

Determinants of Care Seeking for Mental Health Problems in Rural Haiti: Culture, Cost, or Competency

Bradley H. Wagenaar, M.P.H.
Brandon A. Kohrt, M.D., Ph.D.
Ashley K. Hagaman, M.P.H.
Kristen E. McLean, M.P.H.
Bonnie N. Kaiser, M.A.

Objective: This study examined patterns, determinants, and costs of seeking care for mild to moderate psychiatric distress in order to determine optimal approaches for expanding mental health care in rural Haiti. **Methods:** A cross-sectional, zone-stratified household survey of 408 adults was conducted in Haiti's Central Plateau. Multivariable logistic regression models were built to assess determinants of first-choice and lifetime health service use by provider type. **Results:** Thirty-two percent of respondents endorsed God as their first choice for care if suffering from mental distress, and 29% of respondents endorsed clinics and hospitals as their first choice. Forty-seven percent of respondents chose potential providers on the basis of anticipated efficacy. Suicidal individuals were 7.6 times (95% confidence interval [CI]=1.4–42.0) as likely to prefer community-based providers (herbal healer, church priest or pastor, or Vodou priest) over hospitals or clinics. Depression severity was associated with increased odds (adjusted odds ratio [AOR]=1.8, CI=1.5–2.3) of ever having been to an herbal healer. Having a household member with mental health problems was associated with increased odds of ever having been to church pastors or priests (AOR=5.8, CI=2.8–12.0) and decreased odds of ever having been to hospitals or clinics (AOR=.3, CI=.1–.8). Median actual service costs were US \$1 for hospitals or clinics, \$6 for herbal healers, and \$120 for Vodou priests. **Conclusions:** Three out of four rural Haitians said they would seek community resources over clinical care if suffering from mental distress. Therefore, isolated clinical interventions may have limited impact because of less frequent use. Efforts to expand mental health care should consider differential provider costs when selecting community resources for task shifting. (*Psychiatric Services* 64:366–372, 2013; doi: 10.1176/appi.ps.201200272)

Mr. Wagenaar is affiliated with the Department of Epidemiology, School of Public Health and Community Medicine, University of Washington, Seattle. Dr. Kohrt is with the Department of Psychiatry and Behavioral Sciences, George Washington University, Washington, D.C. Ms. Hagaman is with the Department of Global Health, School of Human Evolution and Social Change, Arizona State University, Tempe. Ms. McLean is with the Department of Anthropology, Yale University, New Haven, Connecticut. Mrs. Kaiser is with the Department of Anthropology, Emory University, Atlanta, Georgia. Send correspondence to Dr. Kohrt, Department of Psychiatry and Behavioral Sciences, George Washington University, 2150 Pennsylvania Ave., N.W., 8th Floor, Washington, DC 20037 (e-mail: brandonkohrt@gmail.com).

The psychological aftermath of the 2010 earthquake in Haiti garnered local and international attention regarding scarcity of psychiatric services throughout the country (1). In Haiti, as in most low- and middle-income countries, most persons with mental disorders lack access to psychiatric care (2,3). In rural areas, where half the population resides, mental health services are virtually nonexistent (4,5). In 2003, an estimated ten psychiatrists were working within the public sector, most of whom were working in Port-au-Prince (6).

As psychiatric services are developed and brought to scale in low-resource settings, global mental health practitioners have advocated for scaling up interventions by task shifting—in other words, delegating the provision of psychiatric services typically provided by specialists in high-income settings to low- and mid-level health providers in places with a limited number of mental health specialists (7–9). Belkin and colleagues (10) have proposed a “5 × 5” procedure involving five skill sets and five rules for implementing community mental health care in low-resource settings. These rules complement the World Health Organization's (WHO's) mental health Gap Action Program guidelines (mhGAP) (11). The mhGAP guidelines provide cogent manualized, stepwise treatment for common psychiatric conditions. They emphasize use of existing

resources, the forging of partnerships, and the development of solutions that are both pragmatic and context specific.

Belkin and colleagues' first "5 × 5" rule is ethnographic assessment of cultural context. The second rule is identifying and mapping care pathways to determine how and where to improve skill sets for appropriate identification, referral, and treatment. The subsequent rules are specifying decision support tools, using quality improvement practices, and addressing sustainability, capacity building, and ongoing management of health workers to ensure quality of care provided and performance improvement. Ongoing management is important especially in settings where low- and mid-level health professionals receive minimal training and are responsible for the majority of mental health care. For the second rule, culture, cost, and competency are three factors that influence psychiatric care pathways (12–14), as explained below.

