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Taskshifting: translating theory into practice to build a community based mental health care system in rural Haiti

Rupinder Legha, Eddy Eustache, Tatiana Therosme, Kate Boyd, Fils-Aime Reginald, Gertruna Hilaire, Shin Daimyo, Gregory Jerome, Helen Verdeli & Giuseppe Raviola

In 2012, Zanmi Lasante, a Haitian nonprofit organisation, along with its sister organisation, Partners in Health, developed a mental health plan intended to go beyond the immediate post earthquake context by building capacity for mental health and psychosocial services within primary care services at 11 Zanmi Lasante sites throughout Haiti's Central Plateau and Artibonite regions. This paper describes laying the foundation for a community based, mental health care system through the articulation of a 'depression care pathway', in which patients are identified and treated within the community, but referred to clinics and more specialised care when required. We emphasise taskshifting clinical, service delivery, systems building, and quality improvement responsibilities to psychologists, the central players in the Zanmi Lasante mental health model. By describing challenges and providing practical, implementable solutions, we highlight how this fundamental theory in global mental health translates into daily practice in a health care setting with limited biomedical services, clinical training and human resources. We also provide recommendations for optimising taskshifting when initiating community based mental health services in similar resource limited settings.

Keywords: Haiti, capacity building, health care: integration of mental health in general health care

Key implications for practice

- Taskshifting clinical responsibilities, service delivery, systems building and quality improvement to psychologists.
- Describes challenges and provides practical, implementable solutions.
- Can be used in daily practice settings with limited biomedical services, clinical training and human resources.
- Recommendations for optimising taskshifting in initiating community based mental health services in low resource settings.

Introduction: background

Haiti's 2010 earthquake, and subsequent cholera epidemic, represented additional traumas for a country that has been deeply impacted by: extreme poverty; AIDS and other deadly diseases; violence; and political and economic interference by the international community (Bolton, Surkan, Gray, & Demousseaux, 2012). The earthquake created massive casualties, internal displacement, and disruption of economic,

community, and family structures. It also exposed a mental health system unequipped to care for the severely mentally ill prior to the earthquake (Sontag, 2010), and therefore, completely unprepared to address the additional trauma and suffering caused by the earthquake (Cerda, 2012). However, it prominently placed mental health on the Haitian government's agenda, and during the following year, the Ministry of Health (Ministère de la Santé Publique et de la Population, MSPP) held meetings with key stakeholders to move towards a national mental health policy. Despite these promising efforts, there remains no well-defined mental health agenda to guide service provision (Raviola, Severe, Therosme, Oswald, Belkin, G. & Eustache, 2013).

Mental health care in Haiti

Data, while limited, indicates a high prevalence of depression and suicidal ideation (Wagenaar, Hagaman, Kaiser, McLean, & Kohrt, 2012), emotional distress due to organised violence and life stressors (Bolton et al., 2012; Smith-Fawzi et al., 2010), and trauma related to the 2010 earthquake (Cerdá et al., 2012; Wagenaar et al., 2012). Approximately ten psychiatrists and nine psychiatric nurses work in Port-au-Prince, removed from the rural Haiti, where 60% of the population resides. Additionally, the two public psychiatric hospitals, University Hospital Center of Psychiatry Mars and Kline and Beudet, are underfinanced, understaffed and unable to provide high quality care.

Additionally, due to lack of infrastructure, no psychology licensing requirements or professional boards exist to oversee quality of care; instead psychologists are effectively licensed after completing their bachelor's degree. Psychology bachelor's degrees in Haiti focus largely on theory and didactic teaching, so required clinical rotations lack standardisation and established competencies, due to lack of human resources and the prohibitive cost of such training. Also, for example, physicians receive limited didactic or clinical instruction in mental health during medical school. While during nursing school, nurses may spend several weeks at one of the public psychiatric facilities in Port-au-Prince. However, neither group receives training in rights based, bio psychosocial approaches to evaluation and treatment. Social workers may take several courses related to mental health, but also receive no clinical training.

Due to the fact that no national formulary or treatment protocols exist, and adequate mental health training is unavailable, generalist physicians frequently refer patients to these facilities rather than manage them independently (World Health Organization (WHO), 2011). Patients and families also often believe mental illness stems from outside, supernatural forces and, therefore, seek treatment from church and traditional heaers before seeking biomedical treatment, which is more difficult to access (Wagenaar, Kohrt, Hagaman, McLean, & Kaiser, 2013). Local communities offer support for the mentally ill, although stigmatisation remains common (Brodwin, 1996; WHO/Pan American Health Organization (PAHO), 2010).

Developing a community based, mental health care system in rural Haiti

Partners in Health (PIH), a Boston based non profit organisation that provides equitable, quality health care worldwide, and Zanmi Lasante (ZL), its Haitian sister organisation, have worked together for over 25 years, serving approximately 1.2 million people in Haiti's Central Plateau and Artibonite Valley. Community health worker based care for HIV and tuberculosis provided an appropriate foundation for developing a similar community based, integrated model of mental health care.

Prior to the earthquake, ZL's Psychosocial Support Department consisted of three psychologists and 20 social workers and social

worker assistants, who focused primarily on socio economic, educational and psychological needs of children and families affected by HIV/AIDS and tuberculosis (Raviola, Eustache, Oswald, & Belkin, 2012). For HIV/AIDS patients, they provided brief pre test, post test and medication adherence counselling, lasting approximately 15–20 minutes. During these sessions, they provided informed consent for testing, explained the implications of positive and negative tests, shared test results, provided emotional support as needed, and explained treatment plans. However, they did not conduct comprehensive mental health evaluations. Following the earthquake, MSPP requested PIH and ZL's support in developing a national mental health plan that would serve immediate needs while laying the foundation for a sustainable model of care. By February 2010, the newly integrated PIH/ZL mental health and psychosocial team was addressing acute mental health needs in internally displaced persons camps in Port-au-Prince, and training doctors and nurses at key ZL sites in basic mental health evaluation and treatment.

