



Children's Mental Health Following the Haiti 2010 Earthquake

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Judite Blanc and Ingrid van Balkom

"Pitit se byen pòv malerè/malerèz!!!"
(Children are goods for poor people)

—Haitian Kreyòl Proverb

Abstract

The 2010 earthquake devastated many Haitian communities. Its profound effects on mental health have been investigated in a number of Haitian research studies. To truly appreciate the situation, we will describe research findings from before and after the earthquake and discuss them within the framework of the existing literature on the mental health aftermath of mass trauma. In particular, we will discuss the Haitian cultural and economic background, including societal shortcomings that could be a threat to Haiti's children and their development. Adverse childhood experiences, such as hunger, multiple forms of violence, child labor, and the absence of child-nurturing environments, likely caused developmental vulnerabilities in Haiti's children prior to the earthquake, although these different impacts are difficult to separate. On the other hand, existing protective factors in Haiti, such as strong family and community commitment to children and strong religious beliefs, are also present and relevant to their development and will also be taken into account. After the earthquake, Haiti made progress by implementing policies and programs that address children's health, mental health, and development. However, ensuring healthy physical and mental devel-

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opment of Haiti's children remains a serious challenge. As authors, we did not conduct one specific study but attempted here to provide insight into the pre- and post-earthquake situation, including the unavoidable interrelationship of physical and mental health in the post-disaster setting.

8.1 Introduction

On October 9, 2008, Haitian engineer and geologist Claude Prepetit published a prescient article in the Haitian newspaper *Le Matin* titled "Earthquake in Haiti: Myths or Realities?" in order to raise awareness of the seismic risks faced by the country. In referring to Moreau de Saint Mery's work on the topographical description of the French part of the island (1797), Prepetit reminded the nation of the history of earthquakes that destroyed the "Pearl of the West Indies" during French colonization, while lamenting the psychological mechanisms underlying Haiti's carelessness with respect to earthquake hazards.

Of course, the Haitian collective psyche is unable to conceive that it is in the order of things that these natural phenomena may one day be reproduced; on the one hand because of its ignorance of the reality of seismic threat in Haiti; and on the other hand, as a result of religious beliefs, instituting a "Bondye bon" (God is good), preserving them from all risks and natural disasters (Prépetit 2008).

8.2 The January 2010 Earthquake

Less than 2 years after its publication, Prepetit's forecast of disaster became reality. On January 12, 2010, a major earthquake (magnitude 7.3 on the Richter scale) struck the West department (or region) and part of the South department of Haiti, releasing a quantity of energy similar to a 5-megaton hydrogen bomb. Based on US Geological Survey data, the intensity at the epicenter, in the city of Leogane, 25 km from the capital Port-au-Prince, was estimated to be a magnitude 9 on the Richter scale. The earthquake caused widespread destruction, including massive loss of life and injury, and left many, but especially vulnerable children, at risk for negative post-disaster outcomes.

The United Nations (2010) estimated the death toll at 222,000, the injured at 6000, and the displaced at more than one million individuals. The Disasters Emergency Committee (Disasters Emergency Committee 2015) counted more than 188,383 houses seriously damaged and 105,000 destroyed. In the aftermath of the disaster, 19 million cubic meters of concrete and debris covered the streets of Port-au-Prince. Sixty percent of schools in the West and South departments suffered damage to classrooms and administrative structures (MENFP 2011).

One and a half million survivors of the disaster found refuge in provisional camps or tent villages, exposed to the weather, violence, food insecurity, and communicable disease. Then, in October 2010, a cholera epidemic broke out in

Artibonite and rapidly spread to the rest of the country. Between October 2010 and December 2012, this epidemic killed almost 8000 people and infected more than 600,000 others.

8.2.1 National Context Before and After the Earthquake

Haiti, located in the Caribbean Sea, occupies the western region of the island of Hispaniola, which it shares with the Dominican Republic. The territory of 27,750 km² is divided into ten departments: West, Southeast, North, Artibonite, Nippes, Northeast, Center, South, Grand Anse, and Northwest. The economic and political capital, Port-au-Prince, is located in the West department (Haitian Institute of Statistics and Informatics 2003). The island's geographical location (Fig. 8.1) exposes it to various natural disasters, such as tropical storms, violent hurricanes, floods, and earthquakes.

After the enslaved people of the French colony Saint-Domingue defeated Napoleon Bonaparte's army on November 18, 1803, the Republic of Haiti, the first black republic in the world, was born. It proclaimed its independence on January 1, 1804 (Madiou 1849). From 1804 to the present, the history of Haiti has been marked by political and social conflicts. From 1915 to 1934, the young black republic was subjugated by the military occupation of the United States of America (Corvington 2007). Later, during the second half of the twentieth century, Haitian society entered a bloody dictatorial cycle under the Duvalier regimes (father followed by son), which lasted 30 years.

