2017 Emory Global Health Case Competition

A Healthy Future: Addressing Children's Mental Health Needs in Monrovia, Liberia

The Emory Global Health Institute Student Advisory Committee Case Writing Team
Case Writers: Charles Barber, Jubilee Park, Jessie Preslar, Alexandra Reitz
Case advisers: Dr. Elizabeth Downes and Dr. Deborah McFarland

All characters, organizations, and plots described within the case are *fictional* and bear no direct reflection to existing organizations or individuals. The case topic, however, is a true representation of circumstances in the Monrovia, Liberia. The case scenario is complex and does not necessarily have a correct or perfect solution, and thus encourages a judicious balance of creative yet perceptive approaches.

The authors have provided informative facts and figures within the case and appendices to help teams. The data provided are derived from independent sources, may have been adapted for use in this case, and are clearly cited such that teams can verify or contest the findings within their recommendations, if it is pertinent to do so. Teams are responsible for justifying the accuracy and validity of all data and calculations that are used in their presentations, as well as defending their assertions in front of a panel of knowledgeable judges representing different stakeholders.

Introduction

Tracey Moore stepped out of the dark classroom into the glare of the sun, shielding her eyes as she surveyed the schoolyard. It was after the last period of the day had ended, and only a few stragglers were left talking in a corner, about to walk home. Even as primary school students, children in her village in Liberia were expected to hurry home after classes to help with chores and begin their homework.

As Tracey was turning around to lock the door to her classroom, she noticed Aya, one of her favorite pupils, sitting under a tree, staring off into the distance. Aya was a gifted student, excelling in the mathematics class Tracey taught, but she was reserved and usually kept to herself. Tracey approached Aya:

"Hi Aya, are you waiting on someone?" she asked.

"No Ms. Tracey, I'm just thinking," Aya responded, sighing deeply.

"About what?" Tracey asked, recalling that Aya had lost her mother the year before in the Ebola epidemic.

"Just about what's going to happen to me next year. I'm so worried, I haven't been able to eat or sleep at night. I might have to stay home to help with the household next year."

As Tracey walked home that evening, she thought about Aya and other children in her class who seemed pre-occupied, easily distracted, or who had trouble controlling their emotions. Some had lost family during the Ebola epidemic, some had suffered from anxieties related to poverty, and some had witnessed abuse in their families or in the community. In a country with infrastructure already severely weakened by a civil war a decade earlier, the Ebola epidemic had left the healthcare system in disarray. She wondered who would think to care for the mental health of her students, when so much of the country was focused on more visible problems. Getting into bed that night, she resolved to call her sister, who worked in the Ministry of Health, the next morning to see what could be done to help Aya and others like her.

Prompt

This story contributed to the growing concern of the Liberian Ministry of Health and Social Welfare (MOHSW), and it has set aside government funds and issued a call for consulting teams with expertise in children's mental health to partner with on this project. The government wants to reduce children's negative mental health conditions in Liberia by focusing on key priorities, recognizing that the mental health burden is driven by a complex array of social, economic, historical, cultural, and political factors that will require long-term approaches and investment. The government is particularly interested in mental health education and stigma reduction, as these issues are known to be barriers to children receiving the care they need. The concentration will be

on Monrovia for this project, as this urban area presents unique challenges and contains a large proportion of the population.

To respond to the request for proposals from the government of Liberia, your consulting firm must present an overview of the approach you will take to addressing the problem of children's mental health, presenting a coherent vision for your plan. Your plan should demonstrate sensitivity to working in the context of Liberia, including a thorough understanding of potential barriers to implementation. In addition, highlighting why you are the right team for this project will strengthen your proposal. An interdisciplinary approach is necessary for the completion of this project, so each team should include perspectives from fields such as the health sciences, public health, business, law, education, and religion. Funding will depend on the specific strategies proposed, but the year 1 budget should be one million (USD) or less. Although a long-term vision should be presented, a budget only needs to be detailed for the first year; for continued funding, a cost modification proposal would be submitted at the end of the funding period if the project demonstrates success.

