Mental Health in Haiti: Beyond Disaster Relief

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Haiti, one of the poorest countries in the world, was devastated by an earthquake in 2010. The disaster uncovered the realities of a non-existent mental health care system with only ten psychiatrists nationwide. Attempts were made to assess the increased prevalence of mental illness, likely due to the trauma to which many were exposed. Several interventions were carried out with aims to integrate mental health into primary health care services. The interplay between socio-cultural beliefs and health (both mental and physical) in Haiti has been widely commented upon by both foreign aid and local caregivers. Observations frequently highlight barriers to the willingness of patients to seek care and to their acceptance of biomedicine over traditional Vodou beliefs. The perception of Haitian beliefs as barriers to the availability and acceptance of mental health care has intensified the difficulty in providing effective recommendations and interventions both before and after the earthquake. Argued in this review is the importance of considering the interactions between socio-cultural beliefs and mental health when developing models for the prevention, screening, classification and management of mental illness in Haiti. These interactions, especially relevant in mental health care and post-disaster contexts, need to be acknowledged in any healthcare setting. The successes and failures of Haiti's situation provide an example for global consideration.

Introduction

The United States Surgeon General's "Mental Health: Culture, Race, and Ethnicity" report outlines how the "culture of the patient influences many aspects of mental health, mental illness, and patterns of health care utilization."[1] These aspects encompass help-seeking behavior, including the form of care sought (i.e. local, traditional, Western), the social supports for mental illness, stigma attached to disease and the meanings people associate with their symptoms and illnesses. In Haiti, cultural, Vodou (also spelled Voodoo) and social beliefs help inform explanations of illness, especially mental illness, which is frequently attributed to supernatural forces such as spells, hexes or curses. This aligns with a cosmocentric perspective, in which the individual is a member of a larger universe comprised of Iwa (spirits), relationships and the natural world. This can be compared to an anthropocentric perspective, whereby an individual views oneself as central and in control of their existence, including on matters of health and disease.[2] For the purposes of this review,the broad category of "mental health" will include a wide spectrum of mental disorders such as depression and anxiety, drug and alcohol

abuse, schizophrenia, bipolar disorder and other severe and disabling disorders. The World Health Organization (WHO) also identifies neurological conditions, such as Alzheimer's disease and epilepsy, as worthy of consideration alongside these mental disorders, as they share common healthcare resources, a feature that makes such conditions relevant within a discussion of Haiti's insufficiency of mental health resources.[3,4] As reported in the Global Burden of Disease (GBD) study, mental and behavioral disorders not including neurological conditions accounted for 7.4% of the global burden of disease in 2010, as demonstrated by disability adjusted life years (DALYs).[4] This health gap measure extends beyond assessing the potential years of life lost to premature death, encompassing as well the years of healthy life lost in individuals in states of poor health or disability. Hence, one DALY can be thought of as one lost year of healthy life with the sum of DALYs across the population generating the total burden of disease.[4,5]

Since the 2010 earthquake, there has been increased international attention surrounding the mental health needs and the lack of pre-existing formal services available in Haiti.[6] Subsequent

epidemiological studies have identified and evaluated the large mental health impact of the earthquake and have provided insight into methods to integrate mental health into the post-earthquake health response.[7] Knowing how exactly to deliver these services innovatively relied heavily upon the understanding of the current healthcare systems in place, including the traditional religious healing practices.[7] Efforts to improve mental health services, and to reduce the overall burden of mental illness and inequities, must account for the intricacies of the complex relationship between cultural beliefs and mental health, rather than view them as major obstacles. This consideration for delivering mental health care in a culturally competent manner can be applied beyond Haiti in the development of interventions in post-disaster circumstances and in low-income countries globally.

Background

Haiti is a country located on the island of Hispaniola in the Caribbean with a population of more than ten million people. Haiti was the most affluent French colony in the New World prior to its independence in 1804; however, in order to be recognized as an independent nation, France required a large indemnity to be paid, which crippled Haiti's economy.[8] Political instability, mismanagement and corruption exacerbated by exploitation by foreign governments and investors have since left Haiti one of the poorest countries in the world with a per capita gross domestic product (GDP) of 846 in US dollars (USD$) in 2014.[8] According to the Human Development Report, Haiti has a rate of multidimensional poverty of 57%, whereas in Uruguay only 2% of the population are multidimensionally poor. The Multidimensional Poverty Index (MPI) replacing the Human Poverty Index (HPI) extends beyond standard monetary-based methods to also identify deprivations in health, education and standard of living.[9] Haiti is also plagued by severe economic disparity, with a Gini index of 60.8 as of 2012.[10] The Gini index is a measure of income inequality – the extent to which the distribution of income within an

economy deviates from a perfectly equal distribution – with an index of 0 representing perfect equality and an index of 100 implying perfect inequality.[10] For context, France (with which Haiti has a shared history) had a Gini index of 33.1 in 2012, and the Dominican Republic (which coexists with Haiti on Hispaniola) had a Gini index of 47.7 in 2013.[10] Haiti is vulnerable to natural hazards due to its location directly in a hurricane corridor, which makes it susceptible to hurricanes and tropical storms, and its tectonic position which gives it a higher seismic threat level.[11] Furthermore, high levels of deforestation and environmental degradation in Haiti worsen flooding and lead to mudslides. Over the years, these extreme weather events have led to the destruction of crops and infrastructure, internal displacement and the loss of many lives. Unfortunately, the extreme level of poverty, weak buildings and poor emergency response has made the population increasingly susceptible to and unable to cope with the devastating effects of these events.[7]