Scaling up mental health services at Zanmi Lasante

In 2012, ZL received a three-year Grand Challenges Canada (GCC) Grant to go beyond immediate post earthquake needs by developing sustainable mental health care in rural Haiti. The primary goals are to build capacity for overall mental health and psychosocial services within primary care services at the 11 ZL sites in the Central Plateau and Artibonite regions, and to support MSPP in developing a national, decentralised mental health programme (Raviola et al., 2012; Raviola et al., 2013).

Post earthquake efforts had laid the foundation for developing a sustainable mental health model. However, the subsequent scaling-up and taskshifting efforts for the depression care pathway called for community health workers, nurses, physicians, psychologists, and social workers to assume specific tasks and collaborate to ensure patients are identified and treated in the community and referred to clinics and hospitals when needed. This care pathway represented a tremendous increase in the magnitude of mental health service provision, especially for psychologists, but also for ZL clinicians who generally lacked previous substantive mental health training. Thus, the new expectations from the depression system of care were both innovative and ambitious.

Data from this paper were drawn from the GCC funded project, entitled 'Evaluation of a new implementation model to address severe mental disorders in rural Haiti to inform the development of a national decentralized mental health plan following the 2010 Haiti earthquake.' The Institutional Review Board (IRB) of the Harvard University Faculty of Medicine reviewed this protocol and determined that it did not constitute human subjects research. The ZL Ethics Committee, which serves as the IRB for ZL projects, approved this project as human subjects research.

Taskshifting and the critical role of psychologists, pre implementation plan

Defined by the WHO as the rational redistribution of tasks among health workforce teams, taskshifting redistributes responsibilities from higher trained health workers to less highly trained health workers, in order to maximise efficiency of health workforce resources (WHO, 2008). To operationalise taskshifting within the ZL mental health care system, skill packages from the '5×5' model (see below) were matched to provider roles, prior to implementation (Figure 1). Psychologists were additionally tasked with serving as site leaders in care delivery and systems building, by advocating for mental health patients, bridging the gap between community and clinic, and supporting other

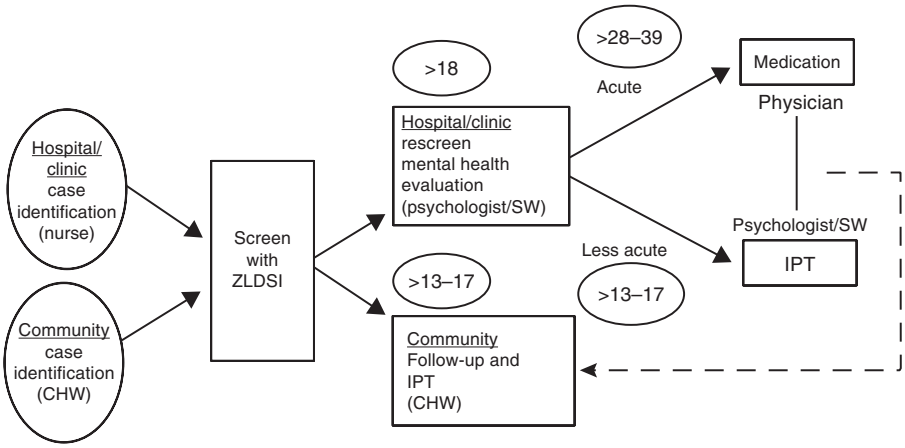

Figure 1*: *Zanmi Lasante depression care pathway.

clinicians to include mental health care in the comprehensive package of services. Furthermore, they were given primary responsibility for maintaining a registry of mental health patients seen at their sites and submitting monthly reports that capture key data about patient demographics and clinical work. This data collection, to be supervised by a member of the ZL monitoring and evaluation (M&E) team, was intended to drive quality care provision. Thus, psychologists were charged with clinical, service delivery, systems building, and quality improvement responsibilities to lay the foundation for the ZL mental health system.

The '5×5' model

PIH and ZL developed this community based, mental health model based on the '5×5' intervention, which guides the scaling up of culturally based, mental health services in low resource settings, with limited preexisting services. It assigns community health workers (CHWs), psychologists, social workers, nurses and generalist physicians five skill packages: case finding, engagement, follow-up and psycho education; psychological interventions; medication management; supervision and consultation; and quality oversight. These are articulated through five implementation rules: 1) assess context first; 2) identify priority care pathways and map them across skill packages; 3) specify decision supports, supervision, and triage rules; 4) use quality improvement practices; and 5) plan for sustainability and capacity building.

The framework speaks of the importance of a shared vocabulary and tools for coordinating and comparing mental health scale up efforts across diverse settings (Belkin et al., 2011). After completing the first three implementation rules, PIH and ZL prioritised a depression care pathway, based on the mhGAP (clinical management of mental health and substance use conditions) intervention guide and built on the aforementioned role providers, which was intended to lay the groundwork for a system of mental health care during year one of the GCC initiative. Additional, evidence based, culturally adapted care pathways were to be developed and implemented for epilepsy, bipolar and psychotic disorders and child and adolescent disorders during years two and three.

