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Even More Mountains: Challenges to Implementing Mental Health Services in Resource-Limited Settings

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Mwen te swe anpil ("I sweat a lot") when I moved to Haiti after child and adolescent psychiatry training for a global mental health fellowship at Partners In Health (PIH). The blazing Caribbean sun was a lot to sweat, but so too was the task at hand. Alongside Haitian physicians and psychologists, we worked to improve mental health services for patients and families that hitherto had little access to psychiatric care. While on the ground, we learned ways to address the challenges of providing mental health care in a resource-limited setting culturally quite distinct from the United States.

Before the January 12, 2010 earthquake, the 1.2 million people in the rural catchment area served by Zanmi Lasante (ZL), PIH's sister organization in Haiti, had little access to mental healthcare. Public sector services were centralized in Port-au-Prince, and the majority of Haiti's mental health budget, less than one percent of the total health budget, went to the capitol's two psychiatric hospitals.[1] Although Paul Farmer, co-founder of PIH and subject of Tracy Kidder's book *Mountains Beyond Mountains*,[2] and his colleagues at PIH and ZL started building a health system in rural Haiti 25 years ago, ZL's *ekip sante mantal* ("mental health team") was created only a few years prior to the earthquake and mostly supported patients and families affected by HIV and tuberculosis.[3] It seemed that Haiti differed little from other resource-limited areas where approximately 76–85% of patients with serious psychiatric conditions do not receive adequate treatment.[4]

The earthquake brought change. In the wake of the disaster, national and international concern for earthquake-related mental distress mounted. Recognizing the need to address both the acute and chronic mental health needs of the people, PIH and ZL committed to building a comprehensive, community-based mental health service by integrating mental health into the ZL primary care system, utilizing task-shifting to train non-specialist, Haitian college graduates to staff clinics as psychologists, and creating a fellowship to enable a psychiatrist to accompany ZL's mental health team.[3]

As the first fellow, I trained psychologists in psychotherapy, pharmacotherapy, and consultation-liaison psychiatry as we jointly evaluated adults and children. To treat the psychiatric and neurological conditions that commonly presented, I managed a small, flexible formulary of 11 generic medications: fluoxetine, amitriptyline, risperidone,

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haloperidol, valproic acid, carbamazepine, phenobarbital, gabapentin, diphenhydramine, lorazepam, and diazepam. I also participated in community education initiatives, didactic training (including adding psychiatry and neurology components to a nascent family medicine residency program), and collaborations with researchers and policy makers to improve service delivery.

Resource-limited areas desperately need strategies to reduce the growing burden of disease and disability caused by mental disorders.[5] We developed resource-conscientious approaches to raise the standard of care. Many of these are avenues for research and may be generalizable to other contexts (see Table 1).

A variety of factors influenced our choices, including local notions of chronic illness, unfamiliarity with mental health treatments, and the realities of obtaining medical care in Haiti. With unemployment over 36%,[1] inability to pay for medical care and medications was one of Haiti's harshest realities. We minimized costs to keep our services and medications free. Whereas many who did not work could not afford care outside of our free services, many who did work could not afford to miss work to obtain care. Traveling considerable distances on foot to reach “public” transportation, patients could spend hours on *tap tap* (“buses”) or *moto* (“motorcycles”) to reach our clinics. To address this barrier to care, we partnered with an *ajan sante* (“health agent” or community health worker) to establish a mobile clinic wherein we traveled monthly to a remote area to conduct clinic. Access and follow-up improved, and we planned to expand to other areas.

More patients accessed our services and stayed in treatment as more people witnessed patients improve and gained faith in our treatments. One of our patients with schizophrenia who initially presented with classic catatonia responded so dramatically to lorazepam that he and his family who had previously found no relief from doctors or healers faithfully kept appointments and stayed on medication. What's more, one of the physicians who witnessed the patient's transformation subsequently chose to join the mental health team full-time.

Despite some successes like this, doing the best for children remained a challenge. Some adolescent patients struggled with physical or sexual trauma or the loss of a parent. Others suffered as a result of bullying and stigma. For example, one budding valedictorian became extremely depressed and dropped out of high school because her classmates tormented her when they learned she had HIV. Medication helped many, but so too did psychotherapy and psychoeducation. I demonstrated therapy to psychologists during patient encounters, but it was our psychologists who helped teenagers to express anger rather than directing it inward through cognitive restructuring. Using the biopsychosocial model, psychologists incorporated local realities and beliefs into explanations of illness, including explaining how stressors like poverty might contribute to depression or dispelling notions that impaired children suffered from personal shortcomings. These formulations also informed plans to activate social networks and mobilize friends and family to assist psychologists in managing depressed and suicidal teenagers with complex psychosocial problems who in the United States might have had teams of professionals involved in their care.

Some problems seemed overwhelming in the absence of other services. For example, parents' most common chief complaint was that their children had “trouble learning.” Establishing an etiology and diagnosis was complicated by limited access to primary pediatric care and the absence of newborn screening, routine hearing and vision screening, and validated developmental and psychological assessments in Haitian Creole, among other things. Although we treated *kriz* (“seizures”) easily enough, many children, even those with epilepsy, had problems that went unaddressed because of a lack of special education or other programs to help address learning disorders.