Culture refers to local explanatory models of the causes, symptom profiles, and appropriate treatments for mental illness (15,16). Some social scientists and cultural psychiatrists have argued that formal psychiatric services are incompatible with spiritual and social models of suffering (17–19). In Nigeria, most psychiatric patients endorsing supernatural causes of their mental illness waited 4.5 years longer to seek biomedical treatment compared with those endorsing medical and genetic causes (20). In addition, cultural stigma associated with mental illness may limit psychiatric service use (21–23).

Cost refers to financial barriers. Traditional healers may be preferred over allopathic services because of putative higher costs for the latter. However, this is not the case in some countries; in India, for example, traditional healers are more expensive than biomedical treatment (24), as may be the case in Haiti (25).

Competency refers to perceived efficacy of services, such as expectations that pharmaceutical medications, such as pills and shots, may be more or less effective than traditional healing methods (26,27). In India and

Editor's note: This report is part of TRAININGrounds, an occasional series by trainees. The series editor is Joseph M. Cerimele, M.D. Prospective authors should contact Dr. Cerimele to discuss possible submissions to TRAININGrounds. Contact him at the University of Washington School of Medicine, 1959 N.E. Pacific St., Box 356560, Seattle, WA 98195-6560 (e-mail: cerimele@uw.edu).

Nigeria, reasons given for help-seeking behaviors include confidence in cure, belief in particular healers, and belief that mental disorders are not amenable to biomedical treatment (24,28,29).

Data are lacking on how these factors influence care seeking from biomedical versus nonbiomedical providers in Haiti. The latter group includes herbal healers (*doktè fey*), Christian priests and pastors, and Vodou priests and priestesses (*hougan* and *mambo*) (25,30–32). Many Haitians adhere to Vodou beliefs and practices, which blend Catholicism and West African animism, emphasizing relationships among ancestors, gods and spirits, and the social world (33). If an individual fails to satisfy spirits or is the victim of a curse, the result is misfortune, including mental illness (31). Vodou priests are often sought to treat psychiatric distress by reconciling relationships among the living, dead, and ancestral spirits (34,35). Individuals also seek treatment from herbal healers, who attribute illness to humoral imbalance (34).

Our study addressed Belkin and colleagues' (10) second rule: we sought to map the influence of culture, cost, and competency on care pathways related to psychiatric needs in rural Haiti. This process was informed by previous ethnographic work on mental distress in rural Haiti that addressed Belkin and colleagues' first rule regarding context assessment (36–38). In this study, we addressed two questions. First, what factors are associated with the first choice of care if one were to suffer from mild to moderate mental distress?

Second, what current factors, including mental distress, are associated with history of ever using specific provider types for any reason? Through these two questions, we intended to identify target providers for task shifting of screening, referral, and delivery of psychiatric services for mild to moderate mental disorders.

Methods

Research setting and survey implementation

We conducted a cross-sectional, zone-stratified household survey of 408 adults in May and June 2011 in the rural Central Plateau of Haiti. Surveys took place in the communal section of La Hoya in partnership with a local nongovernmental organization (NGO) providing health care in the area. Four of the 17 zones were not included in the sampling frame because they had low population density and were difficult to safely access during the rainy season. La Hoya had an estimated 2011 population of 12,941 individuals living in 2,675 households (39).

One of four trained research assistants delivered each survey orally in Kreyòl. Survey duration was approximately one hour. Research assistant training consisted of two days of didactics on survey delivery, sampling, and basic epidemiologic methods, as well as three days of pilot survey delivery to ensure that psychometric tools were correctly administered. Ongoing feedback and training took place throughout data collection.

Participants were selected via a modified version of WHO's "random walk" protocol (40). Using this protocol, research assistants began at a central zone location and proceeded in opposite directions, sampling one resident in every household encountered. A household was defined as a group of people sleeping in the same compound (*lakou*). Because data are not available regarding the age structure of the Central Plateau, research assistants rotated the target age for participants (18–30 years, 31–50, or >50), with individuals under 18 being ineligible. If no one in the preferred age range was present, the research assistant chose the person closest in

age to the preferred age category. Research assistants alternated recruiting male and female participants and obtained verbal informed consent because most rural Haitians are not literate. All participants who endorsed current suicidal ideation had a follow-up interview with an American-licensed counselor and were referred for additional care if needed. The institutional review board of Emory University and the Haitian Ministry of Health approved the study.