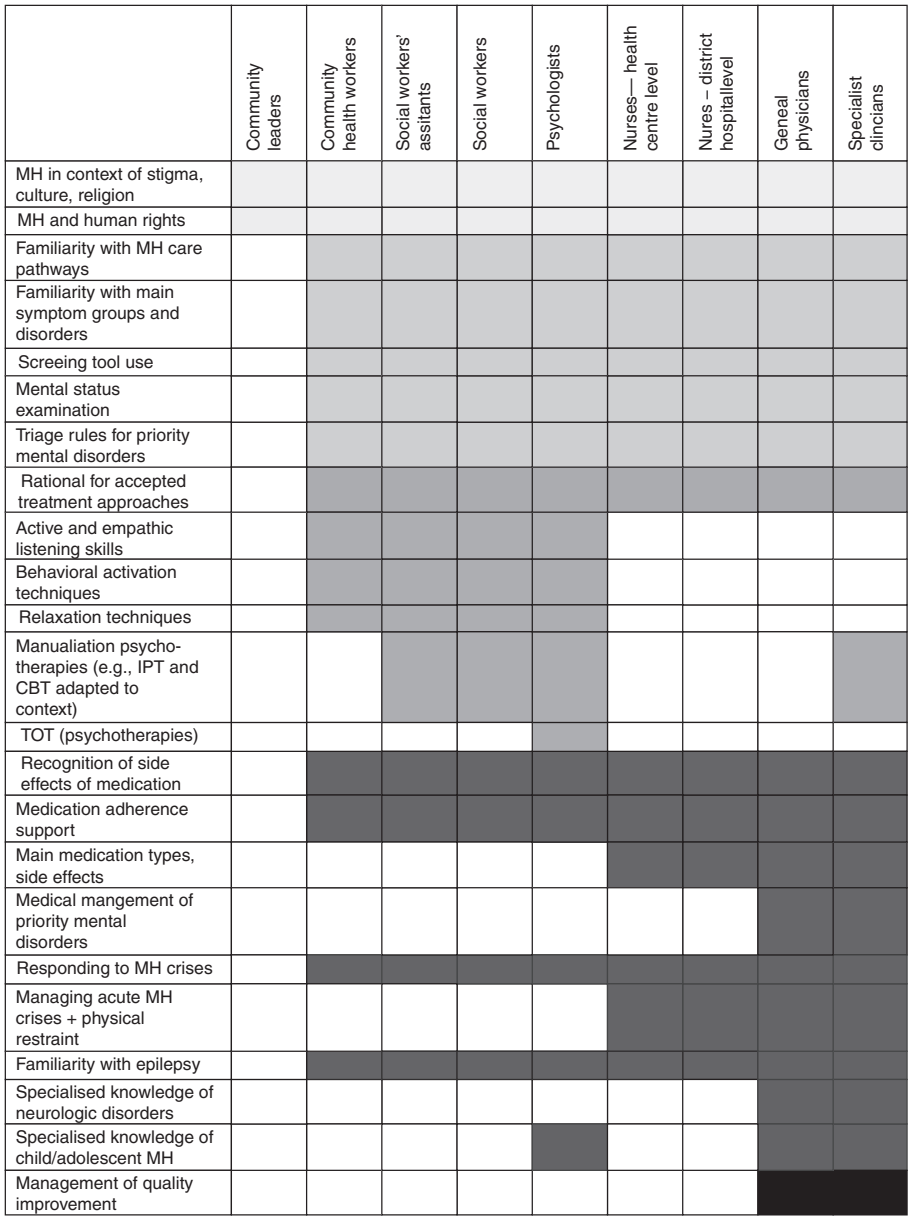

Figure 2*: *Mapping skill areas to provider roles, from Raviola et al. 2012.

Depression care pathway development and provider roles

The depression care pathway (Figure 2) depends on a locally validated, depression screening and monitoring tool: the *Zanmi Lasante Depression Screening Inventory* (ZLDSI) (Rasmussen, Eustache, Raviola, Kaiser, Grelotti, & Belkin, 2015). CHWs refer severe cases, determined by ZLDSI scores, to psychologists and social workers and they manage less severe cases within the community. Based on the ZLDSI score, safety issues, severity, and medical concerns, psychologists and social workers then refer more acute patients to generalist physicians for medication management. Psychologists and social workers conduct comprehensive mental health evaluations and manage the majority of cases with psychotherapy (including a version of interpersonal therapy adapted to the Haitian context), psycho education, behavioural activation, and relaxation techniques. As patients improve, they return to the community, where CHWs resume caring for them using a simplified version of the interpersonal therapy (IPT) adapted to the Haitian context. Nurses identify depression cases within the clinic or hospital and refer them to psychologists and social workers. Notably, within the depression care pathway, social workers were asked to perform the same clinical responsibilities as psychologists.

Curriculum development and depression care pathway training

Drawing on three decades of successful training in diverse, resource limited settings, the PIH training team developed four depression curricula for CHWs, nurses, physicians, social workers and psychologists. The psychologist training consisted of power-point presentations, group exercises, open discussion and question/answer sessions that reviewed mental health and wellbeing from a human rights perspective, the ZL mental health care system, psychologists' unique leadership role, diagnosing major mental illness categories using DSM-IV, comprehensive mental health evaluation and bio psychosocial case formulation, the aetiology and treatment of depression and psychological treatments. The training also emphasised how to use mhGAP and the ZLDSI, and reviewed basic interpersonal therapy skills, along with behavioural activation and relaxation exercises.

During the summer of 2013, 31 CHWs, 21 psychologists and social workers, 21 nurses, and 11 physicians trained for 3–5 days in basic mental health concepts related to diagnosis, evaluation, and treatment, based on their roles in the care pathway. Trainings took place separately among role providers, so all CHWs trained together, all nurses trained together, and all physicians trained together. Psychologists and social workers trained together because they were to play the same clinical role in the depression care pathway. Members of the ZL mental health team carefully selected trainees by identifying potential mental health *champions*, that is: one to two nurses and physicians from each site who were leaders, or had demonstrated a strong interest in mental health. The team supervisors (see below) all participated in the trainings with the main supervisor for each clinician group taking the lead (Table 1). Pre and post test, which were based on the content of the trainings and demonstrated significant uptake of information (Table 2).