Even what we might consider straightforward attention-deficit/hyperactivity disorder (ADHD) can become a significant handicap for children living in Haiti. Meandering around donkey droppings along the muddy paths near the tiny, tin-roofed church where we saw patients during mobile clinic, an eight-year-old boy whom we diagnosed with ADHD bounced around his neighbors who sat outside sorting peanuts to sell at the market. Inside our makeshift clinic where sheets and blankets hung from the rafters to create the appearance of evaluation rooms, this young man, who I will call “Junior,” was quite a handful: pulling back curtains during others' consultations, grabbing a nursing mother's breast out of the mouth of a hungry child, and sticking his foot out to trip me just as he had with his teacher at school. Although his single mother tolerated Junior's hyperactivity, he was simply too disruptive for class. We brainstormed about a token economy and spoke with his teacher about accommodations in class. Yet, with no stimulant medication available and in the absence of a systematized special education program, Junior's ADHD jeopardized his education, placing him at risk for future role disability, poverty, and disease.

Families and communities do their best to care for patients, but they need, deserve, and have a right to mental healthcare. Mental, neurological, and substance use disorders are among the most disabling conditions worldwide, but money for these crucial services is limited.[5,6] To ensure enduring systemic change, investment in global mental health ought to support interventions that promote infrastructure. By strengthening local resources (such as training all healthcare staff to deliver mental health and creating trained mental healthcare personnel) and assuring access to resources essential to mental healthcare (training materials, medications, screening, and other important tools, etc.), we may create sustainable, cost-effective mental health services even in resource-limited settings. Indeed, such an adaptable mental health system may then meet the challenge of crisis response, answer important questions through empiric research, and improve the success in other global initiatives such as the treatment and prevention of HIV or improving maternal and child health.

I completed my fellowship but continue to support the Haiti program. I transferred my responsibilities to the ZL team's new doctors, both Haitian generalist physicians who aspire to complete residencies in psychiatry or neurology. In my last month in Haiti, I supervised them as alongside our psychologists they evaluated more than 50 patients at six ZL clinics, an orphanage for disabled children, our mobile clinic, and a local prison. Supplementing this experience with didactics, examination, and ongoing supervision, our work together is a significant part of the mental health curriculum that PIH is developing for physicians in resource-limited areas.

Cooler now that I have relocated to one of Boston's air-conditioned ivory towers, I still sometimes find myself thinking in Creole, thinking about how our patients are doing, and thinking of all the work still to be done. *Piti, piti, zwazo fè nich li* (“little by little, a bird makes its nest”). Despite seemingly insurmountable challenges and limited resources, we have created a functioning community mental health system. Although we can learn a great deal from mental health systems in wealthy nations, maybe those involved in such expansive systems can learn something from global mental health efforts.

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Table 1

Implementation Challenges in the Delivery of Community-Based Mental Health Services in Rural Haiti and Strategies to Address Them.

Implementation challenge	Observation from the field	Proposed solutions
Determining local needs	• Few if any epidemiological or other systematic investigations to characterize needs of community	• Engage local knowledge to identify relevant mental health and psychosocial stressors and account for this when planning clinical services and resource allocation • Follow patient encounters to guide quality improvement
Case finding	• Passive case finding (where the patient is self-referred) misses many people who cannot or do not seek care	• Educate the community and clinical staff to increase referrals and educate community health workers about mental disorders to encourage active case finding • Develop a regular mobile clinic to service remote areas
Evaluation and diagnosis	• Cultural variations in description of illness and manifestation of illness • Ambiguous and sometimes misleading chief complaints • Limited availability of laboratory tests	• Develop and locally validate screening tools • Conduct systematic interviews and expand reviews of systems to assess for comorbid illness • Train local providers in a standard diagnostic approach and classification system • Rule out mental disorders secondary to medical conditions using commonly available lab tests (for HIV, syphilis, anemia), history, and physical exam • Provide ongoing supervision with specialist
Cognitive and academic problems	• No standardized or validated tools in Haiti or in Haitian Creole to assess for cognitive problems, learning disorders, and intellectual disability	• In the short term, improvise psychological and achievement tests based on local expectations of educational attainment • In the longer term, adapt tools that may be less language-dependent for both patient and clinician and validate for use in the community
Substance use	• Rare admission of alcohol or drug use	• Obtain collateral information • Work with local clinicians and patients on importance of issue and how to phrase the question
Neurologic problems	• Psychiatrists are expected to treat neurologic illness	• Perform and communicate history and neurological exam • Create algorithms to treat epilepsy • Consult with neurologists for complicated patients
Community understanding of mental illness	• Patients may have beliefs about the nature of their illness such as Vodou, religion, or personal failings	• Psychoeducation and the biopsychosocial model may incorporate important beliefs of illness where appropriate and challenge others that may be harmful
Therapy	• Limited formal training in evidence-based therapies • Patients unable to make regular appointments	• Provide training and supervision in evidence-based therapies or parts of evidence-based therapies

Implementation challenge	Observation from the field	Proposed solutions
	• Limited number of clinicians	• Expand access to care through task-shifting and organizing non-specialists to deliver certain therapeutic services and meet community need/ demand
Prescribing	• Lack of familiarity with psychopharmacology among clinicians and other practitioners	• Create training materials with focus on key aspects of prescribing (indications, contraindications, dosage form, dosing, interactions, side effects, special concerns) • Create a prescribing guide tailored to the formulary
Medication	• Need to avoid costly medications and stock-outs	• Create a versatile formulary of generic medications • Project usage of medications using clinic census and anticipated volume and obtain from low-cost suppliers
Follow-up and adherence	• Follow-up was not consistent with appointment reminder alone	• Educate staff and patients around treatment, management, and prognosis • Provide written and phone appointment reminders • Enlist community health workers to improve follow-up • Co-create reasonable goals for adherence and recovery
Sustainability	• Interventions may not promote the development of infrastructure that will provide enduring systemic change	• Match program goals with national funding priorities and advocate for investment in appropriate mental health services at the national level • Integrate mental health into an existing health system • Manualize training based on clinical experience and the experience of training • Facilitate task shifting and build local staff capacity for patient care, system management, research, and training • Transition responsibilities to local team