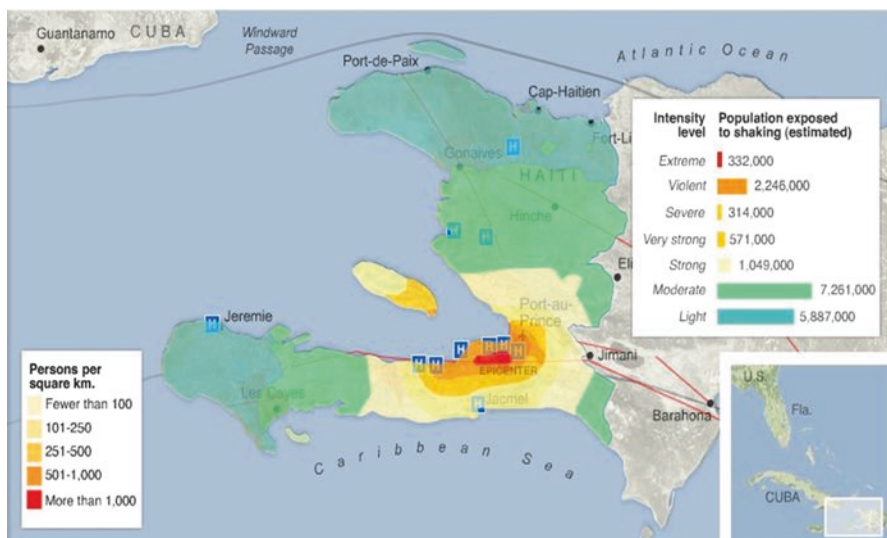


Fig. 8.1 Haiti map of earthquake intensity in 2010 (Globalsherpa.org 2018)

In order to break with past political practices of repression and dictatorship, a new constitution was proclaimed on March 29, 1987 (Haiti 1987). The new constitution proclaimed Kreyòl (Creole) an official language, in addition to French (Bentolila and Gani 1981; Haitian Institute of Statistics and Informatics 2007–2008). It also proclaimed freedom of all religions and faiths, thereby decriminalizing the cult of Vodoun and affording it equal status to Catholicism and other religions (Hurbon 1987). The constitution was intended to build a new and democratic Haiti, where fundamental human rights would be guaranteed. However, the country continued to struggle with addressing food shortages, economic crises, widespread unemployment, social inequality, and corruption made possible by inadequate application of judicial accountability (Hurbon 1998; Haitian Institute of Statistics and Informatics 2003).

The elections in 2000 generated political unrest, as the results were contested, and this lasted until the fall of President Jean-Bertrand Aristide in 2004 (Jean-Francois 2004). This period was followed by the controversial 13-year United Nations Stabilization Mission in Haiti (MINUSTAH), considered by many Haitians to be an occupation of the country. The mission was meant to strengthen democratic institutions and establish a domestic police force. After the earthquake of 2010, the UN added more personnel to the MINUSTAH mission in an effort to support the country's rebuilding process. In April 2017, the UN Security Council unanimously adopted a resolution to withdraw more than 2000 peacekeepers from Haiti.

Before the earthquake, people in Haiti were surveyed about their access to clean water and health services with the fourth edition of Mortality, Morbidity, and Use of Services Survey (EMMUS-IV 2005–2006) (Cayemittes et al. 2007). Results showed that only 55% of households had access to an improved source for their drinking water, and 52% of families reported having to walk up to 15 min to reach a water supply. Regardless of where a household was located, the main reason given for not using health services was cost. However, in rural areas, distance was more frequently mentioned as an obstacle to service access than in urban areas (26% versus 5%, respectively), as was the use of traditional caregivers (19% versus 8%, respectively). According to the survey of living conditions in Haiti only 3.1% of all participants were covered by health insurance (Haitian Institute of Statistics and Informatics 2003). EMMUS-IV also found that literacy in Haiti was determined by background and geographical origin. In urban areas, 81% of women and 89% of men knew how to read and write compared to 52% and 61%, respectively, in rural areas (Cayemittes et al. 2007).

The fifth edition of EMMUS-V confirmed that religious beliefs occupy a prominent place in daily life in Haiti, with Catholicism identified as the largest religious group (39%), followed by combined Protestant denominations (53%), and only 1% declaring themselves as practitioners of Vodoun (Cayemittes et al. 2012). A survey among 104 adult survivors conducted by O'Grady et al. (2012) in the aftermath of the earthquake revealed that the majority of participants had intensified their faith in a higher power following the earthquake and that they felt a renewed interest in practicing their religion. However, there were also reports of religious conflicts among Haitian believers from various sects, and some held a violent animosity

toward Vodoun members, whose beliefs and behaviors were purported to have caused the earthquake as divine retribution (Pierre-Pierre 2010).