Training and supervision

For the GCC initiative, one psychologist was placed at each of the 11 ZL sites. Several had worked for ZL since the earthquake, but most were newly hired. All had completed coursework for psychology bachelor's degrees, although some had not completed theses required for graduation. Some psychologists had received limited supervision through previous positions with nongovernmental organisations and apprenticeship

Table 1. Providers in the ZL mental health system of care

Zanmi Lasante mental health and psychosocial support services (MHPSS) team	
Psychologists	• 1 psychologist at each of the 10 ZL sites, 2 at 1 ZL site; 12 total • Full-time mental health clinicians; mental health leaders at each individual ZL site • 10 out of 12 completed 3-day depression training (conducted jointly with social workers)
Social workers	• 1 at each of the 11 ZL sites; 11 total • 75% of their time dedicated to mental health care; responsible for managing mental health patients, along with psychologists • 10 out of 11 completed 3-day depression training (conducted jointly with psychologists)
Team supervisors	• 1 Psychologist Supervisor (for psychologists and social workers) • 1 CHW Supervisor • 1 Nurse Supervisor • 1 Physician Supervisor • 1 MEQ Supervisor • 1 (American) Team Psychiatrist (Pagenel Fellow) • Full-time mental health clinicians/leaders • Responsible for supervising clinicians who participated in training and for operationalising depression care pathway at all 11 ZL sites
Zanmi Lasante staff who collaborate with MHPSS team	
Mental health community health workers (CHW)	• 2–3 at each of the 11 ZL sites; 31 total • Work part-time in mental health (most CHWs do other health related community health worker activities) • 31 out of 31 completed 5-day depression training
Nurses	• 2–3 from each of the 11 ZL sites selected for depression training • Not mental health team employees; work for ZL in inpatient medical/primary care

Table 1. (Continued)

	• 21 completed the 3-day depression training
Physicians	• 1–2 physicians from each of the 11 ZL sites selected for depression training • Not mental health team employees; work for ZL in inpatient medical/primary care • 11 completed the 3-day depression training

with other clinicians. However, most psychologists had not received regular, long-term, direct clinical supervision, which was to be a hallmark of the GCC initiative. ZL psychologists often treat patients with extensive trauma histories, compounded by medical illness, and further complicated by challenges accessing treatment. These cases require advanced bio psychosocial evaluation and treatment formulation that is beyond the focus of bachelor's programmes. Therefore, psychologists required additional supervision to meet patients' needs.

Teams supervisors

PIH hired a full-time psychiatrist, the Dr. Mario Pagenel Fellow in Global Mental Health Delivery, to provide this supervision while also supporting quality mental health care implementation and systems development. Rather than providing direct clinical care, the Fellow supervises ZL clinicians (including psychologists, social workers, physicians, nurses and CHWs) who then function as the primary providers of mental health care. The first psychiatrist worked in Haiti from August 2011 through June 2012, and the second psychiatrist, who arrived in August 2013, will remain in Haiti through December 2015.

As part of the GCC grant, one supervisor was given the responsibility of training its cadre at all 11 sites in order to operationalise the depression care pathway. For example, the Physician Supervisor, a generalist physician, was to supervise all ZL physicians; the CHW Supervisor, a psychologist, was to supervise all CHWs; and a Nurse Supervisor was to supervise all nurses. Another psychologist was to serve as the Psychologist Supervisor, overseeing all psychologists and social workers. This emergence of these teams supervisors (see Table 1) ensured that supervision, capacity building, and sustainability, key components of the 5×5 model, were prioritised. The Pagenel Fellow (team psychiatrist) was given the responsibility of standardising and improving supervision in order to ensure ongoing, quality improvement.

Table 2. Pre test and post test scores: depression training

Clinician	Pre test	Post test
Community health worker	62%	86%
Nurse	49%	85%
Physician	53%	85%
Psychologist	52%	67%
Social worker	48%	66%
All providers	50%	76%

Implementation of the depression care pathway and challenges

To support the burgeoning system of care, team supervisors began site visits. These site visits quickly revealed how the skill packages mapped across care providers (Figure 2).

However, while useful as a preliminary guideline, these skill packages did not adequately meet the need for building competencies in these areas. In particular, the skill packages did not outline how to: develop the systems building; service delivery; monitoring and evaluation; and quality improvement competencies that psychologists were supposed to master. Below, various challenges arising that related to taskshifting responsibilities to psychologists are discussed, followed by associated solutions (Table 3).

Clinical responsibility challenges

A novel, five-paged initial evaluation form provided a framework for comprehensive mental health evaluations. However, most psychologists, lacking supervision in comprehensive evaluations, limited their history to one paragraph on the first page and overlooked additional information, like past history and the mental status exam. Many psychologists used the ZLDSI for patients with strong suspicion of depression (for example, suicidal patients). However, bipolar and dementia cases often did not receive the depression screening necessary for proper diagnosis. Furthermore, the ZLDSI was not used consistently enough to track clinical improvement. Systematic approaches to diagnosis and treatment presented during the summer training, and outlined in the depression care pathway, mhGAP, the DSM-IV and the IPT manual were all adapted to the Haitian context, and yet were not implemented. Evaluations also lacked the advanced bio psychosocial formulations and treatment plans critical for complex patients with extensive trauma histories, co morbid medical illness and living in extreme poverty.

A number of psychologists excelled in their ability to connect with patients and their families, but empathic listening, appropriate body language and using open ended/close ended questions to complete evaluations were difficult for others. Cases of severe mental illness, especially psychosis and mania, provoked discomfort regarding assessing safety, conducting a comprehensive evaluation (for example, by consulting with family members for additional history) and using psychological interventions, such as giving support and psycho education in tandem with psychopharmacologic treatment. Psychologists demonstrated greater aptitude managing depressed and anxious patients, who are more amenable to psychological therapies. To address clinical challenges, the team supervisors developed a weekly IPT supervision phone call and provided clinical supervision in real time, directly or by phone. Additionally, while some psychologists subsequently improved their skills, many considered supervision a burden that interfered with their growing clinical responsibilities.