You will give a presentation of your proposal to a panel of government officials and members of local non-profit organizations who will select the team and the proposal with the greatest potential for maximum impact. A successful team is expected to:

- Incorporate expertise from multiple disciplines that allows the team to address the complex nature of children's mental health in Liberia in a holistic way
- Offer a proposal that is effective in the Liberian context and reflects a sensitivity to the local ideas about mental illness
- Build a proposal using evidence-based strategies
- Clearly demonstrate an awareness of risks and potential weaknesses of the proposed strategy
- Utilize appropriate partnerships to improve the proposal's impact
- Establish effective monitoring and evaluation to monitor outcomes on an appropriate, clearly defined timeline
- Propose a specific budget with justification for each item

Background on Liberia

History of Liberia

Liberia's recent turbulent history can be traced back to the early 1800s, when freed slaves and free-born African Americans migrated to West Africa in hopes of finding a better life. These two groups of people established a series of colonial settlements along the coast in conjunction with a number of American missionary societies, confiscating land from indigenous people in the process.[1] In 1847, the various settlements coalesced, and the settlers, who now called themselves Americo-Liberians, declared the nation of Liberia.[1] Liberia remained a fractured society in which Americo-Liberians controlled formal politics in Monrovia, and the rural areas were governed under a form of indirect

rule.[1] The government also entered into a long-term lease of land with Firestone, a rubber manufacturing company based in the United States.[2] This contributed to Liberia's struggle to develop a strong economy and infrastructure, although the country slowly began to modernize after World War II.

Partly as a result of the intrinsic tensions and inequality between Americo-Liberians and indigenous Liberians, Liberia has endured two civil wars.[3] The First Liberian Civil War began when Charles Taylor launched an insurrection in 1989 against Samuel Doe's government.[3] In 1995, a peace deal was finally reached, and Charles Taylor was elected president in 1997, which marked the end of the First Liberian Civil War.[3] This civil war claimed the lives of over 200,000 Liberians and displaced an estimated one million others into refugee camps in neighboring countries.[3] Under Taylor's leadership, Liberia became internationally known as using blood diamonds and illegal timber exports to fund the Revolutionary United Front in the Sierra Leone Civil War.[3]

The Second Liberian Civil War began in 1999 when a rebel group launched an armed insurrection against Taylor. In 2003, the Special Court for Sierra Leone indicted Charles Taylor for crimes against humanity. He resigned and went into exile later that year under heavy domestic and international pressure.[4] The subsequent 2005 elections were internationally regarded as the most free and fair in Liberian history.[5] Ellen Johnson Sirleaf, a Harvard-trained economist and former Minister of Finance, was elected president, the first woman to be elected president in an African country.[6]

In 2006, the government established a Truth and Reconciliation Commission to address the causes and crimes of the civil war. President Sirleaf won a second term as president in 2011.[6] Her second period in office has been marked by allegations from watchdog bodies of nepotism and corruption. In 2014, an outbreak of Ebola Virus Disease (EVD) that began in Guinea spread to Liberia.[6] Of the West African countries that were affected, Liberia had the highest death toll with 4,809 deaths as of January 2016. However, it was also the first country to be declared Ebola-free, in part because of the efforts of rural communities and the willingness of the Sirleaf government to partner with Liberian and international organizations in combatting the disease (see Appendix A for additional information on Liberia).[7]

Urban Youth in Monrovia

Liberia is a young nation, with an estimated 42% of the nation under the age of 15.[8] In addition, Liberia continues to urbanize, with nearly 50% of the nation now residing in the capital city of Monrovia.[8] Youth in this urban environment face unique challenges, as the growing population places stress on the city's already overtaxed infrastructure. Many new settlements in Monrovia are informal and lack access to basic services, such as urban roads and reliable water supplies. After the EVD outbreak, there was an increase in the number of urban homes using sand, mud, or earth floors (a known risk for vulnerability to disease) from 15% in 2007 to 21% in 2015, representing a backslide in the living conditions of the urban population.[9]

