the country. In this manner, the mental health competencies needed to address a variety of significant mental health needs in the population after Hurricane Ivan would be developed at both the specialty level (Mount Gay Hospital) and the community level (community health clinics).

In addition, posters providing information for the general public regarding post-disaster mental health issues and how to access assistance in their community was prepared by the Dalhousie trainers (with input from the Grenadian training team), for distribution by each community health center. This community information distribution, however, was to occur only after a health professional from the community clinic had received the training and developed the competen-

cies needed to provide appropriate mental health interventions for local residents. In this manner, the health system's capacity to respond to mental disorders in the community was linked to mental health promotional activities so as to ensure availability of competent human resources when cases were identified.

The Government of Grenada agreed to acquire and make readily available through usual distribution channels the serotonin-specific reuptake inhibitor (SSRI) fluoxetine for the treatment of PTSD and other mental disorders for which an SSRI is indicated. Fluoxetine, which had not previously been available on the Grenada formulary, is an effective medication for treating PTSD. It is also effective for the treatment of various other anxiety disorders and depression that occur from causes other than a hurricane. In this manner, an effective, evidence-based, sustainable pharmacologic treatment was made available for the population, and the health professionals at both the specialty hospital and in the community were trained in its proper use.

THE TRAINING PROGRAM

The training program for Grenada consisted of three components: (1) teaching materials, (2) training of the Grenadian trainers by the Dalhousie team, and (3) monitoring of the Grenadian trainers as they taught some sessions for other Grenadian health professionals. The training of the Grenadian trainers by the Dalhousie team not only included training in the course materials but also training in how to teach effectively. The monitoring component of the training program provided the Dalhousie team with an opportunity to observe the Grenadian trainers in action and to provide feedback to them on how to improve their teaching. Each of these three components was an integral part of the training program.

The teaching materials consisted of a training manual, a slide kit, and a psychological intervention training

workbook based on cognitive therapy. The training manual addressed post-disaster mental health interventions based on the WHO "Mental Health in Emergencies" document (13) and other WHO-recommended post-disaster mental health approaches (2, 6, 8). The manual provided the Grenadian training participants with the knowledge needed to understand the emotional responses to a natural disaster, including the normative, adaptive acute stress response (ASR); the more severe acute stress disorder (ASD); and the often-pathological PTSD. The Grenadian participants also received the knowledge needed to identify and effectively address commonly occurring anxiety and depressive disorders that may arise as a result of a disaster, be uncovered by a disaster, or be exacerbated by a disaster, and thus require mental health care intervention.

The training program also addressed the role of health personnel in post-disaster mental health interventions directed at meeting individual and community needs. In addition, the program provided information that the health professionals could use if they were called upon to provide consultation to the Government of Grenada or other authorities regarding mental health issues for local or national disaster programs.

The Grenada training program was based on the best available scientific evidence (10, 11, 12). It was consistent with the recommendations of the WHO (2, 6, 8, 13) and tailored to the recognition of ASR, ASD, PTSD, and other mental health problems. The program included: (1) community-based and community-driven social interventions as the preferred method of dealing with ASR, (2) cognitive-behavioral-based group and individual psychological interventions and short-term pharmacologic treatments as the preferred method of dealing with ASD, and (3) cognitive-behavioral-based group and individual psychological interventions and pharmacologic interventions for dealing with PTSD and other anxiety and depressive disorders identified following a disaster. A community post-disaster mental health awareness pro-

motion strategy and materials for this activity were provided to course graduates for them to use in their communities after they had completed the training program.

Only evidence-based interventions were taught in the training program, including with a cognitive-behavioral-based intervention consisting of two parts. The first part dealt with basic communication skills and useful therapeutic interventions using cognitive-behavioral principles for treating PTSD and other anxiety and depressive disorders. This first part was taught using a variety of techniques, including self-modeling, role-playing, and instructor demonstration. The second part was a self-directed workbook designed to allow the health professionals to learn how to conduct individual and group interventions for anxiety and depression based on cognitive-behavioral principles. Specific psychopharmacologic interventions using rational psychopharmacology principles (16) with benzodiazepines and fluoxetine were also taught. These principles included basic pharmacokinetic and pharmacodynamic concepts (such as drug-drug reactions, adverse events, etc.), adverse-event and therapeutic-outcome measurements, and dosing schedules appropriate to the conditions being treated.