Service delivery and systems building challenges

Documentation and organisation, the foundation of effective service delivery and systems building, presented some of the major challenges. Required forms included the five-page initial mental health evaluation, a two-page follow-up form to track clinical progression, the ZLDSI, and a depression care pathway form for capturing provider collaboration. Psychologists were also expected to enter patient information into a registry for monitoring and evaluation data, in order to ensure patient follow-up and retention. Implementation was slowed by the unavailability of forms (most sites do not have printers), but also largely because documentation requirements were considered excessive and contradicted most psychologists' previous approach of writing a brief paragraph on blank paper. Prior to the mental health scale-up efforts, psychologist had relied primarily on nurses and physicians to refer tuberculosis and HIV/AIDS patients for counselling, and all care was tracked through brief documentation in medical dossiers. As such, they were

Table 3 Psychologist competencies in the ZL mental health care system: associated challenges and solutions

Competency	Challenges	Solutions
Clinical care	-Comprehensive mental health evaluation	-Direct supervision
	-Insufficient use of ZLDSI	-Teaching individual parts of the evaluation first
	-Systematic approaches to diagnosis	before focusing on comprehensive evaluation
	-Advanced biopsychosocial formulation	-Developing biopsychosocial formulation skills after mastering the evaluation
	-Interview skills, therapeutic alliance	-Supervisors demonstrating interview skills
	-Management of severe mental illness	-Supervising use of forms
	-Safety assessments	-Intensive (weekly), standardised supervision with specialist (psychiatrist) present
	-Resistance to supervision	-Developing tools/checklists/protocols to guide supervision
		-Multiple supervision modalities (phone, in-person, case discussion, formal case presentation, caseload review, consultation with colleague)
		-Standardised site visits focused on systems building (not maximising quantity of patients seen)
		-Homework assignments
		-Monthly psychologist meetings
		-Exam
Service delivery and systems building	-Documentation	-Folders, filing cabinets to organise patient files
	-Organisation	-Personal secured filing system for dossiers
	-Patient archives	-Use of calendars and post-it notes for scheduling
	-Collaboration between providers	-Direct and proactive supervision of collaboration between role providers

Table 3. (Continued)

Competency	Challenges	Solutions
	-Scheduling	-Providing tools and direct supervision of organisation
	-Patient engagement and retention	-Reviewing charts to ensure complete documentation
	-Triage	
	-Collaboration with providers, especially CHWs	
	-Leadership at site, within community	
Monitoring and evaluation, quality improvement	-Using registry and completing monthly reports	-Direct supervision of registries by multiple stakeholders
	-Using monitoring and evaluation to improve clinical care and systems building	-Using monthly reports during weekly supervision
	-Accepting and responding to feedback	-Using monitoring and evaluation findings regularly to shift supervision and to shape monthly psychologist meetings
Management and leadership	-Remediation/recourse for poor performance	-Psychologist competencies
	-Support/oversight for all role providers	-Clear repercussions for not following rules
	-Cohesion among ZL mental health team leadership/supervisors	-More regular meetings about leadership
		-Warning letters through human resources
		-Supervision a required part of the job

unaccustomed to managing a caseload of patients independently as the primary clinicians. Therefore, when the mental health scale-up efforts began, psychologists lacked calendars to schedule patients, folders to file patient materials, and documents for monitoring and evaluation purposes. Incomplete patient files, limited registry use to track patients, and no calendar for scheduling patients, in turn, interfered with treatment retention and re-engagement. Also, sites with paper based, centralised archives frequently lost files, and psychologists frequently either re-evaluated patients with missing documentation, or wasted time searching for dossiers, further undermining documentation requirements.

Patients often lacked resources to arrange transport to clinic or could not afford to lose daily wages. Some psychologists, as a result, communicated with patients by phone, or by asking CHWs to do home visits as they felt too overwhelmed by their existing responsibilities to do home visits themselves. As a result, numerous patients were lost to follow-up. With no system for scheduling, patients often showed up randomly. So, psychologists could see no patients one day or multiple acute cases on another day, making triage for acute cases difficult and hindering treatment engagement for patients who spent the whole day waiting for care.

Psychologists also often encountered difficulty collaborating with primary care physicians, who were sometimes responsible for managing dozens of patients each day. In addition to being overwhelmed by existing caseloads, physicians also felt uncomfortable managing mental health patients, due to their limited training in mental health. As only 11 ZL physicians had participated in the depression training, the vast majority of physicians at the sites were unfamiliar with the depression care pathway, including its triage and decision rules, as well as the need to collaborate with psychologists. However, comparatively speaking, collaboration progressed, likely because patients needed medical care (Table 4).

Most psychologists did not effectively collaborate with CHWs to facilitate referrals to and from the community. Due to social and educational hierarchies, some psychologists were biased towards CHWs and did not believe they could deliver mental health care. More psychologists, however, were unsure of how to provide multi-disciplinary care through the community based model (Table 4). Therefore, most patients self-presented or were referred from other clinical providers within the hospital/clinic settings, rather than from the local community. Indeed, many psychologists focused solely on their individual clinical encounter with their patient in their office. Overwhelmed by their various new responsibilities, they felt uncomfortable enhancing service delivery throughout the clinic/hospital site, for example by collaborating with nurses and physicians in the inpatient setting. One social worker at each ZL site had been asked to contribute significantly to mental health (see Table 1). Because social workers receive no clinical exposure to mental health during their training, they required supervision. However, the psychologist supervisor was also occupied with training all 12 psychologists. Social workers' responsibilities, unrelated to mental health, also prevented them from committing 75% of their time to mental health, as originally planned. Therefore, as a whole, they remained uninvolved in the depression care pathway.