Youth in Monrovia face the issue of urban unemployment that places them at high risk for food insecurity and at greater risk for exploitation. However, the increased density of the urban environment also offers an opportunity to participate in a growing youth movement and identity. Youth continue to contribute to Liberian music and art, which shape the national identity. There is a rising interconnectedness among Liberians as a growing segment of the population gains access to telecommunications. In 2013, 82% of urban households reported mobile phone ownership, a 20% increase from 2007.[9] This rise in communication among Monrovians has also led to a growth in Liberia's public consciousness; there is growing public discontent with corruption and impunity. As a result, Monrovia has been the site for various student protests, demonstrations for Ebola compensation, and other social movements.[9]

Education in Liberia

The Liberian educational system is emerging from a prolonged and brutally destructive period of civil unrest. Longstanding impacts from the war compounded by the recent school closure due to the EVD outbreak continue to take a toll on the fragile educational system.[10] Liberia is significantly behind most other African countries in nearly all education statistics. After 14 years of civil war, which resulted in the destruction of much of the country's trained workforce, Liberia is still in the process of rebuilding its educational system.[10] Eighty percent of schools were destroyed or damaged during the war, and many had roofs, furniture, and supplies looted. Since government investment in basic education outside the capital city was low before the war, further conflict and the operational cessation of the Ministry of Education left schooling in a parlous condition.[10]

The Liberian educational system faces many problems, as evidenced by the fact that only 48% of Liberian candidates who sat for the 2014 West African Examinations Council test for a Senior High School Certificate passed. In 2010, primary school enrollment was 74% for males and 58% for females. Secondary school enrollment was only 37% for males and 27% for females.[11] A problem with school quality persists; only 40% of those teaching in primary schools have been trained. Of all primary teachers, trained and untrained, only 12% are female.[12] Despite these issues, there has been some marked progress in youth literacy. Among Liberians aged 15-19, 69% of females and 75% of males are literate. This is an improvement from the overall population literacy rate of 48% for females and 71% for males.[9]

Human Rights and Legal Issues

Human rights groups and official international policy recognize mental health as a fundamental human right, including for children. The UN Convention on the Rights of Persons with Disabilities (CRPD) in 2008 affirms rights for those living with disabilities, including "the right to live in the community, participation and inclusion, education, health, employment and social protection".[13] Specifically for those living with mental health disorders, CRPD highlights the lack of available treatment and the human rights violations perpetrated against them.[14] People with untreated mental disabilities can be particularly at risk for having their rights violated, under the assumption that they do not have full capacity for decision making or to protest mistreatment. The CRPD was

signed by Liberia in 2007, with ratification/accession occurring in 2012.[15] Other UN and regional treaties support those living with mental health conditions in the context of human rights.[16]

The Convention on the Rights of the Child (CRC) is one such treaty that addresses mental health issues. Children are considered a vulnerable population in need of special protection of their rights due to physical and mental immaturity, so those with disabilities are at an even greater risk of having their rights ignored. The CRC states that mentally disabled children have the right to care and should "enjoy a full and decent life, in conditions which ensure dignity".[17] Liberia signed the CRC in 1990, and ratification/accession occurred in 1993.[15]

Mental Health in Liberia

Mental health disorders and treatments

Liberia's devastating civil wars resulted in widespread trauma and decimated the nation's already fragile healthcare system. In 2009, a mental health needs assessment of children and adolescents was conducted by the Liberian MOHSW in collaboration with researchers from Massachusetts General Hospital. The assessment affirmed that, "exposure to conflict and war, extreme fear and witnessing atrocities had severe negative impacts on the emotional health of Liberian youth during the civil war".[18]

In general, trauma-related psychiatric illnesses such as PTSD and depression are highly prevalent in post-conflict societies. One study conducted on 1600 Liberian adults demonstrated that 40% of participants met symptom criteria for major depressive disorder and 43% met symptom criteria for PTSD.[19] Children and adolescents are an especially vulnerable population, and they currently account for nearly 56% of Liberia's population.[11] Children face issues such as orphanhood, child abuse, and child labor.