The program also included a compendium of clinically useful tools that the health professionals could use in a community setting. These tools made the material that had been taught in the program applicable to the care-providing situation. These tools included both diagnostic and therapeutic-outcomes information. Additionally, a patient assessment/outcome form was provided to allow for simple record-keeping that could be easily integrated into the ongoing patient record.

Finally, a pretest/posttest was included in the program as a method of evaluating the knowledge acquired by the students in the training program. The test consisted of 50 true/false questions that applied directly to the course content. The test was given to all participants before the training

began and also immediately upon completion of the program.

TRAINING THE GRENADIAN TRAINERS, AND THEIR INITIAL TEACHING SESSIONS

The four Grenadian trainers had also participated in a mental health teaching program in Grenada earlier in 2004. That earlier program dealt with basic mental health competencies for health professionals. It was taught by the same team of two psychiatrists from Dalhousie University who developed and taught the post-disaster mental health training program following Hurricane Ivan. These four Grenadian professionals (two male and two female) were based at the Mount Gay Hospital, but they also provided consultation and treatment in community clinics around the island of Grenada and on the island of Carriacou.

These four Grenadian professionals underwent three training sessions in October 2004. The first was a one-day event conducted by the senior psychiatrist from Dalhousie University and delivered at the Mount Gay Hospital. The session was designed to address specific post-disaster mental health issues pertinent to the Grenadian trainers, assess their level of knowledge and competencies in post-disaster mental health, and provide initial information about post-disaster mental health issues and evidence-based interventions.

The second session was a three-day event conducted by the two-member Dalhousie team. The session included extensive review of the course materials and practice teaching activities. During portions of this session the Grenadian trainers group was joined by other health professionals and senior staff from the Ministry of Health, who observed parts of the training process.

The third session was a two-day event in which the Grenadian trainers taught a group of 10 Grenadian nurses and doctors, with supervision by both of the Dalhousie trainers. The purpose

was to assess the teaching capabilities of the four Grenadian trainers and to suggest how they could improve their teaching techniques. The overall goal of this final part of the training program was to ensure that the Grenadian training team had acquired the necessary competencies (content and delivery) needed to provide the appropriate training to the Grenadian health professionals working in the community health centers.

The four Grenadian trainers all satisfactorily completed the three stages of the training process. However, the Dalhousie team felt that additional trainer observation in the classroom setting was needed prior to having the four Grenadian trainers do completely independent teaching. As a result, one of the Dalhousie team members (SC) subsequently assisted the Grenadian trainers in two further training sessions in early 2005, with the supervisor providing additional comments on their teaching techniques. During these two additional observed sessions the Grenadian trainers taught the training program to 14 community health center doctors and nurses. This brought to 24 the total number of community health center staff trained by the Grenadian trainers under observed conditions.

PARTICIPANTS' EVALUATION OF THE GRENADIANS' FIRST TEACHING SESSION

The first classroom training conducted by the Grenada team occurred over a two-day period in November 2004, under the supervision of the Dalhousie team. Ten health care professionals received the training: 2 mental health nurses, 6 community nurses, and 2 physicians. In their evaluation, the students gave generally high scores to various features of the training session (Table 1).

All 10 participants reported that the course helped them improve their knowledge of post-disaster emotional responses and mental health issues as well as their understanding of PTSD and its treatment. Additionally, all the participants thought that the

course would help them to provide mental health care to patients who had a variety of mental health problems, and all reported that they would recommend this program to other health professionals.

The pretest and the posttest of post-disaster mental health knowledge showed substantial improvements among this initial group of 10 Grenadian health professionals. The average pretest score was 60%, and the average posttest score was 84%.

ADDITIONAL SESSIONS TAUGHT BY THE GRENADIAN TRAINERS

Besides training 70 Grenadian health care professionals, the training program had an additional target of ensuring that at least one health care professional from each of the community health centers in Grenada and Carriacou would participate in this program. The Ministry of Health promoted the program and provided leave time for the health professionals to be trained. The four Grenadian trainers worked in teams of two, with each team including a physician.

By the completion of all of the scheduled training sessions, the Grenada team did train a total of 70 health care professionals (including the 24 who were trained in the sessions observed by the Dalhousie team). Each training

session took place in St. George's and consisted of two days of eight hours per day. All the participants completed the entire two-day training.

Pretest and posttest data were available for 64 of the participants (52 nurses and 12 physicians). Overall, the pretest scores averaged 66%, and the posttest scores averaged 79%. Nurses' scores changed from a pretest average of 62% to a posttest average of 75%. Physicians' scores improved from a pretest average of 73% to a posttest average of 82%. The evaluations of the quality of the training sessions were essentially similar to those obtained in the first training session, whose evaluation was described above.