On the afternoon of January 12, 2010, Haiti experienced an earthquake measuring 7.0 on the Richter scale with 52 recorded aftershocks. Reports from the Haitian government along with the International Organization for Migration (IOM) and the United Nations Development Program (UNDP) estimated the death toll to be approximately 222,000 with over 300,000 people physically injured.[12] Approximately 1.5 million people were reported as homeless following the earthquake and were forced to inhabit makeshift camps, delivered in large-scale by humanitarian assistance.[12] Within days, internally displaced person (IDP)settlements developed around the capital city of Port-au-Prince and at the peak of the crisis there were some 1,500 camps sheltering IDPs scattered across the capital and surrounding regions.[12] Many were still left without adequate access to food, water, healthcare, shelter or security due to the scale of the disaster and the large numbers of IDPs inhabiting the settlements.

To worsen the situation, in October of the same year the worst cholera outbreak in recent history killed approximately 7,700 people and infected over 620,000 by 2012.[7] It is of great

significance, but beyond the scope of this paper, to discuss the details and implications of the controversy surrounding the cause of the disastrous outbreak; however whole genome sequencing traced the source of the epidemic to United Nations (UN) troops from Nepal stationed in Haiti.[13] The poor quality of sanitation and limited access to clean water caused by the earthquake facilitated the spread of infection, which poses additional challenges for ongoing earthquake relief efforts.[14] Furthermore, Haiti's already insufficient health care system was further crippled by the earthquake, rendering efforts to find and record cases and implementations of outbreak control, prevention and surveillance measures near impossible.

There are four sectors in the Haitian health system that will be mentioned and discussed throughout this paper. The public sector is run by the government Ministry of Public Health and Population (MSPP) and holds 36% of the health facilities in Haiti in addition to community health units (CHU) at the local level.[15] Non-governmental organizations (NGOs) and the religious and traditional medical services constitute the private non-profit sector, while a small private forprofit sector is comprised of specialists in physician's offices or clinics mostly in the country's

capital. In a mixed non-profit sector, the private sector manages the care; however, the staff are paid by the public sector.[15] The provision of mental health care before and after the earthquake by these various sectors will be analyzed as well as an evaluation of their collaborative efforts to deliver culturally competent care for the mentally ill.