Measures

Survey variables included age, gender, marital status, education, religion, distance to work, type of work, distance to and type of water source, household size, socioeconomic status (SES) from 0 to 9 (respondents identified the number of household possessions owned from a list, such as a tin roof or a bicycle), plots of land owned, trauma related to earthquake, general trauma (such as exposure to a fire or an accident), household mental illness, perceived causes of mental illness, number of children, months of food insecurity, mental illness stigma, alcohol use, help with household activities, monthly income, living or working in the Dominican Republic or Port-au-Prince, and depression symptomatology and suicidality. [A table available online as a data supplement to this article contains a detailed description of study variables.] Surveys were double-entered into Excel 2007 each day, and data entry errors were reconciled with Excel Compare v2.4 (41).

To assess depression symptom severity, we used the Beck Depression Inventory (BDI), which underwent a transcultural adaptation process to optimize semantic, technical, content, and construct equivalence (Cronbach's $\alpha=.89$) (38). BDI linear scores were used in regression models because there is no validated clinical cutoff score for Haitian populations. Respondents were coded as experiencing suicidal ideation if they endorsed 1 or higher on BDI item 9.

In previous ethnographic work, we found that individuals in the study region drew from multiple sources of care for unexplained illness, including Vodou priests, religious leaders,

biomedical doctors, and neighbors and friends, and that cost of care differed substantially among sources (36). To test these qualitative findings, participants were first asked if they had ever used any of these resources for health care and the cost of the most recent service, in Haitian goud (41.85 goud=U.S. \$1).

Second, to determine the preferred order of accessing resources and to identify factors associated with decision making, survey respondents were asked, "If you were suffering from sadness, sad heart, or stress that made your life difficult, to whom would you go first for help?" (Kreyòl: *Si ou te gen tristès, kè pa kontan, stres ki rann lavi yo difisil, kiyes ou t'al wè an premye pou ede ou?*). Kreyòl terminology was selected based on ethnographic work, in-depth interviews, and conversations with trilingual research assistants (fluent in Kreyòl, French, and English), indicating that the terms *tristès* and *stres* were locally understood for mild to moderate mental distress. Furthermore, qualitative research revealed that heart-related terms (Kreyòl: *kè*) were used to communicate mental distress (37).

Analysis

First, we built a multivariable polytomous logistic regression model with binary outcomes: turning to God, turning to family and friends, going to a hospital or clinic, or seeking another community-based care provider first for mental health care. The category of other community-based care provider included a Vodou priest, church pastor or priest, community health worker, herbal healer, community chief, or an NGO. These responses were collapsed because sample sizes were insufficient to model individually ($N \leq 7$). Second, we built four separate multivariable logistic regression models with binary outcomes, including ever having been to a Vodou priest, an herbal healer, a church priest or pastor, or a hospital or clinic for care.

Because of the exploratory nature of the study, all variables listed above were included in each model. Backward elimination procedures ($\alpha=.05$) were used to arrive at final models (42). For polytomous logistic regression only, variables were screened individ-

ually, and only those achieving a $p < .20$ were entered together into the model for backward elimination. To establish significance of individual predictors, Wald chi square tests were used. For significance of group predictors (religion, for example), likelihood ratio tests were used. The fit and discrimination of final logistic models were evaluated with Hosmer and Lemeshow's goodness-of-fit test and the area under the curve, respectively. Multicollinearity was assessed with condition indices and variance decomposition proportions (43). We used SAS 9.3 (44) for all analyses; associations were evaluated for statistical significance at $\alpha=.05$ with two-tailed tests.