Every community health clinic had at least one health professional trained. Once each community health center had a health professional available to identify and treat post-disaster mental health disorders, the center began making available to local community members promotional materials regarding the identification of these disorders.

DISCUSSION

This pilot of a novel post-disaster mental health program in Grenada demonstrated the feasibility of conducting a training program in mental health competencies useful in post-disaster mental health interventions for community-based health care pro-

TABLE 1. Evaluation of the initial training session conducted by the Grenadian training team for 10 Grenadian health professionals, November 2004

Item evaluated	Average score (0 to 6 possible)
Grenadian trainers	4.0
Teaching techniques	5.3
Teaching slides	5.7
Written materials (manual)	5.3
Evaluation (pretest and posttest)	5.4
Clinical tools	5.3
Time (sufficient for training in program)	4.0
Training facility	4.7
Overall satisfaction with training program	5.6

professionals, using a train-the-trainers model. Although data are not yet available regarding the clinical impact of this program, the available information shows that the program can be delivered effectively using this model, and that this intervention is associated with substantial improvements in the knowledge of the participants. It also demonstrates that in small countries, such as most of those in the Caribbean, it is possible to provide training to health care professionals in every community within a short period of time, using local educators and at a reasonable cost. The total program budget for Grenada was approximately US\$ 70 000, primarily for travel, per diem, printing, site rent and food, and program development fees. In-kind contributions from Dalhousie University helped offset some of the consultant costs, and the Ministry of Health of Grenada covered the salary time of the health professionals who were trained, and also provided fluoxetine for everyday clinical use.

One of the lessons learned from the training of the four Grenadian trainers was that a substantial effort was needed to ensure that these trainers both understood the course material and had sufficient teaching skills to be able to train other health professionals. Training the trainers took longer than had been originally planned, but without the extra attention to both the technical content of the classroom sessions and teaching competencies, it is doubtful that the trainers would have been as successful as they were. While rarely discussed in reports regarding train-the-trainers programs in mental health, this is an essential issue. If the trainers are not able to teach effectively, then any program, regardless of its content or educational clarity, is unlikely to produce the hoped-for results.

This training program piloted in Grenada is substantially different from most other post-disaster mental health intervention activities that have been suggested for use in the Caribbean (7, 17). First, this program provides for an integrated approach to mental health problems that arise after a disaster, with the competencies to deal with

individual and community mental health needs being embedded in local health care providers. As a result, externally supported vertical mental health post-disaster interventions are not needed. Local health providers who have been trained in the appropriate mental health competencies can be expected to appropriately address mental health needs concurrently with all other health needs, and they can do that in conjunction with ongoing community social interventions and in collaboration with community leaders. Thus, consistent with current WHO recommendations (2, 8, 12), this pilot program addresses disaster mitigation as well as post-disaster response by enhancing the capacity of the health care system to provide mental health services, whenever those services are needed.

Second, this program does not advocate whole-population vertical psychosocial interventions as the preferred method of addressing post-disaster mental health needs. Such programs, often based on CISD models (for example, the Stress Management in Disasters program currently advocated for the Caribbean) target normal, adaptive acute stress responses, and they waste scarce resources that could be applied to other needs. That is because individuals and populations do not need imposed psychosocial interventions to deal with a normal post-disaster stress response (2, 3, 6, 8, 12, 13, 18). What is needed in those situations are social interventions designed to assist individuals and communities in dealing with immediate concerns relating to shelter (adequate housing), security (of persons, families, and the community), and safety (safe food and water supplies and infectious disease control). Also helpful in dealing with the acute stress response are social reconstruction and focusing on "getting things back to normal" by engaging in political, social, and economic activities; secular and religious institutional rituals; and the usual daily activities of work and school (2, 3, 8, 10, 12, 13, 18–21).

Following a natural disaster, small numbers of individuals may experi-

ence an acute stress disorder or post-traumatic stress disorder, and these people may require expert mental health interventions. Vertical psychosocial counseling programs provided by hastily "trained" volunteers or "professional" post-disaster counselors using unvalidated psychological approaches for whole populations cannot properly provide effective, safe, efficient interventions. However, the appropriate evidence-based interventions can be provided by community-based health professionals who, when properly trained, can address ASD and PTSD problems as well as other mental health disorders that arise or are identified following a natural disaster (8, 10, 12, 13).