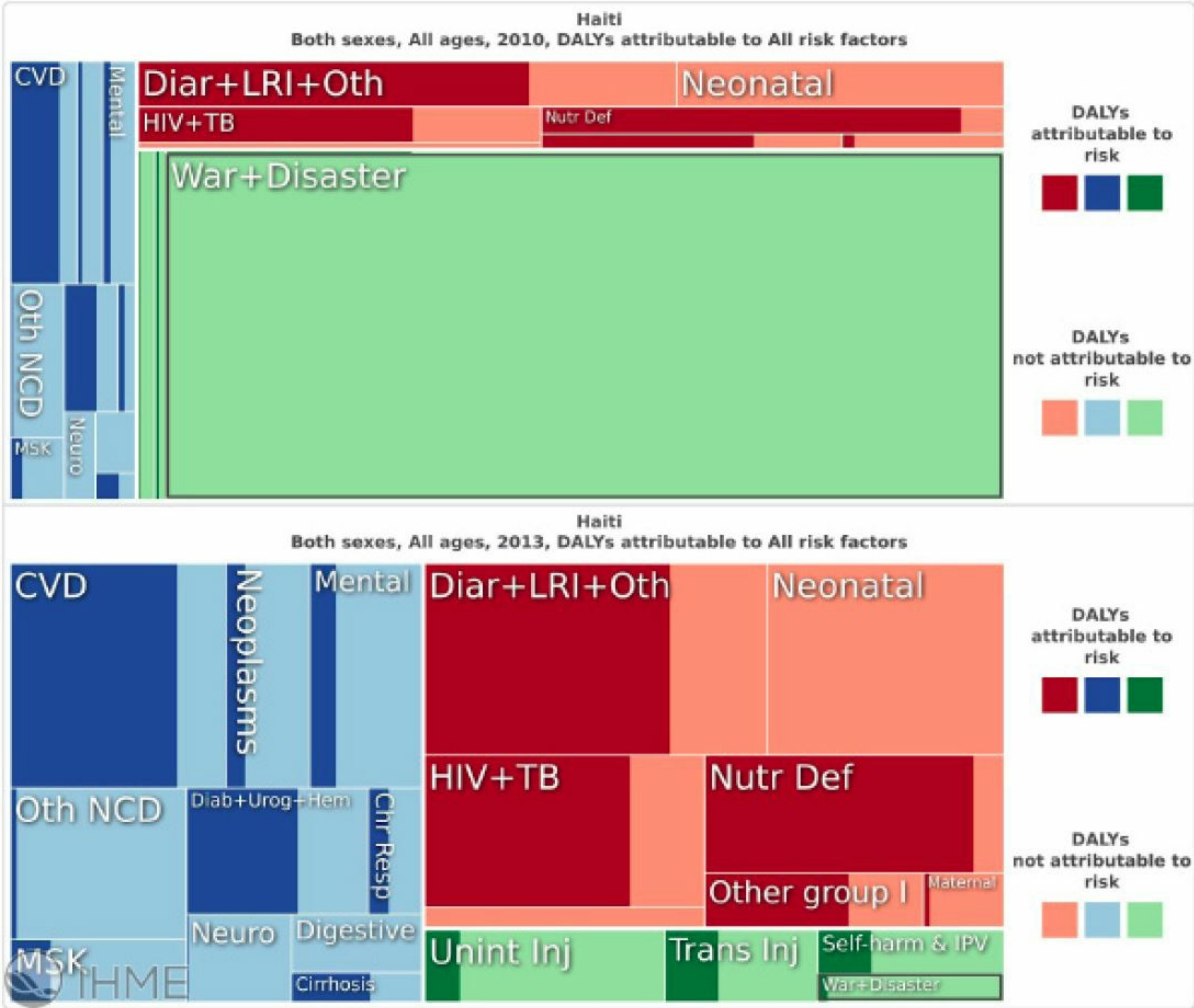

Figure 1: GBD Compare in Haiti in 2010 and 2013, both sexes, all ages, DALYs attributable to all risk factors. The top chart displays the risk factor of war and disaster in Haiti attributing to 66.65% of total DALYs and mental disorders attributed to 1.25% of total DALYs in 2010. In 2013 these figures change to 1.26% and 5.82% respectively, displayed in the bottom chart.[17]

HIS 1	Epilepsy/seizures
HIS 2	Alcohol or other substance use disorder
HIS 3	Mental retardation/ intellectual disability
HIS 4	Psychotic disorder
HIS 5	Severe emotional disorder
HIS 6	Other psychological complaints (including anxiety) not resulting in major day-to-day dysfunction
HIS 7	Medically unexplained somatic complaint
No HIS category for:	Dementia
	Other, for psychiatric disorders not covered in the seven categories
	No psychiatric disorder present

Figure 2: UNHCR Health Information System (HIS) for use in humanitarian settings: Mental Health Categories[24, 48]

Mental Healthcare Provision

After the Earthquake

With inadequate resources and many structural and cultural barriers to the provision of care for the mentally ill, the burden of mental illness is frequently unrecognized and poorly addressed in low-income countries (LICs).[16] The devastating earthquake in Haiti not only uncovered the extent of the burden of mental illness but also amplified it. Much of this was evident when foreign medical aid arrived in the acute aftermath of the disaster. NGOs providing acute care to those suffering from mental distress after the earthquake provided anecdotal evidence of this rising burden. However, due to the lack of reporting and monitoring systems, the full extent of the problem was not quantified.

The main causes of death in Haiti—those with the highest attributed DALYs—were infectious diseases affecting the gut or respiratory tract, HIV/AIDS and tuberculosis (TB), as well as malnutrition, maternal death and assault.[17] In 2010, however, it was recorded that natural disasters accounted for 66.65% of DALYs (55.11-81.32%).[17] To put this figure in context, however, this percentage of DALYs attributed to acute effects of natural disasters would drop to only 1.26% (0.5-2.91%) of DALYs in 2013[17] (Figure 1). Secondary outcomes arose as a consequence of exposure to forces of nature and disaster, but more chronic conditions such as depressive disorders and anxiety became the more significant causes of burden on the population in 2013. Comparing the percentages of total DALYs attributed to mental and substance use disorders reveals an increase in the mental health illness burden from 1.75% (0.95-2.59%) to 5.82% (4.45-7.3%) between the years of 2010 and 2013[17](Figure 1). The distribution of various diagnoses observed in the psychiatric hospitals has been estimated by the WHO: schizophrenia (50%), bipolar disorder with mania (30%), other psychoses (15%) and epilepsy (5%).[18] Although these numbers are not uncommon within hospitalized patient populations in other countries, a team present in Haiti at this time observed that they do not accurately depict the true prevalence of these disorders in the general population due to the lack of reporting systems and of facilities themselves.[7,19]