Results

Anticipated first choice of care for mental distress

Regarding first choice of care for mental distress, 32% ($N=130$) of respondents stated they would turn to God first, 29% ($N=116$) stated they would go to a hospital or clinic first, 25% ($N=101$) to family and friends, and 8% ($N=32$) to church pastors or priests. "They give the best care" was the most commonly endorsed reason for selecting a given provider first (47%, $N=190$), followed by "They make me the most comfortable and understand me" (21%, $N=85$), "They are closest [in proximity] to me" (17%, $N=69$), "That is the way it always has been" (8%, $N=31$), and "They are least expensive" (5%, $N=22$). Seven (2%) respondents stated they would go nowhere for help, and four (1%) refused to answer the question.

Our final polytomous logistic regression model achieved an estimated R^2 of .30. All final logistic models had no significant multicollinearity or lack of fit (all Hosmer and Lemeshow p values $> .17$) and achieved acceptable discrimination (all areas under the curve $> .70$).

Individuals expressing suicidal ideation were 7.6 times as likely as others to respond that they would first seek care from other community-based care providers compared with hospitals or clinics (Table 1). Persons who stated that suffering from mental distress is never an individual's fault were 3.5 times as likely as others to respond that they would turn to God first over

Table 1

Polytomous multivariable logistic regression of 387 Haitian households surveyed for first choice for seeking mental health care^a

Covariate ^c	First choice as source of care					
	God		Family and friends		Other community-based resource ^b	
	AOR	95% CI	AOR	95% CI	AOR	95% CI
Demographic characteristic						
Number of living children	1.1*	1.0–1.2	.9	.9–1.0	1.1	.97–1.2
Owens plot of land	1.2	.98–1.6	1.4*	1.1–1.7	1.3*	1.0–1.7
Mental health status						
Endorsed suicidal ideation	3.5	.7–18.1	4.9	.96–25.4	7.6*	1.4–42.0
Someone in household suffers from mental distress	4.1**	2.2–7.9	1.8	.96–3.2	1.3	.6–2.6
Exposures and causal models						
Lived in earthquake-damaged village	.4*	.2–.9	.2*	.1–.6	.8	.3–2.0
Have ever been stolen from	2.3*	1.1–5.0	1.1	.5–2.5	.7	.2–2.4
Endorsed that if someone suffers from mental distress it is never their fault	3.5**	1.9–6.4	1.8	.97–3.2	.4*	.2–.9
Endorsed that disasters can cause mental distress	2.8*	1.1–7.1	1.6	.6–4.4	1.8	.5–6.5

^a From 408 total respondents, the final sample excludes 11 respondents who would not seek mental health care and 10 with missing data for one or two items. Mental health care was defined as care sought for sadness, sad heart, or stress. Mental distress was defined as sadness, sad heart, or stress that makes life difficult (Kreyòl: *tristès, kè pa kontan, stres ki rann lavi yo difisil*).

^b Includes Vodou priest (*hougan*), church pastor or priest, community health worker, nongovernment organization, chief of the community, or traditional herbal healer (*doktè fey*).

^c For all comparisons, the reference was hospitals or clinics.

*p<.05, **p<.001 (Wald chi square)

hospitals or clinics and were .4 times as likely to respond that they would go to other community-based providers first compared with hospitals or clinics. Individuals responding that disasters can cause mental distress were 2.8 times as likely to respond that they would turn to God over hospitals or clinics.

Predictors of using any type of care over lifetime

Of our sample, 92% (N=376) reported having sought treatment at hospitals or clinics, 25% (N=104) having been to herbal healers, 24% (N=97) having sought care from church pastors or priests, and 12% (N=50) having sought treatment from Vodou priests. The reported median cost of care from hospitals or clinics was 50 goud (US\$1.2), whereas the median cost of care from Vodou priests was 100 times higher: 5,000 goud (US\$120) (Table 2).

Individuals living with someone suffering from mental distress were .3 times as likely as others to have been to a hospital or clinic (Table 3). Respondents who endorsed suicidal ideation were 3.7 times more likely than others to have been to a Vodou priest. For

each 1-point increase on the SES scale (increasing affluence), the odds of ever having been to a Vodou priest decreased by a factor of .7.

For each 10-point increase in BDI scores, the odds of having been to herbal healers increased by a factor of 1.8. Individuals expressing that “thinking too much” could cause mental illness were 2.9 times as likely to have sought care from church priests or pastors.

Discussion

This study was an examination of two issues related to care pathways in rural

Haiti: factors associated with anticipated care seeking when suffering from mental distress and factors associated with any lifetime use of specific providers for any cause. We examined whether cultural factors, cost, or perceived competency influenced anticipated preference and prior service use.