In a 2009 needs assessment of child and adolescent mental health, most Liberian youth identified medical clinics as the most appropriate setting for mental health care but nearly 30% of post-conflict Liberians do not live within a four-hour walk to a clinic or hospital.[19] The mental health of children in Liberia is an area that is of great concern, especially as "more than 3,600 Liberian children were orphaned and thousands more were confined in isolation units or left at home to watch loved ones suffer" during the Ebola epidemic.[20]

Following the recent Ebola epidemic, there has been a further increase in a number of neuropsychiatric disorders. It is estimated that at least 400,000 people in Liberia suffer from a neuropsychiatric disorder; by 2020, it is estimated that mental illness and substance use disorders will be the leading cause of morbidity in Liberia.[21] There is great concern that substance use disorder is becoming more prevalent among youth in Liberia.[21]

There is also a concern in the post-conflict era and post-EVD outbreak of a negative feedback loop, where poor mental health results in poor functioning and poor functioning exacerbates poor mental health. Other research has demonstrated that protective factors such as access to education, family connectedness, community acceptance and economic skills play a significant role in the psychosocial adjustment of youth exposure to war-related traumatic events.[22]

Mental Health Infrastructure and Policy in Liberia

Liberia's desire to address its mental health needs led the MOSHW to create its first national mental health policy in 2010. This document described mental health care at the time as, "virtually non-existent in the country," with no outpatient or inpatient treatment options available at health clinics, health centers, or county hospitals.[11] As such, it is estimated that total mental health expenditure in Liberia during that time was less than one percent of the nation's overall health expenditures.

While the mental health needs of Liberia are well documented, the nation's capacity to address this need has been woefully limited. In 2010, there was one psychiatrist in Liberia and one operating mental health facility, Grant Memorial Mental Hospital.[23] Still the only current mental health facility, Grant Memorial Mental Hospital is operated by a German NGO, Cap Anamur. Treatment teams at this facility are composed of a social worker, nurse, therapist, psychologist, psychiatric advisor, and physician assistant; no doctors or psychiatrists are on staff. The staff of Grant Memorial are all generalists who only received on the job training due to the lack of mental health education opportunities.[11]

In 2016, major gaps continue to exist in Liberia's mental health system, including a dearth of mental health facilities, a shortage of qualified healthcare workers, and a lack of availability of psychotropic drugs. Most primary care staff are not trained to provide mental health services. In addition, key stakeholders such as law enforcement and teachers do not receive training for working with persons with mental health conditions. However, the World Health Organization (WHO), The Carter Center, and other organizations have identified these issues and have already educated hundreds of healthcare workers about the mental health needs of Liberians. As a vulnerable population, children and adolescents have been a special focus of many of these programs.[21] Liberia currently has 144 trained mental health clinicians which include registered nurses, physician assistants, and other trained healthcare staff.[21] Forty-one of these workers identified working full-time with mental health patients; many of the others identified working primarily in different roles but reported that they continued to see patients with mental illness.[21]

For youth, in particular, there is a focus on ensuring children and adolescents have access to care at all health care facilities along with establishing the capacity for brief essential hospitalizations at children-specific facilities.[21] School-based mental health services are also being emphasized. Key to all of these services is the initiative to train Child and Adolescent Mental Health Clinicians (CAMHCs), who will focus on implementing interventions in the home, schools, health care facilities and communities. Along with this will be the creation of individualized education plans for children

with more severe emotional and behavioral disorders to ensure their continued access to education.[21]

While there has been some improvement in the mental health workforce, access to psychotropic drugs for the general population remains severely limited (see Appendix B for excerpt from Liberia's Essential Medicines list). Only 7% of the facilities surveyed in Liberia had staff trained in mental health and had psychotropic drugs available.[21] The Liberian Ministry's Essential List of Drugs contains a limited set of psychotropic medications, and access to medication may be severely limited. For many, access to a prescriber is difficult and the cost of medications is prohibitive. Of note, there is no current policy defining who can prescribe medications; presently, doctors, nurses, midwives, and other health care workers prescribe medications without governmental oversight or continuing education.[11]