It is well documented that after a traumatic event such as war or a natural disaster, one can experience serious adverse psychological effects.[20] Many Haitians were subjected to an immense amount of trauma and loss—loss of a loved one, their home, business, or livelihood—or were subjected to sexual assault and physical abuse upon displacement and increased social instability. With the addition of the cholera outbreak, many witnessed the deaths of loved ones. A study of 950 families found that 62.5% of respondents lost one family member during the earthquake.[21] The burden of all mental health disorders was poorly detailed before the earthquake, which makes estimating its relative increase in the general population in the aftermath difficult. However, to obtain a general view of the effects, a population-based survey conducted two to four months following the earthquake among 1,323 people affected found prevalence rates of 28.3% and 24.6% for major depressive disorder (MDD) and post-traumatic stress disorder (PTSD), respectively.[22] Another team administered a questionnaire to study the prevalence rates of PTSD and depressive symptoms in 1355 adults (660 women) 30 months following the earthquake. The rates of PTSD and depressive symptoms were found to be 36.75% and 25.98%, respectively.[23] A team of foreign psychiatrists from the International Medical Corps set up weekly mental health clinics in eight mobile clinics and a liaison service in the partly destroyed University Hospital, l'Hopital de l'Université d'Etat d'Haiti (HUEH). The most common mental health category, based upon the Health Information System (HIS) diagnostic categorization of mental health for use in humanitarian settings, was "other psychological complaints," which accounted for 55% of all patients seen (431 patients over the first 5 months).[24] The majority of these complaints were of anxiety, usually centered around buildings falling down, or of losing loved ones. Symptoms of grief were very common, although difficult to disentangle normal from aberrant reactions. Interestingly, results from the subsequent five months displayed a tenfold reduction in patients presenting with minor disorders as categorized in HIS 6, while severe emotional disorders (HIS 5) increased from 3% to 21%, and medically unexplained conditions (HIS 7) from 1% to 15%24 (Figure 2).

Case Reports

In the acute aftermath of the earthquake, the lack of resources and personnel pre-empted the implementation of a screening system, which limited the collection of data on those most affected by both the earthquake and various mental illnesses. Mental health problems were considered secondary to the basic needs of food, water, emergency medical care, shelter and security. However, the need for psychological first aid and psychiatric treatment was apparent to humanitarian assistance efforts.[25] Foreign psychiatrists traveled to Haiti to counsel patients and to help quickly train Haitian doctors. In the months following, those particularly at risk for mental health problems were survivors with physical injuries, IDPs, children in need of protection and those at risk of genderbased violence. Additionally, those with pre-existing or past mental illness were found to be more vulnerable to secondary mental health effects of the earthquake.[7] These foreign psychiatrists saw reactions to the trauma ranging from anxiety to psychosis. Dr. Lynne Jones, a child psychiatrist and disaster expert with the International Medical Corps, reported in Sontag's interview her common sighting of "earthquake shock," a persistent

sensation that the earth is still shaking causing the heart to race and chest pain.25 Furthermore, the rise in mental illness in the general population after the earthquake was noted to put a further strain on the availability of mental healthensation that the earth is still shaking causing the heart to race and chest pain.[25] Furthermore, the rise in mental illness in the general population after the earthquake was noted to put a further strain on the availability of mental health care resources for those already presenting with mental illness.[7]

A medical student relaying her personal account of volunteering in Haiti after the earthquake commented on the challenges she encountered.[26] Although she had initially intended to work with an internal medicine team, she was enlisted to help with the muchneeded provision of mental health care due to her prior experience as a psychiatric resident. She cared for a woman who was suffering from phantom limb pain and panic attacks following an emergency amputation. The patient had divulged to a Haitian-American volunteer her suspicions and distrust of American doctors who had "taken" her leg unnecessarily. The medical student's first-hand experience illuminated for her the importance of training psychiatric residents in delivering mental health care in a culturally competent manner. Such an individual narrative was not unique; several reports conveyed misunderstandings and poor communication between patient and clinician in Haiti in the aftermath of the earthquake and emphasized the need for culturally competent mental health care.[1,7,27] Beyond the setting of Haiti and post-disaster mental health care, the impact of culture on what all people bring to the clinical setting has been widely discussed in medical literature.[27,28] The challenges that foreign psychiatrists faced in the post-earthquake environment and in practicing transcultural psychiatry transcend beyond Haiti and have wider implications for improving mental health care services globally.

Exposing the Lack of a Mental Health System

A wide gap exists between the need for treatment for mental disorders and its global provision —76-85% of people with severe disorders failing to receive treatment in low- and middle-income countries.[3] Haiti's case perfectly exhibits the scarcity, inequitable distribution and inefficient allocation of resources for mental health seen around the world. With only about fifteen psychiatrists working in the public sector in all of Haiti before the earthquake, there was little support for those with mental illness.[25] Statistics from the WHO collected in 2014 quantify this lack of human resources at 0.07 psychiatrists and 0.29 nurses working in the mental health sector per 100,000 people. The global median number of mental health workers is 9 per 100,000, albeit with extreme variation between low-income and high-income countries. Only 30% of health facilities were public, and 70% of rural health services were provided by NGOs, with 40% of the rural population having no access to primary health care, given the concentration and so over-centralization of most services and hospitals in the capital.[5,8] The Mars and Kline Psychiatric Center in Port-au-Prince for acute mental illness and Défilé de Beudet in Croix-des-Bouquets, a hospital for the chronically mentally ill, are the two state-run psychiatric hospitals in the country. To further portray this lack of mental health service availability and compare it to a developed healthcare system, the number of beds in

mental hospitals per 100,000 people in France was 89.65 while there were only 1.72 beds per 100,000 in 2014 in Haiti. Globally, there were 17.5 beds per 100,000 beds in 2014 in mental hospitals.[5] This overcentralized and under-resourced system in Haiti reflects its status as a low government priority in comparison with issues such as HIV/AIDS, tuberculosis, or maternal and child health which had limited, but relatively more available resources.