Cultural factors

Turning to God for care was the preferred resource for anticipated care seeking for mental distress even though it was not listed as an answer choice on our survey but written in as

Table 2

Costs of mental health care obtained by 408 Haitian households, by provider type

Care provider	Ever received care		Cost (Haitian goud)	U.S.\$ equivalent	IQR ^a	Cost ratio ^b
	N	%				
Hospital or clinic	376	92	50	1	15	
Herbal healer (<i>doktè fey</i>)	104	26	250	6	80	5
Church pastor or priest	97	24	0	0	0	—
Vodou priest (<i>hougan</i>)	50	12	5,000	120	2,700	100

^a Interquartile range

^b The reference group is hospitals or clinics.

Table 3Multivariable logistic regression models of any use of mental health care over lifetime among Haitians^a

Covariate	Hospital or clinic (N=376) ^b		Herbal healer (N=104) ^c		Church priest or pastor (N=97) ^d		Vodou priest (N=50) ^e	
	AOR	95% CI	AOR	95% CI	AOR	95% CI	AOR	95% CI
Demographic characteristic								
Socioeconomic status (number of household possessions)	ns		ns		ns		.7*	.5–.9
Drinks well water	ns		ns		ns		3.3*	1.4–8.1
Income >1,000 goud (US\$21) per month	ns		.5*	.3–.9	ns		ns	
Small-scale farmer	ns		2.5*	1.3–5.2	ns		ns	
Months without food (3-month intervals)	ns		ns		1.5*	1.1–2.0	ns	
Have someone who can help make food	ns		ns		ns		2.6*	1.1–6.1
Religion (reference: Protestant) ^f								
Catholic	ns		ns		.4**	.2–.7	3.4*	1.5–7.6
Baptist	ns		ns		.9	.4–1.9	1.7	.5–5.9
Other religion ^g	ns		ns		.6	.2–1.6	5.4*	1.7–16.6
Mental health status								
Endorsed suicidal ideation	ns		ns		ns		3.7*	1.3–10.2
Beck Depression Inventory score (10-point change)	ns		1.8**	1.5–2.3	ns		ns	
Someone in household suffers from mental distress ^h	.3*	.1–.8	1.9*	1.1–3.3	5.8**	2.8–12.0	ns	
Exposure and causal models								
Had family member who died in earthquake	ns		ns		1.9*	1.1–3.2	2.3*	1.2–4.4
Lived in earthquake-damaged village	ns		ns		.4*	.1–.9	ns	
Had ever suffered from a life-threatening illness	4.8*	1.6–14.0	ns		.4*	.3–.8	ns	
Believes “thinking too much” can cause mental illness	ns		ns		2.9*	1.5–5.5	ns	

^a ns, eliminated through backward selection for given model^b Out of 405 (92%); excludes 3 respondents with missing data for household mental illness^c Out of 403 (26%); excludes 2 respondents with missing data for “is small-scale farmer” and 3 respondents with missing data for household mental illness^d Out of 404 (24%); excludes 1 respondent with missing data for months without food and 3 respondents with missing data for household mental illness^e Out of 408 (12%)^f Construct p values were p=.007 (ever been to Vodou priest) and p=.009 (ever been to church priest or pastor).^g Included individuals self-identifying as Episcopalian, Haitian Vodouist, and practicing no religion^h Mental distress was defined as sadness, sad heart, or stress that makes life difficult (Kreyòl: *tristès, kè pa kontan, stres ki rann lavi yo difisil*).

*p<.05, **p<.001 (Wald chi square)

Bondye (God). God was also the first care choice for respondents who understood mental distress to be caused by factors outside the control of the individual (such as disasters). Individuals who previously sought out church pastors or priests were more likely to state that mental distress is caused by “thinking too much” (45). Religion also influenced the type of care sought. Catholics, Episcopalians, Vodouists, and those with no religious affiliation were more likely than Protestants to seek help from Vodou priests.

Cost

Our findings indicated extreme cost differentials across care pathways. The median cost of visiting Vodou priests was 100 times higher than the cost of visiting hospitals or clinics. The very poor—those making less than

1,000 goud per month, including small-scale farmers and those without household amenities—were more likely than other Haitians to use the most expensive forms of treatment, which were Vodou priests and herbal healers. This finding raises opportunities for improvement in the perceived quality and availability of affordable services.