The Grenada experience clearly demonstrates the need to assist political leaders and helping organizations in understanding four important issues that will shape the development and delivery of post-disaster mental health interventions. First, there is an expected, natural, adaptive acute stress response that will affect almost every person who experiences a disaster. Vertical psychosocial counseling programs provided to whole populations are not needed, are potentially harmful, and use resources that could be more effectively deployed elsewhere. Second, a relatively small number of individuals will develop a short-term disaster-related stress mental health problem (the acute stress disorder). These individuals can be most economically identified and treated by local, community-based health care services. Third, a small number of individuals may develop PTSD, with significant functional impairment, as a result of the disaster. They will require appropriate evidence-based mental health treatments, which are best delivered by their community health providers. Fourth, a number of individuals will have preexisting mental health problems either exacerbated by or identified because of the disaster. They are best treated by competent health professionals within the communities in which they reside.

Vertical, whole-population psychosocial interventions based on CISD

theory, such as the National Wellness Program in Grenada, are not necessary to address ASR. ASR will usually subside on its own as long as the needed social interventions, such as shelter, security, and safety, are put into place. In Grenada the focus on ASR arguably led to unnecessary cost and effort in a country that was struggling to rebuild itself following Hurricane Ivan. That focus also likely took funding and effort away from potentially more useful interventions that might have been more effectively applied in addressing the reconstruction needs of the country.

A feasible and arguably more useful mental health alternative such as our training program may be more appropriate, both in the post-disaster phase and in the ongoing provision of health care. Teaching community-based health care providers a variety of useful, effective psychological and pharmacologic mental health interventions will allow them to provide these as they are needed locally following a natural disaster. Health care professionals can continue to use these interventions to provide mental health care to individuals, especially those with anxiety or depressive disorders, on an ongoing basis. This increases the

ability of the health care system to meet the mental health needs of the population, but without huge investments in additional infrastructure. Furthermore, it allows for the distribution of mental health services in the community, outside of the large mental hospitals that have traditionally been the preferred route for delivering mental health services in the Caribbean. This program and others like it may help Caribbean countries in addressing mental health reform by advancing community-based mental health services and decreasing reliance on stand-alone mental hospitals. This step has been advocated by WHO in the 2001 *World Health Report*, by PAHO in the 1990 Declaration of Caracas, and in the United Nations General Assembly Resolution 46/119 of 1991.

Further indications of the value of our training program in Grenada will come with data collection that was supposed to be conducted in September and October of 2005, that is, approximately six months after the last training session. This research will allow for evaluation of the clinical application of the training, as indicated by chart reviews and health provider focus groups conducted in the community health care centers. This will

also provide a gauge of the sustainability of the mental health competencies that have been taught to community health care providers. However, the real litmus test for the program will come the next time that a natural disaster strikes Grenada. In the meantime, there is also a need for a critical review of the highly popular vertical post-disaster psychosocial interventions based on CISD principles. The value of these interventions should be compared with the value of this training program in Grenada. Ideally, this assessment could be conducted as part of a disaster preparedness/disaster mitigation plan that would be put into place by either individual countries or Caribbean-region authorities prior to next year's hurricane season.

Acknowledgements. Our thanks go to Hope Beanlands (International Health Office, Dalhousie University), Glenda Maynard (PAHO CPC), and the Ministry of Health of Grenada, for project support; Linda Ford for manuscript assistance; and the Canadian International Development Agency and the Department of Health of the province of Nova Scotia for project funding.