Dr. Franklin Normil, the acting director of the Mars and Kline Psychiatric Center, relays a first-hand account of this in an interview with the New York Times: "I want you to bear witness, clearly mental health has never been a priority in this country. We have the desire and the ability, but they do not give us the means to be professional and humane."[25] Working without pay for five months, he highlights again the lack of resources as the limiting factor, not ability or willingness: "Even before the earthquake, we did not get the resources to feed or clothe our patients properly. We had barely any staff, and these are patients who could be rehabilitated if we had the means."[25] Government expenditure on mental hospitals as a percentage of total government expenditures on health was only 0.61% in Haiti in 2011.[29] The per capita government expenditure on health at average exchange rate (US$) in 2011 was 13. To compare this again to a developed nation, this same figure stood at USD 3816 in France in 2011 with the percentage spent on mental hospitals of this standing at 12.91%.[5] The global median percentage of government health budget expenditures dedicated to mental health is 2.8%.[5] The need remains for a national mental health plan or policy, systems of monitoring and evaluation and epidemiological research.[30] This shortage of resources and governance of mental health is in stark contrast to the services available in the highly developed mental health care system in France. However, this situation is not unique to Haiti: the gap between resources and burden is far larger in low-income countries in comparison to high-income countries. Almost half of the world's population lives in a country where there is at most one psychiatrist to serve 200,000 people.[31]

The lack of mental health services was brought to worldwide attention after the 2010 earthquake when foreign aid recognized the gaps in provision of care. A team of mental health experts led by Mental Health Director Giuseppe Raviola from Partners in Health (PIH), a non-profit global health care organization, and Zanmi Lasante, its sister organization in Haiti, overviewed the earthquake response from the perspective of mental health in a landmark paper published in Psychiatric Clinics of North America in 2013.[7] They remark that although the earthquake has been the key catalyst for acknowledging the lack of an existing healthcare system, it provides a valuable opportunity to initiate change. Despite their harrowing effects, emergencies like the 2004 tsunami in Indonesia and the recent Ebola outbreak in Guinea have prompted these countries to rebuild better, sustainable mental health systems.[32,33] However, the wide range of cultural and social tendencies that will now be discussed present more barriers than the absence of care.

Vodou and Mental Health: Implications for Care-Seeking Behaviors

Although there are great variations present within the Vodou belief system around the world and Vodou is practiced to different extents in Haiti, it plays a nearly universal role in all aspects of Haitian life including politics, ethics and health. Max Beauvoir, the "Ati" or supreme leader of Haitian vodou, explained that with around 70% of Haitians believed to practice vodou and more than 60,000 vodou priests across Haiti, "Vodou is the soul of the Haitian people and nothing can be done without that cultural basis. It is a way of life."[34] Beauvoir expresses how Vodou has always been on the frontline for well being, stating that "Vodou heals the mind, soul and body. The soul is what we are, which controls everything, all our actions and mind".[34] A conceptual health framework exists of how to promote, prevent and treat health problems.

The interpretation of illness within this framework usually takes two forms: one is based on the need to establish a harmonious relationship with the spirit world and the second focuses on the role of magic or sorcery attacks.[30] The implications of these beliefs impact the selection of treatment and the perception of all illnesses. However, the focus will be on the beliefs concerning mental health, in which they are particularly ardent.[2] Indeed, as Paul Farmer observed: "Etiologic beliefs may lead the mentally ill away from doctors and toward those better able to 'manipulate the spirit.'"[35] Examples of those believed to be better suited by these patients are doktè fèy or medsen fèy ("leaf doctors" or herbalists), houngan or manbo (Vodou priest or priestess), pikirist (parenteral injectionist) or fanm saj (perinatal and natal care).[30]

Evidence of this favoritism toward traditional, community-led healing practices was displayed by a cross-sectional survey performed by Wagenaar et al. in 2011, showing that three out of four rural Haitians said they would seek community resources (this category included a Vodou priest, church pastor or priest, community health worker, herbal healer, community chief or an NGO) over clinical care at hospitals or clinics if suffering from mental distress.[6] This has broad implications for the types of interventions that would have the most impact, which will be examined further. It is important to keep in mind, however, that the limited and ineffective encounters with the biomedical system in treating mental illness in Haiti act as a deterrence from biomedicine towards Vodou healing practices. Also, this does not address the general openness of Haitians to receiving care from biomedical providers.[2] The view that structural inadequacies and limited options in mental health care are the main obstacles to the uptake of biomedical treatment in Haiti, rather than a cultural belief in its efficacy, has been widely argued and supported by both health resource statistics and anecdotes from professionals and patients alike.[2]