Monitoring and evaluation challenges

The ZL monitoring, evaluation, and quality improvement (MEQ) team created a registry to document patient demographics, diagnoses, and treatments for each visit. Psychologists used the registries to generate monthly reports capturing clinical care, service delivery, and systems-building indicators. Examples of these indicators include: number of new patients, number of follow-up patients, number of patients

Table 4. Collaboration between role providers at sites that received site visit supervision

	October 2013 (2 months after trainings)	February 2014 (6 months after trainings)	May 2014 (9 months after trainings)
Patients referred from CHW to psychologist/SW	Site 1: 0	Site 1: 0	Site 1: 2
	Site 2: 7	Site 2: 1	Site 2: 6
	Site 3: 3	Site 3: 0	Site 3: 0
Patients referred from psychologist/ SW to CHW	Site 1: 0	Site 1: 0	Site 1: 3
	Site 2: 0	Site 2: 0	Site 2: 0
	Site 3: 0	Site 3: 0	Site 3: 0
Patients referred from physician/ nurse to psychologist	Site 1: 0	Site 1: 16	Site 1: 8
	Site 2: 23	Site 2: 16	Site 2: 39
	Site 3: 0	Site 3: 6	Site 3: 12
Patients referred from psychologist to physician/nurse	Site 1: 0	Site 1: 16	Site 1: 15
	Site 2: 35	Site 2: 11	Site 2: 78
	Site 3: 0	Site 3: 8	Site 3: 17

Collaboration between psychologists and physicians/nurses progressed steadily, especially after standardised site visits began in February 2014. However, collaboration between community health workers (CHWs) and psychologists did not. Note that social workers (SW) are grouped with psychologists because both are the primary mental health care providers at each clinical site. Data reported as '0' indicates that either data was not reported, or collaboration did not take place.

receiving interpersonal therapy, and number of patients referred from nurses and physicians. During the first six months of implementation, registries often remained unused, and monthly reports were submitted late or incorrectly, making data driven, quality improvement unfeasible. The other major monitoring and evaluation tool, direct supervision led by the psychologist supervisor, aimed to improve psychologists' skills in clinical, service delivery, and systems building domains. Several psychologists responded positively; but many psychologists felt undermined by the supervision, considering it an additional task or burden to manage in the midst of a substantial increase in workload.

Improving implementation: solutions to challenges

Direct supervision as key to clinical care

Prior to scale-up efforts, supervision had been informal and optional, initiated only when psychologists requested it. While team supervisors had expertise to share, most had not been trained under formal supervision themselves. The team psychiatrist, who arrived after all four depression trainings were completed, generated momentum for a consistent supervision process. Although each supervisor focused on their assigned cadre, all team supervisors worked with the psychologists, due to their central role. Direct clinical supervision in the field quickly revealed common gaps in knowledge. As a result, team supervisors subsequently developed supervision tools to address them. One-page guides on: conducting mental status exams, suicide/safety assessments and gathering social histories provided practical, implementable education. Team supervisors also assisted psychologists with the basic components of the MH evaluation first, and then progressed to assisting in developing more advanced clinical skills related to diagnosis and treatment. Through providing supervision in person, team supervisors demonstrated interview skills, showing empathy to patients and preventing confidentiality breaches in order to develop a therapeutic alliance. As the psychologists' skills improved, team supervisors were able to focus more on diagnosis and case formulation.

The team's psychiatrist standardised supervision by emphasising consistent use of key teaching materials, such as the mhGAP, the depression training, the DSM-IV, and an IPT manual adapted to the Haitian context. Supervision checklists for each role provider delineated each step in depression diagnosis, management and service delivery, further standardising supervisors' approach. Psychologists who excelled at IPT, which was now being taught regularly during site visits, began to supervise other psychologists (and social workers). Weekly supervision sessions, lead by an American expert in IPT, shifted from case discussion to learning how to supervise effectively. Thus, the training the trainer approach became a focus of the systems building process.

Additional supervision opportunities included case presentation through telephone and weekly case discussions. Psychologists respectively presented cases using a learning tool the team developed, and shared complex cases while the psychiatrist documented findings on a chalkboard. A consistent (at least weekly), standardised approach to supervision was critical to familiarising and engaging psychologists in the supervision process. Psychologists eventually became amenable to presenting cases, soliciting insight from their supervisors and peers, and implementing a bio psychosocial, multidisciplinary approach.

Because a weekly site visit was needed to build capacity, team supervisors could only visit three of the 11 sites each week for supervision. However, they continued fielding requests, usually by phone, from all 11 sites for support managing complex psychosis, epilepsy and depression cases. Even at the

three sites visited, clinical needs competed with supervision and quality of care, as psychologists sometimes scheduled ten patients for the clinical supervisor. A detailed, structured site visit protocol was, therefore, developed to manage this tension between the time required for clinical care versus supervision. Psychologists were asked to schedule only 3–4 patients for each supervisor visit, 90 minutes per patient to allocate sufficient supervision time, to block time for a short meeting to review clinical cases and supervision goals before seeing patients, and a closing meeting to review the day's activities and assign homework. Team supervisors also began using a site visit checklist, developed by the team psychiatrist, to evaluate clinical care, service delivery, systems building, MEQ, management and leadership performance of all role providers. This feedback shaped subsequent site visits by drawing attention to strengths and weaknesses. After 4–5 weekly visits, psychologists acclimated to the protocol, and after 3–4 months of weekly visits their skills, clinical and otherwise, improved noticeably. Monthly psychologist meetings, designed to avoid neglecting other sites, addressed common gaps in knowledge and again emphasised key supervision tools (mhGAP, DSM-IV, the IPT manual and the depression training materials). Furthermore a comprehensive test, based on these tools, was announced and psychologists received sample questions in the preceding months to prepare and review key concepts.

Direct supervision as key to service delivery and systems building challenges

Organisational skills related to scheduling and proper storage of patient files represented a crucial first step in improving service delivery and systems building. Therefore, team supervisors began supervision only after organisation was satisfactory, sometimes spending several hours arranging patient files before starting. Team supervisors provided filing cabinets, folders, calendars and post-it notes. They also required patient appointments to be entered into a calendar and providing patients with appointment reminders on small note cards. Folders facilitated more complete patient dossiers, which were stored securely in their offices, bypassing the central archives in order to avoid losing files. This impromptu archive system enhanced supervision as well by allowing supervisors to review dossiers in order to ensure that mental health evaluations were complete, ZLDSIs were performed at each visit, and follow-up forms were used for each follow-up visit. All of these interventions resulted in more predictable and manageable schedules.