Demographic indicators after the earthquake showed the following estimates for 2014: annual population growth in Haiti was 1.34%, birth rate was 24.58/1000 inhabitants, mortality rate was inhabitants, infant mortality was 49.43 deaths/1000 live born infants, and life expectancy at birth was 64.6 years for women and 61.77 years for men (Index Mundi 2017).

8.2.2 Health and Food Insecurity

In Haitian culture, the idea that a human being is a specific combination of cosmic energy prevails, which influences the way health and disease are conceptualized. There is no separation in terms of physical and mental morbidity. The concept of health implies a subjective “state of well-being” in which the social environment and the nonhuman or physical environment (earth, plants, animals, air, strength of nature, etc.) are connected. The human environment comprises visible physical persons, as well as invisible ancestors, spirits of humans, and spiritual beings. In that context, disease is understood as a “state of discomfort,” which can result from a conflict between different components of the self, or “being,” or from actions outside oneself, as in the case of environmental entities (Sterlin 2006).

In Haiti, existing institutional weaknesses and cultural barriers may have led to under-recognition of the burden of mental health issues and to inadequacies in the provision of care. In addition, factors such as prolonged poverty, food insecurity, limited access to clean water and health services, inadequate sanitation, violent circumstances, and limited treatment resources, all contributed to high maternal, infant, and child mortality and to low life expectancy in Haiti before the earthquake (Legha and Solages 2015). These factors persisted despite the government's creation of the Strategic Plan for Child Health (2003–2008), which was aimed at reducing overall child mortality, expanding childhood immunization, facilitating access to prenatal and postnatal care, and preventing mother-to-child HIV transmission.

Hunger and food insecurity intensified after the earthquake, with the average number of meals per person decreasing to less than 2 a day. One in five children under 5 years of age had stunted growth, and more than half of all children and almost half of all women of reproductive age were anemic (USAID Haiti 2011; Cayemittes et al. 2012). In their study, Hutson et al. (2014) demonstrated that children in Port-au-Prince area households, which were already vulnerable prior to the earthquake (e.g., prior low school attendance, violent circumstances, lack of running water, and adequate sanitation), also had a higher risk of experiencing hunger and food insecurity after the earthquake.

In response to the earthquake of 2010, the UN added more personnel to the MINUSTAH mission in an effort to support rebuilding following the earthquake. However, MINUSTAH was implicated in several sex abuse scandals and was eventually found responsible for a large-scale cholera outbreak 10 months after the earthquake (Orata et al. 2014). With the breakdown in infrastructure and the

healthcare system in Haiti already severely burdened by the earthquake, the spread of cholera to all ten departments of Haiti was rapid. According to the official statistics, the cholera outbreak led to almost 8000 dead and more than 600,000 infected between October 2010 and December 2012. However, cholera-related deaths may have been substantially underestimated in the chaos post-disaster (Polonsky et al. 2013; Luquero et al. 2016).

Fortunately, compared to previous survey results, the 2012 EMMUS-V showed some improvements. Not only did infant mortality decrease over the previous 15 years, dropping from 79 deaths for 1000 live births (1997–2002) to 59 for the 5-year period before the survey (2007–2012); vaccination coverage also improved to 45% (up from 41% in 2005–2006). Regarding maternal health, the survey found that 90% of women who gave birth in the 5 years before the survey had received prenatal care from trained healthcare professionals, such as doctors, nurses, and midwives, and that 37% had been assisted by professionals while giving birth. Unfortunately, the survey also found that 61% of women did not receive postnatal care.

8.3 Children and Childhood Environments in Haiti

Existing structural and institutional weaknesses, combined with deteriorating socio-economic conditions over the past decades, have had a long-term impact on several development sectors, including food security, access to clean water and sanitation, health, and nutrition. The lack of safe environments sensitive to children's health, nutritional, and developmental needs, and free of violence and hostility, has put many Haitian children at serious risk. Growing up with adverse childhood experiences, such as emotional, physical, and sexual violence, has been linked to negative physical and mental health outcomes in later life (Felitti et al. 1998; Edwards et al. 2003). Other detrimental experiences, such as hunger, poverty, household dysfunction, and inability to access education, can further harm a child's future outcomes (Hutson et al. 2014). So-called street children have been on the front line of the political and socioeconomic crisis and have suffered a lack of care and protection, along with "Restavèk" children. The Creole term "Restavèk" ("stay with") refers to children sent by their families to stay with other, more affluent families. This is done in the hope that the child will receive food, shelter, and schooling in return for their labor. Unfortunately, Restavèk children, who are mostly girls, often work long hours for the host family starting at a very young age, without receiving proper care or access to education. Further, they are often exposed to emotional, physical, and sexual abuse (UNICEF 2006).