Assuming that the health-seeking behavior of Haitians is the limiting factor to uptake of mental health care in rural Haiti ignores the insufficiency in the provision of services and undervalues the need and urgency to build an effective, far-reaching mental health care system. Kate Ramsey in The Spirits and the Law emphasizes that "arguably no religion has been subject to more maligning and misrepresentation from outsiders over the past two centuries."[36] When looking

to improve the quality and effectiveness of care, it is thus important to acknowledge and accommodate the intersection between such Vodou beliefs and treatment-seeking behavior, rather than regarding these beliefs as a main impediment.

The lack of mental health research in Haiti made it difficult to quantify and account for these implications. However, the International Organization of Migration (IOM) endeavored to analyze the interconnectedness of emotional, social and cultural anthropological needs among survivors in their Assessment on Psychosocial Needs of Haitian affected by the January 12th earthquake.[21] They administered the study to 950 families in displacement camps throughout Haiti, utilizing tools such as interviews and focus groups for the analysis of the various social levels: individual, family, group and community. Their results would help shape recommendations and the implementation of a multidisciplinary and multilayered psychosocial program. The average score of distress was found to be 8.32/35 with headaches being reported in 74% of interviewed families as well as sleeping problems (60%), anxiety (56%) and fatigue (53%). Additionally, 60% reported their level of pain at V on a scale from I to V. Idioms or definitions to describe pain were also recorded, with 33% of responses including some form of "call to God", and 17% of respondents explaining the feeling as "pain and sadness drowning me." Linking this back to the discussion of care-seeking behavior, when asked who would be their reference for feelings of uneasiness, 34% stated they would go to a friend for help, 22.1% would call on God, and 20.8% would go to a community health center.[21] This demonstrates a high level of social and cultural control over the comprehension and management of mental illness in Haiti, which

calls for a thorough analysis of such factors and their consideration in prevention and treatment programs.

Social Beliefs and Disease Stigmatization

Besides treatment-seeking behavior, mental illness is also greatly nuanced by social beliefs. Blame for illness is usually displaced to something beyond the individual's immediate control; however, family members tend to feel a high degree of shame and often are unfortunately subjected to stigmatization in their communities.[37] An epidemiologic study carried out by Wagenaar and his team observed suicidal ideation endorsement on the Beck Depression Inventory (BDI), a 21-question psychometric test measuring depression severity with higher scores indicating more severe depressive symptoms.[27] They identified several social risk factors affecting this score: lack of care during illness, alcohol use, obtaining services from a Vodou priest, death in family, education and employment. Interestingly, women with higher education scored 7.7 points higher on the BDI compared to uneducated women.[27] This may be a result of a disconnect between aspirations and reality, whereby women who fail to reach their potential manifest symptoms of depression. Another example is when the diagnosis of psychosis causes a patient to be labeled as fou (crazy) and viewed as permanently dysfunctional. This becomes a

significant loss for a family, especially when the patient had a promising future in terms of their education and career; as a result, the family is often reluctant to acknowledge that a member is ill.[30]

This stigmatization of mental illness was recognized in the aftermath of the earthquake, and several underlying social beliefs were enhanced by the induced distress and other mental health effects of the earthquake on the population. The study by Wagenaar and his team found increasing BDI scores in men when more people had to live in their homes after the earthquake, and in women when a family member perished in the disaster.[27] The IOM assessment gained further insight into the effects of the earthquake on the economic, family, social and recreational life in Haiti. Some households, mostly headed by men, experienced the death of the primary breadwinner , and as a result many females expressed an increase in their responsibilities.[21] Men suffering disabilities from the earthquake reported feeling "less than human" and emasculated. Many respondents also reported aggressive behavior in the population as a whole following the earthquake, due to overcrowding, higher levels of distress and reactions to trauma and loss. Finally, the qualitative results of the assessment presented that the lack of proper passage rituals for many of the deceased caused distress related to guilt and preoccupations as to possible possession and retaliation from the deceased who did not receive a proper burial.[21] Mental illness externally attributed to a failure to please spirits would potentially allow for recovery by calling upon a spirit to intervene and assist healing on their behalf, a concept that could be harnessed in developing creative mental health solutions specific to Haitian social beliefs.[18,38] Such examples identify different mental health outcomes based on family and gender relations, and could also provide evidence for targeting certain risk groups.