Further, team supervisors reviewed incomplete files with psychologists and made plans to complete evaluations, often by seeing these patients together. Once compliance was achieved, psychologists appreciated how quality and efficiency of care improved, thereby allowing more time for other competencies, such as the registry. Team supervisors also required psychologists to enter patient data into the registry immediately after seeing each patient, rather than once per month. Consistent accountability for the fulfilment each of these interventions, and for each case, represented the key to successful implementation.

Improving patient engagement and retention required supervisors to review registries independently to identify all cases of concern, for example, epileptic patients who had not been seen in six months or a psychotic patient who came once, but never returned. They subsequently worked with psychologists to devise a re-engagement plan, based on acuity, for example, through collaboration with CHWs, calling patients directly, or less often making home visits. Psychologists often felt uncomfortable with this comprehensive review of their work, which they experienced as critical or even judgmental. Most team supervisors,

unaccustomed to reviewing caseloads systematically and transparently, felt intrusive. Therefore, the team psychiatrist accompanied team supervisors and psychologists for these reviews, demonstrating their importance for quality of care. As the benefits for patient care became clearer, the practice became more routine and less uncomfortable. The site visit checklist facilitated the development and implementation of this intervention, which taught psychologists how to review their registries periodically to identify lost cases.

The psychologist supervisor observed psychologists presenting cases to physicians, and provided feedback to improve presentation and formulation, while drawing on the supervision checklist devised to standardise these collaborations. Enhancing collaboration with CHWs required more scrutiny, monitoring and follow-up to guarantee action. Team supervisors reviewed patient registries independently, identified cases that warranted collaboration, and scheduled patient visits, with both CHWs and psychologists present. Team supervisors would then subsequently contact both the CHW and psychologist to ensure the visit transpired. Less involved approaches, such as recommending CHW involvement during clinical supervision of a case or during team meetings, were unproductive. Similar to clinical supervision, service delivery and systems building supervision required at least 3–4 months of weekly supervision to sustain capacity building. While collaboration with physicians improved, collaboration with CHWs lagged behind (Table 4). Although several social workers began to work more closely with psychologists, most remained largely uninvolved in mental health care.

Solutions to monitoring and evaluation challenges

As with all other competencies, increasing the use of the registry required direct supervision and accountability to ensure proper implementation. The ZL MEQ supervisor worked alongside psychologists to review individual patient dossiers and to ensure patient data were properly entered into the registry. Registries were also carefully reviewed to ensure that monthly reports were accurate. During site visits, team supervisors checked registries for accuracy and to drive clinical supervision by highlighting treatment retention or disengagement, frequency of visits, accuracy of diagnosis and proper treatment plans. They reviewed monthly reports during morning meetings in order to shape systems building efforts for the day, such as increasing collaboration with CHWs. Despite these interventions, discordance between registries and monthly reports, in terms of number of patients, visits and treatments, remained as high as 60%. As a result, the team psychiatrist worked with team supervisors and the ZL MEQ supervisor to reduce the number of indicators, clarify their definitions, and reconsider the validation process. The team is also planning to include several new indicators to track patient satisfaction and clinical improvement with the hope of focusing more on quality of care. Most psychologists accepted direct clinical and MEQ supervision as their skills improved, and their confidence grew as a result, but management interventions were required to increase its uptake.

Leadership/management interventions

Shifting psychologists' role from providing individualised counselling with limited scrutiny to leading clinical, service delivery, systems building and activities with increased oversight, required significant management interventions. A *Psychologist Competencies* document, developed several months post training, presented new expectations, the system for ensuring compliance and consequences for non compliance. It formalised the process of identifying non compliant psychologists and developing remediation plans, as well as help identify exceptional

Table 5. Recommendations for optimising tasksharing when initiating community based mental health services in low resource settings

- Include a pre-implementation phase to engage all stakeholders, to make a case for integrating mental health, and to assess the training needs of non specialist providers.
- Develop a detailed implementation plan that accounts for existing resources, particularly human resources, and capitalises on community strengths.
- Pilot the project at several selected sites to identify strengths, weaknesses and strategies for success; then apply these lessons to additional sites.
- Assign appropriate roles and skill packages to patients, families, community leaders, traditional healers and community health workers. Do not under estimate the capacity of non specialist providers.
- Design trainings that not only teach clinical skills, but also emphasise what each role provider is supposed to do to advance a community based system of care.
- Follow intensive trainings immediately with consistent, direct supervision, standardised using tools and protocols, and led by a clinical expert.
- In settings where trainings can only last several days and supervisors are few, develop simple, practical tools (like checklists) to facilitate ongoing learning.
- Create training manuals that are adapted to local culture and realities, and train role providers to use tools and protocols.

psychologists, who were subsequently considered for promotions and leadership positions. Collaborating with physician and nursing leadership within ZL has been especially important for improving these providers' involvement in the ZL mental health care model.

Discussion

Our model, in which psychologists emerge as the leaders in mental health systems building, demonstrates how taskshifting as a theory translates into daily practice and offers practical, implementable solutions to facilitate this process (see Table 3). It also illustrates how bringing together a clinical expert (an American trained psychiatrist) and mental health care providers with expertise within the local context (the ZL mental health team) can enhance scale-up efforts. The process of taskshifting diverse responsibilities took place within the larger context of a three-year effort to scale up community based mental health services Therefore, in addition to providing practical solutions in Table 3, we also present a critical appraisal of the project and its ambitious plans to taskshift leadership responsibilities to psychologists. Broader points, that could be applied to similar early stage efforts launched in other resource-challenged settings, are presented in Table 5.