In EMMUS-V, child labor was defined as 5–11-year-old children working for at least 1 h a week or doing housework for at least 28 h during the week and as 12–14-year-old children working for at least 14 h a week and/or doing domestic work for at least 28 h a week. The results showed that 65% of children aged 5–11 years and 18% of children aged 12–14 years participated in child labor in the week prior to the survey. In addition, EMMUS-V showed that the vast majority of children aged 2–14 (86%) had experienced some form of disciplinary action in the

previous month. The most common types were corporal punishment, which affected 81% of children, non-violent disciplinary sanctions, and psychological aggression, which affected 8% of children (Cayemittes et al. 2016).

In June 2012, a national survey was conducted to investigate exposure to childhood emotional, physical, and sexual violence. The survey was a collaboration between the US Centers for Disease Control and Prevention (CDC), the Institut Interuniversitaire de Recherche et de Developpement (INURED), and other partners. The Violence Against Children Survey, Haiti (VACS), included female and male Creole-speaking participants from selected camps/tent villages and households, who were 13–24 years old. Childhood violence was defined as violence experienced before the age of 18. Based on a three-stage cluster design, the survey yielded separate estimates of childhood violence for both females and males. Major aims of the VACS were to measure (1) the lifetime prevalence of childhood violence and (2) the prevalence of childhood violence among participants aged 13–17 years in the 12 months prior to the survey. In total, 2916 interviews were completed, including 1457 females and 1459 males, with an overall response rate of 85.6% and 82.0%, respectively (CDC 2014).

Many of the surveyed children experienced numerous violent acts against them. The VACS survey reported that one in four girls and one in five boys in Haiti had experienced at least one incident of sexual abuse prior to the age of 18 years, and among these 69.5% of girls and 85.4% of boys reported multiple incidents of sexual violence. Of participants aged 13–17 years, nearly 1 out of 5 girls and 1 out of 10 boys had experienced at least one incident of sexual abuse in the 12 months before their participation in the survey.

Almost two-thirds of both females and males had experienced physical childhood violence from an adult household member or from an authority figure (e.g., teacher) in the community, while approximately one-third experienced emotional violence during childhood (i.e., prior to turning 18) by an adult household member. Of participants aged 13–17 years, 90% of girls and 85.7% of boys had perceived that their most recent experience of physical violence by an adult household member or authority figure had been intended as punishment.

Additionally, approximately one-third of both girls and boys in Haiti had experienced childhood emotional violence by an adult household member, and of participants aged 13–17 years, this had been experienced by 27.8% of the girls and 16.2% of the boys in the 12 months preceding the survey.

Of those interviewed, approximately one in six female and one in eight male VACS respondents reported having been Restavèks before the age of 18. They were more likely to have come from food-insecure homes, to have worked during childhood, and to have never attended school. Compared to other respondents, those who had been Restavèks in childhood had a higher prevalence of having experienced all forms of sexual, physical, and emotional childhood violence.

Following the earthquake of January 12, 2010, nearly a quarter of the 13- to 24-year-old population had to be relocated. Not all of the displaced were relocated to camps or tent villages. Nearly one in five of those interviewed during the survey said that they had either temporarily lived in a camp or were relocated to another region following the earthquake. In general, the displacement of populations

following the disaster was not associated with incidents of sexual abuse suffered by girls/women aged 13–24 years. However, females between the ages of 13 and 24 who lived in camps or tent villages were more prone to have experienced sexual abuse after the earthquake than those not living in camps or tent villages, whether they had been displaced or not (CDC 2014).

The VACS results demonstrated that in Haiti, sexual, physical, and emotional violence against children are generally co-occurring acts and that girls were significantly more likely than boys to have experienced multiple forms of violence during their childhood (CDC 2014).

8.4 Exposure to Natural Disasters: Mental Health Outcomes

Compounding the effects of harmful childhood experiences such as hunger and violence (Hutson et al. 2014; CDC 2014), Haitian children were already developmentally vulnerable when they were exposed to an earthquake that had devastating effects on their community.