As the government of Liberia plans its future healthcare roadmap, it has identified a number of strategic objectives, including: increasing the clinical capacity of mental health staff; increasing the inpatient capacity through the establishment of wellness units at all county hospitals; increasing training of primary health care level in identification, management, and referral practices for mental health conditions; increasing the availability of psychotropic drugs; training community-based workers to recognize mental illnesses and make appropriate referrals; reducing community stigma; and building a new mental health referral hospital, the Catherine Mills Mental Health Center.[21]

Culture and Mental Illness

The substantial barriers to access mental healthcare in Liberia, resulting from lack of mental health infrastructure and the compounding effects of war and disease, are further exacerbated by cultural attitudes that stigmatize mental illness.[24] The mental health of children in Liberia is an area that is of great concern, especially following the Ebola epidemic.[20] However, indigenous notions about illness, stigma surrounding mental health issues, and the lack of vital resources for treatment continue to exacerbate the mental health crisis in Liberia.

In the most recent Liberian Demographic and Health Survey there are no data presented related to mental health, but the WHO estimates that one in five Liberians suffers from some form of mental illness. As recently as March 2016, there was only one registered psychiatrist in Liberia. To compound issues resulting from the lack of mental health services, there is a shortage of psychotropic drugs that help those affected by certain mental disorders.[25] Critical barriers to mental health service provision and education can be indigenous cultural constructions surrounding certain health issues, especially those related to mental health.

In the context of Liberia, stigma remains a critical barrier to mental healthcare access. Those with mental illness are often deemed cursed or thought to be victims of witchcraft, as there is less general socio-cultural knowledge about mental health and scientific understandings of illness.[26] Epilepsy is one such illness that remains highly stigmatized in the country. This disorder is

categorized as neurological condition in Western medicine, but in Liberia it often bears the marker of a mental illness. The families of those who have epilepsy often resort to indigenous healing methods to try to rid the person of the illness.[26] Also because the illness is so highly stigmatized, many people delay treatment for this condition—a condition exacerbated by malaria, which is prevalent in this region.[26]

The indigenous phenomenon known as "Open Mole" has been another cultural category that both stigmatizes those affected and keeps them from accessing the necessary healthcare resources that they need.[27] In the traditional context, Open Mole is thought to be an acquired disease state that can occur in adults after being exposed to shock adversity and stress, and can include symptoms that manifest themselves physically and/or mentally. Some believe it to be contagious, but others do not. Generally, little consensus exists among Liberians about what constitutes Open Mole. The symptoms are often associated with those of various mental health conditions in the Western medicine.[27] Because this concept is an indigenous way of relating to mental illness, many Liberians often seek out traditional healers to help combat the symptoms. However, these traditional methods may not be effective in helping to combat the underlying mental health issues, which are compounded by the effects of decades of war, poverty, and illness within the country.[27]

Stigma about illness was rife during Ebola epidemic that hit Liberia in 2014 and 2015. Misinformation abounded about those who the virus struck. Early in the epidemic, inaccurate information spread about the virus and those infected.[28] Rumors spread quickly throughout Liberia about the illness, and those with it were often excluded from their communities and garnered little sympathy. Indigenous conceptions of illness quickly began to be applied to victims of Ebola, and many associated these victims with witchcraft or as receiving punishments from God.[28] Not only may survivors of the epidemic remain quite sick, but also many are often adversely impacted by mental health disorders that come from being ill, survivor's guilt, and/or the emotional trauma of loss and devastation that the epidemic wrought.[28]

Culture and Gender

In January 2006, Ellen Johnson Sirleaf became the president of Liberia, making her the first female head of state in Africa. Since she has been president, she has been committed to democracy, education, and women's rights.[29] Though many strides have been made to reduce gender inequality and gender-based violence in the legal sphere, longstanding cultural viewpoints regarding gender still mean that women in Liberia are less educated and have lower incomes than their male counterparts, and gender-based violence is still an issue that many Liberian women face. Cultural attitudes, sometimes grounded in religious principles, contribute heavily to the perpetration of violence against women, as well as to women's own responses to the violence they experience.[29]