Competency

Rural Haitians identified “they give the best care” as the most important determinant when choosing a provider for mental distress, thus highlighting the importance of perceived treatment efficacy. Our finding that religious and other community resources combined outranked biomedical care corroborates our recent qualitative exploration of mental health

care in rural Haiti: persons with mental distress and their families view biomedical practitioners as less able than religious leaders to provide adequate treatment and explanations for mental illness (36). This likely reflects the dearth of biomedical providers trained in mental health in rural Haiti.

The results of our study, when interpreted in light of Belkin and colleagues’ framework (10) and the mhGAP guidelines (11), set the stage for improving psychiatric care pathways. Because 92% of respondents had visited a biomedical provider at least once in their lifetime, we recommend that biomedical providers receive training to screen for and treat psychiatric conditions. Training health workers to include psychosocial and culture-specific interpretations of

idioms of distress would enhance communication (46,47). Haitian biomedical practitioners are more likely to interpret idioms as physical ailments (such as anemia or gastroesophageal reflux), whereas lay persons use idioms as psychosocial complaints (37).

However, diversion of mental health care from other community resources to hospitals or clinics should not be the primary means of providing care (48). As demonstrated in Nigeria, the time to clinical presentation may be up to tenfold greater for individuals who believe in supernatural causes of illness—an effect that may be related to the lack of perceived competency of biomedical care providers (20,36). Instead, affordable existing community resources should be supported and partnerships forged with biomedical services. However, the common recommendation in global mental health of using existing community resources may be problematic for some providers, especially Vodou priests, in light of the cost data seen here. Liaising with religious leaders would be beneficial because their services do not incur a cost and they have high levels of perceived treatment efficacy. Moreover, in Haiti, religious leaders already refer persons with mental distress to biomedical practitioners (36). NGOs are another resource that often provides services without charge.

We would, however, caution against programs that implement community mental health primarily through *hougan* or herbal doctors, because these providers tended to be most expensive and thus risk financial exploitation of the most impoverished Haitians. Ultimately, effective and sustainable community mental health programs should build capacity across multiple social and health services, as has been initiated through Partners in Health/Zanmi Lasante's postearthquake endeavors (49).

Oversimplification of care seeking is a primary limitation of this study. Our data were limited to anticipated care seeking for mental distress rather than actual care sought. Although our epidemiologic study illustrated where people anticipated going for treatment, this study did not reveal objective differences in psychiatric

outcomes based on service use. Second, the interpretation of mild to moderate mental distress (*tristès, kè pa kontan, stres ki rann lavi yo difisil*) could vary among respondents, thus leading to different choices for first care or associated factors. Third, because Vodou practice is stigmatized, our data likely underestimate the prevalence of individuals who sought care from Vodou priests. Last, with regard to actual treatment sought and concomitant costs, we included treatment for any reason, not just for psychiatric distress. That said, persons with suicidality and depression symptomatology were more likely to use other nonbiomedical community resources, and some of these services were very expensive.

Conclusions

To our knowledge, this is the first study in rural Haiti to examine anticipated care seeking for mental distress and to investigate the association of current mental status with prior care seeking for any reason. Perceived efficacy was a dominant predictor of anticipated care seeking, and low perceived competency of biomedical services may be a deterrent to seeking care (36), which could be addressed through improving psychiatric training in biomedical curricula. Isolated clinical interventions in Haiti's Central Plateau may have inadequate impact on mental distress because of limited preference for biomedicine as a first choice for psychiatric care. Expanding psychiatric services therefore should augment community-based resources to the extent that it is practical and cost-effective (10,48). However, the financial data from this study illustrate that not all community-based providers were comparable in terms of costs. In this Haitian population, as well as in other low-income settings with high reliance on traditional healing, financial consequences of community-based treatment pathways warrant further attention.

Acknowledgments and disclosures

This work was supported by Emory University's Global Health Institute Multidisciplinary Team Field Scholars Award, Emory University's Global Field Experience Award, and graduate

research fellowship grant 0234618 from the National Science Foundation. The authors gratefully acknowledge the contributions of field research assistants Desir Fitzner, Wilfrid Jean, Adner Louis, Anel Lavard, and Alexis Ronel. The authors appreciate the support of Cate Oswald, M.P.H., and her colleagues at Partners in Health/Zanmi Lasante.