Several decades of research have demonstrated that disasters can affect children in multiple ways, resulting in post-traumatic psychiatric disorders and neurophysiological changes, each with implications for emotional development (Bremner and Vermetten 2001). According to Anderson (2005), post-traumatic reactions vary depending on age, developmental phase, and variables inherent to the traumatic event (origin, severity, and duration). Post-traumatic reactions are also influenced by individual characteristics and specific aspects of the victim's familial and social support systems. A meta-analysis by Brewin et al. (2000) of 14 predictors of post-traumatic stress disorder (PTSD) in various population groups identified 3 categories of risk factors for the disorder: (1) in some groups, sex, age at time of trauma, and ethnic origins predict PTSD; (2) education, past traumatic experiences, and childhood experiences are all substantially associated with PTSD but vary by study population and methodology; and (3) psychiatric history, history of childhood abuse, and family psychiatric history consistently predict PTSD.

At the individual level, the most important PTSD risk factors were trauma severity, lack of social support, and stressful life events that occur at and after the traumatic event. Four additional cognitive risk factors have been reported: perceived harmful potential of the situation, belief in personal vulnerability, attempts to attribute meaning to event, and beliefs in a level of personal control. The studies reviewed by Bowman and Yehuda (2004), based on the cognitive model of Ehlers and Clark (2000), show that cognitive elements recorded in the immediate aftermath of a traumatic event (negative beliefs about oneself or the world) are risks for the severity of PTSD after 6 and 9 months, independent of the severity of the traumatic event. The existence of a belief system, which positively influenced the individual's own feelings of value, safety, and reliability prior to the traumatic experience, appeared to be a protective factor.

Few studies have addressed mental health in the aftermath of the earthquake in Haiti. A literature review conducted by Blanc (2015) identified only 33 English language publications from 2010–2015 focused on mental health. For the same

period, more than 50 titles produced in French (scientific articles, mission reports, books, or book chapters) were found, using the same terms. These publications addressed the Haitian mental health system (WHO 2011), culture and mental health (WHO 2010), psychosocial intervention and epidemiologic studies on PTSD and depression, scientific validation of psychological assessment instruments, and clinical case studies (Derivois et al. 2011).

8.4.1 Mental Health Outcomes in Haitian Children Exposed to the Earthquake

After the earthquake in Haiti, several researchers investigated determinants of post-traumatic stress disorder in children and adolescents in Port-au-Prince. They not only found that a high level of social support is associated with a low level of emergence of PTSD symptoms but also that social connections were a key factor in building resilience. Important protective factors influencing child mental health in Haiti are: family commitment to caring for children, community support, and spiritual beliefs (Derivois et al. 2014; Cénat and Derivois 2014a; Legha and Solages 2015).

By contrast, in their study of surviving school children, Blanc et al. (2015b) used various questionnaires (see Table 8.1) to uncover a high prevalence of severe depression and post-traumatic stress symptoms (40% and 68%, respectively) in children evaluated 1 year after the earthquake. Additionally, they found that refugee children in follow-up camps displayed severe symptoms of psychopathology when compared to their untrained peers who had returned to school soon after the disaster.

Various studies have previously reported the emergence of PTSD in youth exposed to an earthquake (Giannopoulou et al. 2006; Goenjian et al. 2009; Hizli et al. 2009). Giannopoulou et al. (2006) reported epidemiological data collected from young earthquake survivors in Taiwan and Armenia. They found prevalence of post-traumatic symptoms ranging from 21% to 70% and identified common risk factors, including distance from the epicenter and the magnitude of the earthquake. In their study sample of orphaned and non-orphaned adolescents after the Spitak earthquake in Armenia, Goenjian (2009) found prevalence rates similar to those of Giannopoulou for both depressed mood and PTSD. However, Hizli et al. (2009) found rather divergent results. Their epidemiological study included children and adolescents between the ages of 8 and 18 who, after surviving the 1999 earthquake in Turkey, subsequently moved to Ankara, the capital. Contrary to previous research findings, this study found that the subjective perception of the earthquake, rather than its objective impact, proved to be a robust predictor for post-traumatic stress and depression.

Studies (see Table 8.1) dealing with child mental health outcomes in children who directly experienced the earthquake in Haiti investigated:

- Experiences of Restavèks (Kennedy 2012)
- Long-term outcomes among child and adolescent survivors (Cénat and Derivois 2014b)

- Symptoms of PTSD, depression, and emotional distress experienced during the earthquake and moderating factors, such as social support (Derivois et al. 2014)
- Effects of focus groups and group therapy programs in schools and churches (Mitsopoulou and Derivois 2014)
- Psychological symptoms in young children in Port-au-Prince (Mouchenik et al. 2014)
- Prevalence of PTSD and depression in a sample of school-aged children (Blanc et al. 2015b)
- Behavior and autism in children under 5 years of age (Blanc et al. 2015a)

Table 8.1 Studies (2012–2015) examining mental health outcomes in Haitian children