In a study conducted by Allen and Devitt published in 2012, 87% of women they interviewed from Liberia between the ages of 20-50 thought that women were not equal partners in marriage, had less power than men, and generally did not think that women should be considered equal in marriages.[29] Also, nearly 75% of these respondents reported experiencing some type of abuse from

their husbands or partners. Because of entrenched patriarchal cultural beliefs about gender, children in the homes, as well as lower rates of educational and income attainment by women, they may feel that it is not possible to get out of an abusive situation.[29]

Due to cultural norms, the fact that Liberia is still rebuilding from the civil war, and lack of access to legal aid, women may not see legal intervention as particularly helpful or useful. It may also be risky if these women report abuse to authorities that are poorly trained to handle these situations, as they may contribute to bias against these women.[29] Overall, the status of women and girls in Liberia is one that leads to greater structural inequalities and violence, which could have an impact on the mental health of women and girls in the country.

Economics of Mental Health

Mental health disorders can have a significant economic impact on a country, both through cost of mental healthcare and through lost productivity of those living with mental illness. Some estimates have put the cost of mental health problems as high as 3-4% of GNP in developed countries.[30] Research in the United States estimates that 193 billion dollars are lost annually in the United States just due to the lost productivity of people living with severe mental illness, even beyond the costs of medication and healthcare.[31]

Although the cost is more difficult to quantify in a developing county context, the economic burden is potentially even greater in these contexts due to the indirect costs from lack of treatment options.[32] Liberia's National Mental Health Policy recognizes that it has financed very little for the overall mental health system and relies heavily on international NGOs for funding, resulting in fragmented interventions for addressing children's mental health issues.

Financing for mental health and grappling with the indirect and direct costs of the mental health burden must compete with multiple other economic concerns. The Liberian economy has suffered from the civil war and from the Ebola epidemic. The estimate of the short term, immediate macroeconomic impact in Liberia for 2014 was a reduction of 3.4 percentage points of GDP.[34]

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Appendix A: Current demographic and economic indicators in Liberia[34,35]

Total population	4,503,000
Gross national income per capita	790
Life expectancy	60 (M), 63 (F)
Total expenditure on health per capita	98
Total expenditure on health as a % of GDP	10.0
Under five mortality rate	75
Urbanized population (%)	48.5

Appendix B. Psychotherapeutic Medicines on Liberia's Essential Medicines List[36]

24. Psychotherapeutic Medicines			
24.1 Medicines Used in Psychotic Disorders			
Benzhexol	5 mg	tab	HOS
Benzhexol	10 mg/5 ml	inj	HOS
Chlorpromazine	100 mg	tab	HOS
Chlorpromazine	50 mg/2ml	inj	HOS
Fluphenazine	25 mg/1ml	inj	R
Haloperidol	5 mg/ml	inj	REF
Risperidone	2 mg	tab	R
24.2 Medicines Used in Mood Disorders			
24.2.1 Medicines Used in Depressive Disorders			
Amitriptyline	25 mg	tab	HOS
Fluoxetine	20 mg	tab	R
24.2.2 Medicines Used in Bipolar Disorders			
Carbamazepine	100 mg	tab	HOS
Carbamazepine	200 mg	tab	HOS
Lithium carbonate	150/300 mg	tab	HOS
Valproic acid	200 mg/500 mg	tab	REF
24.3 Medicines Used in Generalised Anxiety and Sleep Disorders			
Diazepam	5 mg	tab	HOS
Clomipramine	10 mg	tab	R
Clomipramine	25 mg	tab	R
24.4 Medicines Used for Obsessive Compulsive Disorders or Panic Attacks			
Clomipramine	10 mg	tab	R
Clomipramine	25 mg	tab	R
24.5 Medicines Used for Substance Abuse (Alcohol/Opioid Dependence)			
Buprenorphine	2 mg/8 mg	tab	R
Methadone	5 mg/ml, 10 mg/ml	oral sol	HOS