The authors report no competing interests.

References

1. Safran MA, Chorba T, Schreiber M, et al: Evaluating mental health after the 2010 Haitian earthquake. *Disaster Medicine and Public Health Preparedness* 5:154–157, 2011
2. Collins PY, Patel V, Joestl SS, et al: Grand challenges in global mental health. *Nature* 475:27–30, 2011
3. Saxena S, Lora A, Morris J, et al: Mental health services in 42 low- and middle-income countries: a WHO-AIMS cross-national analysis. *Psychiatric Services* 62: 123–125, 2011
4. Vulnerability in Haiti: The Inevitable Path Towards Poverty? [in French]. . Geneva, United Nations Development Programme, 2004
5. WHO Country Profile: Haiti. Geneva, World Health Organization, 2009
6. Haiti: Profile of the Health Services System. Washington, DC, Pan American Health Organization, 2003
7. Patel V, Goel DS, Desai R: Scaling up services for mental and neurological disorders in low-resource settings. *International Health* 1:37–44, 2009
8. Eaton J, McCay L, Semrau M, et al: Scale up of services for mental health in low-income and middle-income countries. *Lancet* 378:1592–1603, 2011
9. Fulton BD, Scheffler RM, Sparkes SP, et al: Health workforce skill mix and task shifting in low income countries: a review of recent evidence. *Human Resources for Health* 9:1, 2011
10. Belkin GS, Unützer J, Kessler RC, et al: Scaling up for the "bottom billion": "5 × 5" implementation of community mental health care in low-income regions. *Psychiatric Services* 62:1494–1502, 2011
11. mhGAP Intervention Guide for Mental, Neurological, and Substance Use Disorders in Non-specialized Health Settings. Geneva, World Health Organization, 2010
12. Saraceno B, van Ommeren M, Batniji R, et al: Barriers to improvement of mental health services in low-income and middle-income countries. *Lancet* 370:1164–1174, 2007
13. Desjarlais RR, Eisenberg L, Good B, et al: *World Mental Health: Problems and Priorities in Low-Income Countries*. New York, Oxford University Press, 1995
14. Patel V, Flisher AJ, Nikapota A, et al: Promoting child and adolescent mental health in low and middle income countries. *Journal of Child Psychology and*