Authored by	Published	Study sample	Age (years)	Recruitment area	N=	Questionnaire/intervention
Kennedy	2012	Restavèks	9–17	Port-au-Prince, metropolitan area	67	YSR ^a
Cénat and Derivois	2014 ^a	Children, adolescents	7–17	Port-au-Prince	872	IES-R ^b CDI ^c PDI ^d
Derivois et al.	2014 ^a	Children, adolescents	2–18	Port-au-Prince	540	IES-R ^b PDI ^d PCL-C ^e CAPS ^f Questions on social support
Mitsopoulou and Derivois	2014	From schools, churches, streets	6–18	Port-au-Prince, Jacmel, Leogane ^e	217	Focus group Group therapy
Mouchenik et al.	2014	Children	3–6	Port-au-Prince	166	PSYCa 3–6 ^g
Blanc et al.	2015a	Children cases and controls	7–13	Camps and schools, Port-au-Prince	44 cases, 44 controls	CDI ^c PDI-C ^d CPTS-RI ^h CBCL ⁱ
Blanc et al.	2015b	Children exposed in utero	<5	Port-au-Prince, Jacmel, Leogane ^e	364	CBCL ^j ECAR ^j

Leogane^e epicenter

^aYSR Youth Self-Report, ^bIES-R Impact of Event Scale-Revised, ^cCDI Children Depression Inventory, ^dPDI(-C) Peritraumatic Stress Inventory or Peritraumatic Stress Inventory-Child, ^ePCL-C PTSD Checklist—Civilian Version, ^fCAPS Clinician-Administered PTSD Scale, ^gPSYCa 3–6 psychological screening for young children aged 3–6, ^hCPTS-RI Child Post-Traumatic Stress—Reaction Index, ⁱCBCL Child Behaviour Checklist 4–16 or 1½–5, ^jECAR Echelle d’Evaluation des Comportements Autistiques Révisée

8.5 Prenatal Exposure

Studies of the adverse effects of maternal stress on fetal development and subsequent child development are extensive. Natural disasters represent a natural experimental framework for exploring the future consequences for the development of offspring of a mother exposed to stress. For example, in Project Ice Storm, Laplante and his research team from McGill University measured the impact of the January 1998 Verglas storms in Quebec on pregnant women. They evaluated the influence of objective storm exposure on the women's post-traumatic stress symptom scores, according to the Impact of Event Scale-Revised (IES-R). Additionally, long-term cognitive, behavioral, motor, and physical development of the offspring (Laplante et al. 2008) was studied. The results showed that only the degree of objective exposure to this moderately severe natural disaster predicted cognitive development of the children. The subjective distress experienced by the mothers at the time of the storm had no significant effect on pediatric cognitive development. Other investigators found a high risk of autistic traits in a cohort of 89 six-and-a-half-year-old children whose mothers had been exposed to this storm, with the most severe effects found when the exposure had taken place in the third trimester of pregnancy (Walder et al. 2014).

Research interest in the long-term outcome of prenatal stress on individual development has included many studies of populations exposed to earthquakes. Watson et al. (1999) attempted to verify the hypothesis of the negative effect of prenatal stress in a sample of students at 18 years of age, born to survivors of the 7.8 magnitude earthquake that devastated the Tangshan region of China in 1976. The death toll was 240,000, and thousands more were injured, while a large proportion of the infrastructure was destroyed. Depressive symptomatology was more severe in the participants exposed to the earthquake in utero than it was in their peers from the control group. These symptoms were even more intense in males whose mothers had survived the disaster in their second trimester of pregnancy.

In Haiti, Blanc et al. (2015a) assessed the prevalence of PTSD in a cohort of mothers who experienced the earthquake while pregnant. She also measured the prevalence of autistic behaviors in their offspring 3 years later (see Table 8.1) and investigated associations between maternal PTSD symptoms and severity of autism behaviors in offspring. Results showed that of the 364 participants studied, 2.2% displayed intense autistic behaviors, which is high compared to world estimates of 1.47%.

8.6 Mental Health Services in Haiti

In keeping with the cultural belief that there is no separation between physical and mental health, mental health and mental health services, as conceptualized within western psychiatry and psychology, have not been prioritized by the Haitian government. Discrete mental health needs are therefore likely to remain unknown. This lack of appreciation for the importance of providing mental health services was epitomized by the lack of a nationwide mental health policy prior to the 2010

earthquake. An attempt to conceptualize such a policy had been made in 1975 by the eminent Haitian neuropsychiatrist Legrand Bijoux (WHO 2011). In the absence of such a policy, systematic planning for services was also lacking. In 2003, a report issued by the Pan American Health Organization and the World Health Organization (PAHO/WHO) identified only ten psychiatrists and nine psychiatric nurses working in the public and private sectors of Haiti. Psychiatric services that did exist were hospital-based and concentrated in and around Port-au-Prince, with one psychiatric hospital in the capital and the other just 22 miles away. No community-based follow-up services existed for people who had received clinical treatment. In the second largest public hospital in the country, the Hospital of Justinien in Cap-Haitien (North department), psychiatric services were limited to one monthly visit by a psychiatrist from Port-au-Prince (WHO 2011).