The outbreak of cholera after the earthquake resulted in different but equally detrimental stigmatization against people who fell ill, causing families to lose their standing within the community. Partners in Health (PIH) and Zanmi Lasante (PIH/ZL) led sessions to aid psychologists in handling such situations and built upon the existing group therapy format used for those affected by HIV and TB. They led education campaigns on topics such as mental health, sexually transmitted diseases and palliative care, through which they were able to mitigate their stigmatization and encourage those affected to seek treatment.[39,40] Also, by using both a pre-existing infrastructure and model to aid the response, the PIH/ZL could establish a sustainable, integrated and community-based system of mental health care.[7] The staff at the IOM recognized that the disaster had pushed mental health into the open and that attitudes towards mental health were improving; the once marginalized groups of the mentally were becoming more integrated and accepted by the wider communities.[21] The stigmatization of mental illness in the social sphere, alongside the distrust in the biomedical system in the management of these disorders, were both necessary considerations in designing and implementing post-disaster interventions.

Significance for Intervention Strategies and Recommendations

Mental Health in Emergency Settings

As alluded to previously, emergency settings often act as an unparalleled opportunity to transform the mental health system due to the surge of international donor aid and increased attention to mental health issues. In a matter of years after the 2004 tsunami in Sri Lanka, the government was able to build a far-reaching mental health system through use of community-based posts; an example of the capitalization on the resources flowing into a country postdisaster.[33] Commonly in acute responses to disasters, insufficient attention is paid to identifying factors necessary for sustainably upscaling mental health services. In addition, the needs of people with severe mental disorders are slow to get recognition as the focus is usually centered around immediate responses to trauma. Furthermore, lack of consensus on standards and approaches among psychosocial agencies for providing mental health assistance after disasters left the global community unclear on how to align initiatives and implement them to create a sustainable solution.[24] This led the Inter-Agency Standing Committee (IASC) task force to form a set of guidelines addressing significant barriers, a model that is now well-established practice in emergency and conflict zone situations.[41] It was noted by the group from the International Medical Corps providing mental health mobile clinics according to these guidelines, that due to the sheer scale of the disaster in Haiti and the complete absence of mental health care availability in most conflict zone situations.[41] It was noted by the group from the International Medical Corps providing mental health mobile clinics according to these guidelines, that due to the sheer scale of the disaster in Haiti and the complete absence of mental health care availability in most rural communities, such guidelines were difficult to implement.[24]

At least 90 international and local agencies provided immediate assistance to Haiti, with response efforts including religious mourning ceremonies to support grieving and mobilization of resources and professionals to help those in extreme distress.[7] Only three agencies offered psychiatric care through clinics in Port-au-Prince.[24] Many challenges surrounded questions about how to deliver care in a culturally competent manner, and to what extent foreign aid should intervene if their models may prove to be unsustainable.[24] Partners in Health were key players in dealing with some of the mental health needs in the community, both responding to the emergency and creating a foundation that could be built upon by the Haitian government for greater local capacity over the long-term.[34] They also highlighted the need for the psychiatrist to act as an “integrator of psychobiological and psychosocial perspectives on mental health and illness,”[40] specifically adjusting for culture and local context.

A Psychosocial and Integrated Approach

On an individual level, reports have suggested that clinicians should acknowledge the attitudes and beliefs towards illness and avoid an “either/or” stance forcing patients to choose between biomedicine and traditional healing practices.[30,42] A study conducted by Khoury et al. comprised of interviews and discussions with community members and leaders, church

members, health promoters, traditional healers and biomedical care providers in rural Haiti aimed to investigate whether explanatory models of illness invoking supernatural causation result in care-seeking from traditional healers and resistance to biomedical treatment.[2] They found that respondents were willing to receive care from both traditional and biomedical providers. Moreover, the folk practitioners expressed a desire to collaborate with hospitals and with the biomedical system; however, many respondents felt as though the biomedical system was largely ineffective at providing mental health care.[2] More research in this area would shed light on how these practitioners feel about the potential encroachment by foreign biomedical personnel on their field of expertise and influence, and help guide efforts to strengthen these relationships.

Akwatu Khenti, head of the Center for Addiction and Mental Health's (CAMH) Office of Transformative Global Health in Canada, aims for this collaboration between the two systems to improve outcomes by working together with spiritual leaders and sharing experiences of assessing and treating patients. The organization works with 40 religious healers to customize and deliver a type of psychotherapy—cognitive behavioral therapy—to treat mental illness in a way that would be most effective.[34] In this way, they are able to deliver care in a culturally competent manner and inform both patients and their caretakers that there are ways to successfully treat and cure disorders often deemed untreatable, especially through methods deviating from Vodou practices.

Recognizing that the capacity to assess mental health illness is a crucial first step to improve quality of care, a team set out to develop and validate a screening instrument for depression in Haiti following the earthquake. Rasmussen et al. aimed to integrate Haitian perspectives in an emic-etic approach, cognizant of the value of cross-ethnic and cross-cultural findings and the importance of ensuring that the research is culturally sensitive in designing models and implementing them with successful outcomes.[43] The emic-etic paradigm defined in 1937 by Brislin et al., is comprised of two perspectives: the emic perspective, or culturally informed, seeks to understand the meaning of that which is studied and its associations with other factors using that cultural framework. The etic perspective, on the other hand, is more culturally neutral, and involves evaluation through more "objective" constructs.[44]