- Psychiatry, and Allied Disciplines 49: 313–334, 2008
15. Kirmayer LJ: Psychotherapy and the cultural concept of the person. *Transcultural Psychiatry* 44:232–257, 2007
 16. Weiss M: Explanatory Model Interview Catalogue (EMIC): framework for comparative study of illness. *Transcultural Psychiatry* 34:235–263, 1997
 17. McDaid D, Knapp M, Raja S: Barriers in the mind: promoting an economic case for mental health in low- and middle-income countries. *World Psychiatry* 7:79–86, 2008
 18. Fernando S, Weerackody C: Challenges in developing community mental health services in Sri Lanka. *Journal of Health Management* 11:195–208, 2009
 19. Summerfield D: How scientifically valid is the knowledge base of global mental health? *BMJ* 336:992–994, 2008
 20. Aghukwa CN: Care seeking and beliefs about the cause of mental illness among Nigerian psychiatric patients and their families. *Psychiatric Services* 63:616–618, 2012
 21. Loganathan S, Murthy SR: Experiences of stigma and discrimination endured by people suffering from schizophrenia. *Indian Journal of Psychiatry* 50:39–46, 2008
 22. Kohrt BA, Harper I: Navigating diagnoses: understanding mind-body relations, mental health, and stigma in Nepal. *Culture, Medicine and Psychiatry* 32:462–491, 2008
 23. Kohrt BA, Hruschka DJ: Nepali concepts of psychological trauma: the role of idioms of distress, ethnopsychology and ethno-physiology in alleviating suffering and preventing stigma. *Culture, Medicine and Psychiatry* 34:322–352, 2010
 24. Mishra N, Nagpal SS, Chadda RK, et al: Help-seeking behavior of patients with mental health problems visiting a tertiary care center in north India. *Indian Journal of Psychiatry* 53:234–238, 2011
 25. Brodwin P: Guardian angels and dirty spirits: the moral basis of healing power in rural Haiti; in *Anthropological Approaches to the Study of Ethnomedicine*. Edited by Nichter M. Amsterdam, Gordon and Breach, 1992
 26. Boker H: Concepts of mental illness: an ethnopsychiatric study of the mental hospital's in- and out-patients in the Kathmandu Valley. *Contributions to Nepalese Studies* 19:27–50, 1992
 27. Ecks S: Pharmaceutical citizenship: antidepressant marketing and the promise of demarginalization in India. *Anthropology and Medicine* 12:239–254, 2005
 28. Nonye AP, Oseloka EC: Health-seeking behaviour of mentally ill patients in Enugu, Nigeria. *South African Journal of Psychiatry* 15:19–22, 2009
 29. Sharma P, Vorha AK, Khurana H: Treatment seeking behavior of mentally ill patients in a rural area: a cross-sectional study. *Indian Journal of Community Medicine* 32:290–291, 2007
 30. Bijoux L: Evolution of concepts and interventions in mental health in Haiti [in French]. *Revue Haitienne de la Santé Mentale* 1:83–90, 2010
 31. Desrosiers A, St Fleurese S: Treating Haitian patients: key cultural aspects. *American Journal of Psychotherapy* 56: 508–521, 2002
 32. Miller NL: Haitian ethnomedical systems and biomedical practitioners: directions for clinicians. *Journal of Transcultural Nursing* 11:204–211, 2000
 33. Métraux A: *Le Vaudou Haïtien*. Paris, Gallimard, 1958
 34. World Health Organization: *Culture and Mental Health in Haiti: A Literature Review*. Geneva, World Health Organization and Pan American Health Organization, 2010
 35. Brown K: *Mama Lola: A Vodou Priestess in Brooklyn*. Berkeley, University of California Press, 1991
 36. Khoury NM, Kaiser BN, Keys HM, et al: Explanatory models and mental health treatment: is vodou an obstacle to psychiatric treatment in rural Haiti? *Culture, Medicine and Psychiatry* 36:514–534, 2012
 37. Keys HM, Kaiser BN, Kohrt BA, et al: Idioms of distress, ethnopsychology, and the clinical encounter in Haiti's Central Plateau. *Social Science and Medicine* 75: 555–564, 2012
 38. Kaiser BN, Kohrt BA, Keys H, et al: Assessing mental health in rural Haiti: comparing local instrument development and transcultural translation strategies for community screening. *Transcultural Psychiatry*, in press
 39. Helleranta J: Haiti Administrative Boundaries. Available at geocommons.com/maps/70706. Accessed Aug 6, 2012
 40. Training for Mid-Level Managers: The EPI Coverage Survey, WHO/EPI/MLM/91.10. Geneva, World Health Organization, Expanded Programme on Immunization, 1991
 41. Excel Compare 2.4. Formula Software, Inc, 2011
 42. Kleinbaum DG, Klein M: *Logistic Regression: A Self-Learning Text*. New York, Springer, 2010
 43. Zack M, Singleton J, Wall K, et al: *Collinearity Diagnostics Using the Information Matrix*. Cary, NC, SAS Institute, 2010
 44. SAS 9.3. Cary, NC, SAS Institute, 2011
 45. Kaiser BN: "Thinking Too Much": Description of a Novel Cultural Syndrome in Haiti's Central Plateau. Presented at meeting of the Society for the Study of Psychiatry and Culture, New York City, May 9–11, 2012
 46. Kohrt BA, Hruschka DJ, Kohrt HE, et al: Distribution of distress in post-socialist Mongolia: a cultural epidemiology of yadargaa. *Social Science and Medicine* 58:471–485, 2004
 47. Kohrt BA, Tol WA, Harper I: Reconsidering somatic presentation of generalized anxiety disorder in Nepal. *Journal of Nervous and Mental Disease* 195:544, 2007
 48. Thornicroft G, Alem A, Antunes Dos Santos R, et al: WPA guidance on steps, obstacles and mistakes to avoid in the implementation of community mental health care. *World Psychiatry* 9:67–77, 2010
 49. Raviola G, Eustache E, Oswald C, et al: Mental health response in Haiti in the aftermath of the 2010 earthquake: a case study for building long-term solutions. *Harvard Review of Psychiatry* 20:68–77, 2012