The Ministry of Public Health and Population eventually created the Department of Epidemiology, Laboratory and Research (Direction de l'Épidémiologie, de Laboratoire et de Recherches), in accordance with the National Strategic Plan for Reform. The department's goals included planning for health action, regulating standards and procedures, coordinating the information management on priority diseases (both communicable and noncommunicable), maintaining an early warning system, and encouraging the integration of health promotion, disease prevention, and control activities. Most publications issued (DELR 2013) by the department focused on the cholera epidemic, but none of them discussed mental health or child development (DELR 2013).

Haiti was clearly not equipped to meet increased mental healthcare needs after the earthquake. In 2011, the WHO reported that Haiti had few specialized mental healthcare professionals, such as psychiatrists, psychologists, nurses, and social workers. There were neither psychiatrists specializing in child and adolescent populations nor any psychomotor therapists. The WHO identified 67 outpatient mental healthcare services, most of which were part of various nongovernmental organizations (NGOs) operating in the country following the earthquake, but even these organizations offered no specific services for children or adolescents (WHO 2011).

The Haitian Institute for Childhood (Institut Haïtien de l'Enfance), privately founded in 1985 to improve the health of children and their families, has long served as a reference for national health statistics and as a source of documentation on the circumstances of children in Haiti. Thanks to foreign financial support, and in partnership with the Ministry of Public Health and Population, the Haitian Institute of Statistics and Informatics, and various NGOs, the Haitian Institute for Childhood has conducted the five editions of EMMUS (I, II, III, IV, V). These surveys include sections on children's development, and they have reported on health, nutrition, education, religious beliefs, exposure to violence, child labor, Restavèk condition, and exposure to communicable diseases, such as HIV, malaria, and cholera. However, none of the editions have included information about mental health (Cayemittes et al. 2016).

Importantly, when mental health services in Haiti are considered, one must keep in mind that religious beliefs play an important role in daily life. In a study on religious beliefs regarding the origin of the earthquake, post-traumatic symptomatology, and resilience among adult survivors, Blanc et al. (2016) showed that while

92% of participants believed in a supernatural force, 65% endorsed the earthquake as a natural phenomenon, not a supernatural occurrence or divine intervention. There was a significant difference between those who perceived a divine origin or a punishment in the event and those who did not, both in average scores of symptoms of peri-traumatic distress and PTSD symptoms, as well as in resilience measures. While Vodoun adherents appeared to be vulnerable to depression, they had higher self-reported scores on a resilience scale. These findings emphasize the importance of culturally sensitive mental health programs.

8.6.1 Child Mental Health Services

In 2014, for the first time in the health history of the country, a 60-page document entitled “Mental Health Component” was published by the Ministry of Public Health and Population. As part of the National Health Policy in Haiti, the strategies for action described in this publication emphasized programs aimed at early detection and intervention in developmental disabilities, neurodevelopmental disorders, and other childhood disorders (Ministry of Public Health and Population 2014).

8.6.2 Children with Intellectual Disabilities

An especially vulnerable group of children is served by the Center for Special Education (Le Centre d'Education Speciale, CES), which is a nonprofit, nongovernmental Haitian institution serving children with intellectual disabilities, their families, and communities. The CES was founded in 1976 and is one of the few institutions to address intellectual disability in Haiti. CES focuses on prevention, early detection, early stimulation, rehabilitation, and integration into the social environment, the family, and the community. In order to attain its goals, CES is present in all ten departments of the country.

8.6.3 Initiatives to Protect and Improve Childhood Development

In the immediate aftermath of the earthquake, Haiti's already limited resources were overwhelmed by the extent of the damage to communities, particularly on existing infrastructure and health facilities. Haiti relied heavily on international aid to cover health expenditures. In 2012, to further develop and improve national health services, the government proposed the new health policy called “La Politique Nationale de Santé” and formulated targets for health across various domains. The new policy also emphasized specific areas to protect and promote child development. These consisted of targets directly addressing child health and development, such as reducing mortality, reducing prevalence of HIV and other communicable diseases, improving vaccination coverage, promoting breastfeeding, preventing nutritional deficits, and improving psychomotor growth. In addition, more general

targets for services were included, such as improving access to clean water and adequate sanitation, establishing services to monitor growth and psychomotor development of children under 5 years old, improving social inclusion, promoting access to (free) education for vulnerable groups (individuals with disabilities, street children, Restavèks), and promoting healthy behaviors in individuals and their families through school-based programs (in cooperation with the Ministry of Education).