REFERENCES

1. Kutcher S, Chehil S. Post natural disaster mental health difficulties: myths and realities of importance for the Caribbean Region. *Caribb Med J*. 2005;67:1:14-7.
2. Van Ommeren M, Saxena S, Saraceno B. Mental and social health during and after acute emergencies: emerging consensus? *Bull World Health Organ*. 2005;83:71-4.
3. Silove D. The best immediate therapy for acute stress is social. *Bull World Health Organ*. 2005;83:75-6.
4. Summerfield D. What exactly is emergency or disaster "mental health"? *Bull World Health Organ*. 2005;83:76-7.
5. Sondorp E, Bornemisza O. Public health, emergencies and the humanitarian impulse. *Bull World Health Organ*. 2005;83:163.
6. World Health Organization, Department of Mental Health and Substance Abuse. Single-session psychological debriefing: not recommended [Web page]. Available from: http://www.who.int/mental_health/prevention/mnhemergencies/en/print.html. Accessed 12 July 2005.
7. Bryce C. Stress management in disasters. Washington, D.C.: Pan American Health Organization; 2001.
8. World Health Organization, Department of Mental Health and Substance Abuse. Briefing note on psychosocial/mental health assistance to the tsunami-affected region [Web page]. Available from: http://www.who.int/mental_health/resources/briefing_note_on_tsunami_affected_region.pdf. Accessed 12 July 2005.
9. Van Emmerik E. Single session debriefing after psychological trauma: a meta-analysis. *Lancet*. 2002;360:766-71.
10. Rose M, Bisson J, Churchill R, Wessely S. Psychological debriefing for preventing post traumatic stress disorder (PTSD). *Cochrane Database Syst Rev*. 2005;3.
11. United States, National Institute of Mental Health. Mental health and mass violence: evidence-based early psychological interventions for victims/survivors of mass violence: a workshop to reach consensus on best practices. Washington, D.C.: Government Printing Office; 2002. (National Institutes of Health Publication No. 02-5138).
12. Young B, Ford J, Watson P. Helping survivors in the wake of disaster: a National Center for PTSD fact sheet [Web page]. Available from: http://www.ncptsd.va.gov/facts/disasters/fs_helping_survivors.html. Accessed 12 July 2005.
13. World Health Organization, Department of Mental Health and Substance Dependence. Mental health in emergencies. Geneva: WHO; 2003.

14. United Nations, Office for the Co-ordination of Humanitarian Affairs. OCHA situation report #14. World Bank preliminary damage assessment. Available from: <http://www.grenadaexplorer.net> [Internet site]. Accessed 12 July 2005.
15. United Nations, Office for the Co-ordination of Humanitarian Affairs. Grenada Hurricane Ivan flash appeal Oct 2004 – Mar 2005. Executive summary. Available from: <http://www.reliefweb.int> [Internet site]. Accessed 10 October 2005.
16. Kutcher S. Child and adolescent psychopharmacology. Philadelphia: WB Saunders Co.; 1997.
17. Pan American Health Organization. Disasters and humanitarian assistance in the Caribbean [Web page]. Available from: <http://www.disaster-info.net/carib/>. Accessed 12 July 2005.
18. British Embassy, Thailand. Coping with a natural disaster [Web page]. Available from: <http://www.phuketgazette.net/pdf/Coping%20with%20Natyarak%20Disasters.pdf>. Accessed 12 July 2005.
19. Pupavac V. Therapeutic governance: psychosocial intervention and trauma risk management. *Disasters* 2001;25:358–72.
20. de Ville de Goyet C. Stop propagating disaster myths. *Lancet* 2000;356:762–4.
21. Weiss MG, Saraceno B, Saxena S, van Ommeren M. Mental health in the aftermath of disasters: consensus and controversy. *J Nerv Ment Dis.* 2003;191(9):611–5.

Manuscript received 21 July 2005. Accepted for publication 29 August 2005.

RESUMEN

Programa integrado para entrenar a proveedores de servicios sanitarios locales a satisfacer las necesidades de salud mental después de un desastre

En el presente trabajo se describe un programa de entrenamiento para la atención de la salud mental después de desastres, desarrollado por la Sección Internacional del Departamento de Psiquiatría de la Universidad de Dalhousie (Halifax, Canadá) y llevado a cabo en la isla de Granada después de que el huracán Iván azotó ese país en septiembre de 2004. Este programa de entrenamiento para entrenadores utilizó un modelo integrado de salud comunitaria para ayudar a los proveedores de los servicios sanitarios locales a desarrollar las habilidades necesarias para identificar los trastornos mentales frecuentes después de un desastre natural y aplicar tratamientos basados en pruebas científicas. Este programa también favorece el enfoque actual de atención sostenible de salud mental en la comunidad, promovido por la Organización Mundial de la Salud y la Organización Panamericana de la Salud. Además, se contraponen a las actividades verticales de consejería psicosocial dirigidas a toda la población, en su mayoría ineficaces y costosas, que se han venido empleando en el Caribe después de desastres naturales.

Palabras clave

Desastres, servicios de salud mental, servicios de urgencia psiquiátrica, trastornos por estrés postraumático, educación profesional, región del Caribe.

Vivir no es sólo existir,
sino existir y crear,
saber gozar y sufrir
y no dormir sin soñar.
Descansar, es empezar a morir.

Gregorio Marañón y Posadillo,
médico y humanista español (1887–1960)