Rasmussen and his team combined emic and etic perspectives to produce a screening instrument that incorporated local idiomatic expressions of emotional distress. They removed the possibility of missing any measured construct and avoided the imposition of solely biomedical notions of psychopathology on populations.[43] These benefits of an emic model, when coupled with those of an etic approach(i.e., the enhanced reliability through the standardization of measures), mitigates observation bias and lack of generalizability when solely using an emic approach.[45] Accordingly, their assessment studies of the screening tool produced results of high internal reliability, although they stated that the need remains for emic-structured clinical interviews for all mental health diagnoses.[43] This provides a good example of how to incorporate the local emic perspectives, language and idioms of mental health within an assessment tool that is culturally sensitive, and should be emulated in the development of other

studies and interventions. Further research would be of great benefit for cases when traditional perceptions and management of mental illness diverge to such an extent from biomedically accepted strategies that the two are not compatible for optimizing patient outcomes. The ethical considerations of completely dismissing an explanation, perhaps spiritual in nature, for medical accuracy must be assessed to appropriately manage this tradeoff.

From the results of the IOM assessment study, the researchers echoed all these considerations and summarized a series of recommendations for psychosocial responses: produce culturally sensitive programs, avoid duplication of services, develop a mental health structure, integrate with other medical outreach services, integrate livelihood within these programs, protect vulnerable children, maintain mobile teams, introduce support modules in schools and launch awareness campaigns.[21] Rather than being viewed as obstructions to improving mental health service provision and acceptability, these beliefs and care-seeking behaviors should be harnessed as opportunities to collaborate with pre-existing,community-centered mental health providers.

Creating long-term solutions for such lack of mental health care will rely not only on these combined approaches and collaboration between providers, but also on the improvement of the mental health care system in Haiti. These improvements for long-term success range from the education and training of healthcare professionals to the design of patient referral systems. The MSPP of the public sector recognized that mental health had been a widely neglected area in primary health care, and that flaws existed in the educational system in mental health medical training. Structural changes have been made in Haiti to meet all patients' needs, including "task-shifting" to community health workers (CHWs) to identify potential cases and maximize efficiency in the use of expertise.[15] The adoption of task-shifting, or dedicating low cost mental health workers such as CHWs who operate at the community and clinic levels to supplement integrated care, will help with efforts to decentralize mental health care.[46] Furthermore, isolated clinical interventions may not have a beneficial impact due to the hesitation of some Haitians in seeking biomedical services, and thus utilizing community-based resources could be a more cost-effective, practical delivery of this care.[6]

Conclusion

The earthquake in 2010 exposed the burden of mental illness in Haiti, the lack of services to care for those affected and the sociocultural influences implicated in the attitudes towards the mentally ill, their care-seeking behavior and relationship to mental health care providers. The mental health care system, already struggling before the earthquake, was severely damaged after the disaster and required assistance from foreign psychiatrists and psychiatric nurses. Moreover, this foreign aid needed to integrate the various beliefs of the people into treatments in a way that would improve patient outcomes.[47] In terms of providing mental health services, there were some successful attempts to integrate mental health care into the preexisting structures used for HIV/AIDS and TB. Efforts that focused on building upon local

capacity and task-shifting to community health workers were found to be successful in adopting an emic-etic approach. Such workers can carry out assessments, provide group

therapy and educational sessions and liaise with other community resources such as Vodou traditional healers and aid organizations. Creating sustainable mental health care systems that reach rural communities will depend critically on such systems' appreciation of the various cultural and social beliefs in the explanation of mental illness. Increasing community engagement with health care workers allows for the creation of a network of services that is safe and welcoming and reduces the stigmatization of disease in the community.[24] The acceptability of care delivered by biomedical personnel among communities must not be underestimated, as presented by the report by Khoury et al.[2] At the same time, biomedically accepted approaches and explanations for mental illness must not be imposed without consideration for how they might be effectively integrated with traditional practices to achieve better outcomes.

Misinterpreting Haitian beliefs as barriers to the availability and acceptance of proper care for mental health patients pre- and post-earthquake intensifies the difficulties with providing effective recommendations and interventions. Structural inadequacies for the treatment of mental illness must be viewed as primary barriers before criticizing traditional healing systems and their knowledge of delivering effective care.

Investments are needed to build upon the health system platform for other diseases and to integrate mental health care as a part of primary health care. Furthermore, factors such as religion and social stigmatization must be acknowledged in any global setting, particularly for mental illness and even more so in disaster settings. Haiti's case can be used as an example to present how the lack of data and care for mental health in a low-income country can overlook a significant proportion of the country's disease burden. In moving forward, a strong cultural influence must be respected and intervention instead of being disregarded as an impediment to its success. Pressing future research includes the integration of culturally informed surveillance, diagnostic and therapeutic measures for mental illness into primary care services and the reduction of the destructive stigma attached to mental illness. Finally, the implementation of a collaborative model of mental health care delivery that involves "task shifting" from professionals to community health workers holds promise for resource-constrained settings. A focus will now be on how these models can be scaled up and sustained to have the largest impact on global mental health care access and quality.

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