8.6.4 Institutional Initiatives

The main state agency responsible for the protection of children and the implementation of the provisions listed by the UN Convention on the Rights of the Child is the Institute of Social Welfare and Research. The institute has three main areas of concern: social protection, social rehabilitation, and socioeconomic improvement. Child mental health was not focused on.

After the earthquake, the institute recruited additional skilled professionals, reunited thousands of children with their families, and established standards of care for foster care centers. Among its many accomplishments between 2011 and 2015 was the successful advocacy for the ratification of the 1993 Hague Convention on Protection of Children and Cooperation in Respect of Intercountry Adoption, to protect children and families against illegal adoptions abroad. To prevent abuse, neglect, exploitation, and the trafficking of children, the institute also advocated against child prostitution, child pornography, and the sale of children. Additionally, it established a foster family system, and a transit center documenting and protecting more than 15,000 children.

Another resource, the Psychotrauma Center in Port-au-Prince, was created after the earthquake (with funding by Terre des Hommes and Trauma Aid Germany). It has trained numerous mental health professionals, teachers, and school-based professionals to offer trauma aid. The Center also offers training, conferences, educational materials, and outreach programs (radio, TV, film, CDs) to teachers, parents, and the public, in order to encourage the realization of safe and nurturing environments for children within homes and schools. The Psychotrauma Center offered on-site psychological assistance to at-risk children aged 6–13 years. In a clinical study, researchers evaluated the effects of one group therapy session per week for 2 months. In that study, children from camps (cases) were compared to children outside the camps (controls). The results showed high levels of PTSD symptoms and depression in both cases and controls 1 year after the earthquake. The effectiveness of the on-site support offered to the children could not be shown in the study, but it did emphasize the importance of paying attention to mental health in reconstruction programs (Blanc et al. 2015b) (see also Table 8.1).

In a special effort to help child survivors cope with numerous stressful events in the aftermath of the earthquake, Elizabeth Préval, the First Lady of the Republic at that time, initiated *Plas Timoun* (Children's corner) at two sites in Port-au-Prince. The main goal was to offer distressed children an immediate psychosocial

response to improve their resilience. Plas Timoun offered “art and play” workshops, such as painting, theater, reading, games, music, pottery, sport, and socio-educational activities. Additionally, hundreds of children benefitted from the daily meal offered there.

Funds offered by Secours Catholique-Caritas France made rebuilding of homes, health services, and schools possible. Catholic Relief Services (CRS) funded the Psychological Assistance Unit (in Cap-CHR), which provided mental health support to children (2011).

Foyer Maurice Sixto in Port-au-Prince, supported by Terre des Hommes, UNICEF, CRS, and other donors, offers psychosocial and educational support to former Restavèk children (Le Nouvelliste 2016). Following the 2010 earthquake, these NGOs funded the construction of a new campus to accommodate former Restavèks, as well as displaced children. This campus included a school for 400 children, including vocational training for 150 adolescents. In addition, professionals within religious organizations collaborated with lay professionals in the campaign for non-violent education in families and in schools.

8.7 Conclusion

Traditionally, mental health needs have remained under-recognized against the Haitian background of conflict, colonial history, poverty, and customary belief systems. Many negative factors affecting Haitian childhood experiences, such as food insecurity, childhood violence, unsatisfactory living conditions, and a lack of adequate child protection, increase the risk of unfavorable individual and community-level outcomes. In contrast, strong community support, spiritual beliefs, and (extended) family commitment to caring for children are recognized as important protective factors contributing to child mental health and resilience within Haitian society.

Thus, for many children, pre-existing developmental vulnerabilities were intensified after the 2010 earthquake, leading to, or amplifying, poor mental health outcomes. Establishing and sustaining protective, nurturing homes and school environments that are sensitive to children's needs was vital to fostering their physical and mental growth. Unfortunately, many obstacles still stand in the way of Haiti becoming an equitable society with a sustainable, community-based, and child-focused, mental healthcare system.

However, progress has been made. Since the earthquake, Haiti has implemented policies and programs that address children's health and development. Robust evidence on the sustainability of these changes, as well as their effect is still lacking. However, recognition of the mental health needs of children has been invaluable for Haiti, as it would be for any other developing country. There is still much room for improvement in the areas of childhood development, child protection, and child mental health in Haiti. To continue progress, it is important to take Haiti's unique contextual factors, such as cultural and historic background, family and community, and belief systems, into account.

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