Prior to the depression care pathway, mental health had a limited presence within ZL, which had instead focused on medical care, particularly related to HIV/AIDS. Psychologists primarily supported these efforts and occupied a marginal role at best. Therefore, when implementation began, the case for integrating mental health services was not established. In particular, nursing, physician and social worker leadership were not fully and practically committed to the mental health scale-up plans. For these reasons, the project needed a pre implementation phase: 1) to advocate for mental health among clinical leadership; 2) to sensitise ZL to the importance of mental health integration; and 3) to create a detailed, practical implementation plan that accounted for the team

supervisors' limited supervision capabilities (Thornicroft et al., 2010; WHO, 2013; WHO/World Organisation of Family Doctors, 2008). Piloting the project at three ZL sites also could have identified strengths, weaknesses, and effective strategies for developing services at the other eight (WHO, 2013). Instead, implementation itself, which took place simultaneously at 11 sites, revealed the major challenges: 1) lack of collaboration between role providers; and 2) psychologists' limited knowledge of basic mental health care. Both of these obstacles, in turn, made psychologists' additional service delivery and monitoring and evaluation responsibilities too onerous.

Also, with the depression care pathway centred heavily on psychologists within a clinic setting, may have underestimated community assets. The skill packages mapped across providers (Figure 2), for example, did not include families and community members (Thornicroft et al., 2010). Furthermore, ZL CHWs have contributed robustly to the depression care pathway, going beyond case identification and clinic referral. Using interpersonal therapy, they have successfully treated more severely depressed patients who had been unable to access clinic based care. Their educational and awareness raising activities have reduced stigma and engaged community leaders and traditional healers, some of whom, in turn, refer mental health cases. They have also facilitated family involvement through psychoeducation and support, and some of their treated patients have even supported other community members to seek mental health services.

The ZL depression trainings were limited in their capacity as starting points for articulating the care pathway and equipping psychologists to develop comprehensive, multidisciplinary care. Logistical challenges related to funding, transport, housing and food, limited the trainings to several days, rather than the several weeks or more that are often needed to train non specialist mental health providers (WHO, 2013). These challenges also prevented nurses, physicians, social workers, psychologists, and CHWs from training together to facilitate team-building at each site. Content focused primarily on diagnosis, evaluation, and treatment and did not emphasise the systems building process by highlighting what each role provider is expected to do. Furthermore, too few role providers were trained in order to instigate systems wide changes (for example, 11 out of the 90 total physicians at ZL; 21 out of the 220 total nurses at ZL). Because ZL psychologists were given multiple new demands simultaneously, they needed consistent, direct supervision to sustain learning following the trainings (WHO, 2013). However, only one psychologist supervisor was available to train 12 psychologists at 11 sites, making weekly supervision impossible. The shortage of team supervisors also made effectively supervising all other service providers problematic, further interfering with psychologists' leadership role.

However, despite these challenges, lessons from the depression care pathway informed the epilepsy system of care's development and implementation in the following year. Curricula materials were developed with greater attention to the local context and consideration of community resources. For example, psychologists were trained to elicit and understand patients and families' explanatory models, which are also factored into psycho education messages. CHWs received more guidance about community education activities and counselling patients and families. Novel training manuals developed for each role provider, which served as the basis for the epilepsy trainings, focus on how to use practical, simple tools, such as epilepsy evaluation forms and an epilepsy checklist. They also emphasise the roles each provider plays in bringing the system of care together. These tools have successfully guided role providers who were unable to participate in the trainings and helped

ensure higher quality care. All of these changes have facilitated psychologists' leadership role in the epilepsy care pathway, while direct supervision, immediately followed the trainings, have ensured better implementation.

Nonetheless, psychologists continue to manage demanding caseloads of complex cases without adequate supervision, due to human resources constraints. As a result, both secondary trauma and burnout remain real risks. The ZL team has considered shifting more depression cases to CHWs in the community, but only several dozen of the several hundred ZL CHWs has been trained in the depression care pathway. The availability of strong clinical supervisors to oversee and ensure safe, quality care remains the rate limiting step. Currently, there are only three fully effective supervisors (the psychologist supervisor, the CHW supervisor, and the team psychiatrist) for a team that has screened over 5,000 individuals for depression since the project began. In future papers, the ZL team will highlight the experience of other roles providers, particularly CHWs and physicians, in the depression and epilepsy care pathways, thereby providing a more comprehensive, critical appraisal of their community based, mental health scale-up efforts.

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Rupinder Legha is the Pagenel Fellow in Global Mental Health Delivery, which is sponsored by Partners in Health and Harvard Medical School's Program in Global Mental Health and Social Change, USA. email: rlegha@pih.org
Eddy Eustache is the Director of Mental Health and Psychosocial Support Services at Zanmi Lasante, Haiti.
Tatiana Therosme is the Mental Health and Psychosocial Support Team's Mental Health Supervisor for Community Health Workers at Zanmi Lasante, Haiti.
Kate Boyd is currently a Doctorate in Public Health candidate at the Colorado School of Public Health, USA. She was previously the Mental Health and Psychosocial Support Coordinator at Partners in Health, Haiti.
Fils-Aime Reginald is currently a student in the Masters in Medical Science in Global Health Delivery at Harvard Medical School, USA. He was previously the Mental Health and Psychosocial Support Services' Mental Health Supervisor for Physicians at Zanmi Lasante, Haiti.
Gertruna Hilaire is the Coordinator for Monitoring and Evaluation at Zanmi Lasante, Haiti.
Shin Daimyo is currently Senior Advisor for Mental Health at Partners in Health, a Master of Science in Nursing candidate at the Yale School of Nursing, and a Paul and Daisy Soros Fellow. He was previously the Clinical Programs Officer and Program Manager for Mental Health at Partners in Health, USA.
Gregory Jerome is the Director of Monitoring and Evaluation and Quality Improvement at Zanmi Lasante, Haiti.
Helen Verdeli is an Associate Professor of Psychology and Education and Director of the Global Mental Health Lab at Teacher's College, Columbia University, USA.
Giuseppe Raviola is the Director of Mental Health at Partners in Health, Boston; and the Director of the Program in Global Mental Health and Social Change, which is based at Harvard Medical School's Department of Global Health and Social Medicine, USA.